jb

COMMONWEALTH OF MASSACHUSETTS

massDOT
Massachusetts Department of Transportation
Highway Division

CONTRACT DOCUMENTS AND SPECIAL PROVISIONS

PROPOSAL NO.	613219-132950
P.V. =	$9,008,000.00
PLANS	NO

FOR

Bridge Preservation of 26 Bridges along I-91

in the Cities of

CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD

In accordance with the STANDARD SPECIFICATIONS
for HIGHWAYS and BRIDGES dated 2025

This Proposal to be opened and read: **TUESDAY, DECEMBER 16, 2025 at 2:00 P.M.**

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NOTICE TO CONTRACTORS

Electronic proposals for the following project will be received through the internet using www.bidx.com until the date and time stated below and will be posted on www.bidx.com forthwith after the bid submission deadline. No paper copies of bids will be accepted. All Bidders must have a valid vendor code issued by MassDOT in order to bid on projects. Bidders need to apply for a Digital ID at least 14 days prior to a scheduled bid opening date with www.bidx.com.

TUESDAY, DECEMBER 16, 2025 at 2:00 P.M. **
CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD
Bridge Preservation of 26 Bridges along I-91

****Date Subject to Change**

PROJECT VALUE = $9,008,000.00

Bidders must be pre-qualified by the Department in the BRIDGE-CONSTRUCTION category to bid on the above project. An award will not be made to a Contractor who is not pre-qualified by the Department prior to the opening of Proposals.

All prospective Bidders who intend to bid on this project must obtain "Request Proposal Form (R109)". The blank "Request Proposal Form (R109)" can be obtained at: https://www.mass.gov/prequalification-of-horizontal-construction-firms.

All prospective Bidders must complete and e-mail an electronic copy of "Request Proposal Form (R109)" to the MassDOT Director of Prequalification for approval: prequal.r109@dot.state.ma.us.

Proposal documents for official bidders are posted on www.bidx.com. Other interested parties may receive informational Contract Documents containing the Plans and Special Provisions, free of charge.

Bids will be considered, and the contract awarded in accordance with statutes governing such contracts in accordance with Massachusetts General Laws Chapter 30 § 39M.

The Project Bids File Attachments folder for proposals at www.bidx.com shall be used for submitting at the time of bid required information such as the Bid Bond required document, and other documents that may be requested in the proposal.

NOTICE TO CONTRACTORS (Continued)

All parties who wish to have access to information plans and specification must send a "Request for Informational Documents" to MassDOTBidDocuments@dot.state.ma.us.

A Proposal Guaranty in the amount of 5% of the value of the bid is required.

This project is subject to the schedule of prevailing wage rates as determined by the Commissioner of the Massachusetts Department of Labor and Workforce Development, and the Division of Occupational Safety.

PRICE ADJUSTMENTS

This Contract contains price adjustments for hot mix asphalt and Portland cement mixtures, diesel fuel, and gasoline. For reference the base prices are as follows: liquid asphalt $625.00 per ton, Portland cement $425.13 per ton, diesel fuel $2.752 per gallon, and gasoline $2.280 per gallon, and Steel Base Price Index 381.4. MassDOT posts the **Price Adjustments** on their Highway Division's website at
https://www.mass.gov/massdot-contract-price-adjustments

This Contract contains Price Adjustments for steel. See Document 00813 - PRICE ADJUSTMENT FOR STRUCTURAL STEEL AND REINFORCING STEEL for their application and base prices.

MassDOT projects are subject to the rules and regulations of the Architectural Access Board (521 CMR 1.00 et seq.)

Prospective bidders and interested parties can access this information and more via the internet at WWW.COMMBUYS.COM.

BY: Phillip Eng, Interim MassDOT Secretary
Jonathan L. Gulliver, Undersecretary and Highway Administrator
SATURDAY, NOVEMBER 8, 2025

DOCUMENT 00210

REQUIREMENTS OF MASSACHUSETTS GENERAL LAWS CHAPTER 30, SECTION 39R; CHAPTER 30, SECTION 39O

July 1, 1981, updated October 2016

M.G.L. c. 30, § 39R. Award of Contracts; Accounting Statements; Annual Financial Statements; Definitions.

(a) The words defined herein shall have the meaning stated below whenever they appear in this section:

(1) “Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A to forty-four H, inclusive, of chapter one hundred and forty-nine, which is for an amount or estimated amount greater than one hundred thousand dollars.

(2) "Contract" means any contract awarded or executed pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A through forty-four H, inclusive, of chapter one hundred and forty-nine, which is for amount or estimated amount greater than one hundred thousand dollars.

(3) “Records" means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts, tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.

(4) “Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the awarding authority.

(5) “Audit", when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.

(6) "Accountant's Report", when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which he has made and sets forth his opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the contractor.

(7) “Management", when used herein, means the chief executive officers, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the contractor.

(8) Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

(b) Subsection (a)(2) hereof notwithstanding, every agreement or contract awarded or executed pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven, or eleven C of chapter twenty-five A, and pursuant to section thirty-nine M of chapter thirty or to section forty-four A through H, inclusive, of chapter one hundred and forty-nine, shall provide that:

(1) The contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the contractor, and

(2) Until the expiration of six years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the contractor or of his subcontractors that directly pertain to, and involve transactions relating to, the contractor or his subcontractors, and

(3) If the agreement is a contract as defined herein, the contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the awarding authority, including in his description the date of the change and reasons therefor, and shall accompany said description with a letter from the contractor's independent certified public accountant approving or otherwise commenting on the changes, and

(4) If the agreement is a contract as defined herein, the contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and

(5) If the agreement is a contract as defined herein, the contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

(c) Every contractor awarded a contract shall file with the awarding authority a statement of management as to whether the system of internal accounting controls of the contractor and its subsidiaries reasonably assures that:

(1) transactions are executed in accordance with management's general and specific authorization;

(2) transactions are recorded as necessary

i. to permit preparation of financial statements in conformity with generally accepted accounting principles, and

ii. to maintain accountability for assets;

(3) access to assets is permitted only in accordance with management's general or specific authorization; and

(4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

Every contractor awarded a contract shall also file with the awarding authority a statement prepared and signed by an independent certified public accountant, stating that he has examined the statement of management on internal accounting controls, and expressing an opinion as to:

(1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and

(2) whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

(d) Every contractor awarded a contract by the commonwealth or by any political subdivision thereof shall annually file with the commissioner of capital asset management and maintenance during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the awarding authority upon request.

(e) The office of inspector general, the commissioner of capital asset management and maintenance and any other awarding authority shall enforce the provisions of this section. The commissioner of capital asset management and maintenance may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all awarding authorities. A contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine.

(f) Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b).

M.G.L. c. 30, § 39O: Suspension, Delay, or Interruption or Failure to Act by Awarding Authority; Adjustment in Contract Price; Submission of Claims.

Section 39O. Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the awarding authority increases the cost of performance to any subcontractor, that subcontractor shall have the same rights against the general contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the general contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the general contractor or the subcontractor may have against each other.

(a) The awarding authority may order the general contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority; provided however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the general contractor on such increase; and provided further, that the awarding authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more than twenty days before the general contractor notified the awarding authority in writing of the act or failure to act involved in the claim.

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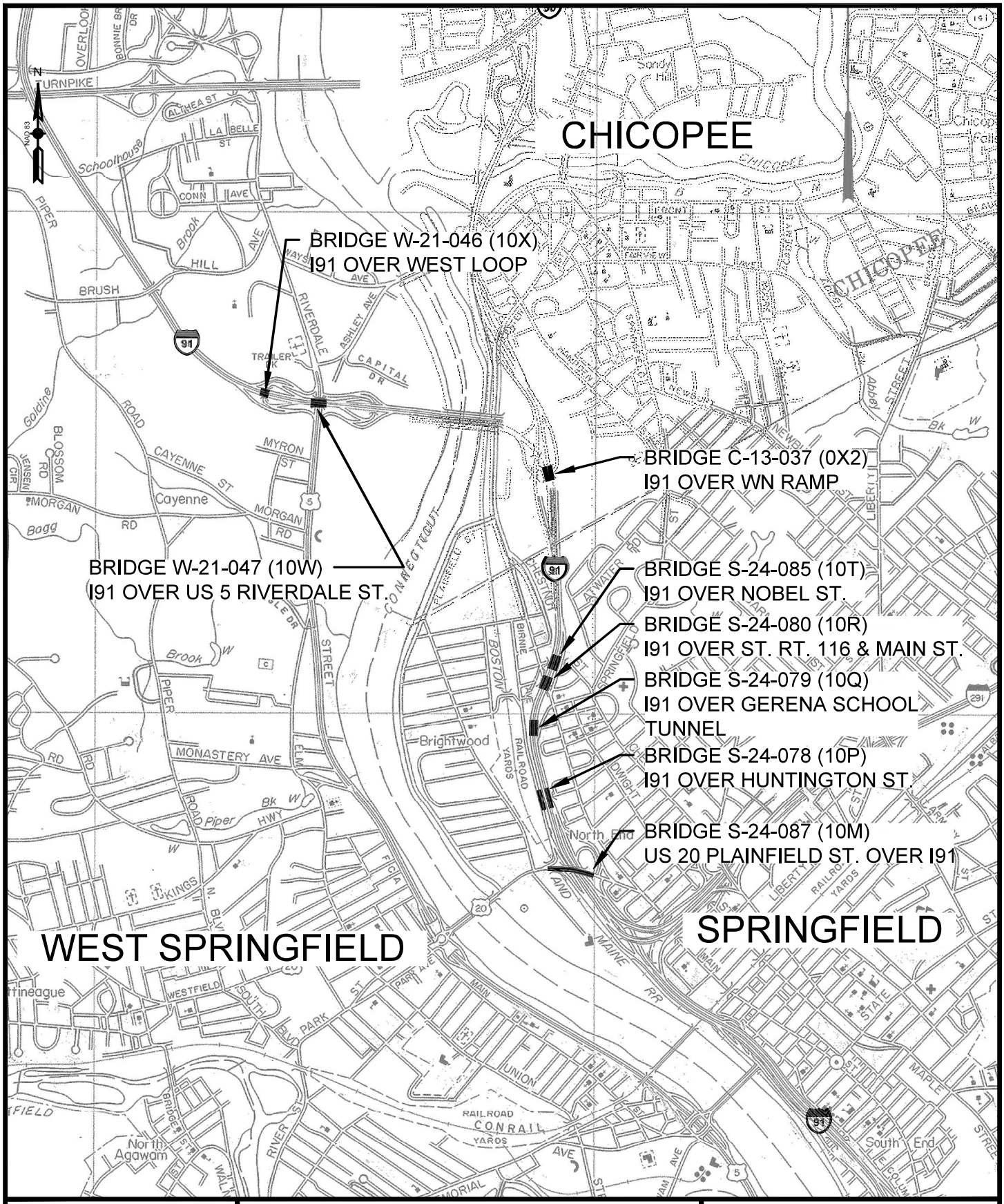
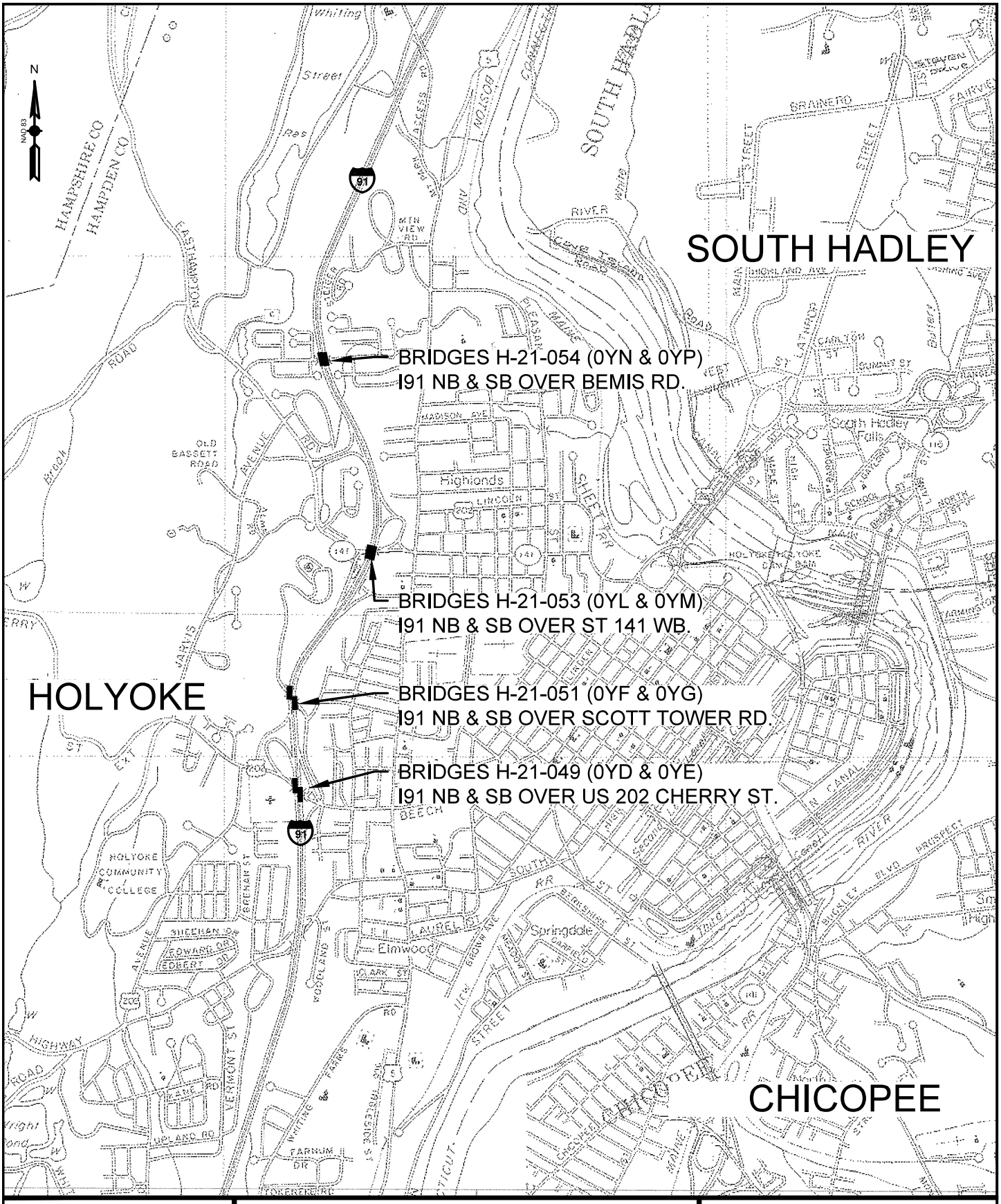
DOCUMENT 00331

LOCUS MAPS

CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD
Bridge Preservation of 26 Bridges along I-91



massDOT Massachusetts Department of Transportation Highway Division	LOCUS	DATE: 10/08/2025
DISTRICT 2 BRIDGE SECTION	PROJECT LENGTH = 5,371.64 FEET = 1.02 MILES	PROJECT NO.: 613219
		SHEET: 1 OF 3



massDOT Highway Division

DISTRICT 2
BRIDGE SECTION

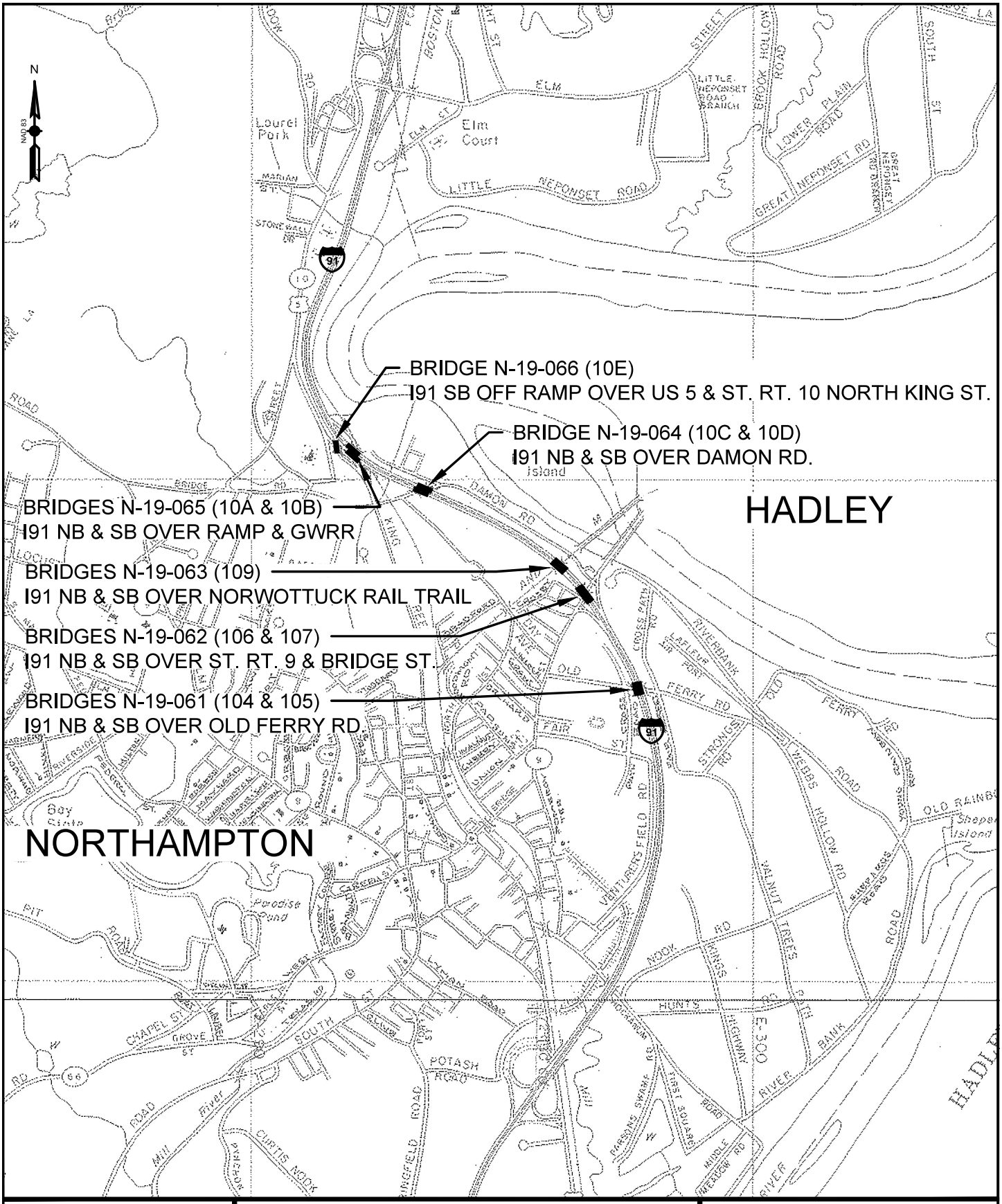
LOCUS

PROJECT LENGTH = 5,371.64 FEET = 1.02 MILES

DATE: 10/08/2025

PROJECT NO.: 613219

SHEET: 2 OF 3



massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

LOCUS

PROJECT LENGTH = 5,371.64 FEET = 1.02 MILES

DATE: 10/08/2025

PROJECT NO.: 613219

SHEET: 3 OF 3

DOCUMENT 00439

Final Report ☐

Interim Report ☐

CONTRACTOR PROJECT EVALUATION FORM

For instructions on using this form, see Engineering Directive E-10-002, Dated 4/20/2010

Date: _____

City/Town: _____ Contractor: _____

Project: _____ Address: _____

F.A. No. _____ Contract Number: _____

Bid Price: _____ Notice to Proceed: _____

Funds: State: _____ Fed Aid: _____ Current Contract Completion Date: _____

Date Work Started: _____ Date Work Completed*: _____

Contractor's Superintendent: _____

Division: (indicates class of work) Highway: _____ Bridge: _____ Maintenance: _____

*If work was NOT completed within specified time (including extensions) give reasons on following page.

	Excellent 10	Very Good 9	Average 8	7	Fair 6	5	Poor 4	% Rating
1. Workmanship								x 2=
2. Safety								x 2=
3. Schedule								x 1.5=
4. Home Office Support								x 1=
5. Subcontractors Performance								x 1=
6. Field Supervision/ Superintendent								x 1=
7. Contract Compliance								x 0.5=
8. Equipment								x 0.5=
9. Payment of Accounts								x 0.5=
(use back for additional comments)						**Overall Rating:**		

(Give explanation of items 1 through 9 on the following page in numerical order if overall rating is below 80%. Use additional sheets if necessary.)

_____ _____

District Construction Engineer's Signature/Date Resident Engineer's Signature/Date

_____

Contractor's Signature Acknowledging Report/Date

Contractor Requests Meeting with the District: No ☐ Yes ☐ Date Meeting Held: _____

Contractor's Comments/Meeting Notes (extra sheets may be added to this form and noted here if needed): _____

_____

_____

CONTRACTOR PROJECT EVALUATION FORM (Continued)

Date: _____ Contract Number:_____

INFORMATION FOR DISTRICT HIGHWAY DIRECTORS RELATING TO PREQUALIFICATION

A deduction shall be recommended for unsatisfactory performance if computed overall rating is under 80%.
A deduction may be recommended for this project being completed late due to the Contractor's fault.

RECOMMENDATIONS FOR DEDUCTIONS FROM CONTRACTORS' ASSIGNED FACTOR
(*Write Yes or No in space provided*)

I recommend a deduction for Contractor's unsatisfactory performance: _____

I recommend a deduction for project completed late:_____

Signed: _____
District Highway Director

EXPLANATION OF RATINGS 1 – 9:_____

WORK NOT COMPLETED WITHIN SPECIFIED TIME: _____

Revised: 04/28/17

*** END OF DOCUMENT ***

DOCUMENT 00440

Final Report ☐

Interim Report ☐

SUBCONTRACTOR PROJECT EVALUATION FORM

For instructions on using this form, see Engineering Directive E-10-002, Dated 4/20/2010

Date: _____

City/Town: _____ Subcontractor: _____

Project: _____ Address: _____

F.A. No.: _____ Contract Number: _____

Prime Contractor _____ Current Contract Completion Date: _____

Date Work Started: _____ Date Work Completed*: _____

Subcontractor's Superintendent: _____

Type of Work Performed by Subcontractor: _____

*If work was NOT completed within specified time (including extensions) give reasons on following page.

	Excellent 10	Very Good 9	Average 8	7	Fair 6	5	Poor 4	% Rating
1. Workmanship								x 2=
2. Safety								x 2=
3. Schedule								x 1.5=
4. Home Office Support								x 1.5=
5. Field Supervision/ Superintendent								x 1=
6. Contract Compliance								x 1=
7. Equipment								x 0.5=
8. Payment of Accounts								x 0.5=
(use back for additional comments)							**Overall Rating:**	

(Give explanation of items 1 through 8 on the following page in numerical order if overall rating is below 80%. Use additional sheets if necessary.)

_____ _____

District Construction Engineer's Signature/Date Resident Engineer's Signature/Date

_____ _____

Contractor Signature Acknowledging Report/Date Subcontractor Signature Acknowledging Report/Date

Subcontractor Requests Meeting with the District: No ☐ Yes ☐ Date Meeting Held: _____

Subcontractor's Comments / Meeting Notes (extra sheets may be added to this form and noted here if needed):

_____

_____

Contractor's Comments: _____

_____

SUBCONTRACTOR PROJECT EVALUATION FORM (Continued)

Date: _____ Contract Number:_____

INFORMATION FOR DISTRICT HIGHWAY DIRECTORS RELATING TO PREQUALIFICATION

A deduction shall be recommended for unsatisfactory performance if computed overall rating is under 80%.
A deduction may be recommended for this project being completed late due to the Contractor's fault.

RECOMMENDATIONS FOR DEDUCTIONS FROM CONTRACTORS' ASSIGNED FACTOR
(*Write Yes or No in space provided*)

I recommend a deduction for Contractor's unsatisfactory performance: _____

I recommend a deduction for project completed late:_____

Signed: _____
District Highway Director

EXPLANATION OF RATINGS 1 – 8: _____

_____

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WORK NOT COMPLETED WITHIN SPECIFIED TIME: _____

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Revised: 04/28/17

*** END OF DOCUMENT ***

DOCUMENT 00710

GENERAL CONTRACT PROVISIONS

Revised: 04-16-25

NOTICE OF AVAILABILITY

The STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 2025, the SUPPLEMENTAL SPECIFICATIONS, the 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS; the 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING and the CONSTRUCTION STANDARD DETAILS are available online at https://www.mass.gov/massdot-highway-division-manuals-and-publications

SPECIAL PROVISIONS FOR RIGHT-TO-KNOW ACT REQUIREMENTS

The Contractor's attention is directed to Massachusetts General Laws, Chapter 111F, commonly known as the Right-To-Know Act, and to the regulations promulgated pursuant thereto. Among the provisions of the Right-To-Know Act is a requirement that employers make available to employees Materials Safety Data Sheets (MSDS) for any substance on the Massachusetts Substance List (MSL) to which employees are, have been, or may be exposed.

To ensure prompt compliance with these regulations and legislation, the Contractor shall:

1. Deliver to the Department, prior to the start of any work under this contract, copies of MSDS for all MSL substances to be used, stored, processed or manufactured at the worksite by the Contractor.

2. Train employees of the Department, who may be exposed to MSL substances as a result of the Contractor's work under this contract, with regard to those specific substances in accordance with requirements of the Right-To-Know Act.

3. Observe all safety precautions recommended on the MSDS for any MSL substance to be used, stored, processed, or manufactured at the worksite by the Contractor.

4. Inform the Department in writing regarding specific protective equipment recommended in the MSDS for MSL substances to which employees of the Department may be exposed as a result of the Contractor's work under this contract.

The Department shall not be liable for any delay or suspension of work caused by the refusal of its employees to perform any work due to the Contractor's failure to comply with the Right-To-Know Act. The Contractor agrees to hold the Department or the Commissioner of the Department harmless and fully indemnified for any and all claims, demands, fines, actions, complaints, and causes of action resulting from or arising out of the Contractor's failure to comply with the requirements of the Right-To-Know Act.

ALTERNATIVE DISPUTE RESOLUTION
Forum, Choice of Law and Mediations:

Any actions arising out of a contract shall be governed by the laws of Massachusetts and shall be brought and maintained in a State or federal court in Massachusetts which shall have exclusive jurisdiction thereof. MassDOT and the Contractor may both agree to mediation of any claim and will share the costs of such mediation pro rata based on the number of parties involved.

*** END OF DOCUMENT ***

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DOCUMENT 00715

SUPPLEMENTAL SPECIFICATIONS

SEPTEMBER 30, 2025

The 2025 *Standard Specifications for Highways and Bridges* are amended by the following modifications, additions and deletions. These Supplemental Specifications prevail over those published in the Standard Specifications.

The Specifications Committee has issued these Supplemental Specifications for inclusion into each proposal until such time as they are updated or incorporated into the next Standard Specifications.

Contractors are cautioned that these Supplemental Specifications are dated and will change as they are updated.

DIVISION I

GENERAL REQUIREMENTS AND COVENANTS

SECTION 2.00: PROPOSAL REQUIREMENTS AND CONDITIONS

Subsection 2.09: Rejection of Proposals
Replace the first bullet in the third paragraph with the following:

- award of the contract would result in the Bidder exceeding the Aggregate Bonding Capacity or the Single Bonding Capacity established by its Surety Company, or the Bidder's Proposal exceeds its Single Contract Limit, or the Bidder was not prequalified in the specified class of work on or before the time of bid opening; or

SECTION 3.00: AWARD AND EXECUTION OF THE CONTRACT

Subsection 3.02: Award of Contract
Replace the third paragraph with the following:

The successful bidder will be notified by mail or otherwise that their bid has been accepted and that they have been awarded the Contract.

SECTION 7.00: LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

Subsection 7.01: Laws to be Observed
In paragraph 701.G Buy America Provisions change Federally-aid to Federal-aid.

Subsection 7.05: Insurance Requirements
Change the title of paragraph A to Workers' Compensation Insurance

Subsection 7.22: Labor, Lodging, Board, Maximum Hours of Employment, Weekly Payment, Keeping of Payroll Records.
Replace this subsection with the following;

Subsection 7.22: Labor, Lodging, Board; Maximum Hours of Employment; Minimum Wage Rates; Payment of Wages; Keeping of Payroll Records

Every employee in public work shall lodge, board and trade where and with whom he elects; and no person or their agents or employees under contract with the commonwealth, a county, city or town, or with a department, board, commission or officer acting therefor, for the doing of public work shall directly or indirectly require, as a condition of employment therein, that the employee shall lodge, board or trade at a particular place or with a particular person. This section shall be made a part of the contract for such employment. (M.G.L. c. 149, § 25).

Every contract, except for the purchase of material or supplies, involving the employment of laborers, workers, mechanics, foremen or inspectors, to which the commonwealth or any county or any town, subject to section thirty, is a party, shall contain a stipulation that no laborer, worker, mechanic, foreman or inspector working within the commonwealth, in the employ of the contractor, sub-contractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, or more than six days in any one week, except in cases of emergency, or, in case any town subject to section thirty-one is a party to such a contract, more than eight hours in any one day, except as aforesaid; provided, that in contracts entered into by the department of highways [a predecessor agency to MassDOT] for the construction or reconstruction of highways there may be inserted in said stipulation a provision that said department, or any contractor or sub-contractor for said department, may employ laborers, workers, mechanics, foreman and inspectors for more than eight hours in any one day in such construction or reconstruction when, in the opinion of the commissioner [currently defined in M.G.L. c. 149, § 1 as the director of the Department of Labor Standards], public necessity so requires. Every such contract not containing the aforesaid stipulation shall be null and void. (M.G.L. c. 149, § 34).

Attention of Bidders is called to M.G.L. c. 149, § 26-27H (the Prevailing Wage Law), requiring that the rate per hour of the wages paid to mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works shall not be less than the rate or rates of wages to be determined by the director of the department of labor standards, and M.G.L. c. 149, § 148 requiring the weekly or bi-weekly payment of employees.

The Contractor shall furnish certified copies of any or all payrolls for the Contract, showing the name, address, and occupational classification of each employee on said works, and the hours worked by, and the wages paid to each such employee. Such payroll shall also include the rates paid for rented trucks or rental equipment of any kind used on the work. This requirement shall also apply to the work of any Subcontractor, having a Subcontract for any of the work performed on the project. Such records shall be kept in such manner as the Director of Labor Standards shall prescribe, and shall be open to inspection by the Engineer or any authorized representative of the Department of Labor Standards at any reasonable time and as often as may be necessary.

SECTION 8.00: PROSECUTION AND PROGRESS

Subsection 8.01: Subletting or Assignment of Contract

In the first bullet of the third paragraph replace the title of Subsection 7.22 Labor, Lodging, Board; Maximum Hours of Employment; Minimum Wage Rates; Payment of Wages; Keeping of Payroll Records

SECTION 9.00: MEASUREMENT AND PAYMENT

Subsection 9.03: Payment for Extra Work

Replace 903.B, first paragraph, numbers (2) and (3) with the following.

(2) Plus 13 percent of direct labor, for the estimated costs of Federal Insurance Contribution Act (FICA) including Medicare; Federal Unemployment Tax Act (FUTA); State Unemployment Tax Act (SUTA), which includes Unemployment Insurance, the Workforce Training Fund Program,-Employer Medical Assistance Contribution, and COVID-19 Recovery Assessment; Earned Sick Time (EST) Law (940 CMR 33.00); and Paid Family and Medical Leave (PFML) Act (458 CMR 2.00); or, as an alternative to the above 13 percent, the Contractor may elect to use actual rates for FICA, FUTA, SUTA, EST and PFML provided the actual rates are supported with verifiable documentation and shall be subject to review by MassDOT Audit Operations.

(3) Plus the estimated cost of Workers' Compensation and Liability Insurance, Health, Welfare and Pension benefits, and such additional fringe benefits which the Contractor is required to pay as a result of Union Labor Agreements and/or is required by authorized governmental agencies;

In 903.B, second paragraph, number (3), replace the word "Workmen's" with "Workers'" .

DIVISION II

CONSTRUCTION DETAILS

SECTION 300: WATER SYSTEMS

SUBSECTION 301: WATER SYSTEMS

Subsection 301.60G: Laying Pipe
Revise the third paragraph to read as follows:

Pipe sections shall be laid with the bell on the upgrade end. Before laying the pipe, the outside of the spigot and the inside of the bell shall be wire brushed and wiped clean and dry.

Subsection 301.80: Method of Measurement
Delete the words cast iron in the first paragraph.

Replace the second paragraph with the following;

Fittings, consisting of bends, tees, caps, wyes, sleeves, reducers, increasers, blow-off fittings and other special fittings, apply only when new materials are necessary and which are not specifically provided for under other items in the Proposal. Fittings other than new will not be paid separately but only under the applicable pipe items. When new fittings are measured separately for payment, the length of pipe occupied by the fittings will not be measured for payment.

SECTION 700: INCIDENTAL WORK

SUBSECTION 715: RURAL MAIL BOXES REMOVED AND RESET

Subsection 715: Rural Mail Boxes Removed and Reset
Change the words mail box and mail boxes to the word mailbox or mailboxes where encountered in the title, and all subsections.

SECTION 800: TRAFFIC CONTROL DEVICES

SUBSECTION 850: TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS

Subsection 850.29: Temporary Barrier and Temporary Barrier Removed and Reset
Delete this subsection.

Subsection 850.49: Temporary Barrier
Delete this subsection.

Subsection 850.69: Temporary Barrier and Temporary Barrier Removed and Reset
Delete this subsection.

Subsection 850.80: Method of Measurement
Delete the fifth paragraph from the end of this subsection.

Subsection 850.81: Basis of Payment
Delete the sixth and seventh paragraphs from the end of this subsection.

SUBSECTION 853: TEMPORARY BARRIER

Subsection 853.: Temporary Barrier
Add this new subsection:

DESCRIPTION

853.20: General

Work under this Subsection consists of furnishing, placing, adjusting, resetting, maintaining, and removing temporary barrier.

MATERIALS

853.40: General

Materials shall meet the requirements specified in the following Subsections of Division III, Materials:

Material	Section
Precast, Prestressed, and Prefabricated Concrete Products	M4.09.0
Temporary Barrier	M10.16.0
Limited Deflection Temporary Barrier	M10.16.1
Delineators for Temporary Barrier	M10.16.2

The Contractor shall supply a temporary barrier system that meets or exceeds the Test Level (TL) designated in the description of the bid item.

If the Contractor uses a proprietary temporary barrier system, it shall be listed on the QTCE.

Temporary barrier segments that appear to be damaged or in otherwise unsuitable condition may be rejected or ordered to be replaced by the Engineer at no additional cost.

853.41: Deflection

The deflection of a temporary barrier system is defined as the measured deflection, permanent and/or dynamic, during MASH Test Designation 2-11 (for TL-2) or Test Designation 3-11 (for TL-3).

The Contractor shall supply a temporary barrier system that is equal to or less than the maximum allowable deflection (permanent and/or dynamic) for each run of temporary barrier, as shown in the Plans or stated in the Special Provisions. If no distinction between permanent and temporary deflection is shown in the plans or Special Provisions, then dynamic deflection shall govern.

853.42: Precast Concrete Barriers

Precast Concrete Barriers used as temporary barriers shall be fabricated in accordance with M4.09.0: Precast, Prestressed, and Prefabricated Concrete Products. The Contractor shall submit a Certificate of Compliance (CoC) attesting to meeting this requirement.

853.43: Delineation

Delineators installed at 20-ft intervals throughout the entire barrier run shall be included. The delineators shall conform to M10.16.2: Delineators for Temporary Barrier. Delineators that may act as a washer on a bolted connection shall not be used unless specifically allowed by the barrier manufacturer. Delineators that are damaged, are no longer reflective, or go missing while temporary barrier is deployed shall be replaced in kind by the Contractor.

Delineators may be top or side-mounted to the barrier and oriented in a manner to maximize reflectivity to approaching traffic.

Temporary barrier placed on the right side of the travel way, or top-mounted and separating two or more lanes traveling in the same direction, shall use white delineators. Temporary barrier placed on the left side of the travel way shall use amber or yellow delineators; if separating two-way traffic and top-mounted, the delineator shall be double-sided.

853.44: Anchored Barrier

Temporary barrier systems that include an anchor system in order to meet performance requirements of the contract and/or meet MASH testing requirements may be accepted for use at the discretion of the Department.

Barrier that utilizes an anchor system shall use the same pattern, placement, and material of anchors that was used in MASH crash testing.

853.45: Shop Drawings

Within 30 days of the Notice to Proceed, the Contractor shall provide Shop Drawings showing the proposed temporary barrier system and confirming that it conforms to 853.40: General and will meet the allowable deflection requirements as described in 853.41: Deflection.

If anchors are proposed, the means, methods, pattern, placement, and materials for anchoring and subsequent pavement and/or deck repairs following removal of the temporary barrier system shall be included in the Shop Drawing submittal. If the use of an anchor system is rejected by the Department, the Contractor shall select an unanchored system that meets or exceeds the contract specified performance requirements, at no additional cost.

Shop Drawings for proprietary barrier systems shall include manufacturer's instructions for installation.

CONSTRUCTION METHODS

853.60: General

A Traffic Management Plan approved by the Department is required prior to the installation of the temporary barrier system.

The Contractor shall install temporary barrier systems in accordance with the Plans.

Barrier ends shall not be exposed to approaching traffic during installation. Crashworthy shielding or attenuation shall be provided at all times.

Proprietary temporary barrier systems shall be installed per the manufacturer's instructions.

The Contractor shall not place any breaks in the temporary barrier system that will result in sections that are shorter than the tested minimum length-of-need (LON) under MASH Test 2-11 (for TL-2) or 3-11 (for TL-3). Exceptions shall be allowed for gate systems or changeable length segments placed over expansion joints, if those barrier segment types have been determined to be crashworthy per MASH.

Temporary barrier shall not be placed on unpaved surfaces, unless otherwise shown in the Plans.

The Contractor shall not store materials, vehicles, or other equipment within the measured dynamic deflection envelope, as defined in 853.41: Deflection.

853.61: Temporary Barrier Removed and Reset

Temporary Barrier Removed and Reset consists of relocating a string of temporary barrier from one alignment to another to support the sequence and phasing of construction, as shown in the Plans.

Temporary Barrier Removed and Reset does not include moving all or a portion of the temporary barrier system to gain access to a work area, for the convenience of the Contractor, or to realign units that have moved due to construction activities or a traffic incident.

853.62: Quality Control Inspection

After temporary barrier installation is completed, the Contractor shall perform a Quality Control (QC) Inspection in the presence of the Engineer. QC Inspection activities shall include, but are not limited to the following reviews:

- Installation location per the approved Plans.
- Alignment and connection mechanism between adjacent barrier segments.
- Alignment and connection mechanism between barrier segment and attenuator, if present.
- Anchor system installation, if present.

For proprietary barrier systems, the QC Inspection shall also include any manufacturer-specific inspection details or criteria found in the installation instructions.

Work behind the barrier shall not commence until the QC Inspection has been accepted by the Engineer.

COMPENSATION

853.80: Method of Measurement

Temporary Barrier will be measured by the foot installed, in place.

Temporary Barrier Removed and Reset will be measured by the foot removed and reset.

853.81: Basis of Payment

Temporary Barrier will be paid for at the contract unit price per foot which shall provide full compensation for fabrication, storage, transport, furnishment, installation, delineation, alignment, maintenance, repair, and final removal of the temporary barrier.

Temporary Barrier Removed and Reset will be paid for at the contract unit price per foot which shall provide full compensation for removing, relocating, transporting, and installing new anchorage (if used). If more than one accepted temporary barrier system is approved for use in a single contract, the unit cost for Temporary Barrier Removed and Reset shall not differ among systems.

All costs associated with fabrication, installation, and maintenance of temporary barrier delineators shall be considered incidental to the cost of the item.

All costs associated with Shop Drawings and COCs shall be considered incidental to the item.

All costs associated with patching or repairing the road surface or bridge deck due to the installation and removal of temporary barrier and/or anchors for a temporary barrier system shall be considered incidental to the cost of the item.

853.82: Payment Items

Item number	Description	Unit
853.2	Temporary Barrier (TL-2)	Foot
853.21	Temporary Barrier Removed and Reset	Foot
853.23	Temporary Barrier (TL-3)	Foot
853.33	Temporary Barrier – Limited Deflection (TL-3)	Foot

SECTION 900: STRUCTURES

SUBSECTION 902: ULTRA HIGH PERFORMANCE CONCRETE

Subsection 902.32: Mockup
In Table 902.32-1 change the Link Slab width to 2 ft – 0 in. and change the Joint Header width to 0 ft – 6 in. .

Subsection 902.32: - 902.38
Renumber section 902.32 Surface Preparation to 902.33 Surface Preparation and renumber section 902.33 through 902.38 to 902.34 through 902.39.

DIVISION III

MATERIALS SPECIFICATIONS

SECTION M2: AGGREGATES AND RELATED MATERIALS

Subsection M2.01.0 Crushed Stone
Replace the fourth paragraph and the associated asterisk notes with the following;

The crushed stone shall have a maximum 45% wear as determined by the Los Angeles Abrasion Test (AASHTO T 96)

SECTION M5: PIPE, CULVERT SECTIONS AND CONDUIT

Subsection M5.01.0 Joint Materials for Pipe
Replace this subsection with the following;

- Jute or oakum furnished for use in pipe joints shall be of an accepted grade approved for common usage.
- Mortar shall conform to the requirements of M4.04.0: Cementitious Grout, Mortar and Concrete Products
- Standard couplers as approved by the manufacturer shall be used to join corrugated metal pipe
- Rubber ring or plastic gaskets for concrete pipe joints, or manholes section joints shall be of tough, flexible, chemical-resistant material, and of such size and shape as to ensure satisfactory pipe joints when incorporated in the work and shall conform to AWWA C153.
- Rubber gasket joints for ductile iron pipe shall be Styrene-Butadiene Rubber (SBR), Ethylene Propylene Diene Monomer (EPDM) or Nitrile and conform to AWWA C111

Subsection M5.05.03.B Gate Valves
Replace this subsection with the following;

Gate valves shall conform to the requirements of AWWA Standard C500 and/or to the type used by the municipality as specified in the Special Provisions.

SECTION M7: PAINTS, PROTECTIVE COATINGS AND PAVEMENT MARKINGS

Subsection M7.01.04 Fast Drying White and Yellow Waterborne Traffic Paint
Replace the subsection with the following;

Approved waterborne traffic paint shall be tested in accordance with AASHTO M 348 and be listed on the QCML The dry paint film shall be under the Toxicity Characteristic Leaching Procedure (TCLP) limits for all contaminants listed in 40 CFR 261.24. The markings shall be installed using reflective glass beads meeting the requirements of M7.01.07. For waterborne yellow paint use Organic Yellow No. 65 or No. 75 pigment.

SECTION M9: MISCELLANEOUS MATERIALS

Subsection M9.12.0 Reflectors for Barriers
Delete this subsection.

SECTION M10: TRAFFIC CONTROL DEVICES

Subsection M10.16.0: Temporary Barrier
Subsection M10.16.1: Limited Deflection Temporary Barrier
Subsection M10.16.2: Delineators for Temporary Barrier
Add these new subsections.

M10.16.0: Temporary Barrier

All Temporary Barrier shall be tested to MASH crash testing standards and the results of the following crash test designations must fall within the acceptable impact tolerances and evaluation criteria shown in Table 2-2A of MASH:

- Test Level 2: 2-10, 2-11
- Test Level 3: 3-10, 3-11

M10.16.1: Limited Deflection Temporary Barrier

To be classified as a Limited Deflection Temporary Barrier, the results of MASH Test Designation 3-11 must result in a measured dynamic deflection of 24 in. or less.

M10.16.2: Delineators for Temporary Barrier

Delineators for Temporary Barrier shall consist of a housing, retroreflective material, and an adhesive or mechanical fastener.

Housings for Delineators for Temporary Barrier shall be fabricated from a lightweight polymer material. Metal housings shall not be permitted.

Retroreflection shall be achieved using an acrylic reflector or retroreflective sheeting directly applied to the housing. If used, retroreflective sheeting shall be factory applied and conform to ASTM D4956 Type IV, Type V, or Type IX. A minimum of 8 $in.^2$ of reflective material shall be visible on any traffic-facing portion of the delineator.

Delineators shall be attached to temporary barriers using a manufacturer-approved adhesive or mechanical fastener.

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END OF SUPPLEMENTAL SPECIFICATIONS

DOCUMENT 00718

SPECIAL PROVISION FOR PARTICIPATION BY MINORITY OR WOMEN'S BUSINESS ENTERPRISES AND SERVICE- DISABLED VETERAN- OWNED BUSINESS ENTERPRISES

(Implementing Chapter 102, Section 24 and
Chapter 273, Section 124, of the Acts of 1994 and Chapter 56, Sections 1 to 5 of the Acts of 2010
and subsequent Acts)
Revised: September 27, 2021

I. PARTICIPATION

M/WBE PARTICIPATION GOAL
On this Contract, the Massachusetts Department of Transportation (MassDOT) has established a goal for participation by Minority or Women Business Enterprise(s) (M/WBE). One half of the goal shall be met in the form of contractor activity. This goal shall remain in effect throughout the life of the Contract.

☒ Design-Bid-Build Projects: M/WBE Participation Goal **__0__%**
(*One half of this goal shall be met in the form of Subcontractor construction activity*)

☐ Design-Build Projects: M/WBE Design Participation Goal **___%** and M/WBE Construction Participation Goal **___%**
(One half of the Construction Goal shall be met in the form of Subcontractor construction activity)

SDVOBE PARTICIPATION BENCHMARK
On this Contract, the Massachusetts Department of Transportation (MassDOT) has established a goal for participation by Service- Disabled Veteran- Owned Business Enterprise(s) (SDVOBE). This goal shall remain in effect throughout the life of the Contract.

☐ Design-Bid-Build Projects: SDVOBE Participation Goal **____%**

☐ Design-Build Projects: SDVOBE Design Participation Goal **___%** and SDVOBE Construction Participation Goal **___%**

II. POLICY

It is the policy of the MassDOT that Minority, Women Business Enterprises (M/WBEs) and Service- Disabled Veteran- Owned Business Enterprises (SDVOBEs) have equal opportunity to receive and participate in the performance of its state funded Contracts.

III. M/WBE and SDVOBE OBLIGATION

The Contractor agrees to take all necessary and reasonable steps to ensure that MBE, WBE, and SDVOBEs have the maximum opportunity to compete for, and to perform, Department Contracts.

IV. FAILURE TO COMPLY WITH M/WBE OR SDVOBE REQUIREMENTS

All Contractors and Subcontractors are hereby advised that failure to carry out the requirements of these Provisions constitutes a breach of Contract which may result in termination of the Contract, a determination that the Contractor or Subcontractor be barred from bidding on Department Contracts for up to three (3) years, or any other remedy as the Department may impose under Section XIV of these Special Provisions.

V. REQUIRED SUBCONTRACT PROVISIONS

The Prime Contractor shall include the Provisions of Sections II, III, and IV above in every subcontract making those provisions binding on each subcontractor, supplier, manufacturer, consultant or service provider.

VI. DEFINITIONS

For the purpose of these Special Provisions, the terms listed below are defined as follows:

Minority Business Enterprise or MBE means any individual, business organization, or non-profit corporation certified as a MBE by the Supplier Diversity Office (SDO), formerly known as the State Office of Minority and Women Business Assistance (SOMWBA), or by the Department for the purposes of a particular bid or proposal to be submitted to the Department.

Women Business Enterprise or WBE means any individual, business or organization, or non-profit corporation certified as a WBE by SDO, or by the Department for the purposes of a particular bid or proposal to be submitted to the Department.

Service- Disabled Veterans- Owned Businesses or SDVOBE means a business not less than 51 percent of which is owned by one or more service- disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and the management and daily business operations of which are controlled by one or more service- disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

"Contractor activity" means any work, including but not limited to, construction, demolition, renovation, survey, test boring services, or maintenance work performed under the Contract.

"Approved Joint Venture" means a joint venture between M/WBEs and non-M/WBEs, or SDVOBEs and non-SDVOBEs, which has been established for the purpose of participation on a particular contract, where:

1. The M/WBE or SDVOBE partner(s) shares in the ownership, control, management responsibilities, risks and profits of the joint venture; and

2. The Joint Venture has been approved by the Department for M/WBE or SDVOBE participation on the particular contract.

"Equipment Rental Firm" means a firm that owns equipment and assumes actual and contractual responsibility to rent said equipment to perform a useful function of the work of the contract consistent with normal industry practice.

"Material Supplier" means a vendor engaged in sales to the highway construction industry from an established place of business or source of supply, which:

(a) Manufactures goods from raw materials or substantially alters them before resale, or

(b) Provides and maintains a storage facility for materials used in the work, consistent with normal industry practice.

“Department” means the Massachusetts Department of Transportation (MassDOT).

"SDO" means the Massachusetts Supplier Diversity Office.

VII. ELIGIBILITY of M/WBEs

Only firms, *OTHER THAN THE PRIME CONTRACTOR*, which have been certified by SDO and/or the Department as eligible to participate on state funded contracts as MBEs or WBEs may be used on this contract for credit toward the toward the M/WBE participation goal.

1. SDO Directory of Certified M/WBEs: The Supplier Diversity Office publishes a Directory of certified MBE and WBEs. This Directory can be obtained from SDO at https://www.sdo.osd.state.ma.us/. This site lists those firms which have been certified as minority owned (MBEs) or women owned (WBEs) in accordance with the criteria of 425 CMR 2.00 et seq to participate as M/WBEs on state funded contracts. It also lists the kinds of work in which each firm engages but does not constitute an endorsement of the quality or performance of any business and does not represent Department subcontractor approval.

2. Application for Certification by the Department for a Particular Project: A firm which has (1) submitted a fully completed M/WBE application to SDO at least 30 days previously, (2) has provided in a timely manner, any additional information which may have been requested by SDO, and (3) can provide evidence, satisfactory to the Department, of a bidder's conditional commitment to subcontract with the firm, if certified, may apply directly to the MassDOT Office of Civil Rights to be certified for participation on the particular contract.

3. Joint Venture Approval: To obtain recognition as an approved joint venture between M/WBEs and non-/M/WBEs, the Joint Venture must provide to the MassDOT Office of Civil Rights, at least 14 business days before the bid opening date, the Joint Venture Affidavit Document B00847, and a copy of the Joint Venture Agreement, which shall include a detailed breakdown of the following:

   (a) Capital participation by the M/WBE,

   (b) Specific equipment to be provided to the Joint Venture by the M/WBE,

   (c) Specific responsibilities of the M/WBE in the management of the Joint Venture,

   (d) Workforce and specific skills to be provided to the Joint Venture by the M/WBE, and

   (e) Percentage distribution to the M/WBE of the projected profit or loss incurred by the Joint Venture.

   (f) The Joint Venture shall provide all such additional information as may be requested by the Department for the purpose of determining joint venture eligibility.

VIII. ELIGIBILITY of SDVOBEs

Only firms, *OTHER THAN THE PRIME CONTRACTOR*, which have demonstrated that they are listed as a service-disabled veteran- owned small businesses within the VetBiz database may be used on this contract for credit toward the SDVOBE participation goal.

1. VetBiz Database: The website, located at www.VetBiz.gov, listing verified service- disabled veteran- owned businesses.

2. Joint Venture Approval: To obtain recognition as an approved joint venture between SDVOBEs and non-/SDVOBEs, the joint venture must provide to the MassDOT Office of Civil Rights, at least 14 business days before the bid opening date, an application for joint venture participation approval, and a copy of the Joint Venture Agreement, which shall include a detailed breakdown of the following:

   (a) Capital participation by the SDVOBE,

   (b) Specific equipment to be provided to the joint venture by the SDVOBE,

   (c) Specific responsibilities of the SDVOBE in the management of the Joint Venture,

   (d) Workforce and specific skills to be provided to the joint venture by the SDVOBE, and

(e) Percentage distribution to the SDVOBE of the projected profit or loss incurred by the Joint Venture.

(f) The Joint Venture shall provide all such additional information as may be requested by the Department for the purpose of determining joint venture eligibility.

IX. COUNTING M/WBE PARTICIPATION AND SDVOBE BENCHMARKS TOWARDS M/WBE AND SDVOBE GOALS

In order for M/WBE participation and SDVOBE benchmarks to count toward the Contract goal, the M/WBE and SDVOBE must have independently managed, supervised and performed the Contract work with its own workforce, equipment and resources. M/WBE and SDVOBE participation which fulfills these requirements shall be counted toward meeting the M/WBE and SDVOBE goals in accordance with the following rules:

1 If a firm has been determined to be an eligible MBE, WBE or SDVOBE, the total dollar value of the contract performed by the M/WBE or SDVOBE is counted toward the applicable goal as follows:

a. Except as provided below, in Section IX (1)(g), work performed by a M/WBE or a SDVOBE Prime Contractor shall not be counted toward the M/WBE or SDVOBE goal, and all Prime Contractors, including M/WBE or SDVOBE Prime Contractors, must comply with the M/WBE and SDVOBE requirements of this Contract.

b. For a M/WBE or SDVOBE material supplier, sixty percent (60%) of the amount to be paid for materials and supplies required under this Contract shall be credited toward the goal.

c. For a M/WBE or SDVOBE who provides a bonafide service such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for performance of the contract, reasonable fees or commissions charged for the service shall be listed, but the cost of items themselves shall not be credited.

d. For a M/WBE or SDVOBE hauler, trucker, or delivery service, which is not also the manufacturer of or a regular dealer in the materials and supplies, reasonable fees charged for delivery of materials and supplies required on the job site shall be credited; the cost of the materials and supplies themselves shall not be credited.

e. For a M/WBE or SDVOBE who provides any bonds or insurance specifically required for the performance of the contract, reasonable fees or commissions charged for such service shall be listed, but the face amount or actual premium paid for the bond or insurance shall not be credited.

f. The Department shall determine if the fees or commissions listed in accordance with paragraphs (c), (d), and (e) are not excessive as compared with fees or commissions customarily allowed for similar services.

g. That portion of the contract total dollar value equal to the percentage of ownership and control of the M/WBE partner(s) or SDVOBE partner(s) in an approved Joint Venture shall be counted toward the Contract goal, except that credit for M/WBE and SDVOBE participation in an approved Prime Joint Venture shall not exceed one half of the Contract goal.

X. JOINT CHECK POLICY

1. MassDOT recognizes that the use of joint checks may be a business practice required by material suppliers and vendors in the construction industry. A joint check is a two-party check issued by a/the Prime Contractor to a M/WBE or SDVOBE third party such as a regular dealer of material or supplies. The Prime Contractor issues the check as payor to the M/WBE or SDVOBE and the third party jointly as payees to guarantee payment to the third party for materials or supplies obtained or to be used by the M/WBE or SDVOBE. MassDOT has established criteria to ensure that M/WBEs or SDVOBEs are in fact performing a commercially useful function ("CUF") while using a joint check arrangement. Contractors and M/WBEs or SDVOBEs must meet and conform to these conditions and criteria governing the use of joint checks.

2. In the event that a Contractor, M/WBE or SDVOBE Subcontractor desires to a use joint check, MassDOT will require prior notice and will closely monitor the arrangement for compliance. MassDOT may allow a joint check arrangement and give credit to a Contractor for use of the M/WBE or SDVOBE where one or more of the following conditions exist:

   - The use of a joint check is in fact required by this type of vendor or supplier as a standard industry practice that applies to all Contractors (M/WBEs, SDVOBE and non-M/WBEs or non-SDVOBEs); or is required by a specific vendor or supplier;

   - Payment for supplies or materials would be delayed for an unreasonably extended period without the joint check arrangement;

   - The M/WBE or SDVOBE (or any of its Subcontractors) has a pattern or history of not paying a vendor or supplier within a reasonable time or has not established enough of a credit history with the supplier or vendor; and/or

   - The presence of severe adverse economic conditions, where credit resources may be limited and such practices may be necessary or required to effect timely payments.

3. Other factors MassDOT may consider:

   - Whether there is a requirement by the Prime Contractor that a M/WBE or SDVOBE should use a specific vendor or supplier to meet their Subcontractor specifications;

   - Whether there is a requirement that a M/WBE or SDVOBE use the Prime Contractor's negotiated price;

   - The independence of the M/WBE or SDVOBE;

   - Whether approval has been sought prior to use of a joint check arrangement; and

   - Whether any approved joint check arrangement has exceeded a reasonable period of use;

   - The operation of the joint check arrangement; and

   - Whether the M/WBE or SDVOBE has made an effort to establish alternate arrangements for following periods (i.e., the M/WBE or SDVOBE must show it can, or has, or why it has not, established or increased a credit line with the vendor or supplier).

Even with the use of a Joint Check, both the Contractor and M/WBE or SDVOBE remain responsible for compliance with all other elements of the Special Provisions, and must still be able to prove that a commercially useful function is being performed for the Contractor.

XI. JOINT CHECK PROCEDURES

- The M/WBE or SDVOBE advises its General or Prime Contractor that it will have to use a Joint Check and provide proof of such requirement.
- The General or the Prime Contractor submits a request for approval to MassDOT, using MassDOT's approved Joint Check Request form (Document B00846) and by notification on the M/WBE Letter of Intent (Document B00843) or SDVOBE Letter of Intent (Document B00845), and any other relevant documents. Requests that are not initiated during the bid process should be made in writing and comply with the procedure.
- The Contractor and M/WBE or SDVOBE must have:
  (a) a written agreement with the material supplier/vendor;
  (b) applied for credit with the subject material supplier and has supplied the vendor's response;

(c) shown that it will place all orders to the subject material supplier/vendor;
(d) made and retains all decision-making responsibilities concerning the materials; and
(e) provided a Joint Check Agreement that is acceptable to MassDOT;

- The MassDOT Office of Civil Rights will review the request and render a decision as part of the approval process for M/WBE or SDVOBE Schedules and Letters of Intent.
- Review and Approval will be project specific and relevant documents will be made part of the Project Contract file.
- Payments should be made in the name of both the M/WBE or SDVOBE and vendor or supplier. Payments should be issued and signed by the Contractor as only the guarantor for prompt payment of purchases to the vendor or supplier. The payment to the vendor or supplier should be handled by the M/WBE or SDVOBE (i.e. if possible, funds or the joint check should be processed by the M/WBE or SDVOBE and sent by the M/WBE or SDVOBE to the vendor or supplier).
- MassDOT may request copies of cancelled checks (front and back) and transmittal information to verify any payments made to the M/WBE or SDVOBE and vendor or supplier.
- MassDOT may request other information and documents, and may ask questions of the Contractor, Subcontractor and vendor or supplier prior to, during, and after the project performance to ascertain whether the Subcontractor is performing a commercially useful function and all parties are complying with M/WBE or SDVOBE Program policies and procedures as part of the Subcontractor approval process.

XII. AWARD DOCUMENTATION AND PROCEDURES

1. The two lowest bidders/the two bidders with the lowest price per quality score point, including any M/WBE bidder or SDVOBE bidder, shall submit, by the close of business on the third business day after the bid opening, a completed Schedule of M/WBE and SDVOBE participation, in the form attached, which shall list:

   a. The full company name, address and telephone number of each M/WBE or SDVOBE with whom the bidder intends to make a commitment;

   b. The Contract item(s), by number(s) and quantity(ies), if applicable, or specific description of other business activity to be performed by each M/WBE or SDVOBE as set forth in the Letters of Intent. The bidder shall list only firms which have the capacity to perform, manage and supervise the work proposed in accordance with the requirements of Section XII of these Special Provisions.

   c. The total dollar amount to be paid to each M/WBE or SDVOBE. (Bidders are cautioned that at least one half of the participation goal must be met with Contract work.)

   d. The total dollar amount to be paid to each M/WBE or SDVOBE which is eligible for credit toward the M/WBE or SDVOBE goal under the crediting rules set out in Section IX.

   e. The total creditable M/WBE or SDVOBE participation as a percentage of the total bid price.

2. All firms listed on the Schedule must be currently certified.

3. The two lowest bidders/the two bidders with the lowest price per quality score point shall submit with their Schedules of Participation, fully completed, signed Letters of Intent from each of the M/WBEs or SDVOBEs listed on the Schedule. The Letters of Intent shall be in the form attached and shall identify specifically the contract activity the M/WBE or SDVOBE proposes to perform, expressed as contract item number, if applicable, description of the activity, quantity, unit price and total price. In the event of discrepancy between the Schedule and the Letter of Intent, the Letter of Intent shall govern.

4. Evidence of good faith efforts will be evaluated by the Department in the selection of the lowest responsible bidder/best value bidder. All information requested by the Department for the purpose of evaluating the bidder's efforts to achieve the goal must be provided within three calendar days and must be accurate and complete in every detail. The apparent low bidder's/best value bidder's attainment of the M/WBE or SDVOBE goal or a satisfactory demonstration of good faith efforts is a prerequisite for Award of the Contract.

5. Failure to meet, or to demonstrate good faith efforts to meet, the requirements of these Special Provisions shall render a bid non-responsive. Therefore, in order to be eligible for award, the bidder (1) must list on the Schedule of Participation, and provide the required Letters of Intent for, M/WBE or SDVOBE participation which meets or exceeds the Contract goal in accordance with the terms of these Special Provisions or (2) must demonstrate, to the satisfaction of the Department, that good faith efforts were made to achieve the goal.

6. If the Department finds that the percentage of M/WBE or SDVOBE participation submitted by the bidder on its Schedule does not meet the Contract goal, or that the Letters of Intent were not timely filed, and that the bidder has not demonstrated good faith efforts to comply with these requirements, it shall propose that the bidder be declared ineligible for Award. In that case, the bidder may request administrative reconsideration. Such requests must be sent in writing within three calendar days of receiving notice of proposed ineligibility to: The Office of the General Counsel, Massachusetts Department of Transportation, 10 Park Plaza, Boston, MA, 02116.

7. If, after administrative reconsideration, the Department finds that the bidder has not shown that sufficient good faith efforts were made to comply with the requirements of these Special Provisions it shall reject the bidder's proposal and may retain the proposal guaranty.

8. Actions which constitute evidence of good faith efforts to meet the M/WBE or SDVOBE goals include, but are not limited to, all of the following examples:

    a. Efforts made to select portions of the work proposed to be performed by M/WBEs or SDVOBEs in order to increase the likelihood of achieving the stated goal, including, where appropriate, but not limited to, breaking down contracts into economically feasible units to facilitate M/WBE and SDVOBE participation. The value of such work is required to at least equal the M/WBE and SDVOBE goal.

    b. Reasonable written notification prior to the opening of bids soliciting individual M/WBEs or SDVOBEs interested in participation in the contract as subcontractors, regular dealers, manufacturers, consultants, or service providers and identifying the specific items or type of work being solicited.

    c. Written notification to M/WBE or SDVOBE economic development assistance agencies and organizations which provide assistance in recruitment and placement of M/WBEs and SDVOBEs, describing the type of work, supplies or services being considered for M/WBE or SDVOBE subcontracting on this contract.

    d. Efforts made to negotiate with M/WBEs or SDVOBEs for specific items of work including evidence of:
        (1) The names, addresses, telephone numbers of M/WBEs or SDVOBEs who were contacted, the dates of initial contact and whether initial solicitations of interest were followed up by contacts with M/WBEs or SDVOBEs to determine with certainty whether the M/WBEs or SDVOBEs were interested. Personal or phone contacts are expected.

        (2) A description of the information provided by the M/WBEs or SDVOBEs regarding the plans and specifications and estimated quantities for portions of the work to be performed.

        (3) A statement of why additional agreements with M/WBEs or SDVOBEs were not reached.

        (4) Documentation of each M/WBE or SDVOBE contacted but rejected and the reasons for the rejection.

    e. Absence of any agreements between the Contractor and the M/WBE or SDVOBE in which M/WBE or SDVOBE promises not to provide subcontracting quotations to other bidders.

    f. Efforts made to assist the M/WBEs or SDVOBEs that need assistance in obtaining bonding, insurance, or lines of credit required by the Contractor.

g. Documentation that qualified M/WBEs or SDVOBEs are not available, or are not interested.

h. Attendance at any meeting scheduled by the Department to encourage better Contractor-M/WBE or Contractor- SDVOBE relationships and/or to inform M/WBEs or SDVOBEs of forthcoming M/WBE or SDVOBE utilization opportunities.

i. Advertisement, in general circulation media, in trade association publications and in disadvantaged business enterprise-focused media, of interest in utilizing M/WBEs or SDVOBEs and the area of interest.

j. Efforts to effectively use the services of available minority community organizations; women organizations, veteran organizations, minority, women disadvantaged and veteran contractor's groups; local, state and federal disadvantaged business assistance offices; and other organizations that provide assistance in recruitment and placement of M/WBEs or SDVOBEs.

9. The demonstration of good faith efforts must establish that the Contractor has actively and aggressively sought out M/WBEs or SDVOBEs to participate in the project and has taken all actions which could be reasonably expected to achieve the goal. Examples of circumstances or actions not acceptable as reasons for failure to meet the M/WBE or SDVOBE goal, include, but are not limited to:

a. The M/WBE or SDVOBE was unable to provide performance and/or payment bonds.

b. The M/WBEs or SDVOBEs commercially reasonable bid was rejected based on price.

c. The M/WBE or SDVOBE would not agree to perform items of work at the unit bid price.

d The Contractor does not want to subcontract a percentage of the work sufficient to meet the goal.

e. Solicitation by mail or fax only.

XIII. COMPLIANCE

1. All activity performed by a M/WBE or SDVOBE for credit toward the Contract goal must be performed, managed and supervised by the M/WBE or SDVOBE. Prime Contractor shall not enter into, or condone, any other arrangement.

2. The Prime Contractor shall not perform with its own organization, or assign to any other business, any activity designated for the M/WBEs or SDVOBEs named on the Schedule submitted by the Prime Contractor under Section IX, or under Section XII(6), without the approval of the Department in accordance with the requirements of Sections XIII(6) and XIII(10).

3. The Department may suspend payment for any activity which was not performed by the M/WBE or SDVOBE to whom the activity was committed on the approved Schedule of Participation, or which was not performed in accordance with the requirements of Section XIII(1).

4. The Department retains the right to approve or disapprove all subcontractors. Requests by the Prime Contractor for approval of participation by a M/WBE or SDVOBE subcontractor for credit toward the Contract goal must include, in addition to any other requirements for subcontractor approval, the following:

a. A copy of the proposed subcontract. The subcontract must be for at least the dollar amount, and for the work described, in the Prime Contractor's Schedule of Participation.

b. A resume stating the qualifications and experience of the M/WBE or SDVOBE superintendent and/or foreperson who will supervise the on-site work. A new resume will be required for any change in supervisory personnel during the progress of the work.

c. A Schedule of Operations indicating when the M/WBE or SDVOBE is expected to perform the work.

d. A list of (1) equipment owned by the M/WBE or SDVOBE to be used on the Project, and (2) equipment to be leased by the M/WBE or SDVOBE for use on the Project.

e. A list of: (1) all projects (public and private) which the M/WBE or SDVOBE is currently performing, (2) all projects (public and private) to which the M/WBE or SDVOBE is committed, (3) all projects (public and private) to which the M/WBE or SDVOBE intends to make a commitment. For each contract, list the contracting organization, the name and telephone number of a contact person for the contracting organization, the dollar value of the work, a description of the work, and the M/WBEs or SDVOBEs work schedule for each project.

5. If, pursuant to the subcontractor approval process, the Department finds that a M/WBE or SDVOBE subcontractor does not have sufficient experience or resources to perform, manage and supervise work of the kind proposed in accordance with the requirements of Section XIII(1), approval of the M/WBE or SDVOBE subcontractor may be denied. In the event of such denial, the Prime Contractor shall proceed in accordance with the requirements of Sections XIII(6) and XIII(10).

6. If, for reasons beyond its control, the Prime Contractor cannot comply with its M/WBE or SDVOBE commitment in accordance with the Schedule of participation submitted under Section IX and the terms of these Special Provisions, the Prime Contractor shall submit to the Department the reasons for its inability to comply with its obligations under Section I and shall submit, and request approval for, a revised Schedule of Participation. If approved by the Department, the revised Schedule shall govern the Prime Contractor's performance in meeting its obligations under these special provisions.

7. A Prime Contractor's compliance with the participation goal in Section I shall be determined by reference to the required percentage of the total Contract price, including any additions and modifications thereto, provided, however, that no decrease in the dollar amount of a bidder's commitment to any M/WBE or SDVOBE shall be allowed without the approval of the Department.

8. If the Contract amount is increased, the Prime Contractor shall submit a revised Schedule of Participation in accordance with Sections XIII(6) and XIII(10).

9. In the event of the decertification of a M/WBE or SDVOBE participating or scheduled to participate on the contract for credit toward the goal, the Contractor shall proceed in accordance with Sections XIII(6) and XIII(10).

10. The Prime Contractor shall notify the Department immediately of any facts which come to its attention indicating that it may or will be unable to comply with any aspect of its M/WBE or SDVOBE obligation under this Contract.

11. Any notice required by these Special Provisions shall be given in writing to the Resident Engineer and the district designated Compliance Officer with a copy to the Director of Compliance, Office of Diversity and Civil Rights, 10 Park Plaza, Room 3170, Boston MA 02116.

12. The Prime Contractor and its subcontractors shall comply with the Department’s Electronic Reporting System Requirements (Contract Document 00821) and submit all information required by the Department related to the M/WBE Special Provisions and SDVOBE Special Provisions through the Equitable Business Opportunity Solution (EBO). The Department reserves the right to request reports in the format it deems necessary anytime during the performance of the Contract.

13. The Contractor shall pay each M/WBE or SDVOBE for satisfactory performance of its Contract no later than 10 days from receipt of payment for the work from the Department. Any delay or postponement of payment to the M/WBEs or SDVOBEs must be for good cause and only with the prior approval of the Department.

14. The Department may withhold the Contractor's next periodic payment if each M/WBE or SDVOBE is not paid in accordance with Section XIII(13).

15. The Department may require specific performance of the Prime Contractor's commitment under the Contract by requiring the Prime Contractor to subcontract with a M/WBE or SDVOBE for any contract or specialty item.

XIV. SANCTIONS

If the Prime Contractor does not comply with the terms of these Special Provisions and cannot demonstrate to the satisfaction of the Department that good faith efforts were made to achieve such compliance, the Department may, in addition to any other remedy provided for in the Contract, and notwithstanding any other provision in the Contract:

1. Retain, in connection with final acceptance and final payment, an amount determined by multiplying the total contract amount by the percentage in Section I, less the amount paid to approved M/WBEs or SDVOBEs for work performed under the Contract in accordance with the provisions of Section X. The Prime Contractor shall have the right to appeal such retention of funds in accordance with the provisions of M.G.L. c. 30A s.10.

2. Suspend, terminate or cancel this Contract, in whole or in part, and call upon the Prime Contractor's surety to perform all terms and conditions in the Contract.

3. In accordance with 720 CMR 5.05(1)(f), modify or revoke the Prime Contractor's Prequalification status or recommend that the Prime Contractor not receive award of a pending Contract. The Prime Contractor may appeal the determination of the Prequalification Committee in accordance with the provisions of 720 CMR 5.07.

4. Initiate debarment proceedings under M.G.L. c.29 §29F.

XV. FURTHER INFORMATION

Any proposed M/WBE, SDVOBE, bidder, Contractor or subcontractor shall provide such information as is necessary in the judgement of the Department to ascertain its compliance with the terms of this Special Provision.

XVI. LIST OF ADDITIONAL DOCUMENTS

1. The following documents shall be completed and signed by the bidder and designated M/WBEs or SDVOBEs in accordance with Section XII - Award Documentation and Procedures. These documents must be returned by the bidder to MassDOT's Bid Document Distribution Center:

   □ Schedule of M/WBEs (Document B00842) or SDVOBE Participation (Document B00844)
   □ Letter of Intent: M/WBEs (Document B00843) or SDVOBE (Document B00845)
   □ M/WBEs or SDVOBE Joint Check Arrangement Approval Form (Document B00846), if Contractor and M/WBE or SDVOBE plan, or if M/WBE or SDVOBE is required to use a Joint Check (when applicable)

2. The following document shall be signed and returned by Contractor and Subcontractors/M/WBEs or SDVOBEs to the MassDOT District Office overseeing the Project, as applicable:

   □ Contractor/Subcontractor Certification Form (Document No. 00859) (a checklist of other documents to be included with every subcontract (M/WBEs or SDVOBEs and non-M/WBEs or SDVOBEs alike)).

3. The following document shall be provided to MassDOT's Office of Civil Rights and Prequalification Office at least fourteen (14) business days before the bid opening date:

   □ Joint Venture Affidavit of M/WBE or SDVOBE/Non-M/WBE or Non-SDVOBE (Document B00847)

4. The following document shall be provided to MassDOT's District Office of Civil Rights within 30 calendar days after the work of the M/WBE is completed, or no later than 30 calendar days after the work of the M/WBE is on a completed and processed CQE. This document shall be completed and submitted by the Prime Contractor:

   □ Certificate of Completion by a Minority/Women or Disadvantaged Business Enterprise (M/WBE) (Form No. CSD-100)

*** END OF DOCUMENT ***

DOCUMENT 00761

SPECIAL PROVISIONS FOR CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

Revised: 02/09/16

I. Instructions for Certification - Primary Covered Transactions:

By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

1. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the MassDOT's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

2. The certification in this clause is a material representation of fact upon which reliance was placed when the MassDOT determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available, the MassDOT may terminate this transaction for cause of default.

3. The prospective primary participant shall provide immediate written notice to the MassDOT if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the MassDOT for assistance in obtaining a copy of those regulations.

5. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the MassDOT.

6. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the MassDOT, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration and the Debarment Lists compiled by both the Massachusetts Office of the Attorney General and the Department of Capital Asset Management and Maintenance (DCAMM) and published separately in the Central Register.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available, the MassDOT may terminate this transaction for cause or default.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Primary Covered Transactions

The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State or local department or agency;

2. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 2 of this certification; and

4. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

II. Instructions for Certification - Lower Tier Covered Transactions:

By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

1. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available the MassDOT may pursue available remedies, including suspension and/or debarment.

2. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

3. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the MassDOT for assistance in obtaining a copy of those regulations.

4. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the MassDOT.

5. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

6. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List and the Debarment Lists.

7. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

8. Except for transactions authorized under paragraph 4 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, the MassDOT may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal, State or local department or agency.

Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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DOCUMENT 00811

SPECIAL PROVISIONS
MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES

Revised: 02/03/2023

This provision applies to all projects using greater than 100 tons of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the Notice to Contractors section of the bid documents.

Price Adjustments will be based on the variance in price, for the liquid asphalt component only, between the Base Price and the Period Price. They shall not include transportation or other charges. Price Adjustments will occur on a monthly basis.

Base Price

The Base Price of liquid asphalt on a project as listed in the Notice to Contractors section of the bid documents is a fixed price determined by the Department at the time of the bid using the same method as the determination of the Period Price detailed below. The Base Price shall be used in all bids.

Period Price

The Period Price is the price of liquid asphalt for each monthly period as determined by the Department using the average selling price per standard ton of PG64-28 paving grade (primary binder classification) asphalt, FOB manufacturer's terminal, as listed under the "East Coast Market - New England, Boston, Massachusetts area" section of the Poten & Partners, Inc. "Asphalt Weekly Monitor". This average selling price is listed in the issue having a publication date of the second Friday of the month and will be posted as the Period Price for that month. The Department will post this Period Price on its website at https://www.mass.gov/service-details/massdot-current-contract-price-adjustments following its receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners has granted the Department the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor.

Price Adjustment Determination, Calculation and Payment

The Contract Price of the HMA mixture will be paid under the respective item in the Contract. Price Adjustments, as herein provided, either upwards or downwards, will be made after the work has been performed using the monthly period price for the month during which the work was performed.

Price Adjustments will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the approved Job Mix Formula.

Price Adjustments will be separate payment items. The pay item numbers are 999.401 for a positive price adjustment (a payment) and 999.402 for a negative price adjustment (a deduction). Price Adjustments will be calculated using the following equation:

Price Adjustment = Tons of HMA Placed X Liquid Asphalt Content % X RAP Factor X (Period Price - Base Price)

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

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DOCUMENT 00812

SPECIAL PROVISIONS
MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE –
ENGLISH UNITS
Revised: 02/01/2021

This monthly fuel price adjustment is inserted in this contract because the national and worldwide energy situation has made the future cost of fuel unpredictable. This adjustment will provide for either additional compensation to the Contractor or repayment to the Commonwealth, depending on an increase or decrease in the average price of diesel fuel or gasoline.

This adjustment will be based on fuel usage factors for various items of work developed by the Highway Research Board in Circular 158, dated July 1974. These factors will be multiplied by the quantities of work done in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.

The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Department's web site https://www.mass.gov/service-details/massdot-current-contract-price-adjustments for the month in which the contract was bid, which includes State Tax.

The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchases made during each month.

This adjustment will be effected only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No adjustment will be paid for work done beyond the extended completion date of any contract.

Any adjustment (increase or decrease) to estimated quantities made to each item at the time of final payment will have the fuel price adjustment figured at the average period price for the entire term of the project for the difference of quantity.

The fuel price adjustment will apply only to the following items of work at the fuel factors shown:

ITEMS COVERED	FUEL FACTORS	
	Diesel	Gasoline
Excavation: and Borrow Work: Items 120, 120.1, 121, 123, 124, 125, 127, 129.3, 140, 140.1, 141, 142, 143, 144, 150, 150.1, 151 and 151.1 (Both Factors used)	0.29 Gallons / CY.	0.15 Gallons / CY
Surfacing Work: All Items containing Hot Mix Asphalt	2.90 Gallons / Ton	Does Not Apply

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DOCUMENT 00813

SPECIAL PROVISIONS
PRICE ADJUSTMENTS FOR STRUCTURAL STEEL AND REINFORCING STEEL

November 26, 2025

This special provision applies to all projects containing the use of structural steel and/or reinforcing steel as specified elsewhere in the Contract work. It applies to all structural steel and all reinforcing steel, as defined below, on the project. Compliance with this provision is mandatory, i.e., there are no "opt-in" or "opt-out" clauses. Price adjustments will be handled as described below and shall only apply to unfabricated reinforcing steel bars and unfabricated structural steel material, consisting of rolled shapes, plate steel, sheet piling, pipe piles, steel castings and steel forgings.

Price adjustments will be variances between Base Prices and Period Prices. Base Prices and Period Prices are defined below.

Price adjustments will only be made if the variances between Base Prices and Period Prices are 5% or more. A variance can result in the Period Price being either higher or lower than the Base Price. Once the 5% threshold has been achieved, the adjustment will apply to the full variance between the Base Price and the Period Price.

Price adjustments will be calculated by multiplying the number of pounds of unfabricated structural steel material or unfabricated reinforcing steel bars on a project by the index factor calculated as shown below under Example of a Period Price Calculation.

Price adjustments will *not* include guardrail panels or the costs of shop drawing preparation, handling, fabrication, coatings, transportation, storage, installation, profit, overhead, fuel costs, fuel surcharges, or other such charges not related to the cost of the unfabricated structural steel and unfabricated reinforcing steel.

The weight of steel subject to a price adjustment shall not exceed the final shipping weight of the fabricated part by more than 10%.

Base Prices and Period Prices are defined as follows:

Base Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are fixed prices determined by the Department and found in the table below. While it is the intention of the Department to make this table comprehensive, some of a project's unfabricated structural steel and/or unfabricated reinforcing steel may be inadvertently omitted. Should this occur, the Contractor shall bring the omission to the Department's attention so that a contract alteration may be processed that adds the missing steel to the table and its price adjustments to the Contract.

The Base Price Date is the month and year of the most recent finalized period price index at the time that MassDOT opened bids for the project. The Base Price Index for this contract is the Steel PPI listed in the Notice to Contractors.

Period Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are variable prices that have been calculated using the Period Price Date and an index of steel prices to adjust the Base Price.

The Period Price Date is the date the steel was delivered to the fabricator as evidenced by an official bill of lading submitted to the Department containing a description of the shipped materials, weights of the shipped materials and the date of shipment. This date is used to select the Period Price Index.

The index used for the calculation of Period Prices is the U.S. Department of Labor Bureau of Labor Statistics Producer Price Index (PPI) Series ID WPU101702 (Not Seasonally Adjusted, Group: Metals and Metal Products, Item: Semi-finished Steel Mill Products.) As this index is subject to revision for a period of up to four (4) months after its original publication, no price adjustments will be made until the index for the period is finalized, i.e., the index is no longer suffixed with a "(P)".

Period Prices are determined as follows:

Period Price = Base Price X Index Factor
Index Factor = Period Price Index / Base Price Index

Example of a Period Price Calculation:

Calculate the Period Price for December 2009 using a Base Price from March 2009 of $0.82/Pound for 1,000 Pounds of ASTM A709 (AASHTO M270) Grade A36 Structural Steel Plate.

The Period Price Date is December 2009. From the PPI website*, the Period Price Index = 218.0.

The Base Price Date is March 2009. From the PPI website*, the Base Price Index = 229.4.

Index Factor = Period Price Index / Base Price Index = 218.0 / 229.4 = 0.950
Period Price = Base Price X Index Factor = $0.82/Pound X 0.950 = $0.78/Pound

Since $0.82 - $0.78 = $0.04 is less than 5% of $0.82, no price adjustment is required.

If the $0.04 difference shown above was greater than 5% of the Base Price, then the price adjustment would be 1,000 Pounds X $0.04/Pound = $40.00. Since the Period Price of $0.78/Pound is less than the Base Price of $0.82/Pound, indicating a drop in the price of steel between the bid and the delivery of material, a credit of $40.00 would be owed to MassDOT. When the Period Price is higher than the Base Price, the price adjustment is owed to the Contractor.

* To access the PPI website and obtain a Base Price Index or a Period Price Index, go to http://data.bls.gov/cgi-bin/srgate

End of example.

The Contractor will be paid for unfabricated structural steel and unfabricated reinforcing steel under the respective contract pay items for all components constructed of either structural steel or reinforced Portland cement concrete under their respective Contract Pay Items.

Price adjustments, as herein provided for, will be paid separately as follows:

Structural Steel
Pay Item Number 999.449 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.457 for negative (-) pay adjustments (credits to MassDOT Highway Division)

Reinforcing Steel
Pay Item Number 999.466 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.467 for negative (-) pay adjustments (credits to MassDOT Highway Division)

No price adjustment will be made for price changes after the Contract Completion Date, unless the MassDOT Highway Division has approved an extension of Contract Time for the Contract.

TABLE

Steel Type		Price per Pound
1	ASTM A615/A615M Grade 60 (AASHTO M31 Grade 60 or 420) Reinforcing Steel	$0.59
2	ASTM A27 (AASHTO M103) Steel Castings, H-Pile Points & Pipe Pile Shoes (See Note below.)	$0.82
3	ASTM A668 / A668M (AASHTO M102) Steel Forgings	$0.82
4	ASTM A108 (AASHTO M169) Steel Forgings for Shear Studs	$0.84
5	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Plate	$0.89
6	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Shapes	$0.83
7	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Plate	$0.89
8	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Shapes	$0.83
9	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Plate	$0.92
10	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Shapes	$0.84
11	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W 345W Structural Steel Plate	$0.92
12	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W or 345W Structural Steel Shapes	$0.84
13	ASTM A709/A709M Grade HPS 50W / AASHTO M270M/M270 Grade HPS 50W or 345W Structural Steel Plate	$0.96
14	ASTM A709/A709M Grade HPS 70W / AASHTO M270M/M270 Grade HPS 70W or 485W Structural Steel Plate	$1.04
15	ASTM A514/A514M-05 Grade HPS 100W / AASHTO M270M/M270 Grade HPS 100W or 690W Structural Steel Plate	$1.58
16	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Plate	$0.92
17	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Shapes	$0.84
18	ASTM A276 Type 316 Stainless Steel	$4.75
19	ASTM A240 Type 316 Stainless Steel	$4.75
20	ASTM A148 Grade 80/50 Steel Castings (See Note below.)	$1.63
21	ASTM A53 Grade B Structural Steel Pipe	$1.04
22	ASTM A500 Grades A, B, 36 & 50 Structural Steel Pipe	$1.04
23	ASTM A252, Grades 240 (36 KSI) & 414 (60 KSI) Pipe Pile	$0.82
24	ASTM 252, Grade 2 Permanent Steel Casing	$0.82
25	ASTM A36 (AASHTO M183) for H-piles, steel supports and sign supports	$0.86
26	ASTM A328 / A328M, Grade 50 (AASHTO M202) Steel Sheetpiling	$1.56
27	ASTM A572 / A572M, Grade 50 Sheetpiling	$1.56
28	ASTM A36/36M, Grade 50	$0.89
29	ASTM A570, Grade 50	$0.86
30	ASTM A572 (AASHTO M223), Grade 50 H-Piles	$0.89
31	ASTM A1085 Grade A (50 KSI) Steel Hollow Structural Sections (HSS), heat-treated per ASTM A1085 Supplement S1	$1.04
32	AREA 140 LB Rail and Track Accessories	$0.53

NOTE: Steel Castings are generally used only on moveable bridges. Cast iron frames, grates and pipe are not "steel" castings and will not be considered for price adjustments.

END OF DOCUMENT

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DOCUMENT 00814

SPECIAL PROVISIONS
PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES

January 12, 2009

This provision applies to all projects using greater than 100 Cubic Yards (76 Cubic Meters) of Portland cement concrete containing Portland cement as stipulated in the Notice to Contractors section of the Bid Documents. This Price Adjustment will occur on a monthly basis.

The Price Adjustment will be based on the variance in price for the Portland cement component only from the Base Price to the Period Price. It shall not include transportation or other charges.

The Base Price of Portland cement on a project is a fixed price determined at the time of bid by the Department by using the same method as for the determination of the Period Price (see below) and found in the Notice to Contractors.

The Period Price of Portland cement will be determined by using the latest published price, in dollars per ton (U.S.), for Portland cement (Type I) quoted for Boston, U.S.A. in the **Construction Economics** section of *ENR Engineering News-Record* magazine or at the ENR website http://www.enr.com under **Construction Economics**. The Period Price will be posted on the MassDOT website the Wednesday immediately following the publishing of the monthly price in ENR, which is normally the first week of the month.

The Contract Price of the Portland cement concrete mix will be paid under the respective item in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which the work was performed.

The price adjustment applies only to the actual Portland cement content in the mix placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M4.02.01. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.

The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of cubic yards of Portland cement concrete placed during each monthly period times the Portland cement content percentage times the variance in price between the Base Price and Period Price of Portland cement.

This Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

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DOCUMENT 00820

THE COMMONWEALTH OF MASSACHUSETTS SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY, NON-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM

I. Definitions

For purposes of this contract,

"Minority" means a person who meets one or more of the following definitions:

(a) American Indian or Native American means: all persons having origins in any of the original peoples of North America and who are recognized as an Indian by a tribe or tribal organization.
(b) Asian means: All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian sub-continent, or the Pacific Islands, including, but Not limited to China, Japan, Korea, Samoa, India, and the Philippine Islands.
(c) Black means: All persons having origins in any of the Black racial groups of Africa, including, but not limited to, African-Americans, and all persons having origins in any of the original peoples of the Cape Verdean Islands.
(d) Eskimo or Aleut means: All persons having origins in any of the peoples of Northern Canada, Greenland, Alaska, and Eastern Siberia.
(e) Hispanic means: All persons having their origins in any of the Spanish-speaking peoples of Mexico, Puerto Rico, Cuba, Central or South America, or the Caribbean Islands.

"State construction contract" means a contract for the construction, reconstruction, installation, demolition, maintenance or repair of a building or capital facility, or a contract for the construction, reconstruction, alteration, remodeling or repair of a public work undertaken by a department, agency, board, or commission of the commonwealth.

"State assisted construction contract" means a contract for the construction, reconstruction, installation, demolition, maintenance or repair of a building or capital facility undertaken by a political subdivision of the commonwealth, or two or more political subdivisions thereof, an authority, or other instrumentality and whose costs of the contract are paid for, reimbursed, grant funded, or otherwise supported, in whole or in part, by the commonwealth.

II. Equal Opportunity, Non-Discrimination and Affirmative Action

During the performance of this Contract, the Contractor and all subcontractors (hereinafter collectively referred to as "the Contractor") for a state construction contract or a state assisted construction contract, for him/herself, his/her assignees and successors in interest, agree to comply with all applicable equal employment opportunity, non-discrimination and affirmative action requirements, including but not limited to the following:

In connection with the performance of work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, sex, sexual orientation, genetic information, military service, age, ancestry or disability, shall not discriminate in the selection or retention of subcontractors, and shall not discriminate in the procurement of materials and rentals of equipment.

The aforesaid provision shall include, but not be limited to, the following: employment upgrading, demotion, or transfer; recruitment advertising, layoff or termination; rates of pay or other forms of compensation; conditions or privileges of employment; and selection for apprenticeship or on-the-job training opportunity. The Contractor shall comply with the provisions of chapter 151B of the Massachusetts General Laws, as amended, and all other applicable anti-discrimination and equal opportunity laws, all of which are herein incorporated by reference and made a part of this Contract.

The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Massachusetts Commission Against Discrimination setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (Massachusetts General Laws Chapter l51 B).

In connection with the performance of work under this contract, the Contractor shall undertake, in good faith, affirmative action measures to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, sex, sexual orientation, genetic information, military service, age, ancestry or disability. Such affirmative action measures shall entail positive and aggressive measures to ensure nondiscrimination and to promote equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, apprenticeship and on-the-job training programs. A list of positive and aggressive measures shall include, but not be limited to, advertising employment opportunities in minority and other community news media; notifying minority, women and other community-based organizations of employment opportunities; validating all job specifications, selection requirements, and tests; maintaining a file of names and addresses of each worker referred to the Contractor and what action was taken concerning such worker; and notifying the administering agency in writing when a union with whom the Contractor has a collective bargaining agreement has failed to refer a minority or woman worker. These and other affirmative action measures shall include all actions required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, sex, sexual orientation, genetic information, military service, age, ancestry or disability. One purpose of this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future Commonwealth public construction projects.

III. Minority and Women Workforce Participation

Pursuant to his/her obligations under the preceding section, the Contractor shall strive to achieve on this project the labor participation goals contained herein. Said participation goals shall apply in each job category on this project including but not limited to bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers and those classes of work enumerated in Section 44F of Chapter 149 of the Massachusetts General Laws. The participation goals for this project shall be 15.3% for minorities and 6.9% for women. The participation goals, as set forth herein, shall not be construed as quotas or set-asides; rather, such participation goals will be used to measure the progress of the Commonwealth's equal opportunity, non-discrimination and affirmative action program. Additionally, the participation goals contained herein should not be seen or treated as a floor or as a ceiling for the employment of particular individuals or group of individuals.

IV. Liaison Committee

At the discretion of the agency that administers the contract for the construction project there may be established for the life of the contract a body to be known as the Liaison Committee. The Liaison Committee shall be composed of one representative each from the agency or agencies administering the contract for the construction project, hereinafter called the administering agency, a representative from the Office of Affirmative action, and such other representatives as may be designated by the administering agency. The Contractor (or his/her agent, if any, designated by him/her as the on-site equal employment opportunity officer) shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.

V. Reports and Records

The Contractor shall prepare projected workforce tables on a quarterly basis when required by the administering agency. These shall be broken down into projections, by week, of workers required in each trade. Copies shall be furnished one week in advance of the commencement of the period covered, and also, when updated, to the administering agency and the Liaison Committee when required.

The Contractor shall prepare weekly reports in a form approved by the administering agency, unless information required is required to be reported electronically by the administering agency, the number of hours worked in each trade by each employee, identified as woman, minority, or non-minority. Copies of these shall be provided at the end of each such week to the administering agency and the Liaison Committee.

Records of employment referral orders, prepared by the Contractor, shall be made available to the administering agency on request.

The Contractor will provide all information and reports required by the administering agency on instructions issued by the administering agency and will permit access to its facilities and any books, records, accounts and other sources of information which may be determined by the administering agency to effect the employment of personnel. This provision shall apply only to information pertinent to the Commonwealth's supplementary non-discrimination, equal opportunity and access and opportunity contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the administering agency and shall set forth what efforts he has made to obtain the information.

VI. Access to Work Site

A designee of the administering agency and a designee of the Liaison Committee shall each have a right to access the work site.

VII. Solicitations for Subcontracts, and for the Procurement of Materials and Equipment

In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential subcontractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under this contract relative to non-discrimination and equal opportunity.

VIII. Sanctions

Whenever the administering agency believes the General or Prime Contractor or any subcontractor may not be operating in compliance with the provisions of the Fair Employment Practices Law of the Commonwealth (Massachusetts General Laws Chapter 151B), the administering agency may refer the matter to the Massachusetts Commission Against Discrimination ("Commission") for investigation.

Following the referral of a matter by the administering agency to the Massachusetts Commission Against Discrimination, and while the matter is pending before the MCAD, the administering agency may withhold payments from contractors and subcontractors when it has documentation that the contractor or subcontractor has violated the Fair Employment Practices Law with respect to its activities on the Project, or if the administering agency determines that the contractor has materially failed to comply with its obligations and the requirements of this Section. The amount withheld shall not exceed a withhold of payment to the General or Prime Contractor of 1/100 or 1% of the contract award price or $5,000, whichever sum is greater, or, if a subcontractor is in non-compliance, a withhold by the administering agency from the General Contractor, to be assessed by the General Contractor as a charge against the subcontractor, of 1/100 or 1% of the subcontractor price, or $1,000 whichever sum is greater, for each violation of the applicable law or contract requirements. The total withheld from anyone General or Prime Contractor or subcontractor on a Project shall not exceed $20,000 overall. No withhold of payments or investigation by the Commission or its agent shall be initiated without the administering agency providing prior notice to the Contractor.

If, after investigation, the Massachusetts Commission Against Discrimination finds that a General or Prime Contractor or subcontractor, in commission of a state construction contract or state-assisted construction contract, violated the provisions of the Fair Employment Practices Law, the administering agency may convert the amount withheld as set forth above into a permanent sanction, as a permanent deduct from payments to the General or Prime Contractor or subcontractor, which sanction will be in addition to any such sanctions, fines or penalties imposed by the Massachusetts Commission Against Discrimination.

No sanction enumerated under this Section shall be imposed by the administering agency except after notice to the General or Prime Contractor or subcontractor and an adjudicatory proceeding, as that term is used, under Massachusetts General Laws Chapter 30A, has been conducted.

IX. Severability

The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.

X. Contractor's Certification

After award and prior to the execution of any contract for a state construction contract or a state assisted construction contract, the Prime or General Contractor shall certify that it will comply with all provisions of this Document 00820 Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program, by executing Document 00859 Contractor/Subcontractor Certification Form.

XI. Subcontractor Requirements

Prior to the award of any subcontract for a state construction contract or a state assisted construction contract, the Prime or General Contractor shall provide all prospective subcontractors with a complete copy of this Document 00820 entitled "Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program" and will incorporate the provisions of this Document 00820 into any and all contracts or work orders for all subcontractors providing work on the Project. In order to ensure that the said subcontractor's certification becomes a part of all subcontracts under the prime contract, the Prime or General Contractor shall certify in writing to the administering agency that it has complied with the requirements as set forth in the preceeding paragraph by executing Document 00859 Contractor/Subcontractor Certification Form.

Rev'd 03/07/14

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DOCUMENT 00821

ELECTRONIC REPORTING REQUIREMENTS
CIVIL RIGHTS PROGRAMS AND CERTIFIED PAYROLL

Implemented on March 2, 2009 Revised June 04, 2019

The Massachusetts Department Of Transportation (MassDOT) has replaced the CHAMP reporting system with Equitable Business Opportunity Solution (EBO), a new web-based civil rights reporting software system. This system is capable of handling both civil rights reporting requirements and certified payrolls. The program's functions include the administration of Equal Employment Opportunity (EEO) requirements, On-The-Job Training requirements (OJT), Disadvantage Business Enterprise (DBE) and/or Minority / Women's Business Enterprise (M/WBE) subcontracting requirements, and the electronic collection of certified payrolls associated with MassDOT projects. In addition, this system is used to generate various data required as part of the American Recovery and Reinvestment Act (ARRA). Contractors are responsible for all coordination with all sub-contractors to ensure timely and accurate electronic submission of all required data.

Contractor and Sub-Contractor EBO User Certification

All contractors and sub-contractors must use the EBO software system. The software vendor, Internet Government Solutions (IGS), has developed an online EBO Training Module that is available to contractors and sub-contractors. This module is a self-tutorial which allows all users in the company to access the training, complete the tutorial, and become certified as EBO users for a one time fee of $75.00. This is the only cost to contractors and sub-contractors associated with the EBO software system. The online EBO Training Module can be accessed at www.ebotraining.com. Click the "Register My Company" button on the login page to begin your training registration. Questions regarding EBO online training should be directed to Gerry Anguilano, IGS at (440) 238-1684.

MassDOT will track contractors and sub-contractors who have successfully completed the on-line training module. All persons performing civil rights program and/or certified payroll functions should be EBO certified.

Vetting of Firms and Designated Firm Individuals

Contractors must authorize a Primary Log-In ID Holder who has completed EBO on-line training to have access to the EBO system by completing and submitting the "Request For EBO System Log-In/Password Form" located on the MassDOT website at: https://www.mass.gov/how-to/how-to-get-an-ebo-login
Contractors must also agree to comply with the EBO system user agreement located on the MassDOT website.

All subcontracts entered into on a project must include language that identifies the submission and training requirements that the sub-contractor must perform. Sub-contractors will be approved by the respective District Office of MassDOT through the existing approval process. When new sub-contractors, who have not previously worked for MassDOT, are initially selected by a general contractor, the new sub-contractor must be approved by the District before taking the EBO on-line training module.

Interim Reporting Requirements

Until MassDOT is satisfied that the EBO system is fully operational and functioning as designed, contractors and sub-contractors will be required to submit certified payrolls manually. There will be a transition period where dual reporting, through manual and electronic submission, will be required. MassDOT, however, will notify contractors and sub-contractors when they may cease manual submission of certified payrolls.

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DOCUMENT 00859

CONTRACTOR/SUBCONTRACTOR CERTIFICATION FORM ‡

The contractor shall submit this completed document 00859 to MassDOT for each subcontract.

_____ **(Contractor)** **Date:**_____

_____**(Subcontractor)** ☐ District Approved Subcontractor

Contract No: 132950 **Project No.** 613219 **Federal Aid No.:** NFA

Location: CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD

Project Description: Bridge Preservation of 26 Bridges along I-91

PART 1 CONTRACTOR CERTIFICATION: I hereby certify, as an authorized official of this company, that to the best of my knowledge, information and belief, the company is in compliance with all applicable federal and state laws, rules, and regulations governing fair labor and employment practices, that the company will not discriminate in their employment practices, that the company will make good faith efforts to comply with the minority employee and women employee workforce participation ratio goals and specific affirmative action steps contained in Contract Document 00820 The Commonwealth of Massachusetts Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program, and that the company will comply with the special provisions and documentation indicated below (as checked).

I further hereby certify, as an authorized official of this company, that the special provisions and documentation indicated below (as checked) have been or are included in, and made part of, the Subcontractor Agreement entered into with the firm named above.

☐ **This is not a Federally-aided construction project**

Document #

☐ 00718 –Participation By Minority Or Women's Business Enterprises and SDVOBE†
☐ 00761 –Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion
☐ 00820 – MA Supplemental Equal Employment Opportunity, Non-Discrimination, and Affirmative Action Program
☐ 00821 – Electronic Reporting Requirements, Civil Rights Programs, and Certified Payroll
☐ 00859 – Contractor/Subcontractor Certification Form (this document)
☐ 00860 – MA Employment Laws
☐ 00861 – Applicable State Wage Rates in the Contract Proposal**
☐ B00842 – MA Schedule of Participation By Minority or Women Business Enterprises (M/WBEs)†
☐ B00843 – MA Letter of Intent – M/WBEs†

** Does not apply to Material Suppliers, unless performing work on-site
† Applies only if Subcontractor is a M/WBE; only include these forms for the particular M/WBE Entity

☐ B00844 - Schedule of Participation By SDVOBE
☐ B00845 - Letter of Intent – SDVOBE
☐ B00846 – M/WBE or SDVOBE Joint Check Arrangement Approval Form
☐ B00847 – Joint Venture Affidavit

☐ **This is a Federally-aided construction project (Federal Aid Number is present)**

Document #

☐ 00719 – Special Provisions for Participation by Disadvantaged Business Enterprises†
☐ 00760 - Form FHWA 1273 - Required Contract Provisions for Federal-Aid Construction Contracts
☐ 00820 – MA Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program
☐ 00821 – Electronic Reporting Requirements, Civil Rights Programs and Certified Payroll
☐ 00859 – Contractor/Subcontractor Certification Form (this document)
☐ 00860 – MA Employment Laws
☐ 00870 – Standard Federal Equal Employment Opportunity Construction Contract Specifications Executive Order 11246, (41 CFR Parts 60-4.2 and 60-4.3 (Solicitations and Equal Opportunity Clauses)*
☐ 00875 – Federal Trainee Special Provisions

☐ B00853 – Schedule of Participation by Disadvantaged Business Enterprise†
☐ B00854 – Letter of Intent – DBEs†
☐ B00855 – DBE Joint Check Arrangement Approval Form
☐ B00856 – Joint Venture Affidavit
☐ 00861/00880 - Applicable state and federal wage rates from Contract Proposal**

*Applicable only to Contracts or Subcontracts in excess of $10,000
**Does not apply to Material Suppliers, unless performing work on-site
† Applies only if Subcontractor is a DBE; only include these forms for the particular DBE Entity

Signed this _____ Day of _____, 20_____ Under The Pains And Penalties Of Perjury.

_____ _____
(Print Name and Title) (Authorized Signature)

PART 2

PART 2 SUBCONTRACTOR CERTIFICATION: I hereby certify, as an authorized official of this company, that the required documents in Part 1 above were physically incorporated in our Agreement/Subcontract with the Contractor and give assurance that this company will fully comply or make every good faith effort to comply with the same. I further certify that:

1. This company recognizes that if this is a Federal-Aid Project, then this Contract is covered by the equal employment opportunity laws administered and enforced by the United States Department of Labor ("USDOL"), Office of Federal Contract Compliance Programs ('OFCCP"). By signing below, we acknowledge that this company has certain reporting obligations to the OFCCP, as specified by 41 CFR Part 60-4.2.
2. This company further acknowledges that any contractor with fifty (50) or more employees on a Federal-aid Contract with a value of fifty-thousand ($50,000) dollars or more must annually file an EEO-1 Report (SF 100) to the EEOC, Joint Reporting Committee, on or before September 30th, each year, as specified by 41 CFR Part 60-1.7a.
3. For more information regarding the federal reporting requirements, please contact the USDOL, OFCCP Regional Office, at 1-646-264-3170 or EEO-1, Joint Reporting Committee at 1-866-286-6440.
4. This company ☐ has, ☐ has not, participated in a previous contract or subcontract subject to the Equal Opportunity clauses set forth in 41 CFR Part 60-4 and Executive Order 11246, and where required, has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance Programs or the EEO Commission all reports due under the applicable filing requirements.
5. This company is in full compliance with applicable Federal and Commonwealth of Massachusetts laws, rules, and regulations and is not currently debarred or disqualified from bidding on or participating in construction contracts in any jurisdiction of the United States. See : https://www.mass.gov/service-details/contractors-and-vendors-suspended-or-debarred-by-massdot
6. This company is properly registered and in good standing with the Office of the Secretary of the Commonwealth.

Signed this _____ Day of _____, 20_____, Under The Pains And Penalties Of Perjury.

Firm: _____
Address: _____
_____
_____
Telephone Number:_____
Federal I.D. Number:_____
Estimated Start Date:_____
Estimated Completion Date:_____
Estimated Dollar Amount:_____

_____
(Print Name and Title)

_____
(Authorized Signature)

_____
(Date)

Rev'd 09/02/22

*** END OF DOCUMENT ***

DOCUMENT 00860

COMMONWEALTH OF MASSACHUSETTS PUBLIC EMPLOYMENT LAWS

Revised February 20, 2019

The Contractor's attention is directed to Massachusetts General Laws, Chapter 149, Sections 26 through 27H, and 150A. This contract is considered to fall within the ambit of that law, which provides that in general, the Prevailing Rate or Total Rate must be paid to employees working on projects funded by the Commonwealth of Massachusetts or any political subdivision including Massachusetts Department of Transportation (MassDOT).

A Federal Aid project is also subject to the Federal Minimum Wage Rate law for construction. When comparing a state minimum wage rate, monitored by the Massachusetts Attorney General, versus federal minimum wage rate, monitored by the U.S. Department of Labor Wage and Hour Division, for a particular job classification the higher wage is at all times to be paid to the affected employee.

Every contractor or subcontractor engaged in this contract to which sections twenty-seven and twenty-seven A apply will keep a true and accurate record of all mechanics and apprentices, teamsters, chauffeurs and laborers employed thereon, showing the name, address and occupational classification of each such employee on this contract, and the hours worked by, and the wages paid to, each such employee, and shall furnish to the MassDOT's Resident Engineer, on a weekly basis, a copy of said record, in a form approved by MassDOT and in accordance with M.G.L. c. 149, § 27B, signed by the employer or his/her authorized agent under the penalties of perjury.

Each such contractor or subcontractor shall preserve its payroll records for a period of three years from the date of completion of the contract.

The Prevailing Wage Rate generally includes the following:

Minimum Hourly Wage + Employer Contributions to Benefit Plans = Prevailing Wage Rate or Total Rate

Any employer who does not make contributions to Benefit Plans must pay the total Prevailing Wage Rate directly to the employee.

Any deduction from the Prevailing Wage Rate or Total Rate for contributions to benefit plans can only be for a Health & Welfare, Pension, or Supplementary Unemployment plan meeting the requirements of the Employee Retirement Income Security Act (ERISA) of 1974. The maximum allowable deduction for these benefits from the prevailing wage rate cannot be greater than the amount allowed by Executive Office of Labor (EOL) for the specified benefits. Any additional expense of providing benefits to the employees is to be borne by the employer and cannot be deducted from the Minimum Hourly Wage. If the employer's benefit expense is less than that so provided by EOL the difference will be paid directly to the employee. The rate established must be paid to all employees who perform work on the project.

When an employer makes deductions from the Minimum Hourly Wage for an employee's contribution to social security, state taxes, federal taxes, and/or other contribution programs, allowed by law, the employer shall furnish each employee a suitable pay slip, check stub or envelope notifying the employee of the amount of the deductions.

No contractor or subcontractor contracting for any part of the contract week shall require or permit any laborer or mechanic to be employed on such work in excess of forty hours in any workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his basic rate of pay for all hours worked in excess of forty hours in such workweek, whichever is the greater number of overtime hours.

Apprentice Rates are permitted only when there is an Apprentice Agreement registered with the Massachusetts Division of Apprentice Training in accordance with M.G.L. c. 23, § 11E-11L.

The Prevailing Wage Rates issued for each project shall be the rates paid for the entire project. The Prevailing Wage Rates must be posted on the job site at all times and be visible from a public way.

In addition, each such contractor and subcontractor shall furnish to the MassDOT's Resident Engineer, within fifteen days after completion of its portion of the work, a statement, executed by the contractor or subcontractor or by any authorized officer or employee of the contractor or subcontractor who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

Date: _____

I , _____do hereby state:
(Name of signatory party) (Title)

That I pay or supervise the payment of the persons employed by:

_____
(Contractor or Subcontractor)

on the _____
(MassDOT Project Location and Contract Number)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty-nine of the General Laws.

Signature _____

Title _____

The above-mentioned copies of payroll records and statements of compliance shall be available for inspection by any interested party filing a written request to the MassDOT's Resident Engineer for such inspection and copying.

Massachusetts General Laws c. 149, §27, requires annual updates to prevailing wage schedules for all public construction contracts lasting longer than one year. MassDOT will request the required updates and furnish them to the Contractor. The Contractor is required to pay no less than the wage rates indicated on the annual updated wage schedules.

MassDOT will request the updates no later that two week before the anniversary of the Notice to Proceed date of the contract to allow for adequate processing by the Department of Labor Standards (DLS). The effective date for the new rates will be the anniversary date of the contract (i.e. the notice to proceed date), regardless of the date of issuance on the schedule from DLS.

All bidders are cautioned that the aforementioned laws require that employers pay to covered employees no less than the applicable minimum wages. In addition, the same laws require that the applicable prevailing wages become incorporated as part of this contract. The prevailing minimum wage law establishes serious civil and criminal penalties for violations, including imprisonment and exclusion from future public contracts. Bidders are cautioned to carefully read the relevant sections of the Massachusetts General Laws.

*** END OF DOCUMENT ***

DOCUMENT 00861

STATE PREVAILING WAGE RATES

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CITY OF CHICOPEE WAGES

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Prevailing Wage Rates

MAURA HEALY
Governor
KIM DRISCOLL
Lt. Governor

As determined by the Director under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	Massachusetts Highway	**City/Town:**	CHICOPEE
Contract Number:	132950		
Description of Work:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD – Bridge Preservation of 26 Bridges along I-91 (613219) $9,008,000.00		
Job Location:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD along I-91		

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F “rental of equipment” contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets form DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to http://www.mass.gov/dols/pw.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$40.95	$15.57	$20.17	$0.00	$0.00	$76.69
	12/1/2025	$40.95	$15.57	$21.78	$0.00	$0.00	$78.30
	1/1/2026	$40.95	$16.17	$21.78	$0.00	$0.00	$78.90
	6/1/2026	$41.95	$16.17	$21.78	$0.00	$0.00	$79.90
	12/1/2026	$41.95	$16.17	$23.52	$0.00	$0.00	$81.64
	1/1/2027	$41.95	$16.77	$23.52	$0.00	$0.00	$82.24
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.02	$15.57	$20.17	$0.00	$0.00	$76.76
	12/1/2025	$41.02	$15.57	$21.78	$0.00	$0.00	$78.37
	1/1/2026	$41.02	$16.17	$21.78	$0.00	$0.00	$78.97
	6/1/2026	$42.02	$16.17	$21.78	$0.00	$0.00	$79.97
	12/1/2026	$42.02	$16.17	$23.52	$0.00	$0.00	$81.71
	1/1/2027	$42.02	$16.77	$23.52	$0.00	$0.00	$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.14	$15.57	$20.17	$0.00	$0.00	$76.88
	12/1/2025	$41.14	$15.57	$21.78	$0.00	$0.00	$78.49
	1/1/2026	$41.14	$16.17	$21.78	$0.00	$0.00	$79.09
	6/1/2026	$42.14	$16.17	$21.78	$0.00	$0.00	$80.09
	12/1/2026	$42.14	$16.17	$23.52	$0.00	$0.00	$81.83
	1/1/2027	$42.14	$16.77	$23.52	$0.00	$0.00	$82.43
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
AIR TRACK OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASBESTOS WORKER (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	6/1/2025	$39.42	$14.50	$4.30	$6.25	$0.00	$64.47
	12/1/2025	$40.32	$14.50	$4.30	$6.25	$0.00	$65.37
ASPHALT RAKER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER)	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER OPERATOR	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
BATCH/CEMENT PLANT - ON SITE	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BLOCK PAVER, RAMMER / CURB SETTER	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
LABORERS	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
LABORERS	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BOILER MAKER BOILERMAKERS LOCAL 29 BOILERMAKERS LOCAL 29	1/1/2024	$48.12	$7.07	$14.60	$6.00	$0.00	$75.79

Apprentice: BOILER MAKER

Effective Date: 1/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
2	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
3	70.00	$33.68	$7.07	$10.03	$4.20	$0.00	$54.98
4	75.00	$36.09	$7.07	$10.74	$4.50	$0.00	$58.40
5	80.00	$38.50	$7.07	$11.45	$4.80	$0.00	$61.82
6	85.00	$40.90	$7.07	$12.18	$5.10	$0.00	$65.25
7	90.00	$43.31	$7.07	$12.88	$5.40	$0.00	$68.66
8	95.00	$45.71	$7.07	$13.62	$5.70	$0.00	$72.10

Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	8/1/2025	$56.36	$11.49	$15.57	$5.89	$0.00	$89.31
	2/1/2026	$57.71	$11.49	$15.57	$5.89	$0.00	$90.66
	8/1/2026	$59.91	$11.49	$15.57	$5.89	$0.00	$92.86
	2/1/2027	$61.31	$11.49	$15.57	$5.89	$0.00	$94.26

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.18	$11.49	$15.57	$5.89	$0.00	$61.13
2	60.00	$33.82	$11.49	$15.57	$5.89	$0.00	$66.77
3	70.00	$39.45	$11.49	$15.57	$5.89	$0.00	$72.40
4	80.00	$45.09	$11.49	$15.57	$5.89	$0.00	$78.04
5	90.00	$50.72	$11.49	$15.57	$5.89	$0.00	$83.67

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.86	$11.49	$15.57	$5.89	$0.00	$61.81
2	60.00	$34.63	$11.49	$15.57	$5.89	$0.00	$67.58
3	70.00	$40.40	$11.49	$15.57	$5.89	$0.00	$73.35
4	80.00	$46.17	$11.49	$15.57	$5.89	$0.00	$79.12
5	90.00	$51.94	$11.49	$15.57	$5.89	$0.00	$84.89

Apprentice to Journeyworker Ratio: 1:5

BULLDOZER/POWER SHOVEL/TREE SHREDDER /CLAM SHELL	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98 For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$48.35	$10.15	$9.50	$9.80	$0.00	$77.80
	12/1/2025	$49.85	$10.15	$9.50	$9.80	$0.00	$79.30
	6/1/2026	$51.40	$10.15	$9.50	$9.80	$0.00	$80.85
	12/1/2026	$52.90	$10.15	$9.50	$9.80	$0.00	$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.53	$10.15	$9.50	$9.80	$0.00	$76.98
	12/1/2025	$49.03	$10.15	$9.50	$9.80	$0.00	$78.48
	6/1/2026	$50.58	$10.15	$9.50	$9.80	$0.00	$80.03
	12/1/2026	$52.08	$10.15	$9.50	$9.80	$0.00	$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
CARPENTER CARPENTERS CARPENTERS LOCAL 336 - HAMPDEN HAMPSHIRE FRANKLIN	9/1/2025	$43.54	$8.56	$11.25	$6.90	$0.00	$70.25
	3/1/2026	$44.44	$8.56	$11.25	$6.90	$0.00	$71.15
	9/1/2026	$45.39	$8.56	$11.25	$6.90	$0.00	$72.10
	3/1/2027	$46.29	$8.56	$11.25	$6.90	$0.00	$73.00

Apprentice: CARPENTER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
2	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
3	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
4	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
5	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
6	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
7	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16
8	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: CARPENTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$20.00	$8.56	$0.00	$1.38	$0.00	$29.94
2	45.00	$20.00	$0.65	$0.00	$1.38	$0.00	$22.03
3	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
4	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
5	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
6	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
7	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88
8	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88

Apprentice to Journeyworker Ratio: 1:5

CARPENTER WOOD FRAME	10/1/2025	$27.75	$7.02	$3.80	$1.00	$0.00	$39.57
CARPENTERS CARPENTERS-ZONE 3 (Wood Frame)	10/1/2026	$28.85	$7.02	$3.80	$1.00	$0.00	$40.67

All Aspects of New Wood Frame Work

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
2	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
3	65.00	$18.04	$7.02	$0.00	$1.00	$0.00	$26.06
4	70.00	$19.43	$7.02	$0.00	$1.00	$0.00	$27.45
5	75.00	$20.81	$7.02	$3.80	$1.00	$0.00	$32.63
6	80.00	$22.20	$7.02	$3.80	$1.00	$0.00	$34.02
7	85.00	$23.59	$7.02	$3.80	$1.00	$0.00	$35.41
8	90.00	$24.98	$7.02	$3.80	$1.00	$0.00	$36.80

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
2	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
3	65.00	$18.75	$7.02	$0.00	$1.00	$0.00	$26.77
4	70.00	$20.20	$7.02	$0.00	$1.00	$0.00	$28.22
5	75.00	$21.64	$7.02	$3.80	$1.00	$0.00	$33.46
6	80.00	$23.08	$7.02	$3.80	$1.00	$0.00	$34.90
7	85.00	$24.52	$7.02	$3.80	$1.00	$0.00	$36.34
8	90.00	$25.97	$7.02	$3.80	$1.00	$0.00	$37.79

Apprentice to Journeyworker Ratio: 1:5

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	7/1/2024	$44.56	$13.20	$16.30	$2.93	$1.69	$78.68

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.28	$13.20	$16.30	$0.00	$0.00	$51.78
2	60.00	$26.74	$13.20	$16.30	$2.93	$1.69	$60.86
3	65.00	$28.96	$13.20	$16.30	$2.93	$1.69	$63.08
4	70.00	$31.19	$13.20	$16.30	$2.93	$1.69	$65.31
5	75.00	$33.42	$13.20	$16.30	$2.93	$1.69	$67.54
6	80.00	$35.65	$13.20	$16.30	$2.93	$1.69	$69.77
7	90.00	$40.10	$13.20	$16.30	$2.93	$1.69	$74.22

Apprentice to Journeyworker Ratio: 1:3

CHAIN SAW OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CRANE OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$43.06	$13.78	$12.15	$3.00	$0.00	$71.99

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: DELEADER (BRIDGE)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

DEMO: ADZEMAN LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$78.11	$10.08	$11.62	$12.67	$0.00	$112.48
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A $69.83, 3A $91.79,4A $102.14 Total Rate							
DIVER TENDER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A $54.20, 3A $73.93,4A $82.05 Total Rate							
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$83.69	$10.08	$11.62	$12.67	$0.00	$118.06
For apprentice rates see "Apprentice- PILE DRIVER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888 DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	$26.77	$6.67	$3.93	$0.00	$0.16	$37.53
ELECTRICIAN (Including Core Drilling) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 2:3

ELEVATOR CONSTRUCTOR ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$66.41	$16.28	$10.96	$10.40	$0.00	$104.05
	1/1/2026	$69.23	$16.38	$11.06	$10.70	$0.00	$107.37
	1/1/2027	$72.23	$16.48	$11.16	$11.00	$0.00	$110.87

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.21	$16.28	$0.00	$0.00	$0.00	$49.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$36.53	$16.28	$10.96	$10.40	$0.00	$74.17
3	65.00	$43.17	$16.28	$10.96	$10.40	$0.00	$80.81
4	70.00	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
5	80.00	$53.13	$16.28	$10.96	$10.40	$0.00	$90.77

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.62	$16.38	$0.00	$0.00	$0.00	$51.00
2	55.00	$38.08	$16.38	$11.06	$10.70	$0.00	$76.22
3	65.00	$45.00	$16.38	$11.06	$10.70	$0.00	$83.14
4	70.00	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
5	80.00	$55.38	$16.38	$11.06	$10.70	$0.00	$93.52

Apprentice to Journeyworker Ratio: 1:1

ELEVATOR CONSTRUCTOR HELPER ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
	1/1/2026	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
	1/1/2027	$50.56	$16.48	$11.16	$11.00	$0.00	$89.20
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$18.84	$4.80	$4.10	$0.00	$0.00	$27.74
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$21.33	$4.80	$4.10	$0.00	$0.00	$30.23
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$22.33	$4.80	$4.10	$0.00	$0.00	$31.23
FIRE ALARM INSTALLER ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"							
FIREMAN OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

Apprentice: FIREMAN

Effective Date: 12/1/2023

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$23.42	$13.78	$12.15	$3.00	$0.00	$52.35
2	70.00	$27.32	$13.78	$12.15	$3.00	$0.00	$56.25
3	80.00	$31.22	$13.78	$12.15	$3.00	$0.00	$60.15
4	90.00	$35.13	$13.78	$12.15	$3.00	$0.00	$64.06

Apprentice to Journeyworker Ratio: 1:6

FLAGGER & SIGNALER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	12/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	6/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
	12/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FLOORCOVERER FLOORCOVERERS LOCAL 2168 FLOORCOVERERS LOCAL 2168 ZONE III	9/1/2025	$43.44	$8.56	$11.25	$6.90	$0.00	$70.15
	3/1/2026	$44.34	$8.56	$11.25	$6.90	$0.00	$71.05
	9/1/2026	$45.29	$8.56	$11.25	$6.90	$0.00	$72.00
	3/1/2027	$46.19	$8.56	$11.25	$6.90	$0.00	$72.90

Apprentice: FLOORCOVERER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
2	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
3	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
4	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
5	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
6	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
7	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08
8	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FLOORCOVERER							
Effective Date: 3/1/2026							
Step 1 / Percent 45.00 / Apprentice Base Wage		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 2 / Percent 45.00 / Apprentice Base Wage		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 3 / Percent 55.00 / Apprentice Base Wage		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 4 / Percent 55.00 / Apprentice Base Wage		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 5 / Percent 70.00 / Apprentice Base Wage		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 6 / Percent 70.00 / Apprentice Base Wage		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 7 / Percent 80.00 / Apprentice Base Wage		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80
Step 8 / Percent 80.00 / Apprentice Base Wage		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80
Apprentice Notes							
Steps are 750 hrs.							
Apprentice to Journeyworker Ratio: 1:1							
FORK LIFT OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.25	$13.78	$12.15	$3.00	$0.00	$68.18
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATORS/LIGHTING PLANTS OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) GLAZIERS LOCAL 1333 GLAZIERS LOCAL 1333	6/1/2025	$43.13	$10.80	$8.25	$5.50	$0.00	$67.68
	6/1/2026	$44.73	$11.20	$8.40	$6.05	$0.00	$70.38
	6/1/2027	$46.73	$11.60	$8.55	$6.60	$0.00	$73.48
	6/1/2028	$48.73	$12.00	$8.70	$7.20	$0.00	$76.63
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)							
Effective Date: 6/1/2025							
Step 1 / Percent 50.00 / Apprentice Base Wage		$21.57	$10.80	$8.25	$5.50	$0.00	$46.12
Step 2 / Percent 56.25 / Apprentice Base Wage		$24.26	$10.80	$8.25	$5.50	$0.00	$48.81
Step 3 / Percent 62.50 / Apprentice Base Wage		$26.96	$10.80	$8.25	$5.50	$0.00	$51.51
Step 4 / Percent 68.75 / Apprentice Base Wage		$29.65	$10.80	$8.25	$5.50	$0.00	$54.20
Step 5 / Percent 75.00 / Apprentice Base Wage		$32.35	$10.80	$8.25	$5.50	$0.00	$56.90
Step 6 / Percent 81.25 / Apprentice Base Wage		$35.04	$10.80	$8.25	$5.50	$0.00	$59.59
Step 7 / Percent 87.50 / Apprentice Base Wage		$37.74	$10.80	$8.25	$5.50	$0.00	$62.29
Step 8 / Percent 93.75 / Apprentice Base Wage		$40.43	$10.80	$8.25	$5.50	$0.00	$64.98

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.37	$11.20	$8.40	$6.05	$0.00	$48.02
2	56.25	$25.16	$11.20	$8.40	$6.05	$0.00	$50.81
3	62.50	$27.96	$11.20	$8.40	$6.05	$0.00	$53.61
4	68.75	$30.75	$11.20	$8.40	$6.05	$0.00	$56.40
5	75.00	$33.55	$11.20	$8.40	$6.05	$0.00	$59.20
6	81.25	$36.34	$11.20	$8.40	$6.05	$0.00	$61.99
7	87.50	$39.14	$11.20	$8.40	$6.05	$0.00	$64.79
8	93.75	$41.93	$11.20	$8.40	$6.05	$0.00	$67.58

Apprentice to Journeyworker Ratio: 3:1

GRADER/TRENCHING MACHINE/DERRICK OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER) PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.31	$10.85	$7.10	$0.00	$81.27
	3/17/2026	$55.01	$10.31	$10.85	$7.10	$0.00	$83.27
	9/17/2026	$57.01	$10.31	$10.85	$7.10	$0.00	$85.27
	3/17/2027	$59.01	$10.31	$10.85	$7.10	$0.00	$87.27
	9/17/2027	$61.01	$10.31	$10.85	$7.10	$0.00	$89.27
	3/17/2028	$63.01	$10.31	$10.85	$7.10	$0.00	$91.27
	9/17/2028	$65.01	$10.31	$10.85	$7.10	$0.00	$93.27
	3/17/2029	$67.01	$10.31	$10.85	$7.10	$0.00	$95.27
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
HVAC MECHANIC PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	9/1/2025	$48.27	$14.75	$9.52	$10.09	$0.00	$82.63
	9/1/2026	$51.01	$14.75	$9.52	$10.09	$0.00	$85.37

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.14	$14.75	$9.27	$5.05	$0.00	$53.21
2	60.00	$28.96	$14.75	$9.32	$6.05	$0.00	$59.08
3	70.00	$33.79	$14.75	$9.37	$7.06	$0.00	$64.97
4	80.00	$38.62	$14.75	$9.42	$8.07	$0.00	$70.86

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$25.51	$14.75	$9.27	$5.05	$0.00	$54.58
2	60.00	$30.61	$14.75	$9.32	$6.05	$0.00	$60.73
3	70.00	$35.71	$14.75	$9.37	$7.06	$0.00	$66.89
4	80.00	$40.81	$14.75	$9.42	$8.07	$0.00	$73.05

Apprentice to Journeyworker Ratio: 1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (SPRINGFIELD AREA)	3/16/2024	$40.66	$8.25	$12.70	$10.00	$0.00	$71.61

Apprentice: IRONWORKER/WELDER

Effective Date: 3/16/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: IRONWORKER/WELDER							
Effective Date: 3/16/2024							
Step / Percent / Apprentice Base Wage							
1 / 60.00		$24.40	$8.25	$12.70	$10.00	$0.00	$55.35
2 / 70.00		$28.46	$8.25	$12.70	$10.00	$0.00	$59.41
3 / 75.00		$30.50	$8.25	$12.70	$10.00	$0.00	$61.45
4 / 80.00		$32.53	$8.25	$12.70	$10.00	$0.00	$63.48
5 / 85.00		$34.56	$8.25	$12.70	$10.00	$0.00	$65.51
6 / 90.00		$36.59	$8.25	$12.70	$10.00	$0.00	$67.54
Apprentice to Journeyworker Ratio: 1:4							
JACKHAMMER & PAVING BREAKER OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
LABORER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
Apprentice: LABORER							
Effective Date: 6/2/2025							
Step / Percent / Apprentice Base Wage							
1 / 60.00		$21.30	$10.15	$9.50	$8.32	$0.00	$49.27
2 / 70.00		$24.85	$10.15	$9.50	$8.32	$0.00	$52.82
3 / 80.00		$28.40	$10.15	$9.50	$8.32	$0.00	$56.37
4 / 90.00		$31.95	$10.15	$9.50	$8.32	$0.00	$59.92
Apprentice: LABORER							
Effective Date: 12/1/2025							
Step / Percent / Apprentice Base Wage							
1 / 60.00		$22.80	$9.90	$9.25	$8.32	$0.00	$50.27

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: LABORER

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	70.00	$26.60	$9.90	$9.25	$8.32	$0.00	$54.07
3	80.00	$30.40	$9.90	$9.25	$8.32	$0.00	$57.87
4	90.00	$34.20	$9.90	$9.25	$8.32	$0.00	$61.67

Apprentice to Journeyworker Ratio: 1:5

LABORER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$21.30	$10.15	$9.50	$6.56	$0.00	$47.51
2	70.00	$24.85	$10.15	$9.50	$6.56	$0.00	$51.06
3	80.00	$28.40	$10.15	$9.50	$6.56	$0.00	$54.61
4	90.00	$31.95	$10.15	$9.50	$6.56	$0.00	$58.16

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$22.49	$9.90	$9.25	$6.31	$0.00	$47.95
2	70.00	$26.24	$9.90	$9.25	$6.31	$0.00	$51.70
3	80.00	$29.99	$9.90	$9.25	$6.31	$0.00	$55.45
4	90.00	$33.74	$9.90	$9.25	$6.31	$0.00	$59.20

Apprentice to Journeyworker Ratio: 1:5

LABORER: CARPENTER TENDER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER LABORERS	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	6/2/2025	$35.42	$10.15	$9.50	$8.70	$0.00	$63.77
LABORERS	12/1/2025	$36.67	$10.15	$9.50	$8.70	$0.00	$65.02
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$37.97	$10.15	$9.50	$8.70	$0.00	$66.32
	12/7/2026	$39.27	$10.15	$9.50	$8.70	$0.00	$67.62
	6/7/2027	$40.67	$10.15	$9.50	$8.70	$0.00	$69.02
	12/6/2027	$42.07	$10.15	$9.50	$8.70	$0.00	$70.42
	6/5/2028	$43.57	$10.15	$9.50	$8.70	$0.00	$71.92
	12/4/2028	$45.07	$10.15	$9.50	$8.70	$0.00	$73.42
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER	6/2/2025	$38.50	$10.15	$9.50	$8.57	$0.00	$66.72
LABORERS	12/1/2025	$39.75	$10.15	$9.50	$8.57	$0.00	$67.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$41.05	$10.15	$9.50	$8.57	$0.00	$69.27
	12/7/2026	$42.35	$10.15	$9.50	$8.57	$0.00	$70.57
	6/7/2027	$43.75	$10.15	$9.50	$8.57	$0.00	$71.97
	12/6/2027	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
	6/5/2028	$46.65	$10.15	$9.50	$8.57	$0.00	$74.87
	12/4/2028	$48.15	$10.15	$9.50	$8.57	$0.00	$76.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

MARBLE & TILE FINISHERS	8/1/2025	$45.56	$11.49	$15.10	$5.68	$0.00	$77.83
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	2/1/2026	$46.64	$11.49	$15.10	$5.68	$0.00	$78.91
	8/1/2026	$48.40	$11.49	$15.10	$5.68	$0.00	$80.67
	2/1/2027	$49.52	$11.49	$15.10	$5.68	$0.00	$81.79

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.78	$11.49	$15.10	$5.68	$0.00	$55.05
2	60.00	$27.34	$11.49	$15.10	$5.68	$0.00	$59.61
3	70.00	$31.89	$11.49	$15.10	$5.68	$0.00	$64.16
4	80.00	$36.45	$11.49	$15.10	$5.68	$0.00	$68.72
5	90.00	$41.00	$11.49	$15.10	$5.68	$0.00	$73.27

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.32	$11.49	$15.10	$5.68	$0.00	$55.59
2	60.00	$27.98	$11.49	$15.10	$5.68	$0.00	$60.25
3	70.00	$32.65	$11.49	$15.10	$5.68	$0.00	$64.92
4	80.00	$37.31	$11.49	$15.10	$5.68	$0.00	$69.58
5	90.00	$41.98	$11.49	$15.10	$5.68	$0.00	$74.25

Apprentice to Journeyworker Ratio: 1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MECHANIC/WELDER/BOOM TRUCK	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 3)	1/6/2025	$43.42	$10.08	$11.47	$9.75	$0.00	$74.72
MILLWRIGHTS LOCAL 1121	1/5/2026	$45.70	$10.08	$11.47	$9.75	$0.00	$77.00
MILLWRIGHTS LOCAL 1121 - Zone 3							

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/6/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$23.88	$10.08	$0.00	$5.36	$0.00	$39.32
2	65.00	$28.22	$10.08	$0.00	$6.34	$0.00	$44.64
3	75.00	$32.57	$10.08	$11.47	$7.31	$0.00	$61.43
4	85.00	$36.91	$10.08	$11.47	$8.29	$0.00	$66.75

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/5/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$25.14	$10.08	$0.00	$5.36	$0.00	$40.58
2	65.00	$29.71	$10.08	$0.00	$6.34	$0.00	$46.13
3	75.00	$34.28	$10.08	$11.47	$7.31	$0.00	$63.14
4	85.00	$38.85	$10.08	$11.47	$8.29	$0.00	$68.69

Apprentice Notes

Step 1&2 Appr. indentured after 1/6/2020 receive no pension,

Apprentice to Journeyworker Ratio: 1:4

MORTAR MIXER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
OILER	12/1/2023	$35.02	$13.78	$12.15	$3.00	$0.00	$63.95
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OTHER POWER DRIVEN EQUIPMENT - CLASS VI OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$32.74	$13.78	$12.15	$3.00	$0.00	$61.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$41.13	$10.30	$11.95	$8.25	$0.00	$71.63
	1/1/2026	$42.03	$10.35	$12.00	$8.35	$0.00	$72.73

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.57	$10.30	$0.00	$0.00	$0.00	$30.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$22.62	$10.30	$0.00	$4.54	$0.00	$37.46
3	60.00	$24.68	$10.30	$0.00	$4.95	$0.00	$39.93
4	65.00	$26.73	$10.30	$0.00	$5.36	$0.00	$42.39
5	70.00	$28.79	$10.30	$11.95	$5.78	$0.00	$56.82
6	75.00	$30.85	$10.30	$11.95	$6.19	$0.00	$59.29
7	80.00	$32.90	$10.30	$11.95	$6.60	$0.00	$61.75
8	90.00	$37.02	$10.30	$11.95	$7.43	$0.00	$66.70

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$21.02	$10.35	$0.00	$0.00	$0.00	$31.37
2	55.00	$23.12	$10.35	$0.00	$4.59	$0.00	$38.06
3	60.00	$25.22	$10.35	$0.00	$5.01	$0.00	$40.58
4	65.00	$27.32	$10.35	$0.00	$5.43	$0.00	$43.10
5	70.00	$29.42	$10.35	$12.00	$5.85	$0.00	$57.62
6	75.00	$31.52	$10.35	$12.00	$6.26	$0.00	$60.13
7	80.00	$33.62	$10.35	$12.00	$6.68	$0.00	$62.65
8	90.00	$37.83	$10.35	$12.00	$7.52	$0.00	$67.70

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$38.45	$10.30	$11.95	$8.25	$0.00	$68.95
	1/1/2026	$39.35	$10.35	$12.00	$8.35	$0.00	$70.05

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.23	$10.30	$0.00	$0.00	$0.00	$29.53
2	55.00	$21.15	$10.30	$0.00	$4.54	$0.00	$35.99
3	60.00	$23.07	$10.30	$0.00	$4.95	$0.00	$38.32
4	65.00	$24.99	$10.30	$0.00	$5.36	$0.00	$40.65
5	70.00	$26.92	$10.30	$11.95	$5.78	$0.00	$54.95
6	75.00	$28.84	$10.30	$11.95	$6.19	$0.00	$57.28
7	80.00	$30.76	$10.30	$11.95	$6.60	$0.00	$59.61
8	90.00	$34.61	$10.30	$11.95	$7.43	$0.00	$64.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.68	$10.35	$0.00	$0.00	$0.00	$30.03
2	55.00	$21.64	$10.35	$0.00	$4.59	$0.00	$36.58
3	60.00	$23.61	$10.35	$0.00	$5.01	$0.00	$38.97
4	65.00	$25.58	$10.35	$0.00	$5.43	$0.00	$41.36
5	70.00	$27.55	$10.35	$12.00	$5.85	$0.00	$55.75
6	75.00	$29.51	$10.35	$12.00	$6.26	$0.00	$58.12
7	80.00	$31.48	$10.35	$12.00	$6.68	$0.00	$60.51
8	90.00	$35.42	$10.35	$12.00	$7.52	$0.00	$65.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, NEW) *	7/1/2025	$39.73	$10.30	$11.95	$8.25	$0.00	$70.23
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.	1/1/2026	$40.63	$10.35	$12.00	$8.35	$0.00	$71.33
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.87	$10.30	$0.00	$0.00	$0.00	$30.17
2	55.00	$21.85	$10.30	$0.00	$4.54	$0.00	$36.69
3	60.00	$23.84	$10.30	$0.00	$4.95	$0.00	$39.09
4	65.00	$25.82	$10.30	$0.00	$5.36	$0.00	$41.48
5	70.00	$27.81	$10.30	$11.95	$5.78	$0.00	$55.84
6	75.00	$29.80	$10.30	$11.95	$6.19	$0.00	$58.24
7	80.00	$31.78	$10.30	$11.95	$6.60	$0.00	$60.63
8	90.00	$35.76	$10.30	$11.95	$7.43	$0.00	$65.44

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.32	$10.35	$0.00	$0.00	$0.00	$30.67
2	55.00	$22.35	$10.35	$0.00	$4.59	$0.00	$37.29
3	60.00	$24.38	$10.35	$0.00	$5.01	$0.00	$39.74
4	65.00	$26.41	$10.35	$0.00	$5.43	$0.00	$42.19
5	70.00	$28.44	$10.35	$12.00	$5.85	$0.00	$56.64
6	75.00	$30.47	$10.35	$12.00	$6.26	$0.00	$59.08
7	80.00	$32.50	$10.35	$12.00	$6.68	$0.00	$61.53
8	90.00	$36.57	$10.35	$12.00	$7.52	$0.00	$66.44

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journeyworker Ratio: 1:1							
PAINTER / TAPER (BRUSH, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$37.05	$10.30	$11.95	$8.25	$0.00	$67.55
	1/1/2026	$37.95	$10.35	$12.00	$8.35	$0.00	$68.65

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.53	$10.30	$0.00	$0.00	$0.00	$28.83
2	55.00	$20.38	$10.30	$0.00	$4.54	$0.00	$35.22
3	60.00	$22.23	$10.30	$0.00	$4.95	$0.00	$37.48
4	65.00	$24.08	$10.30	$0.00	$5.36	$0.00	$39.74
5	70.00	$25.94	$10.30	$11.95	$5.78	$0.00	$53.97
6	75.00	$27.79	$10.30	$11.95	$6.19	$0.00	$56.23
7	80.00	$29.64	$10.30	$11.95	$6.60	$0.00	$58.49
8	90.00	$33.35	$10.30	$11.95	$7.43	$0.00	$63.03

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.98	$10.35	$0.00	$0.00	$0.00	$29.33
2	55.00	$20.87	$10.35	$0.00	$4.59	$0.00	$35.81
3	60.00	$22.77	$10.35	$0.00	$5.01	$0.00	$38.13
4	65.00	$24.67	$10.35	$0.00	$5.43	$0.00	$40.45
5	70.00	$26.57	$10.35	$12.00	$5.85	$0.00	$54.77
6	75.00	$28.46	$10.35	$12.00	$6.26	$0.00	$57.07
7	80.00	$30.36	$10.35	$12.00	$6.68	$0.00	$59.39
8	90.00	$34.16	$10.35	$12.00	$7.52	$0.00	$64.03

Apprentice to Journeyworker Ratio: 1:1							
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$40.78	$15.57	$20.17	$0.00	$0.00	$76.52
	12/1/2025	$40.78	$15.57	$21.78	$0.00	$0.00	$78.13
	1/1/2026	$40.78	$16.17	$21.78	$0.00	$0.00	$78.73
	6/1/2026	$41.78	$16.17	$21.78	$0.00	$0.00	$79.73
	12/1/2026	$41.78	$16.17	$23.52	$0.00	$0.00	$81.47
	1/1/2027	$41.78	$16.77	$23.52	$0.00	$0.00	$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Apprentice: PILE DRIVER

Effective Date: 8/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.14	$10.08	$0.00	$2.53	$0.00	$34.75
2	55.00	$27.05	$10.08	$0.00	$5.07	$0.00	$42.20
3	70.00	$34.43	$10.08	$11.62	$7.60	$0.00	$63.73
4	80.00	$39.35	$10.08	$11.62	$10.14	$0.00	$71.19

Apprentice to Journeyworker Ratio: 1:5

PIPELAYER LABORERS LABORERS - ZONE 3 (BUILDING & SITE) For apprentice rates see "Apprentice- LABORER"	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
PIPELAYER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
PLUMBER & PIPEFITTER PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$23.85	$10.35	$10.85	$0.00	$0.00	$45.05
2	50.00	$26.51	$10.35	$10.85	$0.00	$0.00	$47.71
3	55.00	$29.16	$10.35	$10.85	$0.00	$0.00	$50.36
4	60.00	$31.81	$10.35	$10.85	$0.00	$0.00	$53.01
5	65.00	$34.46	$10.35	$10.85	$0.00	$0.00	$55.66
6	70.00	$37.11	$10.35	$10.85	$0.00	$0.00	$58.31
7	75.00	$39.76	$10.35	$10.85	$0.00	$0.00	$60.96
8	80.00	$42.41	$10.35	$10.85	$0.00	$0.00	$63.61
9	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36
10	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 3/17/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$24.75	$10.35	$10.85	$0.00	$0.00	$45.95
2	50.00	$27.51	$10.35	$10.85	$0.00	$0.00	$48.71
3	55.00	$30.26	$10.35	$10.85	$0.00	$0.00	$51.46
4	60.00	$33.01	$10.35	$10.85	$0.00	$0.00	$54.21
5	65.00	$35.76	$10.35	$10.85	$0.00	$0.00	$56.96
6	70.00	$38.51	$10.35	$10.85	$0.00	$0.00	$59.71
7	75.00	$41.26	$10.35	$10.85	$0.00	$0.00	$62.46
8	80.00	$44.01	$10.35	$10.85	$0.00	$0.00	$65.21
9	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06
10	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06

Apprentice Notes

**1:1,2:5,3:9,4:12

Apprentice to Journeyworker Ratio: 1:1

PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$0.00	$10.85	$7.10	$0.00	$72.96
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
POWDERMAN & BLASTER	6/2/2025	$36.50	$10.15	$9.50	$8.57	$0.00	$64.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.75	$10.15	$9.50	$8.57	$0.00	$65.97
	6/1/2026	$39.05	$10.15	$9.50	$8.57	$0.00	$67.27
	12/7/2026	$40.35	$10.15	$9.50	$8.57	$0.00	$68.57
	6/7/2027	$41.75	$10.15	$9.50	$8.57	$0.00	$69.97
	12/6/2027	$43.15	$10.15	$9.50	$8.57	$0.00	$71.37
	6/5/2028	$44.65	$10.15	$9.50	$8.57	$0.00	$72.87
	12/4/2028	$46.15	$10.15	$9.50	$8.57	$0.00	$74.37
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2025	$36.50	$10.15	$9.50	$6.56	$0.00	$62.71
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$37.74	$10.15	$9.50	$6.56	$0.00	$63.95
	6/1/2026	$39.04	$10.15	$9.50	$6.56	$0.00	$65.25
	12/1/2026	$40.33	$10.15	$9.50	$6.56	$0.00	$66.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER TEAMSTERS 404 - Construction Service (Northampton) TEAMSTERS 404 - Construction Service (Northampton)	5/1/2024	$26.14	$11.82	$7.25	$0.00	$0.00	$45.21
RIDE-ON MOTORIZED BUGGY OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ROLLER OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Coal tar pitch)	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
ROOFERS LOCAL 248 ROOFERS LOCAL 248	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
For apprentice rates see "Apprentice- ROOFER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) ROOFERS LOCAL 248 ROOFERS LOCAL 248	10/2/2025	$44.23	$10.60	$8.70	$10.00	$0.00	$73.53
	7/16/2026	$46.23	$10.60	$8.70	$10.00	$0.00	$75.53
ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 248 ROOFERS LOCAL 248	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
For apprentice rates see "Apprentice- ROOFER"							
SCRAPER OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-PROPELLED POWER BROOM OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.57	$5.82	$4.95	$0.00	$0.85	$31.19
2	50.00	$21.74	$6.47	$5.51	$0.00	$0.94	$34.66
3	55.00	$23.91	$7.12	$9.91	$0.00	$1.15	$42.09
4	60.00	$26.09	$7.76	$9.91	$0.00	$1.23	$44.99
5	65.00	$28.26	$8.41	$9.91	$0.00	$1.31	$47.89
6	70.00	$30.44	$9.06	$9.91	$0.00	$1.39	$50.80
7	75.00	$32.61	$9.71	$9.91	$0.00	$1.47	$53.70
8	80.00	$34.78	$10.35	$9.91	$8.72	$1.78	$65.54
9	85.00	$36.96	$11.00	$9.91	$8.72	$1.86	$68.45
10	90.00	$39.13	$11.65	$9.91	$8.72	$1.94	$71.35

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: SHEETMETAL WORKER							
Effective Date: 7/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 45.00		$19.57	$5.96	$4.95	$0.00	$0.85	$31.33
2 / 50.00		$21.74	$6.62	$5.51	$0.00	$0.94	$34.81
3 / 55.00		$23.91	$7.28	$9.91	$0.00	$1.15	$42.25
4 / 60.00		$26.09	$7.94	$9.91	$0.00	$1.23	$45.17
5 / 65.00		$28.26	$8.60	$9.91	$0.00	$1.31	$48.08
6 / 70.00		$30.44	$9.27	$9.91	$0.00	$1.39	$51.01
7 / 75.00		$32.61	$9.93	$9.91	$0.00	$1.47	$53.92
8 / 80.00		$34.78	$10.59	$9.91	$9.92	$1.78	$66.98
9 / 85.00		$36.96	$11.25	$9.91	$9.92	$1.86	$69.90
10 / 90.00		$39.13	$11.92	$9.91	$9.92	$1.94	$72.82
Apprentice to Journeyworker Ratio: 1:3							
SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.53	$15.57	$20.17	$0.00	$0.00	$77.27
	12/1/2025	$41.53	$15.57	$21.78	$0.00	$0.00	$78.88
	1/1/2026	$41.53	$16.17	$21.78	$0.00	$0.00	$79.48
	6/1/2026	$42.53	$16.17	$21.78	$0.00	$0.00	$80.48
	12/1/2026	$42.53	$16.17	$23.52	$0.00	$0.00	$82.22
	1/1/2027	$42.53	$16.77	$23.52	$0.00	$0.00	$82.82
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 669 SPRINKLER FITTERS LOCAL 669	10/1/2025	$53.25	$12.40	$7.40	$9.41	$0.00	$82.46
	1/1/2026	$53.25	$13.60	$7.45	$9.41	$0.00	$83.71
	4/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	7/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	10/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	1/1/2027	$56.54	$14.55	$7.50	$9.41	$0.00	$88.00
	4/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	7/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	10/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	1/1/2028	$59.83	$15.50	$7.55	$9.41	$0.00	$92.29
Apprentice: SPRINKLER FITTER							
Effective Date: 10/1/2025							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 43.00		$26.94	$12.40	$0.00	$0.00	$0.00	$39.34
2 / 48.00		$30.08	$12.40	$0.00	$0.00	$0.00	$42.48

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: SPRINKLER FITTER

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	52.00	$32.58	$12.40	$7.40	$1.15	$0.00	$53.53
4	56.00	$35.09	$12.40	$7.40	$1.15	$0.00	$56.04
5	59.00	$36.97	$12.40	$7.40	$1.40	$0.00	$58.17
6	64.00	$40.10	$12.40	$7.40	$1.40	$0.00	$61.30
7	68.00	$42.61	$12.40	$7.40	$1.40	$0.00	$63.81
8	72.00	$45.12	$12.40	$7.40	$1.40	$0.00	$66.32
9	76.00	$47.62	$12.40	$7.40	$1.40	$0.00	$68.82
10	80.00	$50.13	$12.40	$7.40	$1.40	$0.00	$71.33

Apprentice: SPRINKLER FITTER

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	43.00	$26.94	$9.64	$0.00	$0.00	$0.00	$36.58
2	48.00	$30.08	$9.64	$0.00	$0.00	$0.00	$39.72
3	52.00	$32.58	$13.60	$7.45	$1.15	$0.00	$54.78
4	56.00	$35.09	$13.60	$7.45	$1.15	$0.00	$57.29
5	59.00	$36.97	$13.60	$7.45	$1.40	$0.00	$59.42
6	64.00	$40.10	$13.60	$7.45	$1.40	$0.00	$62.55
7	68.00	$42.61	$13.60	$7.45	$1.40	$0.00	$65.06
8	72.00	$45.12	$13.60	$7.45	$1.40	$0.00	$67.57
9	76.00	$47.62	$13.60	$7.45	$1.40	$0.00	$70.07
10	80.00	$50.13	$13.60	$7.45	$1.40	$0.00	$72.58

Apprentice to Journeyworker Ratio: 1:1

TELECOMMUNICATION TECHNICIAN	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
TELECOMMUNICATION TECHNICIAN	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
ELECTRICIANS LOCAL 7	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
ELECTRICIANS LOCAL 7	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

For apprentice rates and ratios see "Apprentice- ELECTRICIAN"

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 1:1

TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$66.89	$11.49	$15.57	$8.02	$0.00	$101.97
	2/10/2026	$68.24	$11.49	$15.57	$8.02	$0.00	$103.32
	8/1/2026	$70.44	$11.49	$15.57	$8.02	$0.00	$105.52
	2/1/2027	$71.84	$11.49	$15.57	$8.02	$0.00	$106.92

Apprentice: TERRAZZO FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.45	$11.49	$15.57	$8.02	$0.00	$68.53
2	60.00	$40.13	$11.49	$15.57	$8.02	$0.00	$75.21
3	70.00	$46.82	$11.49	$15.57	$8.02	$0.00	$81.90
4	80.00	$53.51	$11.49	$15.57	$8.02	$0.00	$88.59
5	90.00	$60.20	$11.49	$15.57	$8.02	$0.00	$95.28

Apprentice: TERRAZZO FINISHERS

Effective Date: 2/10/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.12	$11.49	$15.57	$8.02	$0.00	$69.20
2	60.00	$40.94	$11.49	$15.57	$8.02	$0.00	$76.02
3	70.00	$47.77	$11.49	$15.57	$8.02	$0.00	$82.85
4	80.00	$54.59	$11.49	$15.57	$8.02	$0.00	$89.67
5	90.00	$61.42	$11.49	$15.57	$8.02	$0.00	$96.50

Apprentice to Journeyworker Ratio: 1:5

TERRAZZO MECHANIC BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$67.97	$11.49	$15.57	$7.99	$0.00	$103.02
	2/1/2026	$69.32	$11.49	$15.57	$7.99	$0.00	$104.37
	8/1/2026	$71.52	$11.49	$15.57	$7.99	$0.00	$106.57
	2/1/2027	$72.92	$11.49	$15.57	$7.99	$0.00	$107.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TERRAZZO MECHANIC

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.99	$11.49	$15.57	$7.99	$0.00	$69.04
2	60.00	$40.78	$11.49	$15.57	$7.99	$0.00	$75.83
3	70.00	$47.58	$11.49	$15.57	$7.99	$0.00	$82.63
4	80.00	$54.38	$11.49	$15.57	$7.99	$0.00	$89.43
5	90.00	$61.17	$11.49	$15.57	$7.99	$0.00	$96.22

Apprentice: TERRAZZO MECHANIC

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.66	$11.49	$15.57	$7.99	$0.00	$69.71
2	60.00	$41.59	$11.49	$15.57	$7.99	$0.00	$76.64
3	70.00	$48.52	$11.49	$15.57	$7.99	$0.00	$83.57
4	80.00	$55.46	$11.49	$15.57	$7.99	$0.00	$90.51
5	90.00	$62.39	$11.49	$15.57	$7.99	$0.00	$97.44

Apprentice to Journeyworker Ratio: 1:5

TEST BORING DRILLER	6/1/2025	$51.20	$10.15	$9.50	$9.80	$0.00	$80.65
LABORERS	12/1/2025	$52.70	$10.15	$9.50	$9.80	$0.00	$82.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$54.25	$10.15	$9.50	$9.80	$0.00	$83.70
	12/1/2026	$55.75	$10.15	$9.50	$9.80	$0.00	$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	6/1/2025	$47.32	$10.15	$9.50	$9.80	$0.00	$76.77
LABORERS	12/1/2025	$48.82	$10.15	$9.50	$9.80	$0.00	$78.27
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.37	$10.15	$9.50	$9.80	$0.00	$79.82
	12/1/2026	$51.87	$10.15	$9.50	$9.80	$0.00	$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
LABORERS	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	6/1/2025	$41.82	$15.57	$20.17	$0.00	$0.00	$77.56
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.82	$15.57	$21.78	$0.00	$0.00	$79.17
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.82	$16.17	$21.78	$0.00	$0.00	$79.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2026	$42.82	$16.17	$21.78	$0.00	$0.00	$80.77
	12/1/2026	$42.82	$16.17	$23.52	$0.00	$0.00	$82.51
	1/1/2027	$42.82	$16.77	$23.52	$0.00	$0.00	$83.11
TUNNEL WORK - COMPRESSED AIR	6/1/2025	$59.43	$10.15	$9.50	$10.25	$0.00	$89.33
LABORERS	12/1/2025	$60.93	$10.15	$9.50	$10.25	$0.00	$90.83
LABORERS (COMPRESSED AIR)	6/1/2026	$62.48	$10.15	$9.50	$10.25	$0.00	$92.38
	12/1/2026	$63.98	$10.15	$9.50	$10.25	$0.00	$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2025	$61.43	$10.15	$9.50	$10.25	$0.00	$91.33
LABORERS	12/1/2025	$62.93	$10.15	$9.50	$10.25	$0.00	$92.83
LABORERS (COMPRESSED AIR)	6/1/2026	$64.48	$10.15	$9.50	$10.25	$0.00	$94.38
	12/1/2026	$65.98	$10.15	$9.50	$10.25	$0.00	$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2025	$51.50	$10.15	$9.50	$10.25	$0.00	$81.40
LABORERS	12/1/2025	$53.00	$10.15	$9.50	$10.25	$0.00	$82.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$54.55	$10.15	$9.50	$10.25	$0.00	$84.45
	12/1/2026	$56.05	$10.15	$9.50	$10.25	$0.00	$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	6/1/2025	$53.50	$10.15	$9.50	$10.25	$0.00	$83.40
LABORERS	12/1/2025	$55.00	$10.15	$9.50	$10.25	$0.00	$84.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$56.55	$10.15	$9.50	$10.25	$0.00	$86.45
	12/1/2026	$58.05	$10.15	$9.50	$10.25	$0.00	$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
WAGON DRILL OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
WATER METER INSTALLER	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22
GROUNDMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$30.58	$8.00	$5.48	$0.00	$0.00	$44.06
GROUNDMAN / TRUCK DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$39.97	$8.00	$10.96	$0.00	$0.00	$58.93
HEAVY EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$47.01	$8.00	$13.22	$0.00	$0.00	$68.23
JOURNEYMAN LINEMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$51.71	$8.00	$15.55	$0.00	$0.00	$75.26

Apprentice: JOURNEYMAN LINEMAN

Effective Date: 9/1/2019

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$31.03	$8.00	$3.43	$0.00	$0.00	$42.46
2	65.00	$33.61	$8.00	$3.51	$0.00	$0.00	$45.12
3	70.00	$36.20	$8.00	$3.59	$0.00	$0.00	$47.79
4	75.00	$38.78	$8.00	$5.16	$0.00	$0.00	$51.94
5	80.00	$41.37	$8.00	$5.24	$0.00	$0.00	$54.61
6	85.00	$43.95	$8.00	$5.32	$0.00	$0.00	$57.27
7	90.00	$46.54	$8.00	$7.40	$0.00	$0.00	$61.94

Apprentice to Journeyworker Ratio: 1:2

TELEDATA CABLE SPLICER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$30.73	$4.70	$0.92	$2.25	$0.00	$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TRACTOR-TRAILER DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42							

Additional Apprentice Information

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

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CITY OF HOLYOKE WAGES

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Prevailing Wage Rates

MAURA HEALY
Governor
KIM DRISCOLL
Lt. Governor

As determined by the Director under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	Massachusetts Highway	**City/Town:**	HOLYOKE
Contract Number:	132950		
Description of Work:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD – Bridge Preservation of 26 Bridges along I-91 (613219) $9,008,000.00		
Job Location:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD along I-91		

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F “rental of equipment” contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets form DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to http://www.mass.gov/dols/pw.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$40.95	$15.57	$20.17	$0.00	$0.00	$76.69
	12/1/2025	$40.95	$15.57	$21.78	$0.00	$0.00	$78.30
	1/1/2026	$40.95	$16.17	$21.78	$0.00	$0.00	$78.90
	6/1/2026	$41.95	$16.17	$21.78	$0.00	$0.00	$79.90
	12/1/2026	$41.95	$16.17	$23.52	$0.00	$0.00	$81.64
	1/1/2027	$41.95	$16.77	$23.52	$0.00	$0.00	$82.24
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.02	$15.57	$20.17	$0.00	$0.00	$76.76
	12/1/2025	$41.02	$15.57	$21.78	$0.00	$0.00	$78.37
	1/1/2026	$41.02	$16.17	$21.78	$0.00	$0.00	$78.97
	6/1/2026	$42.02	$16.17	$21.78	$0.00	$0.00	$79.97
	12/1/2026	$42.02	$16.17	$23.52	$0.00	$0.00	$81.71
	1/1/2027	$42.02	$16.77	$23.52	$0.00	$0.00	$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.14	$15.57	$20.17	$0.00	$0.00	$76.88
	12/1/2025	$41.14	$15.57	$21.78	$0.00	$0.00	$78.49
	1/1/2026	$41.14	$16.17	$21.78	$0.00	$0.00	$79.09
	6/1/2026	$42.14	$16.17	$21.78	$0.00	$0.00	$80.09
	12/1/2026	$42.14	$16.17	$23.52	$0.00	$0.00	$81.83
	1/1/2027	$42.14	$16.77	$23.52	$0.00	$0.00	$82.43
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
AIR TRACK OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASBESTOS WORKER (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	6/1/2025	$39.42	$14.50	$4.30	$6.25	$0.00	$64.47
	12/1/2025	$40.32	$14.50	$4.30	$6.25	$0.00	$65.37
ASPHALT RAKER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
BATCH/CEMENT PLANT - ON SITE OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BLOCK PAVER, RAMMER / CURB SETTER	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BOILER MAKER BOILERMAKERS LOCAL 29 BOILERMAKERS LOCAL 29	1/1/2024	$48.12	$7.07	$14.60	$6.00	$0.00	$75.79

Apprentice: BOILER MAKER

Effective Date: 1/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
2	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
3	70.00	$33.68	$7.07	$10.03	$4.20	$0.00	$54.98
4	75.00	$36.09	$7.07	$10.74	$4.50	$0.00	$58.40
5	80.00	$38.50	$7.07	$11.45	$4.80	$0.00	$61.82
6	85.00	$40.90	$7.07	$12.18	$5.10	$0.00	$65.25
7	90.00	$43.31	$7.07	$12.88	$5.40	$0.00	$68.66
8	95.00	$45.71	$7.07	$13.62	$5.70	$0.00	$72.10

Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	8/1/2025	$56.36	$11.49	$15.57	$5.89	$0.00	$89.31
	2/1/2026	$57.71	$11.49	$15.57	$5.89	$0.00	$90.66
	8/1/2026	$59.91	$11.49	$15.57	$5.89	$0.00	$92.86
	2/1/2027	$61.31	$11.49	$15.57	$5.89	$0.00	$94.26

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.18	$11.49	$15.57	$5.89	$0.00	$61.13
2	60.00	$33.82	$11.49	$15.57	$5.89	$0.00	$66.77
3	70.00	$39.45	$11.49	$15.57	$5.89	$0.00	$72.40
4	80.00	$45.09	$11.49	$15.57	$5.89	$0.00	$78.04
5	90.00	$50.72	$11.49	$15.57	$5.89	$0.00	$83.67

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.86	$11.49	$15.57	$5.89	$0.00	$61.81
2	60.00	$34.63	$11.49	$15.57	$5.89	$0.00	$67.58
3	70.00	$40.40	$11.49	$15.57	$5.89	$0.00	$73.35
4	80.00	$46.17	$11.49	$15.57	$5.89	$0.00	$79.12
5	90.00	$51.94	$11.49	$15.57	$5.89	$0.00	$84.89

Apprentice to Journeyworker Ratio: 1:5

BULLDOZER/POWER SHOVEL/TREE SHREDDER /CLAM SHELL	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98 For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$48.35	$10.15	$9.50	$9.80	$0.00	$77.80
	12/1/2025	$49.85	$10.15	$9.50	$9.80	$0.00	$79.30
	6/1/2026	$51.40	$10.15	$9.50	$9.80	$0.00	$80.85
	12/1/2026	$52.90	$10.15	$9.50	$9.80	$0.00	$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.53	$10.15	$9.50	$9.80	$0.00	$76.98
	12/1/2025	$49.03	$10.15	$9.50	$9.80	$0.00	$78.48
	6/1/2026	$50.58	$10.15	$9.50	$9.80	$0.00	$80.03
	12/1/2026	$52.08	$10.15	$9.50	$9.80	$0.00	$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
CARPENTER CARPENTERS CARPENTERS LOCAL 336 - HAMPDEN HAMPSHIRE FRANKLIN	9/1/2025	$43.54	$8.56	$11.25	$6.90	$0.00	$70.25
	3/1/2026	$44.44	$8.56	$11.25	$6.90	$0.00	$71.15
	9/1/2026	$45.39	$8.56	$11.25	$6.90	$0.00	$72.10
	3/1/2027	$46.29	$8.56	$11.25	$6.90	$0.00	$73.00

Apprentice: CARPENTER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
2	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
3	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
4	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
5	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
6	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
7	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16
8	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: CARPENTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$20.00	$8.56	$0.00	$1.38	$0.00	$29.94
2	45.00	$20.00	$0.65	$0.00	$1.38	$0.00	$22.03
3	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
4	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
5	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
6	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
7	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88
8	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88

Apprentice to Journeyworker Ratio: 1:5

CARPENTER WOOD FRAME	10/1/2025	$27.75	$7.02	$3.80	$1.00	$0.00	$39.57
CARPENTERS CARPENTERS-ZONE 3 (Wood Frame)	10/1/2026	$28.85	$7.02	$3.80	$1.00	$0.00	$40.67

All Aspects of New Wood Frame Work

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
2	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
3	65.00	$18.04	$7.02	$0.00	$1.00	$0.00	$26.06
4	70.00	$19.43	$7.02	$0.00	$1.00	$0.00	$27.45
5	75.00	$20.81	$7.02	$3.80	$1.00	$0.00	$32.63
6	80.00	$22.20	$7.02	$3.80	$1.00	$0.00	$34.02
7	85.00	$23.59	$7.02	$3.80	$1.00	$0.00	$35.41
8	90.00	$24.98	$7.02	$3.80	$1.00	$0.00	$36.80

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
2	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
3	65.00	$18.75	$7.02	$0.00	$1.00	$0.00	$26.77
4	70.00	$20.20	$7.02	$0.00	$1.00	$0.00	$28.22
5	75.00	$21.64	$7.02	$3.80	$1.00	$0.00	$33.46
6	80.00	$23.08	$7.02	$3.80	$1.00	$0.00	$34.90
7	85.00	$24.52	$7.02	$3.80	$1.00	$0.00	$36.34
8	90.00	$25.97	$7.02	$3.80	$1.00	$0.00	$37.79

Apprentice to Journeyworker Ratio: 1:5

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	7/1/2024	$44.56	$13.20	$16.30	$2.93	$1.69	$78.68

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.28	$13.20	$16.30	$0.00	$0.00	$51.78
2	60.00	$26.74	$13.20	$16.30	$2.93	$1.69	$60.86
3	65.00	$28.96	$13.20	$16.30	$2.93	$1.69	$63.08
4	70.00	$31.19	$13.20	$16.30	$2.93	$1.69	$65.31
5	75.00	$33.42	$13.20	$16.30	$2.93	$1.69	$67.54
6	80.00	$35.65	$13.20	$16.30	$2.93	$1.69	$69.77
7	90.00	$40.10	$13.20	$16.30	$2.93	$1.69	$74.22

Apprentice to Journeyworker Ratio: 1:3

CHAIN SAW OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CRANE OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$43.06	$13.78	$12.15	$3.00	$0.00	$71.99

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: DELEADER (BRIDGE)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

DEMO: ADZEMAN LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$78.11	$10.08	$11.62	$12.67	$0.00	$112.48
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A $69.83, 3A $91.79,4A $102.14 Total Rate							
DIVER TENDER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A $54.20, 3A $73.93,4A $82.05 Total Rate							
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$83.69	$10.08	$11.62	$12.67	$0.00	$118.06
For apprentice rates see "Apprentice- PILE DRIVER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888 DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	$26.77	$6.67	$3.93	$0.00	$0.16	$37.53
ELECTRICIAN (Including Core Drilling) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 2:3

ELEVATOR CONSTRUCTOR ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$66.41	$16.28	$10.96	$10.40	$0.00	$104.05
	1/1/2026	$69.23	$16.38	$11.06	$10.70	$0.00	$107.37
	1/1/2027	$72.23	$16.48	$11.16	$11.00	$0.00	$110.87

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.21	$16.28	$0.00	$0.00	$0.00	$49.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$36.53	$16.28	$10.96	$10.40	$0.00	$74.17
3	65.00	$43.17	$16.28	$10.96	$10.40	$0.00	$80.81
4	70.00	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
5	80.00	$53.13	$16.28	$10.96	$10.40	$0.00	$90.77

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.62	$16.38	$0.00	$0.00	$0.00	$51.00
2	55.00	$38.08	$16.38	$11.06	$10.70	$0.00	$76.22
3	65.00	$45.00	$16.38	$11.06	$10.70	$0.00	$83.14
4	70.00	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
5	80.00	$55.38	$16.38	$11.06	$10.70	$0.00	$93.52

Apprentice to Journeyworker Ratio: 1:1

ELEVATOR CONSTRUCTOR HELPER ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
	1/1/2026	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
	1/1/2027	$50.56	$16.48	$11.16	$11.00	$0.00	$89.20
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$18.84	$4.80	$4.10	$0.00	$0.00	$27.74
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$21.33	$4.80	$4.10	$0.00	$0.00	$30.23
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$22.33	$4.80	$4.10	$0.00	$0.00	$31.23
FIRE ALARM INSTALLER ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"							
FIREMAN OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

Apprentice: FIREMAN

Effective Date: 12/1/2023

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$23.42	$13.78	$12.15	$3.00	$0.00	$52.35
2	70.00	$27.32	$13.78	$12.15	$3.00	$0.00	$56.25
3	80.00	$31.22	$13.78	$12.15	$3.00	$0.00	$60.15
4	90.00	$35.13	$13.78	$12.15	$3.00	$0.00	$64.06

Apprentice to Journeyworker Ratio: 1:6

FLAGGER & SIGNALER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	12/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	6/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
	12/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FLOORCOVERER FLOORCOVERERS LOCAL 2168 FLOORCOVERERS LOCAL 2168 ZONE III	9/1/2025	$43.44	$8.56	$11.25	$6.90	$0.00	$70.15
	3/1/2026	$44.34	$8.56	$11.25	$6.90	$0.00	$71.05
	9/1/2026	$45.29	$8.56	$11.25	$6.90	$0.00	$72.00
	3/1/2027	$46.19	$8.56	$11.25	$6.90	$0.00	$72.90

Apprentice: FLOORCOVERER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
2	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
3	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
4	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
5	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
6	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
7	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08
8	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FLOORCOVERER							
Effective Date: 3/1/2026							
Step 1 / Percent 45.00 / Apprentice Base Wage		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 2 / Percent 45.00 / Apprentice Base Wage		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 3 / Percent 55.00 / Apprentice Base Wage		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 4 / Percent 55.00 / Apprentice Base Wage		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 5 / Percent 70.00 / Apprentice Base Wage		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 6 / Percent 70.00 / Apprentice Base Wage		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 7 / Percent 80.00 / Apprentice Base Wage		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80
Step 8 / Percent 80.00 / Apprentice Base Wage		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80
Apprentice Notes							
Steps are 750 hrs.							
Apprentice to Journeyworker Ratio: 1:1							
FORK LIFT OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.25	$13.78	$12.15	$3.00	$0.00	$68.18
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATORS/LIGHTING PLANTS OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) GLAZIERS LOCAL 1333 GLAZIERS LOCAL 1333	6/1/2025	$43.13	$10.80	$8.25	$5.50	$0.00	$67.68
	6/1/2026	$44.73	$11.20	$8.40	$6.05	$0.00	$70.38
	6/1/2027	$46.73	$11.60	$8.55	$6.60	$0.00	$73.48
	6/1/2028	$48.73	$12.00	$8.70	$7.20	$0.00	$76.63
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)							
Effective Date: 6/1/2025							
Step 1 / Percent 50.00 / Apprentice Base Wage		$21.57	$10.80	$8.25	$5.50	$0.00	$46.12
Step 2 / Percent 56.25 / Apprentice Base Wage		$24.26	$10.80	$8.25	$5.50	$0.00	$48.81
Step 3 / Percent 62.50 / Apprentice Base Wage		$26.96	$10.80	$8.25	$5.50	$0.00	$51.51
Step 4 / Percent 68.75 / Apprentice Base Wage		$29.65	$10.80	$8.25	$5.50	$0.00	$54.20
Step 5 / Percent 75.00 / Apprentice Base Wage		$32.35	$10.80	$8.25	$5.50	$0.00	$56.90
Step 6 / Percent 81.25 / Apprentice Base Wage		$35.04	$10.80	$8.25	$5.50	$0.00	$59.59
Step 7 / Percent 87.50 / Apprentice Base Wage		$37.74	$10.80	$8.25	$5.50	$0.00	$62.29
Step 8 / Percent 93.75 / Apprentice Base Wage		$40.43	$10.80	$8.25	$5.50	$0.00	$64.98

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.37	$11.20	$8.40	$6.05	$0.00	$48.02
2	56.25	$25.16	$11.20	$8.40	$6.05	$0.00	$50.81
3	62.50	$27.96	$11.20	$8.40	$6.05	$0.00	$53.61
4	68.75	$30.75	$11.20	$8.40	$6.05	$0.00	$56.40
5	75.00	$33.55	$11.20	$8.40	$6.05	$0.00	$59.20
6	81.25	$36.34	$11.20	$8.40	$6.05	$0.00	$61.99
7	87.50	$39.14	$11.20	$8.40	$6.05	$0.00	$64.79
8	93.75	$41.93	$11.20	$8.40	$6.05	$0.00	$67.58

Apprentice to Journeyworker Ratio: 3:1

GRADER/TRENCHING MACHINE/DERRICK OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER) PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.31	$10.85	$7.10	$0.00	$81.27
	3/17/2026	$55.01	$10.31	$10.85	$7.10	$0.00	$83.27
	9/17/2026	$57.01	$10.31	$10.85	$7.10	$0.00	$85.27
	3/17/2027	$59.01	$10.31	$10.85	$7.10	$0.00	$87.27
	9/17/2027	$61.01	$10.31	$10.85	$7.10	$0.00	$89.27
	3/17/2028	$63.01	$10.31	$10.85	$7.10	$0.00	$91.27
	9/17/2028	$65.01	$10.31	$10.85	$7.10	$0.00	$93.27
	3/17/2029	$67.01	$10.31	$10.85	$7.10	$0.00	$95.27
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
HVAC MECHANIC PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	9/1/2025	$48.27	$14.75	$9.52	$10.09	$0.00	$82.63
	9/1/2026	$51.01	$14.75	$9.52	$10.09	$0.00	$85.37

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.14	$14.75	$9.27	$5.05	$0.00	$53.21
2	60.00	$28.96	$14.75	$9.32	$6.05	$0.00	$59.08
3	70.00	$33.79	$14.75	$9.37	$7.06	$0.00	$64.97
4	80.00	$38.62	$14.75	$9.42	$8.07	$0.00	$70.86

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$25.51	$14.75	$9.27	$5.05	$0.00	$54.58
2	60.00	$30.61	$14.75	$9.32	$6.05	$0.00	$60.73
3	70.00	$35.71	$14.75	$9.37	$7.06	$0.00	$66.89
4	80.00	$40.81	$14.75	$9.42	$8.07	$0.00	$73.05

Apprentice to Journeyworker Ratio: 1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (SPRINGFIELD AREA)	3/16/2024	$40.66	$8.25	$12.70	$10.00	$0.00	$71.61

Apprentice: IRONWORKER/WELDER

Effective Date: 3/16/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: IRONWORKER/WELDER							
Effective Date: 3/16/2024							
Step / Percent / Apprentice Base Wage							
1 / 60.00		$24.40	$8.25	$12.70	$10.00	$0.00	$55.35
2 / 70.00		$28.46	$8.25	$12.70	$10.00	$0.00	$59.41
3 / 75.00		$30.50	$8.25	$12.70	$10.00	$0.00	$61.45
4 / 80.00		$32.53	$8.25	$12.70	$10.00	$0.00	$63.48
5 / 85.00		$34.56	$8.25	$12.70	$10.00	$0.00	$65.51
6 / 90.00		$36.59	$8.25	$12.70	$10.00	$0.00	$67.54
Apprentice to Journeyworker Ratio: 1:4							
JACKHAMMER & PAVING BREAKER OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
LABORER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
Apprentice: LABORER							
Effective Date: 6/2/2025							
Step / Percent / Apprentice Base Wage							
1 / 60.00		$21.30	$10.15	$9.50	$8.32	$0.00	$49.27
2 / 70.00		$24.85	$10.15	$9.50	$8.32	$0.00	$52.82
3 / 80.00		$28.40	$10.15	$9.50	$8.32	$0.00	$56.37
4 / 90.00		$31.95	$10.15	$9.50	$8.32	$0.00	$59.92
Apprentice: LABORER							
Effective Date: 12/1/2025							
Step / Percent / Apprentice Base Wage							
1 / 60.00		$22.80	$9.90	$9.25	$8.32	$0.00	$50.27

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: LABORER

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	70.00	$26.60	$9.90	$9.25	$8.32	$0.00	$54.07
3	80.00	$30.40	$9.90	$9.25	$8.32	$0.00	$57.87
4	90.00	$34.20	$9.90	$9.25	$8.32	$0.00	$61.67

Apprentice to Journeyworker Ratio: 1:5

LABORER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$21.30	$10.15	$9.50	$6.56	$0.00	$47.51
2	70.00	$24.85	$10.15	$9.50	$6.56	$0.00	$51.06
3	80.00	$28.40	$10.15	$9.50	$6.56	$0.00	$54.61
4	90.00	$31.95	$10.15	$9.50	$6.56	$0.00	$58.16

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$22.49	$9.90	$9.25	$6.31	$0.00	$47.95
2	70.00	$26.24	$9.90	$9.25	$6.31	$0.00	$51.70
3	80.00	$29.99	$9.90	$9.25	$6.31	$0.00	$55.45
4	90.00	$33.74	$9.90	$9.25	$6.31	$0.00	$59.20

Apprentice to Journeyworker Ratio: 1:5

LABORER: CARPENTER TENDER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER LABORERS	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	6/2/2025	$35.42	$10.15	$9.50	$8.70	$0.00	$63.77
LABORERS	12/1/2025	$36.67	$10.15	$9.50	$8.70	$0.00	$65.02
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$37.97	$10.15	$9.50	$8.70	$0.00	$66.32
	12/7/2026	$39.27	$10.15	$9.50	$8.70	$0.00	$67.62
	6/7/2027	$40.67	$10.15	$9.50	$8.70	$0.00	$69.02
	12/6/2027	$42.07	$10.15	$9.50	$8.70	$0.00	$70.42
	6/5/2028	$43.57	$10.15	$9.50	$8.70	$0.00	$71.92
	12/4/2028	$45.07	$10.15	$9.50	$8.70	$0.00	$73.42
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER	6/2/2025	$38.50	$10.15	$9.50	$8.57	$0.00	$66.72
LABORERS	12/1/2025	$39.75	$10.15	$9.50	$8.57	$0.00	$67.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$41.05	$10.15	$9.50	$8.57	$0.00	$69.27
	12/7/2026	$42.35	$10.15	$9.50	$8.57	$0.00	$70.57
	6/7/2027	$43.75	$10.15	$9.50	$8.57	$0.00	$71.97
	12/6/2027	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
	6/5/2028	$46.65	$10.15	$9.50	$8.57	$0.00	$74.87
	12/4/2028	$48.15	$10.15	$9.50	$8.57	$0.00	$76.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

MARBLE & TILE FINISHERS	8/1/2025	$45.56	$11.49	$15.10	$5.68	$0.00	$77.83
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	2/1/2026	$46.64	$11.49	$15.10	$5.68	$0.00	$78.91
	8/1/2026	$48.40	$11.49	$15.10	$5.68	$0.00	$80.67
	2/1/2027	$49.52	$11.49	$15.10	$5.68	$0.00	$81.79

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.78	$11.49	$15.10	$5.68	$0.00	$55.05
2	60.00	$27.34	$11.49	$15.10	$5.68	$0.00	$59.61
3	70.00	$31.89	$11.49	$15.10	$5.68	$0.00	$64.16
4	80.00	$36.45	$11.49	$15.10	$5.68	$0.00	$68.72
5	90.00	$41.00	$11.49	$15.10	$5.68	$0.00	$73.27

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.32	$11.49	$15.10	$5.68	$0.00	$55.59
2	60.00	$27.98	$11.49	$15.10	$5.68	$0.00	$60.25
3	70.00	$32.65	$11.49	$15.10	$5.68	$0.00	$64.92
4	80.00	$37.31	$11.49	$15.10	$5.68	$0.00	$69.58
5	90.00	$41.98	$11.49	$15.10	$5.68	$0.00	$74.25

Apprentice to Journeyworker Ratio: 1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MECHANIC/WELDER/BOOM TRUCK	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 3)	1/6/2025	$43.42	$10.08	$11.47	$9.75	$0.00	$74.72
MILLWRIGHTS LOCAL 1121	1/5/2026	$45.70	$10.08	$11.47	$9.75	$0.00	$77.00
MILLWRIGHTS LOCAL 1121 - Zone 3							

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/6/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$23.88	$10.08	$0.00	$5.36	$0.00	$39.32
2	65.00	$28.22	$10.08	$0.00	$6.34	$0.00	$44.64
3	75.00	$32.57	$10.08	$11.47	$7.31	$0.00	$61.43
4	85.00	$36.91	$10.08	$11.47	$8.29	$0.00	$66.75

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/5/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$25.14	$10.08	$0.00	$5.36	$0.00	$40.58
2	65.00	$29.71	$10.08	$0.00	$6.34	$0.00	$46.13
3	75.00	$34.28	$10.08	$11.47	$7.31	$0.00	$63.14
4	85.00	$38.85	$10.08	$11.47	$8.29	$0.00	$68.69

Apprentice Notes

Step 1&2 Appr. indentured after 1/6/2020 receive no pension,

Apprentice to Journeyworker Ratio: 1:4

MORTAR MIXER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
OILER	12/1/2023	$35.02	$13.78	$12.15	$3.00	$0.00	$63.95
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OTHER POWER DRIVEN EQUIPMENT - CLASS VI OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$32.74	$13.78	$12.15	$3.00	$0.00	$61.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$41.13	$10.30	$11.95	$8.25	$0.00	$71.63
	1/1/2026	$42.03	$10.35	$12.00	$8.35	$0.00	$72.73

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.57	$10.30	$0.00	$0.00	$0.00	$30.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$22.62	$10.30	$0.00	$4.54	$0.00	$37.46
3	60.00	$24.68	$10.30	$0.00	$4.95	$0.00	$39.93
4	65.00	$26.73	$10.30	$0.00	$5.36	$0.00	$42.39
5	70.00	$28.79	$10.30	$11.95	$5.78	$0.00	$56.82
6	75.00	$30.85	$10.30	$11.95	$6.19	$0.00	$59.29
7	80.00	$32.90	$10.30	$11.95	$6.60	$0.00	$61.75
8	90.00	$37.02	$10.30	$11.95	$7.43	$0.00	$66.70

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$21.02	$10.35	$0.00	$0.00	$0.00	$31.37
2	55.00	$23.12	$10.35	$0.00	$4.59	$0.00	$38.06
3	60.00	$25.22	$10.35	$0.00	$5.01	$0.00	$40.58
4	65.00	$27.32	$10.35	$0.00	$5.43	$0.00	$43.10
5	70.00	$29.42	$10.35	$12.00	$5.85	$0.00	$57.62
6	75.00	$31.52	$10.35	$12.00	$6.26	$0.00	$60.13
7	80.00	$33.62	$10.35	$12.00	$6.68	$0.00	$62.65
8	90.00	$37.83	$10.35	$12.00	$7.52	$0.00	$67.70

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$38.45	$10.30	$11.95	$8.25	$0.00	$68.95
	1/1/2026	$39.35	$10.35	$12.00	$8.35	$0.00	$70.05

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.23	$10.30	$0.00	$0.00	$0.00	$29.53
2	55.00	$21.15	$10.30	$0.00	$4.54	$0.00	$35.99
3	60.00	$23.07	$10.30	$0.00	$4.95	$0.00	$38.32
4	65.00	$24.99	$10.30	$0.00	$5.36	$0.00	$40.65
5	70.00	$26.92	$10.30	$11.95	$5.78	$0.00	$54.95
6	75.00	$28.84	$10.30	$11.95	$6.19	$0.00	$57.28
7	80.00	$30.76	$10.30	$11.95	$6.60	$0.00	$59.61
8	90.00	$34.61	$10.30	$11.95	$7.43	$0.00	$64.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.68	$10.35	$0.00	$0.00	$0.00	$30.03
2	55.00	$21.64	$10.35	$0.00	$4.59	$0.00	$36.58
3	60.00	$23.61	$10.35	$0.00	$5.01	$0.00	$38.97
4	65.00	$25.58	$10.35	$0.00	$5.43	$0.00	$41.36
5	70.00	$27.55	$10.35	$12.00	$5.85	$0.00	$55.75
6	75.00	$29.51	$10.35	$12.00	$6.26	$0.00	$58.12
7	80.00	$31.48	$10.35	$12.00	$6.68	$0.00	$60.51
8	90.00	$35.42	$10.35	$12.00	$7.52	$0.00	$65.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, NEW) *	7/1/2025	$39.73	$10.30	$11.95	$8.25	$0.00	$70.23
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.	1/1/2026	$40.63	$10.35	$12.00	$8.35	$0.00	$71.33
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.87	$10.30	$0.00	$0.00	$0.00	$30.17
2	55.00	$21.85	$10.30	$0.00	$4.54	$0.00	$36.69
3	60.00	$23.84	$10.30	$0.00	$4.95	$0.00	$39.09
4	65.00	$25.82	$10.30	$0.00	$5.36	$0.00	$41.48
5	70.00	$27.81	$10.30	$11.95	$5.78	$0.00	$55.84
6	75.00	$29.80	$10.30	$11.95	$6.19	$0.00	$58.24
7	80.00	$31.78	$10.30	$11.95	$6.60	$0.00	$60.63
8	90.00	$35.76	$10.30	$11.95	$7.43	$0.00	$65.44

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.32	$10.35	$0.00	$0.00	$0.00	$30.67
2	55.00	$22.35	$10.35	$0.00	$4.59	$0.00	$37.29
3	60.00	$24.38	$10.35	$0.00	$5.01	$0.00	$39.74
4	65.00	$26.41	$10.35	$0.00	$5.43	$0.00	$42.19
5	70.00	$28.44	$10.35	$12.00	$5.85	$0.00	$56.64
6	75.00	$30.47	$10.35	$12.00	$6.26	$0.00	$59.08
7	80.00	$32.50	$10.35	$12.00	$6.68	$0.00	$61.53
8	90.00	$36.57	$10.35	$12.00	$7.52	$0.00	$66.44

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journeyworker Ratio: 1:1							
PAINTER / TAPER (BRUSH, REPAINT)	7/1/2025	$37.05	$10.30	$11.95	$8.25	$0.00	$67.55
PAINTERS LOCAL 35	1/1/2026	$37.95	$10.35	$12.00	$8.35	$0.00	$68.65
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.53	$10.30	$0.00	$0.00	$0.00	$28.83
2	55.00	$20.38	$10.30	$0.00	$4.54	$0.00	$35.22
3	60.00	$22.23	$10.30	$0.00	$4.95	$0.00	$37.48
4	65.00	$24.08	$10.30	$0.00	$5.36	$0.00	$39.74
5	70.00	$25.94	$10.30	$11.95	$5.78	$0.00	$53.97
6	75.00	$27.79	$10.30	$11.95	$6.19	$0.00	$56.23
7	80.00	$29.64	$10.30	$11.95	$6.60	$0.00	$58.49
8	90.00	$33.35	$10.30	$11.95	$7.43	$0.00	$63.03

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.98	$10.35	$0.00	$0.00	$0.00	$29.33
2	55.00	$20.87	$10.35	$0.00	$4.59	$0.00	$35.81
3	60.00	$22.77	$10.35	$0.00	$5.01	$0.00	$38.13
4	65.00	$24.67	$10.35	$0.00	$5.43	$0.00	$40.45
5	70.00	$26.57	$10.35	$12.00	$5.85	$0.00	$54.77
6	75.00	$28.46	$10.35	$12.00	$6.26	$0.00	$57.07
7	80.00	$30.36	$10.35	$12.00	$6.68	$0.00	$59.39
8	90.00	$34.16	$10.35	$12.00	$7.52	$0.00	$64.03

Apprentice to Journeyworker Ratio: 1:1							
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
LABORERS	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER	6/1/2025	$40.78	$15.57	$20.17	$0.00	$0.00	$76.52
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$40.78	$15.57	$21.78	$0.00	$0.00	$78.13
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$40.78	$16.17	$21.78	$0.00	$0.00	$78.73
	6/1/2026	$41.78	$16.17	$21.78	$0.00	$0.00	$79.73
	12/1/2026	$41.78	$16.17	$23.52	$0.00	$0.00	$81.47
	1/1/2027	$41.78	$16.77	$23.52	$0.00	$0.00	$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Apprentice: PILE DRIVER

Effective Date: 8/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.14	$10.08	$0.00	$2.53	$0.00	$34.75
2	55.00	$27.05	$10.08	$0.00	$5.07	$0.00	$42.20
3	70.00	$34.43	$10.08	$11.62	$7.60	$0.00	$63.73
4	80.00	$39.35	$10.08	$11.62	$10.14	$0.00	$71.19

Apprentice to Journeyworker Ratio: 1:5

PIPELAYER LABORERS LABORERS - ZONE 3 (BUILDING & SITE) For apprentice rates see "Apprentice- LABORER"	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
PIPELAYER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
PLUMBER & PIPEFITTER PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$23.85	$10.35	$10.85	$0.00	$0.00	$45.05
2	50.00	$26.51	$10.35	$10.85	$0.00	$0.00	$47.71
3	55.00	$29.16	$10.35	$10.85	$0.00	$0.00	$50.36
4	60.00	$31.81	$10.35	$10.85	$0.00	$0.00	$53.01
5	65.00	$34.46	$10.35	$10.85	$0.00	$0.00	$55.66
6	70.00	$37.11	$10.35	$10.85	$0.00	$0.00	$58.31
7	75.00	$39.76	$10.35	$10.85	$0.00	$0.00	$60.96
8	80.00	$42.41	$10.35	$10.85	$0.00	$0.00	$63.61
9	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36
10	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 3/17/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$24.75	$10.35	$10.85	$0.00	$0.00	$45.95
2	50.00	$27.51	$10.35	$10.85	$0.00	$0.00	$48.71
3	55.00	$30.26	$10.35	$10.85	$0.00	$0.00	$51.46
4	60.00	$33.01	$10.35	$10.85	$0.00	$0.00	$54.21
5	65.00	$35.76	$10.35	$10.85	$0.00	$0.00	$56.96
6	70.00	$38.51	$10.35	$10.85	$0.00	$0.00	$59.71
7	75.00	$41.26	$10.35	$10.85	$0.00	$0.00	$62.46
8	80.00	$44.01	$10.35	$10.85	$0.00	$0.00	$65.21
9	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06
10	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06

Apprentice Notes

**1:1,2:5,3:9,4:12

Apprentice to Journeyworker Ratio: 1:1

PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$0.00	$10.85	$7.10	$0.00	$72.96
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
POWDERMAN & BLASTER	6/2/2025	$36.50	$10.15	$9.50	$8.57	$0.00	$64.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.75	$10.15	$9.50	$8.57	$0.00	$65.97
	6/1/2026	$39.05	$10.15	$9.50	$8.57	$0.00	$67.27
	12/7/2026	$40.35	$10.15	$9.50	$8.57	$0.00	$68.57
	6/7/2027	$41.75	$10.15	$9.50	$8.57	$0.00	$69.97
	12/6/2027	$43.15	$10.15	$9.50	$8.57	$0.00	$71.37
	6/5/2028	$44.65	$10.15	$9.50	$8.57	$0.00	$72.87
	12/4/2028	$46.15	$10.15	$9.50	$8.57	$0.00	$74.37
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2025	$36.50	$10.15	$9.50	$6.56	$0.00	$62.71
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$37.74	$10.15	$9.50	$6.56	$0.00	$63.95
	6/1/2026	$39.04	$10.15	$9.50	$6.56	$0.00	$65.25
	12/1/2026	$40.33	$10.15	$9.50	$6.56	$0.00	$66.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER TEAMSTERS 404 - Construction Service (Northampton) TEAMSTERS 404 - Construction Service (Northampton)	5/1/2024	$26.14	$11.82	$7.25	$0.00	$0.00	$45.21
RIDE-ON MOTORIZED BUGGY OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ROLLER OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Coal tar pitch)	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
ROOFERS LOCAL 248 ROOFERS LOCAL 248	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
For apprentice rates see "Apprentice- ROOFER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) ROOFERS LOCAL 248 ROOFERS LOCAL 248	10/2/2025	$44.23	$10.60	$8.70	$10.00	$0.00	$73.53
	7/16/2026	$46.23	$10.60	$8.70	$10.00	$0.00	$75.53
ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 248 ROOFERS LOCAL 248 For apprentice rates see "Apprentice- ROOFER"	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
SCRAPER OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98 For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98 For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
SELF-PROPELLED POWER BROOM OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98 For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.57	$5.82	$4.95	$0.00	$0.85	$31.19
2	50.00	$21.74	$6.47	$5.51	$0.00	$0.94	$34.66
3	55.00	$23.91	$7.12	$9.91	$0.00	$1.15	$42.09
4	60.00	$26.09	$7.76	$9.91	$0.00	$1.23	$44.99
5	65.00	$28.26	$8.41	$9.91	$0.00	$1.31	$47.89
6	70.00	$30.44	$9.06	$9.91	$0.00	$1.39	$50.80
7	75.00	$32.61	$9.71	$9.91	$0.00	$1.47	$53.70
8	80.00	$34.78	$10.35	$9.91	$8.72	$1.78	$65.54
9	85.00	$36.96	$11.00	$9.91	$8.72	$1.86	$68.45
10	90.00	$39.13	$11.65	$9.91	$8.72	$1.94	$71.35

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: SHEETMETAL WORKER							
Effective Date: 7/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 45.00		$19.57	$5.96	$4.95	$0.00	$0.85	$31.33
2 / 50.00		$21.74	$6.62	$5.51	$0.00	$0.94	$34.81
3 / 55.00		$23.91	$7.28	$9.91	$0.00	$1.15	$42.25
4 / 60.00		$26.09	$7.94	$9.91	$0.00	$1.23	$45.17
5 / 65.00		$28.26	$8.60	$9.91	$0.00	$1.31	$48.08
6 / 70.00		$30.44	$9.27	$9.91	$0.00	$1.39	$51.01
7 / 75.00		$32.61	$9.93	$9.91	$0.00	$1.47	$53.92
8 / 80.00		$34.78	$10.59	$9.91	$9.92	$1.78	$66.98
9 / 85.00		$36.96	$11.25	$9.91	$9.92	$1.86	$69.90
10 / 90.00		$39.13	$11.92	$9.91	$9.92	$1.94	$72.82
Apprentice to Journeyworker Ratio: 1:3							
SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.53	$15.57	$20.17	$0.00	$0.00	$77.27
	12/1/2025	$41.53	$15.57	$21.78	$0.00	$0.00	$78.88
	1/1/2026	$41.53	$16.17	$21.78	$0.00	$0.00	$79.48
	6/1/2026	$42.53	$16.17	$21.78	$0.00	$0.00	$80.48
	12/1/2026	$42.53	$16.17	$23.52	$0.00	$0.00	$82.22
	1/1/2027	$42.53	$16.77	$23.52	$0.00	$0.00	$82.82
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 669 SPRINKLER FITTERS LOCAL 669	10/1/2025	$53.25	$12.40	$7.40	$9.41	$0.00	$82.46
	1/1/2026	$53.25	$13.60	$7.45	$9.41	$0.00	$83.71
	4/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	7/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	10/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	1/1/2027	$56.54	$14.55	$7.50	$9.41	$0.00	$88.00
	4/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	7/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	10/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	1/1/2028	$59.83	$15.50	$7.55	$9.41	$0.00	$92.29
Apprentice: SPRINKLER FITTER							
Effective Date: 10/1/2025							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 43.00		$26.94	$12.40	$0.00	$0.00	$0.00	$39.34
2 / 48.00		$30.08	$12.40	$0.00	$0.00	$0.00	$42.48

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: SPRINKLER FITTER

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	52.00	$32.58	$12.40	$7.40	$1.15	$0.00	$53.53
4	56.00	$35.09	$12.40	$7.40	$1.15	$0.00	$56.04
5	59.00	$36.97	$12.40	$7.40	$1.40	$0.00	$58.17
6	64.00	$40.10	$12.40	$7.40	$1.40	$0.00	$61.30
7	68.00	$42.61	$12.40	$7.40	$1.40	$0.00	$63.81
8	72.00	$45.12	$12.40	$7.40	$1.40	$0.00	$66.32
9	76.00	$47.62	$12.40	$7.40	$1.40	$0.00	$68.82
10	80.00	$50.13	$12.40	$7.40	$1.40	$0.00	$71.33

Apprentice: SPRINKLER FITTER

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	43.00	$26.94	$9.64	$0.00	$0.00	$0.00	$36.58
2	48.00	$30.08	$9.64	$0.00	$0.00	$0.00	$39.72
3	52.00	$32.58	$13.60	$7.45	$1.15	$0.00	$54.78
4	56.00	$35.09	$13.60	$7.45	$1.15	$0.00	$57.29
5	59.00	$36.97	$13.60	$7.45	$1.40	$0.00	$59.42
6	64.00	$40.10	$13.60	$7.45	$1.40	$0.00	$62.55
7	68.00	$42.61	$13.60	$7.45	$1.40	$0.00	$65.06
8	72.00	$45.12	$13.60	$7.45	$1.40	$0.00	$67.57
9	76.00	$47.62	$13.60	$7.45	$1.40	$0.00	$70.07
10	80.00	$50.13	$13.60	$7.45	$1.40	$0.00	$72.58

Apprentice to Journeyworker Ratio: 1:1

TELECOMMUNICATION TECHNICIAN	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
TELECOMMUNICATION TECHNICIAN	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
ELECTRICIANS LOCAL 7	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
ELECTRICIANS LOCAL 7	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

For apprentice rates and ratios see "Apprentice- ELECTRICIAN"

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 1:1

TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$66.89	$11.49	$15.57	$8.02	$0.00	$101.97
	2/10/2026	$68.24	$11.49	$15.57	$8.02	$0.00	$103.32
	8/1/2026	$70.44	$11.49	$15.57	$8.02	$0.00	$105.52
	2/1/2027	$71.84	$11.49	$15.57	$8.02	$0.00	$106.92

Apprentice: TERRAZZO FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.45	$11.49	$15.57	$8.02	$0.00	$68.53
2	60.00	$40.13	$11.49	$15.57	$8.02	$0.00	$75.21
3	70.00	$46.82	$11.49	$15.57	$8.02	$0.00	$81.90
4	80.00	$53.51	$11.49	$15.57	$8.02	$0.00	$88.59
5	90.00	$60.20	$11.49	$15.57	$8.02	$0.00	$95.28

Apprentice: TERRAZZO FINISHERS

Effective Date: 2/10/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.12	$11.49	$15.57	$8.02	$0.00	$69.20
2	60.00	$40.94	$11.49	$15.57	$8.02	$0.00	$76.02
3	70.00	$47.77	$11.49	$15.57	$8.02	$0.00	$82.85
4	80.00	$54.59	$11.49	$15.57	$8.02	$0.00	$89.67
5	90.00	$61.42	$11.49	$15.57	$8.02	$0.00	$96.50

Apprentice to Journeyworker Ratio: 1:5

TERRAZZO MECHANIC BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$67.97	$11.49	$15.57	$7.99	$0.00	$103.02
	2/1/2026	$69.32	$11.49	$15.57	$7.99	$0.00	$104.37
	8/1/2026	$71.52	$11.49	$15.57	$7.99	$0.00	$106.57
	2/1/2027	$72.92	$11.49	$15.57	$7.99	$0.00	$107.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TERRAZZO MECHANIC

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.99	$11.49	$15.57	$7.99	$0.00	$69.04
2	60.00	$40.78	$11.49	$15.57	$7.99	$0.00	$75.83
3	70.00	$47.58	$11.49	$15.57	$7.99	$0.00	$82.63
4	80.00	$54.38	$11.49	$15.57	$7.99	$0.00	$89.43
5	90.00	$61.17	$11.49	$15.57	$7.99	$0.00	$96.22

Apprentice: TERRAZZO MECHANIC

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.66	$11.49	$15.57	$7.99	$0.00	$69.71
2	60.00	$41.59	$11.49	$15.57	$7.99	$0.00	$76.64
3	70.00	$48.52	$11.49	$15.57	$7.99	$0.00	$83.57
4	80.00	$55.46	$11.49	$15.57	$7.99	$0.00	$90.51
5	90.00	$62.39	$11.49	$15.57	$7.99	$0.00	$97.44

Apprentice to Journeyworker Ratio: 1:5

TEST BORING DRILLER	6/1/2025	$51.20	$10.15	$9.50	$9.80	$0.00	$80.65
LABORERS	12/1/2025	$52.70	$10.15	$9.50	$9.80	$0.00	$82.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$54.25	$10.15	$9.50	$9.80	$0.00	$83.70
	12/1/2026	$55.75	$10.15	$9.50	$9.80	$0.00	$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	6/1/2025	$47.32	$10.15	$9.50	$9.80	$0.00	$76.77
LABORERS	12/1/2025	$48.82	$10.15	$9.50	$9.80	$0.00	$78.27
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.37	$10.15	$9.50	$9.80	$0.00	$79.82
	12/1/2026	$51.87	$10.15	$9.50	$9.80	$0.00	$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
LABORERS	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	6/1/2025	$41.82	$15.57	$20.17	$0.00	$0.00	$77.56
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.82	$15.57	$21.78	$0.00	$0.00	$79.17
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.82	$16.17	$21.78	$0.00	$0.00	$79.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2026	$42.82	$16.17	$21.78	$0.00	$0.00	$80.77
	12/1/2026	$42.82	$16.17	$23.52	$0.00	$0.00	$82.51
	1/1/2027	$42.82	$16.77	$23.52	$0.00	$0.00	$83.11
TUNNEL WORK - COMPRESSED AIR	6/1/2025	$59.43	$10.15	$9.50	$10.25	$0.00	$89.33
LABORERS	12/1/2025	$60.93	$10.15	$9.50	$10.25	$0.00	$90.83
LABORERS (COMPRESSED AIR)	6/1/2026	$62.48	$10.15	$9.50	$10.25	$0.00	$92.38
	12/1/2026	$63.98	$10.15	$9.50	$10.25	$0.00	$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2025	$61.43	$10.15	$9.50	$10.25	$0.00	$91.33
LABORERS	12/1/2025	$62.93	$10.15	$9.50	$10.25	$0.00	$92.83
LABORERS (COMPRESSED AIR)	6/1/2026	$64.48	$10.15	$9.50	$10.25	$0.00	$94.38
	12/1/2026	$65.98	$10.15	$9.50	$10.25	$0.00	$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2025	$51.50	$10.15	$9.50	$10.25	$0.00	$81.40
LABORERS	12/1/2025	$53.00	$10.15	$9.50	$10.25	$0.00	$82.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$54.55	$10.15	$9.50	$10.25	$0.00	$84.45
	12/1/2026	$56.05	$10.15	$9.50	$10.25	$0.00	$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	6/1/2025	$53.50	$10.15	$9.50	$10.25	$0.00	$83.40
LABORERS	12/1/2025	$55.00	$10.15	$9.50	$10.25	$0.00	$84.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$56.55	$10.15	$9.50	$10.25	$0.00	$86.45
	12/1/2026	$58.05	$10.15	$9.50	$10.25	$0.00	$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
WAGON DRILL OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
WATER METER INSTALLER	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22
GROUNDMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$30.58	$8.00	$5.48	$0.00	$0.00	$44.06
GROUNDMAN / TRUCK DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$39.97	$8.00	$10.96	$0.00	$0.00	$58.93
HEAVY EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$47.01	$8.00	$13.22	$0.00	$0.00	$68.23
JOURNEYMAN LINEMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$51.71	$8.00	$15.55	$0.00	$0.00	$75.26

Apprentice: JOURNEYMAN LINEMAN

Effective Date: 9/1/2019

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$31.03	$8.00	$3.43	$0.00	$0.00	$42.46
2	65.00	$33.61	$8.00	$3.51	$0.00	$0.00	$45.12
3	70.00	$36.20	$8.00	$3.59	$0.00	$0.00	$47.79
4	75.00	$38.78	$8.00	$5.16	$0.00	$0.00	$51.94
5	80.00	$41.37	$8.00	$5.24	$0.00	$0.00	$54.61
6	85.00	$43.95	$8.00	$5.32	$0.00	$0.00	$57.27
7	90.00	$46.54	$8.00	$7.40	$0.00	$0.00	$61.94

Apprentice to Journeyworker Ratio: 1:2

TELEDATA CABLE SPLICER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$30.73	$4.70	$0.92	$2.25	$0.00	$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TRACTOR-TRAILER DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42							

Additional Apprentice Information

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

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CITY OF NORTHAMPTON WAGES

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Prevailing Wage Rates

MAURA HEALY
Governor
KIM DRISCOLL
Lt. Governor

As determined by the Director under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	Massachusetts Highway	**City/Town:**	NORTHAMPTON
Contract Number:	132950		
Description of Work:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD – Bridge Preservation of 26 Bridges along I-91 (613219) $9,008,000.00		
Job Location:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD along I-91		

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F “rental of equipment” contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets form DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to http://www.mass.gov/dols/pw.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$40.95	$15.57	$20.17	$0.00	$0.00	$76.69
	12/1/2025	$40.95	$15.57	$21.78	$0.00	$0.00	$78.30
	1/1/2026	$40.95	$16.17	$21.78	$0.00	$0.00	$78.90
	6/1/2026	$41.95	$16.17	$21.78	$0.00	$0.00	$79.90
	12/1/2026	$41.95	$16.17	$23.52	$0.00	$0.00	$81.64
	1/1/2027	$41.95	$16.77	$23.52	$0.00	$0.00	$82.24
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.02	$15.57	$20.17	$0.00	$0.00	$76.76
	12/1/2025	$41.02	$15.57	$21.78	$0.00	$0.00	$78.37
	1/1/2026	$41.02	$16.17	$21.78	$0.00	$0.00	$78.97
	6/1/2026	$42.02	$16.17	$21.78	$0.00	$0.00	$79.97
	12/1/2026	$42.02	$16.17	$23.52	$0.00	$0.00	$81.71
	1/1/2027	$42.02	$16.77	$23.52	$0.00	$0.00	$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.14	$15.57	$20.17	$0.00	$0.00	$76.88
	12/1/2025	$41.14	$15.57	$21.78	$0.00	$0.00	$78.49
	1/1/2026	$41.14	$16.17	$21.78	$0.00	$0.00	$79.09
	6/1/2026	$42.14	$16.17	$21.78	$0.00	$0.00	$80.09
	12/1/2026	$42.14	$16.17	$23.52	$0.00	$0.00	$81.83
	1/1/2027	$42.14	$16.77	$23.52	$0.00	$0.00	$82.43
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
AIR TRACK OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASBESTOS WORKER (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	6/1/2025	$39.42	$14.50	$4.30	$6.25	$0.00	$64.47
	12/1/2025	$40.32	$14.50	$4.30	$6.25	$0.00	$65.37
ASPHALT RAKER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER)	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER OPERATOR	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
BATCH/CEMENT PLANT - ON SITE	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BLOCK PAVER, RAMMER / CURB SETTER	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
LABORERS	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
LABORERS	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BOILER MAKER BOILERMAKERS LOCAL 29 BOILERMAKERS LOCAL 29	1/1/2024	$48.12	$7.07	$14.60	$6.00	$0.00	$75.79

Apprentice: BOILER MAKER

Effective Date: 1/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
2	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
3	70.00	$33.68	$7.07	$10.03	$4.20	$0.00	$54.98
4	75.00	$36.09	$7.07	$10.74	$4.50	$0.00	$58.40
5	80.00	$38.50	$7.07	$11.45	$4.80	$0.00	$61.82
6	85.00	$40.90	$7.07	$12.18	$5.10	$0.00	$65.25
7	90.00	$43.31	$7.07	$12.88	$5.40	$0.00	$68.66
8	95.00	$45.71	$7.07	$13.62	$5.70	$0.00	$72.10

Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	8/1/2025	$56.36	$11.49	$15.57	$5.89	$0.00	$89.31
	2/1/2026	$57.71	$11.49	$15.57	$5.89	$0.00	$90.66
	8/1/2026	$59.91	$11.49	$15.57	$5.89	$0.00	$92.86
	2/1/2027	$61.31	$11.49	$15.57	$5.89	$0.00	$94.26

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.18	$11.49	$15.57	$5.89	$0.00	$61.13
2	60.00	$33.82	$11.49	$15.57	$5.89	$0.00	$66.77
3	70.00	$39.45	$11.49	$15.57	$5.89	$0.00	$72.40
4	80.00	$45.09	$11.49	$15.57	$5.89	$0.00	$78.04
5	90.00	$50.72	$11.49	$15.57	$5.89	$0.00	$83.67

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.86	$11.49	$15.57	$5.89	$0.00	$61.81
2	60.00	$34.63	$11.49	$15.57	$5.89	$0.00	$67.58
3	70.00	$40.40	$11.49	$15.57	$5.89	$0.00	$73.35
4	80.00	$46.17	$11.49	$15.57	$5.89	$0.00	$79.12
5	90.00	$51.94	$11.49	$15.57	$5.89	$0.00	$84.89

Apprentice to Journeyworker Ratio: 1:5

BULLDOZER/POWER SHOVEL/TREE SHREDDER /CLAM SHELL	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98 For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$48.35	$10.15	$9.50	$9.80	$0.00	$77.80
	12/1/2025	$49.85	$10.15	$9.50	$9.80	$0.00	$79.30
	6/1/2026	$51.40	$10.15	$9.50	$9.80	$0.00	$80.85
	12/1/2026	$52.90	$10.15	$9.50	$9.80	$0.00	$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.53	$10.15	$9.50	$9.80	$0.00	$76.98
	12/1/2025	$49.03	$10.15	$9.50	$9.80	$0.00	$78.48
	6/1/2026	$50.58	$10.15	$9.50	$9.80	$0.00	$80.03
	12/1/2026	$52.08	$10.15	$9.50	$9.80	$0.00	$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
CARPENTER CARPENTERS CARPENTERS LOCAL 336 - HAMPDEN HAMPSHIRE FRANKLIN	9/1/2025	$43.54	$8.56	$11.25	$6.90	$0.00	$70.25
	3/1/2026	$44.44	$8.56	$11.25	$6.90	$0.00	$71.15
	9/1/2026	$45.39	$8.56	$11.25	$6.90	$0.00	$72.10
	3/1/2027	$46.29	$8.56	$11.25	$6.90	$0.00	$73.00

Apprentice: CARPENTER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
2	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
3	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
4	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
5	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
6	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
7	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16
8	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: CARPENTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$20.00	$8.56	$0.00	$1.38	$0.00	$29.94
2	45.00	$20.00	$0.65	$0.00	$1.38	$0.00	$22.03
3	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
4	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
5	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
6	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
7	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88
8	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88

Apprentice to Journeyworker Ratio: 1:5

CARPENTER WOOD FRAME	10/1/2025	$27.75	$7.02	$3.80	$1.00	$0.00	$39.57
CARPENTERS CARPENTERS-ZONE 3 (Wood Frame)	10/1/2026	$28.85	$7.02	$3.80	$1.00	$0.00	$40.67

All Aspects of New Wood Frame Work

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
2	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
3	65.00	$18.04	$7.02	$0.00	$1.00	$0.00	$26.06
4	70.00	$19.43	$7.02	$0.00	$1.00	$0.00	$27.45
5	75.00	$20.81	$7.02	$3.80	$1.00	$0.00	$32.63
6	80.00	$22.20	$7.02	$3.80	$1.00	$0.00	$34.02
7	85.00	$23.59	$7.02	$3.80	$1.00	$0.00	$35.41
8	90.00	$24.98	$7.02	$3.80	$1.00	$0.00	$36.80

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
2	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
3	65.00	$18.75	$7.02	$0.00	$1.00	$0.00	$26.77
4	70.00	$20.20	$7.02	$0.00	$1.00	$0.00	$28.22
5	75.00	$21.64	$7.02	$3.80	$1.00	$0.00	$33.46
6	80.00	$23.08	$7.02	$3.80	$1.00	$0.00	$34.90
7	85.00	$24.52	$7.02	$3.80	$1.00	$0.00	$36.34
8	90.00	$25.97	$7.02	$3.80	$1.00	$0.00	$37.79

Apprentice to Journeyworker Ratio: 1:5

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	7/1/2024	$44.56	$13.20	$16.30	$2.93	$1.69	$78.68

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.28	$13.20	$16.30	$0.00	$0.00	$51.78
2	60.00	$26.74	$13.20	$16.30	$2.93	$1.69	$60.86
3	65.00	$28.96	$13.20	$16.30	$2.93	$1.69	$63.08
4	70.00	$31.19	$13.20	$16.30	$2.93	$1.69	$65.31
5	75.00	$33.42	$13.20	$16.30	$2.93	$1.69	$67.54
6	80.00	$35.65	$13.20	$16.30	$2.93	$1.69	$69.77
7	90.00	$40.10	$13.20	$16.30	$2.93	$1.69	$74.22

Apprentice to Journeyworker Ratio: 1:3

CHAIN SAW OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CRANE OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$43.06	$13.78	$12.15	$3.00	$0.00	$71.99

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: DELEADER (BRIDGE)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

DEMO: ADZEMAN LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$78.11	$10.08	$11.62	$12.67	$0.00	$112.48
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A $69.83, 3A $91.79,4A $102.14 Total Rate							
DIVER TENDER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A $54.20, 3A $73.93,4A $82.05 Total Rate							
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$83.69	$10.08	$11.62	$12.67	$0.00	$118.06
For apprentice rates see "Apprentice- PILE DRIVER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888 DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	$26.77	$6.67	$3.93	$0.00	$0.16	$37.53
ELECTRICIAN (Including Core Drilling) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 2:3

ELEVATOR CONSTRUCTOR ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$66.41	$16.28	$10.96	$10.40	$0.00	$104.05
	1/1/2026	$69.23	$16.38	$11.06	$10.70	$0.00	$107.37
	1/1/2027	$72.23	$16.48	$11.16	$11.00	$0.00	$110.87

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.21	$16.28	$0.00	$0.00	$0.00	$49.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$36.53	$16.28	$10.96	$10.40	$0.00	$74.17
3	65.00	$43.17	$16.28	$10.96	$10.40	$0.00	$80.81
4	70.00	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
5	80.00	$53.13	$16.28	$10.96	$10.40	$0.00	$90.77

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.62	$16.38	$0.00	$0.00	$0.00	$51.00
2	55.00	$38.08	$16.38	$11.06	$10.70	$0.00	$76.22
3	65.00	$45.00	$16.38	$11.06	$10.70	$0.00	$83.14
4	70.00	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
5	80.00	$55.38	$16.38	$11.06	$10.70	$0.00	$93.52

Apprentice to Journeyworker Ratio: 1:1

ELEVATOR CONSTRUCTOR HELPER ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
	1/1/2026	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
	1/1/2027	$50.56	$16.48	$11.16	$11.00	$0.00	$89.20
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$18.84	$4.80	$4.10	$0.00	$0.00	$27.74
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$21.33	$4.80	$4.10	$0.00	$0.00	$30.23
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$22.33	$4.80	$4.10	$0.00	$0.00	$31.23
FIRE ALARM INSTALLER ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"							
FIREMAN OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

Apprentice: FIREMAN

Effective Date: 12/1/2023

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$23.42	$13.78	$12.15	$3.00	$0.00	$52.35
2	70.00	$27.32	$13.78	$12.15	$3.00	$0.00	$56.25
3	80.00	$31.22	$13.78	$12.15	$3.00	$0.00	$60.15
4	90.00	$35.13	$13.78	$12.15	$3.00	$0.00	$64.06

Apprentice to Journeyworker Ratio: 1:6

FLAGGER & SIGNALER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	12/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	6/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
	12/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FLOORCOVERER FLOORCOVERERS LOCAL 2168 FLOORCOVERERS LOCAL 2168 ZONE III	9/1/2025	$43.44	$8.56	$11.25	$6.90	$0.00	$70.15
	3/1/2026	$44.34	$8.56	$11.25	$6.90	$0.00	$71.05
	9/1/2026	$45.29	$8.56	$11.25	$6.90	$0.00	$72.00
	3/1/2027	$46.19	$8.56	$11.25	$6.90	$0.00	$72.90

Apprentice: FLOORCOVERER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
2	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
3	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
4	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
5	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
6	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
7	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08
8	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FLOORCOVERER							
Effective Date: 3/1/2026							
Step 1 / Percent 45.00 / Apprentice Base Wage		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 2 / Percent 45.00 / Apprentice Base Wage		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 3 / Percent 55.00 / Apprentice Base Wage		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 4 / Percent 55.00 / Apprentice Base Wage		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 5 / Percent 70.00 / Apprentice Base Wage		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 6 / Percent 70.00 / Apprentice Base Wage		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 7 / Percent 80.00 / Apprentice Base Wage		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80
Step 8 / Percent 80.00 / Apprentice Base Wage		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80
Apprentice Notes							
Steps are 750 hrs.							
Apprentice to Journeyworker Ratio: 1:1							
FORK LIFT OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.25	$13.78	$12.15	$3.00	$0.00	$68.18
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATORS/LIGHTING PLANTS OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) GLAZIERS LOCAL 1333 GLAZIERS LOCAL 1333	6/1/2025	$43.13	$10.80	$8.25	$5.50	$0.00	$67.68
	6/1/2026	$44.73	$11.20	$8.40	$6.05	$0.00	$70.38
	6/1/2027	$46.73	$11.60	$8.55	$6.60	$0.00	$73.48
	6/1/2028	$48.73	$12.00	$8.70	$7.20	$0.00	$76.63
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)							
Effective Date: 6/1/2025							
Step 1 / Percent 50.00 / Apprentice Base Wage		$21.57	$10.80	$8.25	$5.50	$0.00	$46.12
Step 2 / Percent 56.25 / Apprentice Base Wage		$24.26	$10.80	$8.25	$5.50	$0.00	$48.81
Step 3 / Percent 62.50 / Apprentice Base Wage		$26.96	$10.80	$8.25	$5.50	$0.00	$51.51
Step 4 / Percent 68.75 / Apprentice Base Wage		$29.65	$10.80	$8.25	$5.50	$0.00	$54.20
Step 5 / Percent 75.00 / Apprentice Base Wage		$32.35	$10.80	$8.25	$5.50	$0.00	$56.90
Step 6 / Percent 81.25 / Apprentice Base Wage		$35.04	$10.80	$8.25	$5.50	$0.00	$59.59
Step 7 / Percent 87.50 / Apprentice Base Wage		$37.74	$10.80	$8.25	$5.50	$0.00	$62.29
Step 8 / Percent 93.75 / Apprentice Base Wage		$40.43	$10.80	$8.25	$5.50	$0.00	$64.98

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.37	$11.20	$8.40	$6.05	$0.00	$48.02
2	56.25	$25.16	$11.20	$8.40	$6.05	$0.00	$50.81
3	62.50	$27.96	$11.20	$8.40	$6.05	$0.00	$53.61
4	68.75	$30.75	$11.20	$8.40	$6.05	$0.00	$56.40
5	75.00	$33.55	$11.20	$8.40	$6.05	$0.00	$59.20
6	81.25	$36.34	$11.20	$8.40	$6.05	$0.00	$61.99
7	87.50	$39.14	$11.20	$8.40	$6.05	$0.00	$64.79
8	93.75	$41.93	$11.20	$8.40	$6.05	$0.00	$67.58

Apprentice to Journeyworker Ratio: 3:1

GRADER/TRENCHING MACHINE/DERRICK OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER) PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.31	$10.85	$7.10	$0.00	$81.27
	3/17/2026	$55.01	$10.31	$10.85	$7.10	$0.00	$83.27
	9/17/2026	$57.01	$10.31	$10.85	$7.10	$0.00	$85.27
	3/17/2027	$59.01	$10.31	$10.85	$7.10	$0.00	$87.27
	9/17/2027	$61.01	$10.31	$10.85	$7.10	$0.00	$89.27
	3/17/2028	$63.01	$10.31	$10.85	$7.10	$0.00	$91.27
	9/17/2028	$65.01	$10.31	$10.85	$7.10	$0.00	$93.27
	3/17/2029	$67.01	$10.31	$10.85	$7.10	$0.00	$95.27
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
HVAC MECHANIC PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	9/1/2025	$48.27	$14.75	$9.52	$10.09	$0.00	$82.63
	9/1/2026	$51.01	$14.75	$9.52	$10.09	$0.00	$85.37

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.14	$14.75	$9.27	$5.05	$0.00	$53.21
2	60.00	$28.96	$14.75	$9.32	$6.05	$0.00	$59.08
3	70.00	$33.79	$14.75	$9.37	$7.06	$0.00	$64.97
4	80.00	$38.62	$14.75	$9.42	$8.07	$0.00	$70.86

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$25.51	$14.75	$9.27	$5.05	$0.00	$54.58
2	60.00	$30.61	$14.75	$9.32	$6.05	$0.00	$60.73
3	70.00	$35.71	$14.75	$9.37	$7.06	$0.00	$66.89
4	80.00	$40.81	$14.75	$9.42	$8.07	$0.00	$73.05

Apprentice to Journeyworker Ratio: 1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (SPRINGFIELD AREA)	3/16/2024	$40.66	$8.25	$12.70	$10.00	$0.00	$71.61

Apprentice: IRONWORKER/WELDER

Effective Date: 3/16/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: IRONWORKER/WELDER

Effective Date: 3/16/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$24.40	$8.25	$12.70	$10.00	$0.00	$55.35
2	70.00	$28.46	$8.25	$12.70	$10.00	$0.00	$59.41
3	75.00	$30.50	$8.25	$12.70	$10.00	$0.00	$61.45
4	80.00	$32.53	$8.25	$12.70	$10.00	$0.00	$63.48
5	85.00	$34.56	$8.25	$12.70	$10.00	$0.00	$65.51
6	90.00	$36.59	$8.25	$12.70	$10.00	$0.00	$67.54

Apprentice to Journeyworker Ratio: 1:4

JACKHAMMER & PAVING BREAKER OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

LABORER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

Apprentice: LABORER

Effective Date: 6/2/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$21.30	$10.15	$9.50	$8.32	$0.00	$49.27
2	70.00	$24.85	$10.15	$9.50	$8.32	$0.00	$52.82
3	80.00	$28.40	$10.15	$9.50	$8.32	$0.00	$56.37
4	90.00	$31.95	$10.15	$9.50	$8.32	$0.00	$59.92

Apprentice: LABORER

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$22.80	$9.90	$9.25	$8.32	$0.00	$50.27

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: LABORER

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	70.00	$26.60	$9.90	$9.25	$8.32	$0.00	$54.07
3	80.00	$30.40	$9.90	$9.25	$8.32	$0.00	$57.87
4	90.00	$34.20	$9.90	$9.25	$8.32	$0.00	$61.67

Apprentice to Journeyworker Ratio: 1:5

LABORER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$21.30	$10.15	$9.50	$6.56	$0.00	$47.51
2	70.00	$24.85	$10.15	$9.50	$6.56	$0.00	$51.06
3	80.00	$28.40	$10.15	$9.50	$6.56	$0.00	$54.61
4	90.00	$31.95	$10.15	$9.50	$6.56	$0.00	$58.16

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$22.49	$9.90	$9.25	$6.31	$0.00	$47.95
2	70.00	$26.24	$9.90	$9.25	$6.31	$0.00	$51.70
3	80.00	$29.99	$9.90	$9.25	$6.31	$0.00	$55.45
4	90.00	$33.74	$9.90	$9.25	$6.31	$0.00	$59.20

Apprentice to Journeyworker Ratio: 1:5

LABORER: CARPENTER TENDER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER LABORERS	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	6/2/2025	$35.42	$10.15	$9.50	$8.70	$0.00	$63.77
LABORERS	12/1/2025	$36.67	$10.15	$9.50	$8.70	$0.00	$65.02
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$37.97	$10.15	$9.50	$8.70	$0.00	$66.32
	12/7/2026	$39.27	$10.15	$9.50	$8.70	$0.00	$67.62
	6/7/2027	$40.67	$10.15	$9.50	$8.70	$0.00	$69.02
	12/6/2027	$42.07	$10.15	$9.50	$8.70	$0.00	$70.42
	6/5/2028	$43.57	$10.15	$9.50	$8.70	$0.00	$71.92
	12/4/2028	$45.07	$10.15	$9.50	$8.70	$0.00	$73.42
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER	6/2/2025	$38.50	$10.15	$9.50	$8.57	$0.00	$66.72
LABORERS	12/1/2025	$39.75	$10.15	$9.50	$8.57	$0.00	$67.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$41.05	$10.15	$9.50	$8.57	$0.00	$69.27
	12/7/2026	$42.35	$10.15	$9.50	$8.57	$0.00	$70.57
	6/7/2027	$43.75	$10.15	$9.50	$8.57	$0.00	$71.97
	12/6/2027	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
	6/5/2028	$46.65	$10.15	$9.50	$8.57	$0.00	$74.87
	12/4/2028	$48.15	$10.15	$9.50	$8.57	$0.00	$76.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

MARBLE & TILE FINISHERS	8/1/2025	$45.56	$11.49	$15.10	$5.68	$0.00	$77.83
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	2/1/2026	$46.64	$11.49	$15.10	$5.68	$0.00	$78.91
	8/1/2026	$48.40	$11.49	$15.10	$5.68	$0.00	$80.67
	2/1/2027	$49.52	$11.49	$15.10	$5.68	$0.00	$81.79

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.78	$11.49	$15.10	$5.68	$0.00	$55.05
2	60.00	$27.34	$11.49	$15.10	$5.68	$0.00	$59.61
3	70.00	$31.89	$11.49	$15.10	$5.68	$0.00	$64.16
4	80.00	$36.45	$11.49	$15.10	$5.68	$0.00	$68.72
5	90.00	$41.00	$11.49	$15.10	$5.68	$0.00	$73.27

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.32	$11.49	$15.10	$5.68	$0.00	$55.59
2	60.00	$27.98	$11.49	$15.10	$5.68	$0.00	$60.25
3	70.00	$32.65	$11.49	$15.10	$5.68	$0.00	$64.92
4	80.00	$37.31	$11.49	$15.10	$5.68	$0.00	$69.58
5	90.00	$41.98	$11.49	$15.10	$5.68	$0.00	$74.25

Apprentice to Journeyworker Ratio: 1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MECHANIC/WELDER/BOOM TRUCK	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 3)	1/6/2025	$43.42	$10.08	$11.47	$9.75	$0.00	$74.72
MILLWRIGHTS LOCAL 1121	1/5/2026	$45.70	$10.08	$11.47	$9.75	$0.00	$77.00
MILLWRIGHTS LOCAL 1121 - Zone 3							

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/6/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$23.88	$10.08	$0.00	$5.36	$0.00	$39.32
2	65.00	$28.22	$10.08	$0.00	$6.34	$0.00	$44.64
3	75.00	$32.57	$10.08	$11.47	$7.31	$0.00	$61.43
4	85.00	$36.91	$10.08	$11.47	$8.29	$0.00	$66.75

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/5/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$25.14	$10.08	$0.00	$5.36	$0.00	$40.58
2	65.00	$29.71	$10.08	$0.00	$6.34	$0.00	$46.13
3	75.00	$34.28	$10.08	$11.47	$7.31	$0.00	$63.14
4	85.00	$38.85	$10.08	$11.47	$8.29	$0.00	$68.69

Apprentice Notes

Step 1&2 Appr. indentured after 1/6/2020 receive no pension,

Apprentice to Journeyworker Ratio: 1:4

MORTAR MIXER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
OILER	12/1/2023	$35.02	$13.78	$12.15	$3.00	$0.00	$63.95
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OTHER POWER DRIVEN EQUIPMENT - CLASS VI OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$32.74	$13.78	$12.15	$3.00	$0.00	$61.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$41.13	$10.30	$11.95	$8.25	$0.00	$71.63
	1/1/2026	$42.03	$10.35	$12.00	$8.35	$0.00	$72.73

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.57	$10.30	$0.00	$0.00	$0.00	$30.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$22.62	$10.30	$0.00	$4.54	$0.00	$37.46
3	60.00	$24.68	$10.30	$0.00	$4.95	$0.00	$39.93
4	65.00	$26.73	$10.30	$0.00	$5.36	$0.00	$42.39
5	70.00	$28.79	$10.30	$11.95	$5.78	$0.00	$56.82
6	75.00	$30.85	$10.30	$11.95	$6.19	$0.00	$59.29
7	80.00	$32.90	$10.30	$11.95	$6.60	$0.00	$61.75
8	90.00	$37.02	$10.30	$11.95	$7.43	$0.00	$66.70

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$21.02	$10.35	$0.00	$0.00	$0.00	$31.37
2	55.00	$23.12	$10.35	$0.00	$4.59	$0.00	$38.06
3	60.00	$25.22	$10.35	$0.00	$5.01	$0.00	$40.58
4	65.00	$27.32	$10.35	$0.00	$5.43	$0.00	$43.10
5	70.00	$29.42	$10.35	$12.00	$5.85	$0.00	$57.62
6	75.00	$31.52	$10.35	$12.00	$6.26	$0.00	$60.13
7	80.00	$33.62	$10.35	$12.00	$6.68	$0.00	$62.65
8	90.00	$37.83	$10.35	$12.00	$7.52	$0.00	$67.70

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$38.45	$10.30	$11.95	$8.25	$0.00	$68.95
	1/1/2026	$39.35	$10.35	$12.00	$8.35	$0.00	$70.05

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.23	$10.30	$0.00	$0.00	$0.00	$29.53
2	55.00	$21.15	$10.30	$0.00	$4.54	$0.00	$35.99
3	60.00	$23.07	$10.30	$0.00	$4.95	$0.00	$38.32
4	65.00	$24.99	$10.30	$0.00	$5.36	$0.00	$40.65
5	70.00	$26.92	$10.30	$11.95	$5.78	$0.00	$54.95
6	75.00	$28.84	$10.30	$11.95	$6.19	$0.00	$57.28
7	80.00	$30.76	$10.30	$11.95	$6.60	$0.00	$59.61
8	90.00	$34.61	$10.30	$11.95	$7.43	$0.00	$64.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.68	$10.35	$0.00	$0.00	$0.00	$30.03
2	55.00	$21.64	$10.35	$0.00	$4.59	$0.00	$36.58
3	60.00	$23.61	$10.35	$0.00	$5.01	$0.00	$38.97
4	65.00	$25.58	$10.35	$0.00	$5.43	$0.00	$41.36
5	70.00	$27.55	$10.35	$12.00	$5.85	$0.00	$55.75
6	75.00	$29.51	$10.35	$12.00	$6.26	$0.00	$58.12
7	80.00	$31.48	$10.35	$12.00	$6.68	$0.00	$60.51
8	90.00	$35.42	$10.35	$12.00	$7.52	$0.00	$65.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, NEW) *	7/1/2025	$39.73	$10.30	$11.95	$8.25	$0.00	$70.23
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.	1/1/2026	$40.63	$10.35	$12.00	$8.35	$0.00	$71.33
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.87	$10.30	$0.00	$0.00	$0.00	$30.17
2	55.00	$21.85	$10.30	$0.00	$4.54	$0.00	$36.69
3	60.00	$23.84	$10.30	$0.00	$4.95	$0.00	$39.09
4	65.00	$25.82	$10.30	$0.00	$5.36	$0.00	$41.48
5	70.00	$27.81	$10.30	$11.95	$5.78	$0.00	$55.84
6	75.00	$29.80	$10.30	$11.95	$6.19	$0.00	$58.24
7	80.00	$31.78	$10.30	$11.95	$6.60	$0.00	$60.63
8	90.00	$35.76	$10.30	$11.95	$7.43	$0.00	$65.44

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.32	$10.35	$0.00	$0.00	$0.00	$30.67
2	55.00	$22.35	$10.35	$0.00	$4.59	$0.00	$37.29
3	60.00	$24.38	$10.35	$0.00	$5.01	$0.00	$39.74
4	65.00	$26.41	$10.35	$0.00	$5.43	$0.00	$42.19
5	70.00	$28.44	$10.35	$12.00	$5.85	$0.00	$56.64
6	75.00	$30.47	$10.35	$12.00	$6.26	$0.00	$59.08
7	80.00	$32.50	$10.35	$12.00	$6.68	$0.00	$61.53
8	90.00	$36.57	$10.35	$12.00	$7.52	$0.00	$66.44

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journeyworker Ratio: 1:1							
PAINTER / TAPER (BRUSH, REPAINT)	7/1/2025	$37.05	$10.30	$11.95	$8.25	$0.00	$67.55
PAINTERS LOCAL 35	1/1/2026	$37.95	$10.35	$12.00	$8.35	$0.00	$68.65
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.53	$10.30	$0.00	$0.00	$0.00	$28.83
2	55.00	$20.38	$10.30	$0.00	$4.54	$0.00	$35.22
3	60.00	$22.23	$10.30	$0.00	$4.95	$0.00	$37.48
4	65.00	$24.08	$10.30	$0.00	$5.36	$0.00	$39.74
5	70.00	$25.94	$10.30	$11.95	$5.78	$0.00	$53.97
6	75.00	$27.79	$10.30	$11.95	$6.19	$0.00	$56.23
7	80.00	$29.64	$10.30	$11.95	$6.60	$0.00	$58.49
8	90.00	$33.35	$10.30	$11.95	$7.43	$0.00	$63.03

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.98	$10.35	$0.00	$0.00	$0.00	$29.33
2	55.00	$20.87	$10.35	$0.00	$4.59	$0.00	$35.81
3	60.00	$22.77	$10.35	$0.00	$5.01	$0.00	$38.13
4	65.00	$24.67	$10.35	$0.00	$5.43	$0.00	$40.45
5	70.00	$26.57	$10.35	$12.00	$5.85	$0.00	$54.77
6	75.00	$28.46	$10.35	$12.00	$6.26	$0.00	$57.07
7	80.00	$30.36	$10.35	$12.00	$6.68	$0.00	$59.39
8	90.00	$34.16	$10.35	$12.00	$7.52	$0.00	$64.03

Apprentice to Journeyworker Ratio: 1:1							
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
LABORERS	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER	6/1/2025	$40.78	$15.57	$20.17	$0.00	$0.00	$76.52
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$40.78	$15.57	$21.78	$0.00	$0.00	$78.13
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$40.78	$16.17	$21.78	$0.00	$0.00	$78.73
	6/1/2026	$41.78	$16.17	$21.78	$0.00	$0.00	$79.73
	12/1/2026	$41.78	$16.17	$23.52	$0.00	$0.00	$81.47
	1/1/2027	$41.78	$16.77	$23.52	$0.00	$0.00	$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Apprentice: PILE DRIVER

Effective Date: 8/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.14	$10.08	$0.00	$2.53	$0.00	$34.75
2	55.00	$27.05	$10.08	$0.00	$5.07	$0.00	$42.20
3	70.00	$34.43	$10.08	$11.62	$7.60	$0.00	$63.73
4	80.00	$39.35	$10.08	$11.62	$10.14	$0.00	$71.19

Apprentice to Journeyworker Ratio: 1:5

PIPELAYER LABORERS LABORERS - ZONE 3 (BUILDING & SITE) For apprentice rates see "Apprentice- LABORER"	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
PIPELAYER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
PLUMBER & PIPEFITTER PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$23.85	$10.35	$10.85	$0.00	$0.00	$45.05
2	50.00	$26.51	$10.35	$10.85	$0.00	$0.00	$47.71
3	55.00	$29.16	$10.35	$10.85	$0.00	$0.00	$50.36
4	60.00	$31.81	$10.35	$10.85	$0.00	$0.00	$53.01
5	65.00	$34.46	$10.35	$10.85	$0.00	$0.00	$55.66
6	70.00	$37.11	$10.35	$10.85	$0.00	$0.00	$58.31
7	75.00	$39.76	$10.35	$10.85	$0.00	$0.00	$60.96
8	80.00	$42.41	$10.35	$10.85	$0.00	$0.00	$63.61
9	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36
10	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 3/17/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$24.75	$10.35	$10.85	$0.00	$0.00	$45.95
2	50.00	$27.51	$10.35	$10.85	$0.00	$0.00	$48.71
3	55.00	$30.26	$10.35	$10.85	$0.00	$0.00	$51.46
4	60.00	$33.01	$10.35	$10.85	$0.00	$0.00	$54.21
5	65.00	$35.76	$10.35	$10.85	$0.00	$0.00	$56.96
6	70.00	$38.51	$10.35	$10.85	$0.00	$0.00	$59.71
7	75.00	$41.26	$10.35	$10.85	$0.00	$0.00	$62.46
8	80.00	$44.01	$10.35	$10.85	$0.00	$0.00	$65.21
9	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06
10	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06

Apprentice Notes

**1:1,2:5,3:9,4:12

Apprentice to Journeyworker Ratio: 1:1

PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$0.00	$10.85	$7.10	$0.00	$72.96
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
POWDERMAN & BLASTER	6/2/2025	$36.50	$10.15	$9.50	$8.57	$0.00	$64.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.75	$10.15	$9.50	$8.57	$0.00	$65.97
	6/1/2026	$39.05	$10.15	$9.50	$8.57	$0.00	$67.27
	12/7/2026	$40.35	$10.15	$9.50	$8.57	$0.00	$68.57
	6/7/2027	$41.75	$10.15	$9.50	$8.57	$0.00	$69.97
	12/6/2027	$43.15	$10.15	$9.50	$8.57	$0.00	$71.37
	6/5/2028	$44.65	$10.15	$9.50	$8.57	$0.00	$72.87
	12/4/2028	$46.15	$10.15	$9.50	$8.57	$0.00	$74.37
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2025	$36.50	$10.15	$9.50	$6.56	$0.00	$62.71
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$37.74	$10.15	$9.50	$6.56	$0.00	$63.95
	6/1/2026	$39.04	$10.15	$9.50	$6.56	$0.00	$65.25
	12/1/2026	$40.33	$10.15	$9.50	$6.56	$0.00	$66.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER TEAMSTERS 404 - Construction Service (Northampton) TEAMSTERS 404 - Construction Service (Northampton)	5/1/2024	$26.14	$11.82	$7.25	$0.00	$0.00	$45.21
RIDE-ON MOTORIZED BUGGY OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ROLLER OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Coal tar pitch)	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
ROOFERS LOCAL 248 ROOFERS LOCAL 248	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
For apprentice rates see "Apprentice- ROOFER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) ROOFERS LOCAL 248 ROOFERS LOCAL 248	10/2/2025	$44.23	$10.60	$8.70	$10.00	$0.00	$73.53
	7/16/2026	$46.23	$10.60	$8.70	$10.00	$0.00	$75.53
ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 248 ROOFERS LOCAL 248	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
For apprentice rates see "Apprentice- ROOFER"							
SCRAPER OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-PROPELLED POWER BROOM OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.57	$5.82	$4.95	$0.00	$0.85	$31.19
2	50.00	$21.74	$6.47	$5.51	$0.00	$0.94	$34.66
3	55.00	$23.91	$7.12	$9.91	$0.00	$1.15	$42.09
4	60.00	$26.09	$7.76	$9.91	$0.00	$1.23	$44.99
5	65.00	$28.26	$8.41	$9.91	$0.00	$1.31	$47.89
6	70.00	$30.44	$9.06	$9.91	$0.00	$1.39	$50.80
7	75.00	$32.61	$9.71	$9.91	$0.00	$1.47	$53.70
8	80.00	$34.78	$10.35	$9.91	$8.72	$1.78	$65.54
9	85.00	$36.96	$11.00	$9.91	$8.72	$1.86	$68.45
10	90.00	$39.13	$11.65	$9.91	$8.72	$1.94	$71.35

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: SHEETMETAL WORKER							
Effective Date: 7/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 45.00		$19.57	$5.96	$4.95	$0.00	$0.85	$31.33
2 / 50.00		$21.74	$6.62	$5.51	$0.00	$0.94	$34.81
3 / 55.00		$23.91	$7.28	$9.91	$0.00	$1.15	$42.25
4 / 60.00		$26.09	$7.94	$9.91	$0.00	$1.23	$45.17
5 / 65.00		$28.26	$8.60	$9.91	$0.00	$1.31	$48.08
6 / 70.00		$30.44	$9.27	$9.91	$0.00	$1.39	$51.01
7 / 75.00		$32.61	$9.93	$9.91	$0.00	$1.47	$53.92
8 / 80.00		$34.78	$10.59	$9.91	$9.92	$1.78	$66.98
9 / 85.00		$36.96	$11.25	$9.91	$9.92	$1.86	$69.90
10 / 90.00		$39.13	$11.92	$9.91	$9.92	$1.94	$72.82
Apprentice to Journeyworker Ratio: 1:3							
SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.53	$15.57	$20.17	$0.00	$0.00	$77.27
	12/1/2025	$41.53	$15.57	$21.78	$0.00	$0.00	$78.88
	1/1/2026	$41.53	$16.17	$21.78	$0.00	$0.00	$79.48
	6/1/2026	$42.53	$16.17	$21.78	$0.00	$0.00	$80.48
	12/1/2026	$42.53	$16.17	$23.52	$0.00	$0.00	$82.22
	1/1/2027	$42.53	$16.77	$23.52	$0.00	$0.00	$82.82
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 669 SPRINKLER FITTERS LOCAL 669	10/1/2025	$53.25	$12.40	$7.40	$9.41	$0.00	$82.46
	1/1/2026	$53.25	$13.60	$7.45	$9.41	$0.00	$83.71
	4/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	7/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	10/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	1/1/2027	$56.54	$14.55	$7.50	$9.41	$0.00	$88.00
	4/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	7/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	10/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	1/1/2028	$59.83	$15.50	$7.55	$9.41	$0.00	$92.29
Apprentice: SPRINKLER FITTER							
Effective Date: 10/1/2025							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 43.00		$26.94	$12.40	$0.00	$0.00	$0.00	$39.34
2 / 48.00		$30.08	$12.40	$0.00	$0.00	$0.00	$42.48

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: SPRINKLER FITTER

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	52.00	$32.58	$12.40	$7.40	$1.15	$0.00	$53.53
4	56.00	$35.09	$12.40	$7.40	$1.15	$0.00	$56.04
5	59.00	$36.97	$12.40	$7.40	$1.40	$0.00	$58.17
6	64.00	$40.10	$12.40	$7.40	$1.40	$0.00	$61.30
7	68.00	$42.61	$12.40	$7.40	$1.40	$0.00	$63.81
8	72.00	$45.12	$12.40	$7.40	$1.40	$0.00	$66.32
9	76.00	$47.62	$12.40	$7.40	$1.40	$0.00	$68.82
10	80.00	$50.13	$12.40	$7.40	$1.40	$0.00	$71.33

Apprentice: SPRINKLER FITTER

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	43.00	$26.94	$9.64	$0.00	$0.00	$0.00	$36.58
2	48.00	$30.08	$9.64	$0.00	$0.00	$0.00	$39.72
3	52.00	$32.58	$13.60	$7.45	$1.15	$0.00	$54.78
4	56.00	$35.09	$13.60	$7.45	$1.15	$0.00	$57.29
5	59.00	$36.97	$13.60	$7.45	$1.40	$0.00	$59.42
6	64.00	$40.10	$13.60	$7.45	$1.40	$0.00	$62.55
7	68.00	$42.61	$13.60	$7.45	$1.40	$0.00	$65.06
8	72.00	$45.12	$13.60	$7.45	$1.40	$0.00	$67.57
9	76.00	$47.62	$13.60	$7.45	$1.40	$0.00	$70.07
10	80.00	$50.13	$13.60	$7.45	$1.40	$0.00	$72.58

Apprentice to Journeyworker Ratio: 1:1

TELECOMMUNICATION TECHNICIAN	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
TELECOMMUNICATION TECHNICIAN	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
ELECTRICIANS LOCAL 7	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
ELECTRICIANS LOCAL 7	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

For apprentice rates and ratios see "Apprentice- ELECTRICIAN"

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 1:1

TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$66.89	$11.49	$15.57	$8.02	$0.00	$101.97
	2/10/2026	$68.24	$11.49	$15.57	$8.02	$0.00	$103.32
	8/1/2026	$70.44	$11.49	$15.57	$8.02	$0.00	$105.52
	2/1/2027	$71.84	$11.49	$15.57	$8.02	$0.00	$106.92

Apprentice: TERRAZZO FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.45	$11.49	$15.57	$8.02	$0.00	$68.53
2	60.00	$40.13	$11.49	$15.57	$8.02	$0.00	$75.21
3	70.00	$46.82	$11.49	$15.57	$8.02	$0.00	$81.90
4	80.00	$53.51	$11.49	$15.57	$8.02	$0.00	$88.59
5	90.00	$60.20	$11.49	$15.57	$8.02	$0.00	$95.28

Apprentice: TERRAZZO FINISHERS

Effective Date: 2/10/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.12	$11.49	$15.57	$8.02	$0.00	$69.20
2	60.00	$40.94	$11.49	$15.57	$8.02	$0.00	$76.02
3	70.00	$47.77	$11.49	$15.57	$8.02	$0.00	$82.85
4	80.00	$54.59	$11.49	$15.57	$8.02	$0.00	$89.67
5	90.00	$61.42	$11.49	$15.57	$8.02	$0.00	$96.50

Apprentice to Journeyworker Ratio: 1:5

TERRAZZO MECHANIC BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$67.97	$11.49	$15.57	$7.99	$0.00	$103.02
	2/1/2026	$69.32	$11.49	$15.57	$7.99	$0.00	$104.37
	8/1/2026	$71.52	$11.49	$15.57	$7.99	$0.00	$106.57
	2/1/2027	$72.92	$11.49	$15.57	$7.99	$0.00	$107.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TERRAZZO MECHANIC

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.99	$11.49	$15.57	$7.99	$0.00	$69.04
2	60.00	$40.78	$11.49	$15.57	$7.99	$0.00	$75.83
3	70.00	$47.58	$11.49	$15.57	$7.99	$0.00	$82.63
4	80.00	$54.38	$11.49	$15.57	$7.99	$0.00	$89.43
5	90.00	$61.17	$11.49	$15.57	$7.99	$0.00	$96.22

Apprentice: TERRAZZO MECHANIC

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.66	$11.49	$15.57	$7.99	$0.00	$69.71
2	60.00	$41.59	$11.49	$15.57	$7.99	$0.00	$76.64
3	70.00	$48.52	$11.49	$15.57	$7.99	$0.00	$83.57
4	80.00	$55.46	$11.49	$15.57	$7.99	$0.00	$90.51
5	90.00	$62.39	$11.49	$15.57	$7.99	$0.00	$97.44

Apprentice to Journeyworker Ratio: 1:5

TEST BORING DRILLER	6/1/2025	$51.20	$10.15	$9.50	$9.80	$0.00	$80.65
LABORERS	12/1/2025	$52.70	$10.15	$9.50	$9.80	$0.00	$82.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$54.25	$10.15	$9.50	$9.80	$0.00	$83.70
	12/1/2026	$55.75	$10.15	$9.50	$9.80	$0.00	$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	6/1/2025	$47.32	$10.15	$9.50	$9.80	$0.00	$76.77
LABORERS	12/1/2025	$48.82	$10.15	$9.50	$9.80	$0.00	$78.27
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.37	$10.15	$9.50	$9.80	$0.00	$79.82
	12/1/2026	$51.87	$10.15	$9.50	$9.80	$0.00	$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
LABORERS	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	6/1/2025	$41.82	$15.57	$20.17	$0.00	$0.00	$77.56
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.82	$15.57	$21.78	$0.00	$0.00	$79.17
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.82	$16.17	$21.78	$0.00	$0.00	$79.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2026	$42.82	$16.17	$21.78	$0.00	$0.00	$80.77
	12/1/2026	$42.82	$16.17	$23.52	$0.00	$0.00	$82.51
	1/1/2027	$42.82	$16.77	$23.52	$0.00	$0.00	$83.11
TUNNEL WORK - COMPRESSED AIR	6/1/2025	$59.43	$10.15	$9.50	$10.25	$0.00	$89.33
LABORERS	12/1/2025	$60.93	$10.15	$9.50	$10.25	$0.00	$90.83
LABORERS (COMPRESSED AIR)	6/1/2026	$62.48	$10.15	$9.50	$10.25	$0.00	$92.38
	12/1/2026	$63.98	$10.15	$9.50	$10.25	$0.00	$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2025	$61.43	$10.15	$9.50	$10.25	$0.00	$91.33
LABORERS	12/1/2025	$62.93	$10.15	$9.50	$10.25	$0.00	$92.83
LABORERS (COMPRESSED AIR)	6/1/2026	$64.48	$10.15	$9.50	$10.25	$0.00	$94.38
	12/1/2026	$65.98	$10.15	$9.50	$10.25	$0.00	$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2025	$51.50	$10.15	$9.50	$10.25	$0.00	$81.40
LABORERS	12/1/2025	$53.00	$10.15	$9.50	$10.25	$0.00	$82.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$54.55	$10.15	$9.50	$10.25	$0.00	$84.45
	12/1/2026	$56.05	$10.15	$9.50	$10.25	$0.00	$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	6/1/2025	$53.50	$10.15	$9.50	$10.25	$0.00	$83.40
LABORERS	12/1/2025	$55.00	$10.15	$9.50	$10.25	$0.00	$84.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$56.55	$10.15	$9.50	$10.25	$0.00	$86.45
	12/1/2026	$58.05	$10.15	$9.50	$10.25	$0.00	$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
WAGON DRILL OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
WATER METER INSTALLER	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22
GROUNDMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$30.58	$8.00	$5.48	$0.00	$0.00	$44.06
GROUNDMAN / TRUCK DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$39.97	$8.00	$10.96	$0.00	$0.00	$58.93
HEAVY EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$47.01	$8.00	$13.22	$0.00	$0.00	$68.23
JOURNEYMAN LINEMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$51.71	$8.00	$15.55	$0.00	$0.00	$75.26

Apprentice: JOURNEYMAN LINEMAN

Effective Date: 9/1/2019

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$31.03	$8.00	$3.43	$0.00	$0.00	$42.46
2	65.00	$33.61	$8.00	$3.51	$0.00	$0.00	$45.12
3	70.00	$36.20	$8.00	$3.59	$0.00	$0.00	$47.79
4	75.00	$38.78	$8.00	$5.16	$0.00	$0.00	$51.94
5	80.00	$41.37	$8.00	$5.24	$0.00	$0.00	$54.61
6	85.00	$43.95	$8.00	$5.32	$0.00	$0.00	$57.27
7	90.00	$46.54	$8.00	$7.40	$0.00	$0.00	$61.94

Apprentice to Journeyworker Ratio: 1:2

TELEDATA CABLE SPLICER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$30.73	$4.70	$0.92	$2.25	$0.00	$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TRACTOR-TRAILER DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42							

Additional Apprentice Information

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

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CITY OF SPRINGFIELD WAGES

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Prevailing Wage Rates

MAURA HEALY
Governor
KIM DRISCOLL
Lt. Governor

As determined by the Director under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	Massachusetts Highway	**City/Town:**	SPRINGFIELD
Contract Number:	132950		
Description of Work:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD – Bridge Preservation of 26 Bridges along I-91 (613219) $9,008,000.00		
Job Location:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD along I-91		

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F “rental of equipment” contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets form DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to http://www.mass.gov/dols/pw.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$40.95	$15.57	$20.17	$0.00	$0.00	$76.69
	12/1/2025	$40.95	$15.57	$21.78	$0.00	$0.00	$78.30
	1/1/2026	$40.95	$16.17	$21.78	$0.00	$0.00	$78.90
	6/1/2026	$41.95	$16.17	$21.78	$0.00	$0.00	$79.90
	12/1/2026	$41.95	$16.17	$23.52	$0.00	$0.00	$81.64
	1/1/2027	$41.95	$16.77	$23.52	$0.00	$0.00	$82.24
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.02	$15.57	$20.17	$0.00	$0.00	$76.76
	12/1/2025	$41.02	$15.57	$21.78	$0.00	$0.00	$78.37
	1/1/2026	$41.02	$16.17	$21.78	$0.00	$0.00	$78.97
	6/1/2026	$42.02	$16.17	$21.78	$0.00	$0.00	$79.97
	12/1/2026	$42.02	$16.17	$23.52	$0.00	$0.00	$81.71
	1/1/2027	$42.02	$16.77	$23.52	$0.00	$0.00	$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.14	$15.57	$20.17	$0.00	$0.00	$76.88
	12/1/2025	$41.14	$15.57	$21.78	$0.00	$0.00	$78.49
	1/1/2026	$41.14	$16.17	$21.78	$0.00	$0.00	$79.09
	6/1/2026	$42.14	$16.17	$21.78	$0.00	$0.00	$80.09
	12/1/2026	$42.14	$16.17	$23.52	$0.00	$0.00	$81.83
	1/1/2027	$42.14	$16.77	$23.52	$0.00	$0.00	$82.43
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
AIR TRACK OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASBESTOS WORKER (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	6/1/2025	$39.42	$14.50	$4.30	$6.25	$0.00	$64.47
	12/1/2025	$40.32	$14.50	$4.30	$6.25	$0.00	$65.37
ASPHALT RAKER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER)	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER OPERATOR	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
BATCH/CEMENT PLANT - ON SITE	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BLOCK PAVER, RAMMER / CURB SETTER	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
LABORERS	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
LABORERS	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BOILER MAKER BOILERMAKERS LOCAL 29 BOILERMAKERS LOCAL 29	1/1/2024	$48.12	$7.07	$14.60	$6.00	$0.00	$75.79

Apprentice: BOILER MAKER

Effective Date: 1/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
2	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
3	70.00	$33.68	$7.07	$10.03	$4.20	$0.00	$54.98
4	75.00	$36.09	$7.07	$10.74	$4.50	$0.00	$58.40
5	80.00	$38.50	$7.07	$11.45	$4.80	$0.00	$61.82
6	85.00	$40.90	$7.07	$12.18	$5.10	$0.00	$65.25
7	90.00	$43.31	$7.07	$12.88	$5.40	$0.00	$68.66
8	95.00	$45.71	$7.07	$13.62	$5.70	$0.00	$72.10

Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	8/1/2025	$56.36	$11.49	$15.57	$5.89	$0.00	$89.31
	2/1/2026	$57.71	$11.49	$15.57	$5.89	$0.00	$90.66
	8/1/2026	$59.91	$11.49	$15.57	$5.89	$0.00	$92.86
	2/1/2027	$61.31	$11.49	$15.57	$5.89	$0.00	$94.26

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.18	$11.49	$15.57	$5.89	$0.00	$61.13
2	60.00	$33.82	$11.49	$15.57	$5.89	$0.00	$66.77
3	70.00	$39.45	$11.49	$15.57	$5.89	$0.00	$72.40
4	80.00	$45.09	$11.49	$15.57	$5.89	$0.00	$78.04
5	90.00	$50.72	$11.49	$15.57	$5.89	$0.00	$83.67

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.86	$11.49	$15.57	$5.89	$0.00	$61.81
2	60.00	$34.63	$11.49	$15.57	$5.89	$0.00	$67.58
3	70.00	$40.40	$11.49	$15.57	$5.89	$0.00	$73.35
4	80.00	$46.17	$11.49	$15.57	$5.89	$0.00	$79.12
5	90.00	$51.94	$11.49	$15.57	$5.89	$0.00	$84.89

Apprentice to Journeyworker Ratio: 1:5

BULLDOZER/POWER SHOVEL/TREE SHREDDER /CLAM SHELL	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98 For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$48.35	$10.15	$9.50	$9.80	$0.00	$77.80
	12/1/2025	$49.85	$10.15	$9.50	$9.80	$0.00	$79.30
	6/1/2026	$51.40	$10.15	$9.50	$9.80	$0.00	$80.85
	12/1/2026	$52.90	$10.15	$9.50	$9.80	$0.00	$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.53	$10.15	$9.50	$9.80	$0.00	$76.98
	12/1/2025	$49.03	$10.15	$9.50	$9.80	$0.00	$78.48
	6/1/2026	$50.58	$10.15	$9.50	$9.80	$0.00	$80.03
	12/1/2026	$52.08	$10.15	$9.50	$9.80	$0.00	$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
CARPENTER CARPENTERS CARPENTERS LOCAL 336 - HAMPDEN HAMPSHIRE FRANKLIN	9/1/2025	$43.54	$8.56	$11.25	$6.90	$0.00	$70.25
	3/1/2026	$44.44	$8.56	$11.25	$6.90	$0.00	$71.15
	9/1/2026	$45.39	$8.56	$11.25	$6.90	$0.00	$72.10
	3/1/2027	$46.29	$8.56	$11.25	$6.90	$0.00	$73.00

Apprentice: CARPENTER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
2	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
3	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
4	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
5	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
6	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
7	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16
8	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: CARPENTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$20.00	$8.56	$0.00	$1.38	$0.00	$29.94
2	45.00	$20.00	$0.65	$0.00	$1.38	$0.00	$22.03
3	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
4	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
5	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
6	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
7	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88
8	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88

Apprentice to Journeyworker Ratio: 1:5

CARPENTER WOOD FRAME	10/1/2025	$27.75	$7.02	$3.80	$1.00	$0.00	$39.57
CARPENTERS CARPENTERS-ZONE 3 (Wood Frame)	10/1/2026	$28.85	$7.02	$3.80	$1.00	$0.00	$40.67

All Aspects of New Wood Frame Work

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
2	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
3	65.00	$18.04	$7.02	$0.00	$1.00	$0.00	$26.06
4	70.00	$19.43	$7.02	$0.00	$1.00	$0.00	$27.45
5	75.00	$20.81	$7.02	$3.80	$1.00	$0.00	$32.63
6	80.00	$22.20	$7.02	$3.80	$1.00	$0.00	$34.02
7	85.00	$23.59	$7.02	$3.80	$1.00	$0.00	$35.41
8	90.00	$24.98	$7.02	$3.80	$1.00	$0.00	$36.80

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
2	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
3	65.00	$18.75	$7.02	$0.00	$1.00	$0.00	$26.77
4	70.00	$20.20	$7.02	$0.00	$1.00	$0.00	$28.22
5	75.00	$21.64	$7.02	$3.80	$1.00	$0.00	$33.46
6	80.00	$23.08	$7.02	$3.80	$1.00	$0.00	$34.90
7	85.00	$24.52	$7.02	$3.80	$1.00	$0.00	$36.34
8	90.00	$25.97	$7.02	$3.80	$1.00	$0.00	$37.79

Apprentice to Journeyworker Ratio: 1:5

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	7/1/2024	$44.56	$13.20	$16.30	$2.93	$1.69	$78.68

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.28	$13.20	$16.30	$0.00	$0.00	$51.78
2	60.00	$26.74	$13.20	$16.30	$2.93	$1.69	$60.86
3	65.00	$28.96	$13.20	$16.30	$2.93	$1.69	$63.08
4	70.00	$31.19	$13.20	$16.30	$2.93	$1.69	$65.31
5	75.00	$33.42	$13.20	$16.30	$2.93	$1.69	$67.54
6	80.00	$35.65	$13.20	$16.30	$2.93	$1.69	$69.77
7	90.00	$40.10	$13.20	$16.30	$2.93	$1.69	$74.22

Apprentice to Journeyworker Ratio: 1:3

CHAIN SAW OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CRANE OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$43.06	$13.78	$12.15	$3.00	$0.00	$71.99

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: DELEADER (BRIDGE)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

DEMO: ADZEMAN LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$78.11	$10.08	$11.62	$12.67	$0.00	$112.48
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A $69.83, 3A $91.79,4A $102.14 Total Rate							
DIVER TENDER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A $54.20, 3A $73.93,4A $82.05 Total Rate							
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$83.69	$10.08	$11.62	$12.67	$0.00	$118.06
For apprentice rates see "Apprentice- PILE DRIVER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888 DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	$26.77	$6.67	$3.93	$0.00	$0.16	$37.53
ELECTRICIAN (Including Core Drilling) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 2:3

ELEVATOR CONSTRUCTOR ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$66.41	$16.28	$10.96	$10.40	$0.00	$104.05
	1/1/2026	$69.23	$16.38	$11.06	$10.70	$0.00	$107.37
	1/1/2027	$72.23	$16.48	$11.16	$11.00	$0.00	$110.87

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.21	$16.28	$0.00	$0.00	$0.00	$49.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$36.53	$16.28	$10.96	$10.40	$0.00	$74.17
3	65.00	$43.17	$16.28	$10.96	$10.40	$0.00	$80.81
4	70.00	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
5	80.00	$53.13	$16.28	$10.96	$10.40	$0.00	$90.77

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.62	$16.38	$0.00	$0.00	$0.00	$51.00
2	55.00	$38.08	$16.38	$11.06	$10.70	$0.00	$76.22
3	65.00	$45.00	$16.38	$11.06	$10.70	$0.00	$83.14
4	70.00	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
5	80.00	$55.38	$16.38	$11.06	$10.70	$0.00	$93.52

Apprentice to Journeyworker Ratio: 1:1

ELEVATOR CONSTRUCTOR HELPER ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
	1/1/2026	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
	1/1/2027	$50.56	$16.48	$11.16	$11.00	$0.00	$89.20
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$18.84	$4.80	$4.10	$0.00	$0.00	$27.74
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$21.33	$4.80	$4.10	$0.00	$0.00	$30.23
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$22.33	$4.80	$4.10	$0.00	$0.00	$31.23
FIRE ALARM INSTALLER ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"							
FIREMAN OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

Apprentice: FIREMAN

Effective Date: 12/1/2023

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$23.42	$13.78	$12.15	$3.00	$0.00	$52.35
2	70.00	$27.32	$13.78	$12.15	$3.00	$0.00	$56.25
3	80.00	$31.22	$13.78	$12.15	$3.00	$0.00	$60.15
4	90.00	$35.13	$13.78	$12.15	$3.00	$0.00	$64.06

Apprentice to Journeyworker Ratio: 1:6

FLAGGER & SIGNALER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	12/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	6/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
	12/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FLOORCOVERER FLOORCOVERERS LOCAL 2168 FLOORCOVERERS LOCAL 2168 ZONE III	9/1/2025	$43.44	$8.56	$11.25	$6.90	$0.00	$70.15
	3/1/2026	$44.34	$8.56	$11.25	$6.90	$0.00	$71.05
	9/1/2026	$45.29	$8.56	$11.25	$6.90	$0.00	$72.00
	3/1/2027	$46.19	$8.56	$11.25	$6.90	$0.00	$72.90

Apprentice: FLOORCOVERER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
2	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
3	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
4	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
5	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
6	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
7	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08
8	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FLOORCOVERER							
Effective Date: 3/1/2026							
Step 1 / Percent 45.00 / Apprentice Base Wage		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 2 / Percent 45.00 / Apprentice Base Wage		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 3 / Percent 55.00 / Apprentice Base Wage		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 4 / Percent 55.00 / Apprentice Base Wage		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 5 / Percent 70.00 / Apprentice Base Wage		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 6 / Percent 70.00 / Apprentice Base Wage		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 7 / Percent 80.00 / Apprentice Base Wage		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80
Step 8 / Percent 80.00 / Apprentice Base Wage		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80
Apprentice Notes							
Steps are 750 hrs.							
Apprentice to Journeyworker Ratio: 1:1							
FORK LIFT OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.25	$13.78	$12.15	$3.00	$0.00	$68.18
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATORS/LIGHTING PLANTS OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) GLAZIERS LOCAL 1333 GLAZIERS LOCAL 1333	6/1/2025	$43.13	$10.80	$8.25	$5.50	$0.00	$67.68
	6/1/2026	$44.73	$11.20	$8.40	$6.05	$0.00	$70.38
	6/1/2027	$46.73	$11.60	$8.55	$6.60	$0.00	$73.48
	6/1/2028	$48.73	$12.00	$8.70	$7.20	$0.00	$76.63
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)							
Effective Date: 6/1/2025							
Step 1 / Percent 50.00 / Apprentice Base Wage		$21.57	$10.80	$8.25	$5.50	$0.00	$46.12
Step 2 / Percent 56.25 / Apprentice Base Wage		$24.26	$10.80	$8.25	$5.50	$0.00	$48.81
Step 3 / Percent 62.50 / Apprentice Base Wage		$26.96	$10.80	$8.25	$5.50	$0.00	$51.51
Step 4 / Percent 68.75 / Apprentice Base Wage		$29.65	$10.80	$8.25	$5.50	$0.00	$54.20
Step 5 / Percent 75.00 / Apprentice Base Wage		$32.35	$10.80	$8.25	$5.50	$0.00	$56.90
Step 6 / Percent 81.25 / Apprentice Base Wage		$35.04	$10.80	$8.25	$5.50	$0.00	$59.59
Step 7 / Percent 87.50 / Apprentice Base Wage		$37.74	$10.80	$8.25	$5.50	$0.00	$62.29
Step 8 / Percent 93.75 / Apprentice Base Wage		$40.43	$10.80	$8.25	$5.50	$0.00	$64.98

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)							
Effective Date: 6/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 50.00		$22.37	$11.20	$8.40	$6.05	$0.00	$48.02
2 / 56.25		$25.16	$11.20	$8.40	$6.05	$0.00	$50.81
3 / 62.50		$27.96	$11.20	$8.40	$6.05	$0.00	$53.61
4 / 68.75		$30.75	$11.20	$8.40	$6.05	$0.00	$56.40
5 / 75.00		$33.55	$11.20	$8.40	$6.05	$0.00	$59.20
6 / 81.25		$36.34	$11.20	$8.40	$6.05	$0.00	$61.99
7 / 87.50		$39.14	$11.20	$8.40	$6.05	$0.00	$64.79
8 / 93.75		$41.93	$11.20	$8.40	$6.05	$0.00	$67.58
Apprentice to Journeyworker Ratio: 3:1							
GRADER/TRENCHING MACHINE/DERRICK OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER) PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.31	$10.85	$7.10	$0.00	$81.27
	3/17/2026	$55.01	$10.31	$10.85	$7.10	$0.00	$83.27
	9/17/2026	$57.01	$10.31	$10.85	$7.10	$0.00	$85.27
	3/17/2027	$59.01	$10.31	$10.85	$7.10	$0.00	$87.27
	9/17/2027	$61.01	$10.31	$10.85	$7.10	$0.00	$89.27
	3/17/2028	$63.01	$10.31	$10.85	$7.10	$0.00	$91.27
	9/17/2028	$65.01	$10.31	$10.85	$7.10	$0.00	$93.27
	3/17/2029	$67.01	$10.31	$10.85	$7.10	$0.00	$95.27
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
HVAC MECHANIC PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	9/1/2025	$48.27	$14.75	$9.52	$10.09	$0.00	$82.63
	9/1/2026	$51.01	$14.75	$9.52	$10.09	$0.00	$85.37

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.14	$14.75	$9.27	$5.05	$0.00	$53.21
2	60.00	$28.96	$14.75	$9.32	$6.05	$0.00	$59.08
3	70.00	$33.79	$14.75	$9.37	$7.06	$0.00	$64.97
4	80.00	$38.62	$14.75	$9.42	$8.07	$0.00	$70.86

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$25.51	$14.75	$9.27	$5.05	$0.00	$54.58
2	60.00	$30.61	$14.75	$9.32	$6.05	$0.00	$60.73
3	70.00	$35.71	$14.75	$9.37	$7.06	$0.00	$66.89
4	80.00	$40.81	$14.75	$9.42	$8.07	$0.00	$73.05

Apprentice to Journeyworker Ratio: 1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (SPRINGFIELD AREA)	3/16/2024	$40.66	$8.25	$12.70	$10.00	$0.00	$71.61

Apprentice: IRONWORKER/WELDER

Effective Date: 3/16/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: IRONWORKER/WELDER							
Effective Date: 3/16/2024							
Step / Percent / Apprentice Base Wage							
1 / 60.00		$24.40	$8.25	$12.70	$10.00	$0.00	$55.35
2 / 70.00		$28.46	$8.25	$12.70	$10.00	$0.00	$59.41
3 / 75.00		$30.50	$8.25	$12.70	$10.00	$0.00	$61.45
4 / 80.00		$32.53	$8.25	$12.70	$10.00	$0.00	$63.48
5 / 85.00		$34.56	$8.25	$12.70	$10.00	$0.00	$65.51
6 / 90.00		$36.59	$8.25	$12.70	$10.00	$0.00	$67.54
Apprentice to Journeyworker Ratio: 1:4							
JACKHAMMER & PAVING BREAKER OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
LABORER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
Apprentice: LABORER							
Effective Date: 6/2/2025							
Step / Percent / Apprentice Base Wage							
1 / 60.00		$21.30	$10.15	$9.50	$8.32	$0.00	$49.27
2 / 70.00		$24.85	$10.15	$9.50	$8.32	$0.00	$52.82
3 / 80.00		$28.40	$10.15	$9.50	$8.32	$0.00	$56.37
4 / 90.00		$31.95	$10.15	$9.50	$8.32	$0.00	$59.92
Apprentice: LABORER							
Effective Date: 12/1/2025							
Step / Percent / Apprentice Base Wage							
1 / 60.00		$22.80	$9.90	$9.25	$8.32	$0.00	$50.27

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: LABORER

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	70.00	$26.60	$9.90	$9.25	$8.32	$0.00	$54.07
3	80.00	$30.40	$9.90	$9.25	$8.32	$0.00	$57.87
4	90.00	$34.20	$9.90	$9.25	$8.32	$0.00	$61.67

Apprentice to Journeyworker Ratio: 1:5

LABORER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$21.30	$10.15	$9.50	$6.56	$0.00	$47.51
2	70.00	$24.85	$10.15	$9.50	$6.56	$0.00	$51.06
3	80.00	$28.40	$10.15	$9.50	$6.56	$0.00	$54.61
4	90.00	$31.95	$10.15	$9.50	$6.56	$0.00	$58.16

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$22.49	$9.90	$9.25	$6.31	$0.00	$47.95
2	70.00	$26.24	$9.90	$9.25	$6.31	$0.00	$51.70
3	80.00	$29.99	$9.90	$9.25	$6.31	$0.00	$55.45
4	90.00	$33.74	$9.90	$9.25	$6.31	$0.00	$59.20

Apprentice to Journeyworker Ratio: 1:5

LABORER: CARPENTER TENDER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER LABORERS	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	6/2/2025	$35.42	$10.15	$9.50	$8.70	$0.00	$63.77
LABORERS	12/1/2025	$36.67	$10.15	$9.50	$8.70	$0.00	$65.02
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$37.97	$10.15	$9.50	$8.70	$0.00	$66.32
	12/7/2026	$39.27	$10.15	$9.50	$8.70	$0.00	$67.62
	6/7/2027	$40.67	$10.15	$9.50	$8.70	$0.00	$69.02
	12/6/2027	$42.07	$10.15	$9.50	$8.70	$0.00	$70.42
	6/5/2028	$43.57	$10.15	$9.50	$8.70	$0.00	$71.92
	12/4/2028	$45.07	$10.15	$9.50	$8.70	$0.00	$73.42
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER	6/2/2025	$38.50	$10.15	$9.50	$8.57	$0.00	$66.72
LABORERS	12/1/2025	$39.75	$10.15	$9.50	$8.57	$0.00	$67.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$41.05	$10.15	$9.50	$8.57	$0.00	$69.27
	12/7/2026	$42.35	$10.15	$9.50	$8.57	$0.00	$70.57
	6/7/2027	$43.75	$10.15	$9.50	$8.57	$0.00	$71.97
	12/6/2027	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
	6/5/2028	$46.65	$10.15	$9.50	$8.57	$0.00	$74.87
	12/4/2028	$48.15	$10.15	$9.50	$8.57	$0.00	$76.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

MARBLE & TILE FINISHERS	8/1/2025	$45.56	$11.49	$15.10	$5.68	$0.00	$77.83
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	2/1/2026	$46.64	$11.49	$15.10	$5.68	$0.00	$78.91
	8/1/2026	$48.40	$11.49	$15.10	$5.68	$0.00	$80.67
	2/1/2027	$49.52	$11.49	$15.10	$5.68	$0.00	$81.79

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.78	$11.49	$15.10	$5.68	$0.00	$55.05
2	60.00	$27.34	$11.49	$15.10	$5.68	$0.00	$59.61
3	70.00	$31.89	$11.49	$15.10	$5.68	$0.00	$64.16
4	80.00	$36.45	$11.49	$15.10	$5.68	$0.00	$68.72
5	90.00	$41.00	$11.49	$15.10	$5.68	$0.00	$73.27

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.32	$11.49	$15.10	$5.68	$0.00	$55.59
2	60.00	$27.98	$11.49	$15.10	$5.68	$0.00	$60.25
3	70.00	$32.65	$11.49	$15.10	$5.68	$0.00	$64.92
4	80.00	$37.31	$11.49	$15.10	$5.68	$0.00	$69.58
5	90.00	$41.98	$11.49	$15.10	$5.68	$0.00	$74.25

Apprentice to Journeyworker Ratio: 1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MECHANIC/WELDER/BOOM TRUCK OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 3)	1/6/2025	$43.42	$10.08	$11.47	$9.75	$0.00	$74.72
MILLWRIGHTS LOCAL 1121 MILLWRIGHTS LOCAL 1121 - Zone 3	1/5/2026	$45.70	$10.08	$11.47	$9.75	$0.00	$77.00

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/6/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$23.88	$10.08	$0.00	$5.36	$0.00	$39.32
2	65.00	$28.22	$10.08	$0.00	$6.34	$0.00	$44.64
3	75.00	$32.57	$10.08	$11.47	$7.31	$0.00	$61.43
4	85.00	$36.91	$10.08	$11.47	$8.29	$0.00	$66.75

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/5/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$25.14	$10.08	$0.00	$5.36	$0.00	$40.58
2	65.00	$29.71	$10.08	$0.00	$6.34	$0.00	$46.13
3	75.00	$34.28	$10.08	$11.47	$7.31	$0.00	$63.14
4	85.00	$38.85	$10.08	$11.47	$8.29	$0.00	$68.69

Apprentice Notes

Step 1&2 Appr. indentured after 1/6/2020 receive no pension,

Apprentice to Journeyworker Ratio: 1:4

MORTAR MIXER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
OILER	12/1/2023	$35.02	$13.78	$12.15	$3.00	$0.00	$63.95
OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OTHER POWER DRIVEN EQUIPMENT - CLASS VI OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$32.74	$13.78	$12.15	$3.00	$0.00	$61.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$41.13	$10.30	$11.95	$8.25	$0.00	$71.63
	1/1/2026	$42.03	$10.35	$12.00	$8.35	$0.00	$72.73

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.57	$10.30	$0.00	$0.00	$0.00	$30.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$22.62	$10.30	$0.00	$4.54	$0.00	$37.46
3	60.00	$24.68	$10.30	$0.00	$4.95	$0.00	$39.93
4	65.00	$26.73	$10.30	$0.00	$5.36	$0.00	$42.39
5	70.00	$28.79	$10.30	$11.95	$5.78	$0.00	$56.82
6	75.00	$30.85	$10.30	$11.95	$6.19	$0.00	$59.29
7	80.00	$32.90	$10.30	$11.95	$6.60	$0.00	$61.75
8	90.00	$37.02	$10.30	$11.95	$7.43	$0.00	$66.70

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$21.02	$10.35	$0.00	$0.00	$0.00	$31.37
2	55.00	$23.12	$10.35	$0.00	$4.59	$0.00	$38.06
3	60.00	$25.22	$10.35	$0.00	$5.01	$0.00	$40.58
4	65.00	$27.32	$10.35	$0.00	$5.43	$0.00	$43.10
5	70.00	$29.42	$10.35	$12.00	$5.85	$0.00	$57.62
6	75.00	$31.52	$10.35	$12.00	$6.26	$0.00	$60.13
7	80.00	$33.62	$10.35	$12.00	$6.68	$0.00	$62.65
8	90.00	$37.83	$10.35	$12.00	$7.52	$0.00	$67.70

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$38.45	$10.30	$11.95	$8.25	$0.00	$68.95
	1/1/2026	$39.35	$10.35	$12.00	$8.35	$0.00	$70.05

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.23	$10.30	$0.00	$0.00	$0.00	$29.53
2	55.00	$21.15	$10.30	$0.00	$4.54	$0.00	$35.99
3	60.00	$23.07	$10.30	$0.00	$4.95	$0.00	$38.32
4	65.00	$24.99	$10.30	$0.00	$5.36	$0.00	$40.65
5	70.00	$26.92	$10.30	$11.95	$5.78	$0.00	$54.95
6	75.00	$28.84	$10.30	$11.95	$6.19	$0.00	$57.28
7	80.00	$30.76	$10.30	$11.95	$6.60	$0.00	$59.61
8	90.00	$34.61	$10.30	$11.95	$7.43	$0.00	$64.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.68	$10.35	$0.00	$0.00	$0.00	$30.03
2	55.00	$21.64	$10.35	$0.00	$4.59	$0.00	$36.58
3	60.00	$23.61	$10.35	$0.00	$5.01	$0.00	$38.97
4	65.00	$25.58	$10.35	$0.00	$5.43	$0.00	$41.36
5	70.00	$27.55	$10.35	$12.00	$5.85	$0.00	$55.75
6	75.00	$29.51	$10.35	$12.00	$6.26	$0.00	$58.12
7	80.00	$31.48	$10.35	$12.00	$6.68	$0.00	$60.51
8	90.00	$35.42	$10.35	$12.00	$7.52	$0.00	$65.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, NEW) *	7/1/2025	$39.73	$10.30	$11.95	$8.25	$0.00	$70.23
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.	1/1/2026	$40.63	$10.35	$12.00	$8.35	$0.00	$71.33
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.87	$10.30	$0.00	$0.00	$0.00	$30.17
2	55.00	$21.85	$10.30	$0.00	$4.54	$0.00	$36.69
3	60.00	$23.84	$10.30	$0.00	$4.95	$0.00	$39.09
4	65.00	$25.82	$10.30	$0.00	$5.36	$0.00	$41.48
5	70.00	$27.81	$10.30	$11.95	$5.78	$0.00	$55.84
6	75.00	$29.80	$10.30	$11.95	$6.19	$0.00	$58.24
7	80.00	$31.78	$10.30	$11.95	$6.60	$0.00	$60.63
8	90.00	$35.76	$10.30	$11.95	$7.43	$0.00	$65.44

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.32	$10.35	$0.00	$0.00	$0.00	$30.67
2	55.00	$22.35	$10.35	$0.00	$4.59	$0.00	$37.29
3	60.00	$24.38	$10.35	$0.00	$5.01	$0.00	$39.74
4	65.00	$26.41	$10.35	$0.00	$5.43	$0.00	$42.19
5	70.00	$28.44	$10.35	$12.00	$5.85	$0.00	$56.64
6	75.00	$30.47	$10.35	$12.00	$6.26	$0.00	$59.08
7	80.00	$32.50	$10.35	$12.00	$6.68	$0.00	$61.53
8	90.00	$36.57	$10.35	$12.00	$7.52	$0.00	$66.44

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journeyworker Ratio: 1:1							
PAINTER / TAPER (BRUSH, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$37.05	$10.30	$11.95	$8.25	$0.00	$67.55
	1/1/2026	$37.95	$10.35	$12.00	$8.35	$0.00	$68.65

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.53	$10.30	$0.00	$0.00	$0.00	$28.83
2	55.00	$20.38	$10.30	$0.00	$4.54	$0.00	$35.22
3	60.00	$22.23	$10.30	$0.00	$4.95	$0.00	$37.48
4	65.00	$24.08	$10.30	$0.00	$5.36	$0.00	$39.74
5	70.00	$25.94	$10.30	$11.95	$5.78	$0.00	$53.97
6	75.00	$27.79	$10.30	$11.95	$6.19	$0.00	$56.23
7	80.00	$29.64	$10.30	$11.95	$6.60	$0.00	$58.49
8	90.00	$33.35	$10.30	$11.95	$7.43	$0.00	$63.03

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.98	$10.35	$0.00	$0.00	$0.00	$29.33
2	55.00	$20.87	$10.35	$0.00	$4.59	$0.00	$35.81
3	60.00	$22.77	$10.35	$0.00	$5.01	$0.00	$38.13
4	65.00	$24.67	$10.35	$0.00	$5.43	$0.00	$40.45
5	70.00	$26.57	$10.35	$12.00	$5.85	$0.00	$54.77
6	75.00	$28.46	$10.35	$12.00	$6.26	$0.00	$57.07
7	80.00	$30.36	$10.35	$12.00	$6.68	$0.00	$59.39
8	90.00	$34.16	$10.35	$12.00	$7.52	$0.00	$64.03

Apprentice to Journeyworker Ratio: 1:1							
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$40.78	$15.57	$20.17	$0.00	$0.00	$76.52
	12/1/2025	$40.78	$15.57	$21.78	$0.00	$0.00	$78.13
	1/1/2026	$40.78	$16.17	$21.78	$0.00	$0.00	$78.73
	6/1/2026	$41.78	$16.17	$21.78	$0.00	$0.00	$79.73
	12/1/2026	$41.78	$16.17	$23.52	$0.00	$0.00	$81.47
	1/1/2027	$41.78	$16.77	$23.52	$0.00	$0.00	$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Apprentice: PILE DRIVER

Effective Date: 8/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.14	$10.08	$0.00	$2.53	$0.00	$34.75
2	55.00	$27.05	$10.08	$0.00	$5.07	$0.00	$42.20
3	70.00	$34.43	$10.08	$11.62	$7.60	$0.00	$63.73
4	80.00	$39.35	$10.08	$11.62	$10.14	$0.00	$71.19

Apprentice to Journeyworker Ratio: 1:5

PIPELAYER LABORERS LABORERS - ZONE 3 (BUILDING & SITE) For apprentice rates see "Apprentice- LABORER"	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
PIPELAYER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
PLUMBER & PIPEFITTER PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$23.85	$10.35	$10.85	$0.00	$0.00	$45.05
2	50.00	$26.51	$10.35	$10.85	$0.00	$0.00	$47.71
3	55.00	$29.16	$10.35	$10.85	$0.00	$0.00	$50.36
4	60.00	$31.81	$10.35	$10.85	$0.00	$0.00	$53.01
5	65.00	$34.46	$10.35	$10.85	$0.00	$0.00	$55.66
6	70.00	$37.11	$10.35	$10.85	$0.00	$0.00	$58.31
7	75.00	$39.76	$10.35	$10.85	$0.00	$0.00	$60.96
8	80.00	$42.41	$10.35	$10.85	$0.00	$0.00	$63.61
9	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36
10	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 3/17/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$24.75	$10.35	$10.85	$0.00	$0.00	$45.95
2	50.00	$27.51	$10.35	$10.85	$0.00	$0.00	$48.71
3	55.00	$30.26	$10.35	$10.85	$0.00	$0.00	$51.46
4	60.00	$33.01	$10.35	$10.85	$0.00	$0.00	$54.21
5	65.00	$35.76	$10.35	$10.85	$0.00	$0.00	$56.96
6	70.00	$38.51	$10.35	$10.85	$0.00	$0.00	$59.71
7	75.00	$41.26	$10.35	$10.85	$0.00	$0.00	$62.46
8	80.00	$44.01	$10.35	$10.85	$0.00	$0.00	$65.21
9	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06
10	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06

Apprentice Notes

**1:1,2:5,3:9,4:12

Apprentice to Journeyworker Ratio: 1:1

PNEUMATIC CONTROLS (TEMP.)	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2026	$55.01	$0.00	$10.85	$7.10	$0.00	$72.96
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
POWDERMAN & BLASTER	6/2/2025	$36.50	$10.15	$9.50	$8.57	$0.00	$64.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.75	$10.15	$9.50	$8.57	$0.00	$65.97
	6/1/2026	$39.05	$10.15	$9.50	$8.57	$0.00	$67.27
	12/7/2026	$40.35	$10.15	$9.50	$8.57	$0.00	$68.57
	6/7/2027	$41.75	$10.15	$9.50	$8.57	$0.00	$69.97
	12/6/2027	$43.15	$10.15	$9.50	$8.57	$0.00	$71.37
	6/5/2028	$44.65	$10.15	$9.50	$8.57	$0.00	$72.87
	12/4/2028	$46.15	$10.15	$9.50	$8.57	$0.00	$74.37
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2025	$36.50	$10.15	$9.50	$6.56	$0.00	$62.71
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$37.74	$10.15	$9.50	$6.56	$0.00	$63.95
	6/1/2026	$39.04	$10.15	$9.50	$6.56	$0.00	$65.25
	12/1/2026	$40.33	$10.15	$9.50	$6.56	$0.00	$66.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER TEAMSTERS 404 - Construction Service (Northampton) TEAMSTERS 404 - Construction Service (Northampton)	5/1/2024	$26.14	$11.82	$7.25	$0.00	$0.00	$45.21
RIDE-ON MOTORIZED BUGGY OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ROLLER OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Coal tar pitch)	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
ROOFERS LOCAL 248 ROOFERS LOCAL 248	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
For apprentice rates see "Apprentice- ROOFER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) ROOFERS LOCAL 248 ROOFERS LOCAL 248	10/2/2025	$44.23	$10.60	$8.70	$10.00	$0.00	$73.53
	7/16/2026	$46.23	$10.60	$8.70	$10.00	$0.00	$75.53
ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 248 ROOFERS LOCAL 248	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
For apprentice rates see "Apprentice- ROOFER"							
SCRAPER OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-PROPELLED POWER BROOM OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.57	$5.82	$4.95	$0.00	$0.85	$31.19
2	50.00	$21.74	$6.47	$5.51	$0.00	$0.94	$34.66
3	55.00	$23.91	$7.12	$9.91	$0.00	$1.15	$42.09
4	60.00	$26.09	$7.76	$9.91	$0.00	$1.23	$44.99
5	65.00	$28.26	$8.41	$9.91	$0.00	$1.31	$47.89
6	70.00	$30.44	$9.06	$9.91	$0.00	$1.39	$50.80
7	75.00	$32.61	$9.71	$9.91	$0.00	$1.47	$53.70
8	80.00	$34.78	$10.35	$9.91	$8.72	$1.78	$65.54
9	85.00	$36.96	$11.00	$9.91	$8.72	$1.86	$68.45
10	90.00	$39.13	$11.65	$9.91	$8.72	$1.94	$71.35

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: SHEETMETAL WORKER							
Effective Date: 7/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 45.00		$19.57	$5.96	$4.95	$0.00	$0.85	$31.33
2 / 50.00		$21.74	$6.62	$5.51	$0.00	$0.94	$34.81
3 / 55.00		$23.91	$7.28	$9.91	$0.00	$1.15	$42.25
4 / 60.00		$26.09	$7.94	$9.91	$0.00	$1.23	$45.17
5 / 65.00		$28.26	$8.60	$9.91	$0.00	$1.31	$48.08
6 / 70.00		$30.44	$9.27	$9.91	$0.00	$1.39	$51.01
7 / 75.00		$32.61	$9.93	$9.91	$0.00	$1.47	$53.92
8 / 80.00		$34.78	$10.59	$9.91	$9.92	$1.78	$66.98
9 / 85.00		$36.96	$11.25	$9.91	$9.92	$1.86	$69.90
10 / 90.00		$39.13	$11.92	$9.91	$9.92	$1.94	$72.82
Apprentice to Journeyworker Ratio: 1:3							
SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.53	$15.57	$20.17	$0.00	$0.00	$77.27
	12/1/2025	$41.53	$15.57	$21.78	$0.00	$0.00	$78.88
	1/1/2026	$41.53	$16.17	$21.78	$0.00	$0.00	$79.48
	6/1/2026	$42.53	$16.17	$21.78	$0.00	$0.00	$80.48
	12/1/2026	$42.53	$16.17	$23.52	$0.00	$0.00	$82.22
	1/1/2027	$42.53	$16.77	$23.52	$0.00	$0.00	$82.82
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 669 SPRINKLER FITTERS LOCAL 669	10/1/2025	$53.25	$12.40	$7.40	$9.41	$0.00	$82.46
	1/1/2026	$53.25	$13.60	$7.45	$9.41	$0.00	$83.71
	4/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	7/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	10/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	1/1/2027	$56.54	$14.55	$7.50	$9.41	$0.00	$88.00
	4/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	7/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	10/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	1/1/2028	$59.83	$15.50	$7.55	$9.41	$0.00	$92.29
Apprentice: SPRINKLER FITTER							
Effective Date: 10/1/2025							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 43.00		$26.94	$12.40	$0.00	$0.00	$0.00	$39.34
2 / 48.00		$30.08	$12.40	$0.00	$0.00	$0.00	$42.48

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: SPRINKLER FITTER

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	52.00	$32.58	$12.40	$7.40	$1.15	$0.00	$53.53
4	56.00	$35.09	$12.40	$7.40	$1.15	$0.00	$56.04
5	59.00	$36.97	$12.40	$7.40	$1.40	$0.00	$58.17
6	64.00	$40.10	$12.40	$7.40	$1.40	$0.00	$61.30
7	68.00	$42.61	$12.40	$7.40	$1.40	$0.00	$63.81
8	72.00	$45.12	$12.40	$7.40	$1.40	$0.00	$66.32
9	76.00	$47.62	$12.40	$7.40	$1.40	$0.00	$68.82
10	80.00	$50.13	$12.40	$7.40	$1.40	$0.00	$71.33

Apprentice: SPRINKLER FITTER

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	43.00	$26.94	$9.64	$0.00	$0.00	$0.00	$36.58
2	48.00	$30.08	$9.64	$0.00	$0.00	$0.00	$39.72
3	52.00	$32.58	$13.60	$7.45	$1.15	$0.00	$54.78
4	56.00	$35.09	$13.60	$7.45	$1.15	$0.00	$57.29
5	59.00	$36.97	$13.60	$7.45	$1.40	$0.00	$59.42
6	64.00	$40.10	$13.60	$7.45	$1.40	$0.00	$62.55
7	68.00	$42.61	$13.60	$7.45	$1.40	$0.00	$65.06
8	72.00	$45.12	$13.60	$7.45	$1.40	$0.00	$67.57
9	76.00	$47.62	$13.60	$7.45	$1.40	$0.00	$70.07
10	80.00	$50.13	$13.60	$7.45	$1.40	$0.00	$72.58

Apprentice to Journeyworker Ratio: 1:1

TELECOMMUNICATION TECHNICIAN	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
TELECOMMUNICATION TECHNICIAN	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
ELECTRICIANS LOCAL 7	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
ELECTRICIANS LOCAL 7	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

For apprentice rates and ratios see "Apprentice- ELECTRICIAN"

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 1:1

TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$66.89	$11.49	$15.57	$8.02	$0.00	$101.97
	2/10/2026	$68.24	$11.49	$15.57	$8.02	$0.00	$103.32
	8/1/2026	$70.44	$11.49	$15.57	$8.02	$0.00	$105.52
	2/1/2027	$71.84	$11.49	$15.57	$8.02	$0.00	$106.92

Apprentice: TERRAZZO FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.45	$11.49	$15.57	$8.02	$0.00	$68.53
2	60.00	$40.13	$11.49	$15.57	$8.02	$0.00	$75.21
3	70.00	$46.82	$11.49	$15.57	$8.02	$0.00	$81.90
4	80.00	$53.51	$11.49	$15.57	$8.02	$0.00	$88.59
5	90.00	$60.20	$11.49	$15.57	$8.02	$0.00	$95.28

Apprentice: TERRAZZO FINISHERS

Effective Date: 2/10/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.12	$11.49	$15.57	$8.02	$0.00	$69.20
2	60.00	$40.94	$11.49	$15.57	$8.02	$0.00	$76.02
3	70.00	$47.77	$11.49	$15.57	$8.02	$0.00	$82.85
4	80.00	$54.59	$11.49	$15.57	$8.02	$0.00	$89.67
5	90.00	$61.42	$11.49	$15.57	$8.02	$0.00	$96.50

Apprentice to Journeyworker Ratio: 1:5

TERRAZZO MECHANIC BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$67.97	$11.49	$15.57	$7.99	$0.00	$103.02
	2/1/2026	$69.32	$11.49	$15.57	$7.99	$0.00	$104.37
	8/1/2026	$71.52	$11.49	$15.57	$7.99	$0.00	$106.57
	2/1/2027	$72.92	$11.49	$15.57	$7.99	$0.00	$107.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TERRAZZO MECHANIC

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.99	$11.49	$15.57	$7.99	$0.00	$69.04
2	60.00	$40.78	$11.49	$15.57	$7.99	$0.00	$75.83
3	70.00	$47.58	$11.49	$15.57	$7.99	$0.00	$82.63
4	80.00	$54.38	$11.49	$15.57	$7.99	$0.00	$89.43
5	90.00	$61.17	$11.49	$15.57	$7.99	$0.00	$96.22

Apprentice: TERRAZZO MECHANIC

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.66	$11.49	$15.57	$7.99	$0.00	$69.71
2	60.00	$41.59	$11.49	$15.57	$7.99	$0.00	$76.64
3	70.00	$48.52	$11.49	$15.57	$7.99	$0.00	$83.57
4	80.00	$55.46	$11.49	$15.57	$7.99	$0.00	$90.51
5	90.00	$62.39	$11.49	$15.57	$7.99	$0.00	$97.44

Apprentice to Journeyworker Ratio: 1:5

TEST BORING DRILLER	6/1/2025	$51.20	$10.15	$9.50	$9.80	$0.00	$80.65
LABORERS	12/1/2025	$52.70	$10.15	$9.50	$9.80	$0.00	$82.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$54.25	$10.15	$9.50	$9.80	$0.00	$83.70
	12/1/2026	$55.75	$10.15	$9.50	$9.80	$0.00	$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	6/1/2025	$47.32	$10.15	$9.50	$9.80	$0.00	$76.77
LABORERS	12/1/2025	$48.82	$10.15	$9.50	$9.80	$0.00	$78.27
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.37	$10.15	$9.50	$9.80	$0.00	$79.82
	12/1/2026	$51.87	$10.15	$9.50	$9.80	$0.00	$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
LABORERS	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	6/1/2025	$41.82	$15.57	$20.17	$0.00	$0.00	$77.56
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.82	$15.57	$21.78	$0.00	$0.00	$79.17
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.82	$16.17	$21.78	$0.00	$0.00	$79.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2026	$42.82	$16.17	$21.78	$0.00	$0.00	$80.77
	12/1/2026	$42.82	$16.17	$23.52	$0.00	$0.00	$82.51
	1/1/2027	$42.82	$16.77	$23.52	$0.00	$0.00	$83.11
TUNNEL WORK - COMPRESSED AIR	6/1/2025	$59.43	$10.15	$9.50	$10.25	$0.00	$89.33
LABORERS	12/1/2025	$60.93	$10.15	$9.50	$10.25	$0.00	$90.83
LABORERS (COMPRESSED AIR)	6/1/2026	$62.48	$10.15	$9.50	$10.25	$0.00	$92.38
	12/1/2026	$63.98	$10.15	$9.50	$10.25	$0.00	$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2025	$61.43	$10.15	$9.50	$10.25	$0.00	$91.33
LABORERS	12/1/2025	$62.93	$10.15	$9.50	$10.25	$0.00	$92.83
LABORERS (COMPRESSED AIR)	6/1/2026	$64.48	$10.15	$9.50	$10.25	$0.00	$94.38
	12/1/2026	$65.98	$10.15	$9.50	$10.25	$0.00	$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2025	$51.50	$10.15	$9.50	$10.25	$0.00	$81.40
LABORERS	12/1/2025	$53.00	$10.15	$9.50	$10.25	$0.00	$82.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$54.55	$10.15	$9.50	$10.25	$0.00	$84.45
	12/1/2026	$56.05	$10.15	$9.50	$10.25	$0.00	$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	6/1/2025	$53.50	$10.15	$9.50	$10.25	$0.00	$83.40
LABORERS	12/1/2025	$55.00	$10.15	$9.50	$10.25	$0.00	$84.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$56.55	$10.15	$9.50	$10.25	$0.00	$86.45
	12/1/2026	$58.05	$10.15	$9.50	$10.25	$0.00	$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
WAGON DRILL OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
WATER METER INSTALLER	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22
GROUNDMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$30.58	$8.00	$5.48	$0.00	$0.00	$44.06
GROUNDMAN / TRUCK DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$39.97	$8.00	$10.96	$0.00	$0.00	$58.93
HEAVY EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$47.01	$8.00	$13.22	$0.00	$0.00	$68.23
JOURNEYMAN LINEMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$51.71	$8.00	$15.55	$0.00	$0.00	$75.26

Apprentice: JOURNEYMAN LINEMAN

Effective Date: 9/1/2019

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$31.03	$8.00	$3.43	$0.00	$0.00	$42.46
2	65.00	$33.61	$8.00	$3.51	$0.00	$0.00	$45.12
3	70.00	$36.20	$8.00	$3.59	$0.00	$0.00	$47.79
4	75.00	$38.78	$8.00	$5.16	$0.00	$0.00	$51.94
5	80.00	$41.37	$8.00	$5.24	$0.00	$0.00	$54.61
6	85.00	$43.95	$8.00	$5.32	$0.00	$0.00	$57.27
7	90.00	$46.54	$8.00	$7.40	$0.00	$0.00	$61.94

Apprentice to Journeyworker Ratio: 1:2

TELEDATA CABLE SPLICER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$30.73	$4.70	$0.92	$2.25	$0.00	$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TRACTOR-TRAILER DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42							

Additional Apprentice Information

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

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CITY OF WEST SPRINGFIELD WAGES

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Prevailing Wage Rates

MAURA HEALY
Governor
KIM DRISCOLL
Lt. Governor

As determined by the Director under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	Massachusetts Highway	**City/Town:**	WEST SPRINGFIELD
Contract Number:	132950		
Description of Work:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD – Bridge Preservation of 26 Bridges along I-91 (613219) $9,008,000.00		
Job Location:	CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD along I-91		

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F “rental of equipment” contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets form DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to http://www.mass.gov/dols/pw.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$40.95	$15.57	$20.17	$0.00	$0.00	$76.69
	12/1/2025	$40.95	$15.57	$21.78	$0.00	$0.00	$78.30
	1/1/2026	$40.95	$16.17	$21.78	$0.00	$0.00	$78.90
	6/1/2026	$41.95	$16.17	$21.78	$0.00	$0.00	$79.90
	12/1/2026	$41.95	$16.17	$23.52	$0.00	$0.00	$81.64
	1/1/2027	$41.95	$16.77	$23.52	$0.00	$0.00	$82.24
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.02	$15.57	$20.17	$0.00	$0.00	$76.76
	12/1/2025	$41.02	$15.57	$21.78	$0.00	$0.00	$78.37
	1/1/2026	$41.02	$16.17	$21.78	$0.00	$0.00	$78.97
	6/1/2026	$42.02	$16.17	$21.78	$0.00	$0.00	$79.97
	12/1/2026	$42.02	$16.17	$23.52	$0.00	$0.00	$81.71
	1/1/2027	$42.02	$16.77	$23.52	$0.00	$0.00	$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.14	$15.57	$20.17	$0.00	$0.00	$76.88
	12/1/2025	$41.14	$15.57	$21.78	$0.00	$0.00	$78.49
	1/1/2026	$41.14	$16.17	$21.78	$0.00	$0.00	$79.09
	6/1/2026	$42.14	$16.17	$21.78	$0.00	$0.00	$80.09
	12/1/2026	$42.14	$16.17	$23.52	$0.00	$0.00	$81.83
	1/1/2027	$42.14	$16.77	$23.52	$0.00	$0.00	$82.43
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
AIR TRACK OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASBESTOS WORKER (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	6/1/2025	$39.42	$14.50	$4.30	$6.25	$0.00	$64.47
	12/1/2025	$40.32	$14.50	$4.30	$6.25	$0.00	$65.37
ASPHALT RAKER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
BATCH/CEMENT PLANT - ON SITE OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BLOCK PAVER, RAMMER / CURB SETTER	6/2/2025	$36.25	$10.15	$9.50	$8.57	$0.00	$64.47
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.50	$10.15	$9.50	$8.57	$0.00	$65.72
	6/1/2026	$38.80	$10.15	$9.50	$8.57	$0.00	$67.02
	12/7/2026	$40.10	$10.15	$9.50	$8.57	$0.00	$68.32
	6/7/2027	$41.50	$10.15	$9.50	$8.57	$0.00	$69.72
	12/6/2027	$42.90	$10.15	$9.50	$8.57	$0.00	$71.12
	6/5/2028	$44.40	$10.15	$9.50	$8.57	$0.00	$72.62
	12/4/2028	$45.90	$10.15	$9.50	$8.57	$0.00	$74.12
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BOILER MAKER BOILERMAKERS LOCAL 29 BOILERMAKERS LOCAL 29	1/1/2024	$48.12	$7.07	$14.60	$6.00	$0.00	$75.79

Apprentice: BOILER MAKER

Effective Date: 1/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
2	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
3	70.00	$33.68	$7.07	$10.03	$4.20	$0.00	$54.98
4	75.00	$36.09	$7.07	$10.74	$4.50	$0.00	$58.40
5	80.00	$38.50	$7.07	$11.45	$4.80	$0.00	$61.82
6	85.00	$40.90	$7.07	$12.18	$5.10	$0.00	$65.25
7	90.00	$43.31	$7.07	$12.88	$5.40	$0.00	$68.66
8	95.00	$45.71	$7.07	$13.62	$5.70	$0.00	$72.10

Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	8/1/2025	$56.36	$11.49	$15.57	$5.89	$0.00	$89.31
	2/1/2026	$57.71	$11.49	$15.57	$5.89	$0.00	$90.66
	8/1/2026	$59.91	$11.49	$15.57	$5.89	$0.00	$92.86
	2/1/2027	$61.31	$11.49	$15.57	$5.89	$0.00	$94.26

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.18	$11.49	$15.57	$5.89	$0.00	$61.13
2	60.00	$33.82	$11.49	$15.57	$5.89	$0.00	$66.77
3	70.00	$39.45	$11.49	$15.57	$5.89	$0.00	$72.40
4	80.00	$45.09	$11.49	$15.57	$5.89	$0.00	$78.04
5	90.00	$50.72	$11.49	$15.57	$5.89	$0.00	$83.67

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.86	$11.49	$15.57	$5.89	$0.00	$61.81
2	60.00	$34.63	$11.49	$15.57	$5.89	$0.00	$67.58
3	70.00	$40.40	$11.49	$15.57	$5.89	$0.00	$73.35
4	80.00	$46.17	$11.49	$15.57	$5.89	$0.00	$79.12
5	90.00	$51.94	$11.49	$15.57	$5.89	$0.00	$84.89

Apprentice to Journeyworker Ratio: 1:5

BULLDOZER/POWER SHOVEL/TREE SHREDDER /CLAM SHELL	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98 For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$48.35	$10.15	$9.50	$9.80	$0.00	$77.80
	12/1/2025	$49.85	$10.15	$9.50	$9.80	$0.00	$79.30
	6/1/2026	$51.40	$10.15	$9.50	$9.80	$0.00	$80.85
	12/1/2026	$52.90	$10.15	$9.50	$9.80	$0.00	$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2025	$47.53	$10.15	$9.50	$9.80	$0.00	$76.98
	12/1/2025	$49.03	$10.15	$9.50	$9.80	$0.00	$78.48
	6/1/2026	$50.58	$10.15	$9.50	$9.80	$0.00	$80.03
	12/1/2026	$52.08	$10.15	$9.50	$9.80	$0.00	$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
CARPENTER CARPENTERS CARPENTERS LOCAL 336 - HAMPDEN HAMPSHIRE FRANKLIN	9/1/2025	$43.54	$8.56	$11.25	$6.90	$0.00	$70.25
	3/1/2026	$44.44	$8.56	$11.25	$6.90	$0.00	$71.15
	9/1/2026	$45.39	$8.56	$11.25	$6.90	$0.00	$72.10
	3/1/2027	$46.29	$8.56	$11.25	$6.90	$0.00	$73.00

Apprentice: CARPENTER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
2	45.00	$19.59	$8.56	$0.00	$1.38	$0.00	$29.53
3	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
4	55.00	$23.95	$8.56	$0.00	$2.76	$0.00	$35.27
5	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
6	70.00	$30.48	$8.56	$11.25	$4.14	$0.00	$54.43
7	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16
8	80.00	$34.83	$8.56	$11.25	$5.52	$0.00	$60.16

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: CARPENTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$20.00	$8.56	$0.00	$1.38	$0.00	$29.94
2	45.00	$20.00	$0.65	$0.00	$1.38	$0.00	$22.03
3	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
4	55.00	$24.44	$8.56	$0.00	$2.76	$0.00	$35.76
5	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
6	70.00	$31.11	$8.56	$11.25	$4.14	$0.00	$55.06
7	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88
8	80.00	$35.55	$8.56	$11.25	$5.52	$0.00	$60.88

Apprentice to Journeyworker Ratio: 1:5

CARPENTER WOOD FRAME	10/1/2025	$27.75	$7.02	$3.80	$1.00	$0.00	$39.57
CARPENTERS CARPENTERS-ZONE 3 (Wood Frame)	10/1/2026	$28.85	$7.02	$3.80	$1.00	$0.00	$40.67

All Aspects of New Wood Frame Work

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
2	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
3	65.00	$18.04	$7.02	$0.00	$1.00	$0.00	$26.06
4	70.00	$19.43	$7.02	$0.00	$1.00	$0.00	$27.45
5	75.00	$20.81	$7.02	$3.80	$1.00	$0.00	$32.63
6	80.00	$22.20	$7.02	$3.80	$1.00	$0.00	$34.02
7	85.00	$23.59	$7.02	$3.80	$1.00	$0.00	$35.41
8	90.00	$24.98	$7.02	$3.80	$1.00	$0.00	$36.80

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
2	60.00	$17.31	$7.02	$0.00	$0.00	$0.00	$24.33
3	65.00	$18.75	$7.02	$0.00	$1.00	$0.00	$26.77
4	70.00	$20.20	$7.02	$0.00	$1.00	$0.00	$28.22
5	75.00	$21.64	$7.02	$3.80	$1.00	$0.00	$33.46
6	80.00	$23.08	$7.02	$3.80	$1.00	$0.00	$34.90
7	85.00	$24.52	$7.02	$3.80	$1.00	$0.00	$36.34
8	90.00	$25.97	$7.02	$3.80	$1.00	$0.00	$37.79

Apprentice to Journeyworker Ratio: 1:5

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	7/1/2024	$44.56	$13.20	$16.30	$2.93	$1.69	$78.68

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.28	$13.20	$16.30	$0.00	$0.00	$51.78
2	60.00	$26.74	$13.20	$16.30	$2.93	$1.69	$60.86
3	65.00	$28.96	$13.20	$16.30	$2.93	$1.69	$63.08
4	70.00	$31.19	$13.20	$16.30	$2.93	$1.69	$65.31
5	75.00	$33.42	$13.20	$16.30	$2.93	$1.69	$67.54
6	80.00	$35.65	$13.20	$16.30	$2.93	$1.69	$69.77
7	90.00	$40.10	$13.20	$16.30	$2.93	$1.69	$74.22

Apprentice to Journeyworker Ratio: 1:3

CHAIN SAW OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CRANE OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$43.06	$13.78	$12.15	$3.00	$0.00	$71.99

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: DELEADER (BRIDGE)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: DELEADER (BRIDGE)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

DEMO: ADZEMAN LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER	6/2/2025	$48.25	$10.15	$9.50	$9.65	$0.00	$77.55
LABORERS	12/1/2025	$49.75	$10.15	$9.50	$9.65	$0.00	$79.05
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$51.30	$10.15	$9.50	$9.65	$0.00	$80.60
	12/7/2026	$52.80	$10.15	$9.50	$9.65	$0.00	$82.10
	6/7/2027	$54.40	$10.15	$9.50	$9.65	$0.00	$83.70
	12/6/2027	$56.00	$10.15	$9.50	$9.65	$0.00	$85.30
	6/5/2028	$57.68	$10.15	$9.50	$9.65	$0.00	$86.98
	12/4/2028	$59.35	$10.15	$9.50	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR	6/2/2025	$48.00	$10.15	$9.50	$9.65	$0.00	$77.30
LABORERS	12/1/2025	$49.50	$10.15	$9.50	$9.65	$0.00	$78.80
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$51.05	$10.15	$9.50	$9.65	$0.00	$80.35
	12/7/2026	$52.55	$10.15	$9.50	$9.65	$0.00	$81.85
	6/7/2027	$54.15	$10.15	$9.50	$9.65	$0.00	$83.45
	12/6/2027	$55.75	$10.15	$9.50	$9.65	$0.00	$85.05
	6/5/2028	$57.43	$10.15	$9.50	$9.65	$0.00	$86.73
	12/4/2028	$59.10	$10.15	$9.50	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER	6/2/2025	$47.25	$10.15	$9.50	$9.65	$0.00	$76.55
LABORERS	12/1/2025	$48.75	$10.15	$9.50	$9.65	$0.00	$78.05
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$50.30	$10.15	$9.50	$9.65	$0.00	$79.60
	12/7/2026	$51.80	$10.15	$9.50	$9.65	$0.00	$81.10
	6/7/2027	$53.40	$10.15	$9.50	$9.65	$0.00	$82.70
	12/6/2027	$55.00	$10.15	$9.50	$9.65	$0.00	$84.30
	6/5/2028	$56.68	$10.15	$9.50	$9.65	$0.00	$85.98
	12/4/2028	$58.35	$10.15	$9.50	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DIVER	8/1/2024	$78.11	$10.08	$11.62	$12.67	$0.00	$112.48
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A $69.83, 3A $91.79,4A $102.14 Total Rate							
DIVER TENDER	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A $54.20, 3A $73.93,4A $82.05 Total Rate							
DIVER TENDER (EFFLUENT)	8/1/2024	$83.69	$10.08	$11.62	$12.67	$0.00	$118.06
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							
For apprentice rates see "Apprentice- PILE DRIVER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888 DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	$26.77	$6.67	$3.93	$0.00	$0.16	$37.53
ELECTRICIAN (Including Core Drilling) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Apprentice: ELECTRICIAN (Including Core Drilling)

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 2:3

ELEVATOR CONSTRUCTOR ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$66.41	$16.28	$10.96	$10.40	$0.00	$104.05
	1/1/2026	$69.23	$16.38	$11.06	$10.70	$0.00	$107.37
	1/1/2027	$72.23	$16.48	$11.16	$11.00	$0.00	$110.87

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.21	$16.28	$0.00	$0.00	$0.00	$49.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$36.53	$16.28	$10.96	$10.40	$0.00	$74.17
3	65.00	$43.17	$16.28	$10.96	$10.40	$0.00	$80.81
4	70.00	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
5	80.00	$53.13	$16.28	$10.96	$10.40	$0.00	$90.77

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.62	$16.38	$0.00	$0.00	$0.00	$51.00
2	55.00	$38.08	$16.38	$11.06	$10.70	$0.00	$76.22
3	65.00	$45.00	$16.38	$11.06	$10.70	$0.00	$83.14
4	70.00	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
5	80.00	$55.38	$16.38	$11.06	$10.70	$0.00	$93.52

Apprentice to Journeyworker Ratio: 1:1

ELEVATOR CONSTRUCTOR HELPER ELEVATOR CONSTRUCTORS LOCAL 41 ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2025	$46.49	$16.28	$10.96	$10.40	$0.00	$84.13
	1/1/2026	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
	1/1/2027	$50.56	$16.48	$11.16	$11.00	$0.00	$89.20
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$18.84	$4.80	$4.10	$0.00	$0.00	$27.74
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$21.33	$4.80	$4.10	$0.00	$0.00	$30.23
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	6/1/1999	$22.33	$4.80	$4.10	$0.00	$0.00	$31.23
FIRE ALARM INSTALLER ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"							
FIREMAN OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96

Apprentice: FIREMAN

Effective Date: 12/1/2023

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$23.42	$13.78	$12.15	$3.00	$0.00	$52.35
2	70.00	$27.32	$13.78	$12.15	$3.00	$0.00	$56.25
3	80.00	$31.22	$13.78	$12.15	$3.00	$0.00	$60.15
4	90.00	$35.13	$13.78	$12.15	$3.00	$0.00	$64.06

Apprentice to Journeyworker Ratio: 1:6

FLAGGER & SIGNALER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	12/1/2025	$28.09	$10.15	$9.50	$6.56	$0.00	$54.30
	6/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
	12/1/2026	$29.21	$10.15	$9.50	$6.56	$0.00	$55.42
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FLOORCOVERER FLOORCOVERERS LOCAL 2168 FLOORCOVERERS LOCAL 2168 ZONE III	9/1/2025	$43.44	$8.56	$11.25	$6.90	$0.00	$70.15
	3/1/2026	$44.34	$8.56	$11.25	$6.90	$0.00	$71.05
	9/1/2026	$45.29	$8.56	$11.25	$6.90	$0.00	$72.00
	3/1/2027	$46.19	$8.56	$11.25	$6.90	$0.00	$72.90

Apprentice: FLOORCOVERER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
2	45.00	$19.55	$8.56	$0.00	$1.38	$0.00	$29.49
3	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
4	55.00	$23.89	$8.56	$0.00	$2.76	$0.00	$35.21
5	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
6	70.00	$30.41	$8.56	$11.25	$4.14	$0.00	$54.36
7	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08
8	80.00	$34.75	$8.56	$11.25	$5.52	$0.00	$60.08

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FLOORCOVERER							
Effective Date: 3/1/2026							
Step 1 (45.00)		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 2 (45.00)		$19.95	$8.56	$0.00	$1.38	$0.00	$29.89
Step 3 (55.00)		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 4 (55.00)		$24.39	$8.56	$0.00	$2.76	$0.00	$35.71
Step 5 (70.00)		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 6 (70.00)		$31.04	$8.56	$11.25	$4.14	$0.00	$54.99
Step 7 (80.00)		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80
Step 8 (80.00)		$35.47	$8.56	$11.25	$5.52	$0.00	$60.80

Apprentice Notes

Steps are 750 hrs.

Apprentice to Journeyworker Ratio: 1:1

FORK LIFT OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.25	$13.78	$12.15	$3.00	$0.00	$68.18
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATORS/LIGHTING PLANTS OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) GLAZIERS LOCAL 1333 GLAZIERS LOCAL 1333	6/1/2025	$43.13	$10.80	$8.25	$5.50	$0.00	$67.68
	6/1/2026	$44.73	$11.20	$8.40	$6.05	$0.00	$70.38
	6/1/2027	$46.73	$11.60	$8.55	$6.60	$0.00	$73.48
	6/1/2028	$48.73	$12.00	$8.70	$7.20	$0.00	$76.63

Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)

Effective Date: 6/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$21.57	$10.80	$8.25	$5.50	$0.00	$46.12
2	56.25	$24.26	$10.80	$8.25	$5.50	$0.00	$48.81
3	62.50	$26.96	$10.80	$8.25	$5.50	$0.00	$51.51
4	68.75	$29.65	$10.80	$8.25	$5.50	$0.00	$54.20
5	75.00	$32.35	$10.80	$8.25	$5.50	$0.00	$56.90
6	81.25	$35.04	$10.80	$8.25	$5.50	$0.00	$59.59
7	87.50	$37.74	$10.80	$8.25	$5.50	$0.00	$62.29
8	93.75	$40.43	$10.80	$8.25	$5.50	$0.00	$64.98

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.37	$11.20	$8.40	$6.05	$0.00	$48.02
2	56.25	$25.16	$11.20	$8.40	$6.05	$0.00	$50.81
3	62.50	$27.96	$11.20	$8.40	$6.05	$0.00	$53.61
4	68.75	$30.75	$11.20	$8.40	$6.05	$0.00	$56.40
5	75.00	$33.55	$11.20	$8.40	$6.05	$0.00	$59.20
6	81.25	$36.34	$11.20	$8.40	$6.05	$0.00	$61.99
7	87.50	$39.14	$11.20	$8.40	$6.05	$0.00	$64.79
8	93.75	$41.93	$11.20	$8.40	$6.05	$0.00	$67.58

Apprentice to Journeyworker Ratio: 3:1

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
GRADER/TRENCHING MACHINE/DERRICK OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 7 ELECTRICIANS LOCAL 7	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER) PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.31	$10.85	$7.10	$0.00	$81.27
	3/17/2026	$55.01	$10.31	$10.85	$7.10	$0.00	$83.27
	9/17/2026	$57.01	$10.31	$10.85	$7.10	$0.00	$85.27
	3/17/2027	$59.01	$10.31	$10.85	$7.10	$0.00	$87.27
	9/17/2027	$61.01	$10.31	$10.85	$7.10	$0.00	$89.27
	3/17/2028	$63.01	$10.31	$10.85	$7.10	$0.00	$91.27
	9/17/2028	$65.01	$10.31	$10.85	$7.10	$0.00	$93.27
	3/17/2029	$67.01	$10.31	$10.85	$7.10	$0.00	$95.27
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
HVAC MECHANIC PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$36.25	$10.15	$9.50	$6.56	$0.00	$62.46
	12/1/2025	$37.49	$10.15	$9.50	$6.56	$0.00	$63.70
	6/1/2026	$38.79	$10.15	$9.50	$6.56	$0.00	$65.00
	12/1/2026	$40.08	$10.15	$9.50	$6.56	$0.00	$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)	9/1/2025	$48.27	$14.75	$9.52	$10.09	$0.00	$82.63
	9/1/2026	$51.01	$14.75	$9.52	$10.09	$0.00	$85.37

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.14	$14.75	$9.27	$5.05	$0.00	$53.21
2	60.00	$28.96	$14.75	$9.32	$6.05	$0.00	$59.08
3	70.00	$33.79	$14.75	$9.37	$7.06	$0.00	$64.97
4	80.00	$38.62	$14.75	$9.42	$8.07	$0.00	$70.86

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$25.51	$14.75	$9.27	$5.05	$0.00	$54.58
2	60.00	$30.61	$14.75	$9.32	$6.05	$0.00	$60.73
3	70.00	$35.71	$14.75	$9.37	$7.06	$0.00	$66.89
4	80.00	$40.81	$14.75	$9.42	$8.07	$0.00	$73.05

Apprentice to Journeyworker Ratio: 1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (SPRINGFIELD AREA)	3/16/2024	$40.66	$8.25	$12.70	$10.00	$0.00	$71.61

Apprentice: IRONWORKER/WELDER

Effective Date: 3/16/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: IRONWORKER/WELDER							
Effective Date: 3/16/2024							
Step / Percent		**Apprentice Base Wage**					
1 / 60.00		$24.40	$8.25	$12.70	$10.00	$0.00	$55.35
2 / 70.00		$28.46	$8.25	$12.70	$10.00	$0.00	$59.41
3 / 75.00		$30.50	$8.25	$12.70	$10.00	$0.00	$61.45
4 / 80.00		$32.53	$8.25	$12.70	$10.00	$0.00	$63.48
5 / 85.00		$34.56	$8.25	$12.70	$10.00	$0.00	$65.51
6 / 90.00		$36.59	$8.25	$12.70	$10.00	$0.00	$67.54
Apprentice to Journeyworker Ratio: 1:4							
JACKHAMMER & PAVING BREAKER OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
LABORER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
Apprentice: LABORER							
Effective Date: 6/2/2025							
Step / Percent		**Apprentice Base Wage**					
1 / 60.00		$21.30	$10.15	$9.50	$8.32	$0.00	$49.27
2 / 70.00		$24.85	$10.15	$9.50	$8.32	$0.00	$52.82
3 / 80.00		$28.40	$10.15	$9.50	$8.32	$0.00	$56.37
4 / 90.00		$31.95	$10.15	$9.50	$8.32	$0.00	$59.92
Apprentice: LABORER							
Effective Date: 12/1/2025							
Step / Percent		**Apprentice Base Wage**					
1 / 60.00		$22.80	$9.90	$9.25	$8.32	$0.00	$50.27

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: LABORER

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	70.00	$26.60	$9.90	$9.25	$8.32	$0.00	$54.07
3	80.00	$30.40	$9.90	$9.25	$8.32	$0.00	$57.87
4	90.00	$34.20	$9.90	$9.25	$8.32	$0.00	$61.67

Apprentice to Journeyworker Ratio: 1:5

LABORER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$21.30	$10.15	$9.50	$6.56	$0.00	$47.51
2	70.00	$24.85	$10.15	$9.50	$6.56	$0.00	$51.06
3	80.00	$28.40	$10.15	$9.50	$6.56	$0.00	$54.61
4	90.00	$31.95	$10.15	$9.50	$6.56	$0.00	$58.16

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$22.49	$9.90	$9.25	$6.31	$0.00	$47.95
2	70.00	$26.24	$9.90	$9.25	$6.31	$0.00	$51.70
3	80.00	$29.99	$9.90	$9.25	$6.31	$0.00	$55.45
4	90.00	$33.74	$9.90	$9.25	$6.31	$0.00	$59.20

Apprentice to Journeyworker Ratio: 1:5

LABORER: CARPENTER TENDER LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER LABORERS	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	6/2/2025	$35.42	$10.15	$9.50	$8.70	$0.00	$63.77
LABORERS	12/1/2025	$36.67	$10.15	$9.50	$8.70	$0.00	$65.02
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$37.97	$10.15	$9.50	$8.70	$0.00	$66.32
	12/7/2026	$39.27	$10.15	$9.50	$8.70	$0.00	$67.62
	6/7/2027	$40.67	$10.15	$9.50	$8.70	$0.00	$69.02
	12/6/2027	$42.07	$10.15	$9.50	$8.70	$0.00	$70.42
	6/5/2028	$43.57	$10.15	$9.50	$8.70	$0.00	$71.92
	12/4/2028	$45.07	$10.15	$9.50	$8.70	$0.00	$73.42
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER	6/2/2025	$38.50	$10.15	$9.50	$8.57	$0.00	$66.72
LABORERS	12/1/2025	$39.75	$10.15	$9.50	$8.57	$0.00	$67.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$41.05	$10.15	$9.50	$8.57	$0.00	$69.27
	12/7/2026	$42.35	$10.15	$9.50	$8.57	$0.00	$70.57
	6/7/2027	$43.75	$10.15	$9.50	$8.57	$0.00	$71.97
	12/6/2027	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
	6/5/2028	$46.65	$10.15	$9.50	$8.57	$0.00	$74.87
	12/4/2028	$48.15	$10.15	$9.50	$8.57	$0.00	$76.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	6/2/2025	$35.50	$10.15	$9.50	$8.57	$0.00	$63.72
LABORERS	12/1/2025	$36.75	$10.15	$9.50	$8.57	$0.00	$64.97
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.05	$10.15	$9.50	$8.57	$0.00	$66.27
	12/7/2026	$39.35	$10.15	$9.50	$8.57	$0.00	$67.57
	6/7/2027	$40.75	$10.15	$9.50	$8.57	$0.00	$68.97
	12/6/2027	$42.15	$10.15	$9.50	$8.57	$0.00	$70.37
	6/5/2028	$43.65	$10.15	$9.50	$8.57	$0.00	$71.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/4/2028	$45.15	$10.15	$9.50	$8.57	$0.00	$73.37

This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

MARBLE & TILE FINISHERS	8/1/2025	$45.56	$11.49	$15.10	$5.68	$0.00	$77.83
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	2/1/2026	$46.64	$11.49	$15.10	$5.68	$0.00	$78.91
	8/1/2026	$48.40	$11.49	$15.10	$5.68	$0.00	$80.67
	2/1/2027	$49.52	$11.49	$15.10	$5.68	$0.00	$81.79

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$22.78	$11.49	$15.10	$5.68	$0.00	$55.05
2	60.00	$27.34	$11.49	$15.10	$5.68	$0.00	$59.61
3	70.00	$31.89	$11.49	$15.10	$5.68	$0.00	$64.16
4	80.00	$36.45	$11.49	$15.10	$5.68	$0.00	$68.72
5	90.00	$41.00	$11.49	$15.10	$5.68	$0.00	$73.27

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.32	$11.49	$15.10	$5.68	$0.00	$55.59
2	60.00	$27.98	$11.49	$15.10	$5.68	$0.00	$60.25
3	70.00	$32.65	$11.49	$15.10	$5.68	$0.00	$64.92
4	80.00	$37.31	$11.49	$15.10	$5.68	$0.00	$69.58
5	90.00	$41.98	$11.49	$15.10	$5.68	$0.00	$74.25

Apprentice to Journeyworker Ratio: 1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MECHANIC/WELDER/BOOM TRUCK	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 3)	1/6/2025	$43.42	$10.08	$11.47	$9.75	$0.00	$74.72
MILLWRIGHTS LOCAL 1121	1/5/2026	$45.70	$10.08	$11.47	$9.75	$0.00	$77.00
MILLWRIGHTS LOCAL 1121 - Zone 3							

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/6/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$23.88	$10.08	$0.00	$5.36	$0.00	$39.32
2	65.00	$28.22	$10.08	$0.00	$6.34	$0.00	$44.64
3	75.00	$32.57	$10.08	$11.47	$7.31	$0.00	$61.43
4	85.00	$36.91	$10.08	$11.47	$8.29	$0.00	$66.75

Apprentice: MILLWRIGHT (Zone 3)

Effective Date: 1/5/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$25.14	$10.08	$0.00	$5.36	$0.00	$40.58
2	65.00	$29.71	$10.08	$0.00	$6.34	$0.00	$46.13
3	75.00	$34.28	$10.08	$11.47	$7.31	$0.00	$63.14
4	85.00	$38.85	$10.08	$11.47	$8.29	$0.00	$68.69

Apprentice Notes

Step 1&2 Appr. indentured after 1/6/2020 receive no pension,

Apprentice to Journeyworker Ratio: 1:4

MORTAR MIXER	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
OILER	12/1/2023	$35.02	$13.78	$12.15	$3.00	$0.00	$63.95
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OTHER POWER DRIVEN EQUIPMENT - CLASS VI OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$32.74	$13.78	$12.15	$3.00	$0.00	$61.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$58.51	$10.30	$11.95	$12.50	$0.00	$93.26
	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.26	$10.30	$0.00	$0.00	$0.00	$39.56
2	55.00	$32.18	$10.30	$0.00	$6.88	$0.00	$49.36
3	60.00	$35.11	$10.30	$0.00	$7.50	$0.00	$52.91
4	65.00	$38.03	$10.30	$0.00	$8.13	$0.00	$56.46
5	70.00	$40.96	$10.30	$11.95	$8.75	$0.00	$71.96
6	75.00	$43.88	$10.30	$11.95	$9.38	$0.00	$75.51
7	80.00	$46.81	$10.30	$11.95	$10.00	$0.00	$79.06
8	90.00	$52.66	$10.30	$11.95	$11.25	$0.00	$86.16

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$41.13	$10.30	$11.95	$8.25	$0.00	$71.63
	1/1/2026	$42.03	$10.35	$12.00	$8.35	$0.00	$72.73

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.57	$10.30	$0.00	$0.00	$0.00	$30.87

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	$22.62	$10.30	$0.00	$4.54	$0.00	$37.46
3	60.00	$24.68	$10.30	$0.00	$4.95	$0.00	$39.93
4	65.00	$26.73	$10.30	$0.00	$5.36	$0.00	$42.39
5	70.00	$28.79	$10.30	$11.95	$5.78	$0.00	$56.82
6	75.00	$30.85	$10.30	$11.95	$6.19	$0.00	$59.29
7	80.00	$32.90	$10.30	$11.95	$6.60	$0.00	$61.75
8	90.00	$37.02	$10.30	$11.95	$7.43	$0.00	$66.70

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$21.02	$10.35	$0.00	$0.00	$0.00	$31.37
2	55.00	$23.12	$10.35	$0.00	$4.59	$0.00	$38.06
3	60.00	$25.22	$10.35	$0.00	$5.01	$0.00	$40.58
4	65.00	$27.32	$10.35	$0.00	$5.43	$0.00	$43.10
5	70.00	$29.42	$10.35	$12.00	$5.85	$0.00	$57.62
6	75.00	$31.52	$10.35	$12.00	$6.26	$0.00	$60.13
7	80.00	$33.62	$10.35	$12.00	$6.68	$0.00	$62.65
8	90.00	$37.83	$10.35	$12.00	$7.52	$0.00	$67.70

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 3	7/1/2025	$38.45	$10.30	$11.95	$8.25	$0.00	$68.95
	1/1/2026	$39.35	$10.35	$12.00	$8.35	$0.00	$70.05

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.23	$10.30	$0.00	$0.00	$0.00	$29.53
2	55.00	$21.15	$10.30	$0.00	$4.54	$0.00	$35.99
3	60.00	$23.07	$10.30	$0.00	$4.95	$0.00	$38.32
4	65.00	$24.99	$10.30	$0.00	$5.36	$0.00	$40.65
5	70.00	$26.92	$10.30	$11.95	$5.78	$0.00	$54.95
6	75.00	$28.84	$10.30	$11.95	$6.19	$0.00	$57.28
7	80.00	$30.76	$10.30	$11.95	$6.60	$0.00	$59.61
8	90.00	$34.61	$10.30	$11.95	$7.43	$0.00	$64.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.68	$10.35	$0.00	$0.00	$0.00	$30.03
2	55.00	$21.64	$10.35	$0.00	$4.59	$0.00	$36.58
3	60.00	$23.61	$10.35	$0.00	$5.01	$0.00	$38.97
4	65.00	$25.58	$10.35	$0.00	$5.43	$0.00	$41.36
5	70.00	$27.55	$10.35	$12.00	$5.85	$0.00	$55.75
6	75.00	$29.51	$10.35	$12.00	$6.26	$0.00	$58.12
7	80.00	$31.48	$10.35	$12.00	$6.68	$0.00	$60.51
8	90.00	$35.42	$10.35	$12.00	$7.52	$0.00	$65.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, NEW) *	7/1/2025	$39.73	$10.30	$11.95	$8.25	$0.00	$70.23
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.	1/1/2026	$40.63	$10.35	$12.00	$8.35	$0.00	$71.33
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.87	$10.30	$0.00	$0.00	$0.00	$30.17
2	55.00	$21.85	$10.30	$0.00	$4.54	$0.00	$36.69
3	60.00	$23.84	$10.30	$0.00	$4.95	$0.00	$39.09
4	65.00	$25.82	$10.30	$0.00	$5.36	$0.00	$41.48
5	70.00	$27.81	$10.30	$11.95	$5.78	$0.00	$55.84
6	75.00	$29.80	$10.30	$11.95	$6.19	$0.00	$58.24
7	80.00	$31.78	$10.30	$11.95	$6.60	$0.00	$60.63
8	90.00	$35.76	$10.30	$11.95	$7.43	$0.00	$65.44

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$20.32	$10.35	$0.00	$0.00	$0.00	$30.67
2	55.00	$22.35	$10.35	$0.00	$4.59	$0.00	$37.29
3	60.00	$24.38	$10.35	$0.00	$5.01	$0.00	$39.74
4	65.00	$26.41	$10.35	$0.00	$5.43	$0.00	$42.19
5	70.00	$28.44	$10.35	$12.00	$5.85	$0.00	$56.64
6	75.00	$30.47	$10.35	$12.00	$6.26	$0.00	$59.08
7	80.00	$32.50	$10.35	$12.00	$6.68	$0.00	$61.53
8	90.00	$36.57	$10.35	$12.00	$7.52	$0.00	$66.44

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journeyworker Ratio: 1:1							
PAINTER / TAPER (BRUSH, REPAINT)	7/1/2025	$37.05	$10.30	$11.95	$8.25	$0.00	$67.55
PAINTERS LOCAL 35	1/1/2026	$37.95	$10.35	$12.00	$8.35	$0.00	$68.65
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.53	$10.30	$0.00	$0.00	$0.00	$28.83
2	55.00	$20.38	$10.30	$0.00	$4.54	$0.00	$35.22
3	60.00	$22.23	$10.30	$0.00	$4.95	$0.00	$37.48
4	65.00	$24.08	$10.30	$0.00	$5.36	$0.00	$39.74
5	70.00	$25.94	$10.30	$11.95	$5.78	$0.00	$53.97
6	75.00	$27.79	$10.30	$11.95	$6.19	$0.00	$56.23
7	80.00	$29.64	$10.30	$11.95	$6.60	$0.00	$58.49
8	90.00	$33.35	$10.30	$11.95	$7.43	$0.00	$63.03

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.98	$10.35	$0.00	$0.00	$0.00	$29.33
2	55.00	$20.87	$10.35	$0.00	$4.59	$0.00	$35.81
3	60.00	$22.77	$10.35	$0.00	$5.01	$0.00	$38.13
4	65.00	$24.67	$10.35	$0.00	$5.43	$0.00	$40.45
5	70.00	$26.57	$10.35	$12.00	$5.85	$0.00	$54.77
6	75.00	$28.46	$10.35	$12.00	$6.26	$0.00	$57.07
7	80.00	$30.36	$10.35	$12.00	$6.68	$0.00	$59.39
8	90.00	$34.16	$10.35	$12.00	$7.52	$0.00	$64.03

Apprentice to Journeyworker Ratio: 1:1							
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	6/1/2025	$35.50	$10.15	$9.50	$6.56	$0.00	$61.71
LABORERS	12/1/2025	$36.74	$10.15	$9.50	$6.56	$0.00	$62.95
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.04	$10.15	$9.50	$6.56	$0.00	$64.25
	12/1/2026	$39.33	$10.15	$9.50	$6.56	$0.00	$65.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER	6/1/2025	$40.78	$15.57	$20.17	$0.00	$0.00	$76.52
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$40.78	$15.57	$21.78	$0.00	$0.00	$78.13
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$40.78	$16.17	$21.78	$0.00	$0.00	$78.73
	6/1/2026	$41.78	$16.17	$21.78	$0.00	$0.00	$79.73
	12/1/2026	$41.78	$16.17	$23.52	$0.00	$0.00	$81.47
	1/1/2027	$41.78	$16.77	$23.52	$0.00	$0.00	$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3) For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 3)	8/1/2024	$49.19	$10.08	$11.62	$12.67	$0.00	$83.56

Apprentice: PILE DRIVER

Effective Date: 8/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.14	$10.08	$0.00	$2.53	$0.00	$34.75
2	55.00	$27.05	$10.08	$0.00	$5.07	$0.00	$42.20
3	70.00	$34.43	$10.08	$11.62	$7.60	$0.00	$63.73
4	80.00	$39.35	$10.08	$11.62	$10.14	$0.00	$71.19

Apprentice to Journeyworker Ratio: 1:5

PIPELAYER LABORERS LABORERS - ZONE 3 (BUILDING & SITE) For apprentice rates see "Apprentice- LABORER"	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
PIPELAYER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
PLUMBER & PIPEFITTER PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/17/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$23.85	$10.35	$10.85	$0.00	$0.00	$45.05
2	50.00	$26.51	$10.35	$10.85	$0.00	$0.00	$47.71
3	55.00	$29.16	$10.35	$10.85	$0.00	$0.00	$50.36
4	60.00	$31.81	$10.35	$10.85	$0.00	$0.00	$53.01
5	65.00	$34.46	$10.35	$10.85	$0.00	$0.00	$55.66
6	70.00	$37.11	$10.35	$10.85	$0.00	$0.00	$58.31
7	75.00	$39.76	$10.35	$10.85	$0.00	$0.00	$60.96
8	80.00	$42.41	$10.35	$10.85	$0.00	$0.00	$63.61
9	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36
10	85.00	$45.06	$10.35	$10.85	$7.10	$0.00	$73.36

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 3/17/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$24.75	$10.35	$10.85	$0.00	$0.00	$45.95
2	50.00	$27.51	$10.35	$10.85	$0.00	$0.00	$48.71
3	55.00	$30.26	$10.35	$10.85	$0.00	$0.00	$51.46
4	60.00	$33.01	$10.35	$10.85	$0.00	$0.00	$54.21
5	65.00	$35.76	$10.35	$10.85	$0.00	$0.00	$56.96
6	70.00	$38.51	$10.35	$10.85	$0.00	$0.00	$59.71
7	75.00	$41.26	$10.35	$10.85	$0.00	$0.00	$62.46
8	80.00	$44.01	$10.35	$10.85	$0.00	$0.00	$65.21
9	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06
10	85.00	$46.76	$10.35	$10.85	$7.10	$0.00	$75.06

Apprentice Notes

**1:1,2:5,3:9,4:12

Apprentice to Journeyworker Ratio: 1:1

PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 104 PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
	3/17/2026	$55.01	$0.00	$10.85	$7.10	$0.00	$72.96
	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
POWDERMAN & BLASTER	6/2/2025	$36.50	$10.15	$9.50	$8.57	$0.00	$64.72
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.75	$10.15	$9.50	$8.57	$0.00	$65.97
	6/1/2026	$39.05	$10.15	$9.50	$8.57	$0.00	$67.27
	12/7/2026	$40.35	$10.15	$9.50	$8.57	$0.00	$68.57
	6/7/2027	$41.75	$10.15	$9.50	$8.57	$0.00	$69.97
	12/6/2027	$43.15	$10.15	$9.50	$8.57	$0.00	$71.37
	6/5/2028	$44.65	$10.15	$9.50	$8.57	$0.00	$72.87
	12/4/2028	$46.15	$10.15	$9.50	$8.57	$0.00	$74.37
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2025	$36.50	$10.15	$9.50	$6.56	$0.00	$62.71
LABORERS LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/1/2025	$37.74	$10.15	$9.50	$6.56	$0.00	$63.95
	6/1/2026	$39.04	$10.15	$9.50	$6.56	$0.00	$65.25
	12/1/2026	$40.33	$10.15	$9.50	$6.56	$0.00	$66.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.56	$13.78	$12.15	$3.00	$0.00	$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER TEAMSTERS 404 - Construction Service (Northampton) TEAMSTERS 404 - Construction Service (Northampton)	5/1/2024	$26.14	$11.82	$7.25	$0.00	$0.00	$45.21
RIDE-ON MOTORIZED BUGGY OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS LABORERS - ZONE 3 (BUILDING & SITE)	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
ROLLER OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Coal tar pitch)	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
ROOFERS LOCAL 248 ROOFERS LOCAL 248	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
For apprentice rates see "Apprentice- ROOFER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) ROOFERS LOCAL 248 ROOFERS LOCAL 248	10/2/2025	$44.23	$10.60	$8.70	$10.00	$0.00	$73.53
	7/16/2026	$46.23	$10.60	$8.70	$10.00	$0.00	$75.53
ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 248 ROOFERS LOCAL 248	10/2/2025	$44.73	$10.60	$8.70	$10.00	$0.00	$74.03
	7/16/2026	$46.73	$10.60	$8.70	$10.00	$0.00	$76.03
For apprentice rates see "Apprentice- ROOFER"							
SCRAPER OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$39.03	$13.78	$12.15	$3.00	$0.00	$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-PROPELLED POWER BROOM OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	$35.80	$13.78	$12.15	$3.00	$0.00	$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
	1/1/2027	$43.48	$13.54	$11.01	$11.12	$2.13	$81.28
	7/1/2027	$44.98	$13.54	$11.01	$11.12	$2.13	$82.78
	1/1/2028	$46.48	$13.54	$11.01	$11.12	$2.13	$84.28

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$19.57	$5.82	$4.95	$0.00	$0.85	$31.19
2	50.00	$21.74	$6.47	$5.51	$0.00	$0.94	$34.66
3	55.00	$23.91	$7.12	$9.91	$0.00	$1.15	$42.09
4	60.00	$26.09	$7.76	$9.91	$0.00	$1.23	$44.99
5	65.00	$28.26	$8.41	$9.91	$0.00	$1.31	$47.89
6	70.00	$30.44	$9.06	$9.91	$0.00	$1.39	$50.80
7	75.00	$32.61	$9.71	$9.91	$0.00	$1.47	$53.70
8	80.00	$34.78	$10.35	$9.91	$8.72	$1.78	$65.54
9	85.00	$36.96	$11.00	$9.91	$8.72	$1.86	$68.45
10	90.00	$39.13	$11.65	$9.91	$8.72	$1.94	$71.35

Apprentice: SHEETMETAL WORKER

Effective Date: 7/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: SHEETMETAL WORKER							
Effective Date: 7/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 45.00		$19.57	$5.96	$4.95	$0.00	$0.85	$31.33
2 / 50.00		$21.74	$6.62	$5.51	$0.00	$0.94	$34.81
3 / 55.00		$23.91	$7.28	$9.91	$0.00	$1.15	$42.25
4 / 60.00		$26.09	$7.94	$9.91	$0.00	$1.23	$45.17
5 / 65.00		$28.26	$8.60	$9.91	$0.00	$1.31	$48.08
6 / 70.00		$30.44	$9.27	$9.91	$0.00	$1.39	$51.01
7 / 75.00		$32.61	$9.93	$9.91	$0.00	$1.47	$53.92
8 / 80.00		$34.78	$10.59	$9.91	$9.92	$1.78	$66.98
9 / 85.00		$36.96	$11.25	$9.91	$9.92	$1.86	$69.90
10 / 90.00		$39.13	$11.92	$9.91	$9.92	$1.94	$72.82
Apprentice to Journeyworker Ratio: 1:3							
SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2025	$41.53	$15.57	$20.17	$0.00	$0.00	$77.27
	12/1/2025	$41.53	$15.57	$21.78	$0.00	$0.00	$78.88
	1/1/2026	$41.53	$16.17	$21.78	$0.00	$0.00	$79.48
	6/1/2026	$42.53	$16.17	$21.78	$0.00	$0.00	$80.48
	12/1/2026	$42.53	$16.17	$23.52	$0.00	$0.00	$82.22
	1/1/2027	$42.53	$16.77	$23.52	$0.00	$0.00	$82.82
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 669 SPRINKLER FITTERS LOCAL 669	10/1/2025	$53.25	$12.40	$7.40	$9.41	$0.00	$82.46
	1/1/2026	$53.25	$13.60	$7.45	$9.41	$0.00	$83.71
	4/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	7/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	10/1/2026	$56.54	$13.60	$7.45	$9.41	$0.00	$87.00
	1/1/2027	$56.54	$14.55	$7.50	$9.41	$0.00	$88.00
	4/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	7/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	10/1/2027	$59.83	$14.55	$7.50	$9.41	$0.00	$91.29
	1/1/2028	$59.83	$15.50	$7.55	$9.41	$0.00	$92.29
Apprentice: SPRINKLER FITTER							
Effective Date: 10/1/2025							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 43.00		$26.94	$12.40	$0.00	$0.00	$0.00	$39.34
2 / 48.00		$30.08	$12.40	$0.00	$0.00	$0.00	$42.48

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: SPRINKLER FITTER

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	52.00	$32.58	$12.40	$7.40	$1.15	$0.00	$53.53
4	56.00	$35.09	$12.40	$7.40	$1.15	$0.00	$56.04
5	59.00	$36.97	$12.40	$7.40	$1.40	$0.00	$58.17
6	64.00	$40.10	$12.40	$7.40	$1.40	$0.00	$61.30
7	68.00	$42.61	$12.40	$7.40	$1.40	$0.00	$63.81
8	72.00	$45.12	$12.40	$7.40	$1.40	$0.00	$66.32
9	76.00	$47.62	$12.40	$7.40	$1.40	$0.00	$68.82
10	80.00	$50.13	$12.40	$7.40	$1.40	$0.00	$71.33

Apprentice: SPRINKLER FITTER

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	43.00	$26.94	$9.64	$0.00	$0.00	$0.00	$36.58
2	48.00	$30.08	$9.64	$0.00	$0.00	$0.00	$39.72
3	52.00	$32.58	$13.60	$7.45	$1.15	$0.00	$54.78
4	56.00	$35.09	$13.60	$7.45	$1.15	$0.00	$57.29
5	59.00	$36.97	$13.60	$7.45	$1.40	$0.00	$59.42
6	64.00	$40.10	$13.60	$7.45	$1.40	$0.00	$62.55
7	68.00	$42.61	$13.60	$7.45	$1.40	$0.00	$65.06
8	72.00	$45.12	$13.60	$7.45	$1.40	$0.00	$67.57
9	76.00	$47.62	$13.60	$7.45	$1.40	$0.00	$70.07
10	80.00	$50.13	$13.60	$7.45	$1.40	$0.00	$72.58

Apprentice to Journeyworker Ratio: 1:1

TELECOMMUNICATION TECHNICIAN	6/29/2025	$52.16	$13.50	$8.31	$6.90	$0.00	$80.87
TELECOMMUNICATION TECHNICIAN	12/28/2025	$53.26	$13.75	$8.40	$6.96	$0.00	$82.37
ELECTRICIANS LOCAL 7	6/28/2026	$54.41	$14.00	$8.43	$7.03	$0.00	$83.87
ELECTRICIANS LOCAL 7	1/3/2027	$55.56	$14.25	$8.47	$7.09	$0.00	$85.37

For apprentice rates and ratios see "Apprentice- ELECTRICIAN"

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 6/29/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.86	$7.50	$0.63	$0.00	$0.00	$28.99
2	45.00	$23.47	$7.50	$0.70	$0.00	$0.00	$31.67
3	50.00	$26.08	$13.50	$7.53	$0.00	$0.00	$47.11
4	55.00	$28.69	$13.50	$7.61	$0.00	$0.00	$49.80
5	65.00	$33.90	$13.50	$9.84	$0.00	$0.00	$57.24
6	70.00	$36.51	$13.50	$11.30	$0.00	$0.00	$61.31

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TELECOMMUNICATION TECHNICIAN

Effective Date: 12/28/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.30	$7.65	$0.63	$0.00	$0.00	$29.58
2	45.00	$23.97	$7.65	$0.70	$0.00	$0.00	$32.32
3	50.00	$26.63	$13.75	$7.53	$0.00	$0.00	$47.91
4	55.00	$29.29	$13.75	$7.61	$0.00	$0.00	$50.65
5	65.00	$34.62	$13.75	$9.84	$0.00	$0.00	$58.21
6	70.00	$37.28	$13.75	$11.30	$0.00	$0.00	$62.33

Apprentice to Journeyworker Ratio: 1:1

TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$66.89	$11.49	$15.57	$8.02	$0.00	$101.97
	2/10/2026	$68.24	$11.49	$15.57	$8.02	$0.00	$103.32
	8/1/2026	$70.44	$11.49	$15.57	$8.02	$0.00	$105.52
	2/1/2027	$71.84	$11.49	$15.57	$8.02	$0.00	$106.92

Apprentice: TERRAZZO FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.45	$11.49	$15.57	$8.02	$0.00	$68.53
2	60.00	$40.13	$11.49	$15.57	$8.02	$0.00	$75.21
3	70.00	$46.82	$11.49	$15.57	$8.02	$0.00	$81.90
4	80.00	$53.51	$11.49	$15.57	$8.02	$0.00	$88.59
5	90.00	$60.20	$11.49	$15.57	$8.02	$0.00	$95.28

Apprentice: TERRAZZO FINISHERS

Effective Date: 2/10/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.12	$11.49	$15.57	$8.02	$0.00	$69.20
2	60.00	$40.94	$11.49	$15.57	$8.02	$0.00	$76.02
3	70.00	$47.77	$11.49	$15.57	$8.02	$0.00	$82.85
4	80.00	$54.59	$11.49	$15.57	$8.02	$0.00	$89.67
5	90.00	$61.42	$11.49	$15.57	$8.02	$0.00	$96.50

Apprentice to Journeyworker Ratio: 1:5

TERRAZZO MECHANIC BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	8/1/2025	$67.97	$11.49	$15.57	$7.99	$0.00	$103.02
	2/1/2026	$69.32	$11.49	$15.57	$7.99	$0.00	$104.37
	8/1/2026	$71.52	$11.49	$15.57	$7.99	$0.00	$106.57
	2/1/2027	$72.92	$11.49	$15.57	$7.99	$0.00	$107.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TERRAZZO MECHANIC

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.99	$11.49	$15.57	$7.99	$0.00	$69.04
2	60.00	$40.78	$11.49	$15.57	$7.99	$0.00	$75.83
3	70.00	$47.58	$11.49	$15.57	$7.99	$0.00	$82.63
4	80.00	$54.38	$11.49	$15.57	$7.99	$0.00	$89.43
5	90.00	$61.17	$11.49	$15.57	$7.99	$0.00	$96.22

Apprentice: TERRAZZO MECHANIC

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.66	$11.49	$15.57	$7.99	$0.00	$69.71
2	60.00	$41.59	$11.49	$15.57	$7.99	$0.00	$76.64
3	70.00	$48.52	$11.49	$15.57	$7.99	$0.00	$83.57
4	80.00	$55.46	$11.49	$15.57	$7.99	$0.00	$90.51
5	90.00	$62.39	$11.49	$15.57	$7.99	$0.00	$97.44

Apprentice to Journeyworker Ratio: 1:5

TEST BORING DRILLER	6/1/2025	$51.20	$10.15	$9.50	$9.80	$0.00	$80.65
LABORERS	12/1/2025	$52.70	$10.15	$9.50	$9.80	$0.00	$82.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$54.25	$10.15	$9.50	$9.80	$0.00	$83.70
	12/1/2026	$55.75	$10.15	$9.50	$9.80	$0.00	$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	6/1/2025	$47.32	$10.15	$9.50	$9.80	$0.00	$76.77
LABORERS	12/1/2025	$48.82	$10.15	$9.50	$9.80	$0.00	$78.27
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.37	$10.15	$9.50	$9.80	$0.00	$79.82
	12/1/2026	$51.87	$10.15	$9.50	$9.80	$0.00	$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2025	$47.20	$10.15	$9.50	$9.80	$0.00	$76.65
LABORERS	12/1/2025	$48.70	$10.15	$9.50	$9.80	$0.00	$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.25	$10.15	$9.50	$9.80	$0.00	$79.70
	12/1/2026	$51.75	$10.15	$9.50	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS	12/1/2023	$38.42	$13.78	$12.15	$3.00	$0.00	$67.35
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	6/1/2025	$41.82	$15.57	$20.17	$0.00	$0.00	$77.56
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.82	$15.57	$21.78	$0.00	$0.00	$79.17
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.82	$16.17	$21.78	$0.00	$0.00	$79.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2026	$42.82	$16.17	$21.78	$0.00	$0.00	$80.77
	12/1/2026	$42.82	$16.17	$23.52	$0.00	$0.00	$82.51
	1/1/2027	$42.82	$16.77	$23.52	$0.00	$0.00	$83.11
TUNNEL WORK - COMPRESSED AIR	6/1/2025	$59.43	$10.15	$9.50	$10.25	$0.00	$89.33
LABORERS	12/1/2025	$60.93	$10.15	$9.50	$10.25	$0.00	$90.83
LABORERS (COMPRESSED AIR)	6/1/2026	$62.48	$10.15	$9.50	$10.25	$0.00	$92.38
	12/1/2026	$63.98	$10.15	$9.50	$10.25	$0.00	$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2025	$61.43	$10.15	$9.50	$10.25	$0.00	$91.33
LABORERS	12/1/2025	$62.93	$10.15	$9.50	$10.25	$0.00	$92.83
LABORERS (COMPRESSED AIR)	6/1/2026	$64.48	$10.15	$9.50	$10.25	$0.00	$94.38
	12/1/2026	$65.98	$10.15	$9.50	$10.25	$0.00	$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2025	$51.50	$10.15	$9.50	$10.25	$0.00	$81.40
LABORERS	12/1/2025	$53.00	$10.15	$9.50	$10.25	$0.00	$82.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$54.55	$10.15	$9.50	$10.25	$0.00	$84.45
	12/1/2026	$56.05	$10.15	$9.50	$10.25	$0.00	$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	6/1/2025	$53.50	$10.15	$9.50	$10.25	$0.00	$83.40
LABORERS	12/1/2025	$55.00	$10.15	$9.50	$10.25	$0.00	$84.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$56.55	$10.15	$9.50	$10.25	$0.00	$86.45
	12/1/2026	$58.05	$10.15	$9.50	$10.25	$0.00	$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
WAGON DRILL OPERATOR	6/2/2025	$35.75	$10.15	$9.50	$8.57	$0.00	$63.97
LABORERS	12/1/2025	$37.00	$10.15	$9.50	$8.57	$0.00	$65.22
LABORERS - ZONE 3 (BUILDING & SITE)	6/1/2026	$38.30	$10.15	$9.50	$8.57	$0.00	$66.52
	12/7/2026	$39.60	$10.15	$9.50	$8.57	$0.00	$67.82
	6/7/2027	$41.00	$10.15	$9.50	$8.57	$0.00	$69.22
	12/6/2027	$42.40	$10.15	$9.50	$8.57	$0.00	$70.62
	6/5/2028	$43.90	$10.15	$9.50	$8.57	$0.00	$72.12
	12/4/2028	$45.40	$10.15	$9.50	$8.57	$0.00	$73.62
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$35.75	$10.15	$9.50	$6.56	$0.00	$61.96
LABORERS	12/1/2025	$36.99	$10.15	$9.50	$6.56	$0.00	$63.20
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	6/1/2026	$38.29	$10.15	$9.50	$6.56	$0.00	$64.50
	12/1/2026	$39.58	$10.15	$9.50	$6.56	$0.00	$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
WATER METER INSTALLER	9/17/2025	$53.01	$10.35	$10.85	$7.10	$0.00	$81.31
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2026	$55.01	$10.35	$10.85	$7.10	$0.00	$83.31
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	$57.01	$10.35	$10.85	$7.10	$0.00	$85.31
	3/17/2027	$59.01	$10.35	$10.85	$7.10	$0.00	$87.31
	9/17/2027	$61.01	$10.35	$10.85	$7.10	$0.00	$89.31
	3/17/2028	$63.01	$10.35	$10.85	$7.10	$0.00	$91.31
	9/17/2028	$65.01	$10.35	$10.85	$7.10	$0.00	$93.31
	3/17/2029	$67.01	$10.35	$10.85	$7.10	$0.00	$95.31

For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22
GROUNDMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$30.58	$8.00	$5.48	$0.00	$0.00	$44.06
GROUNDMAN / TRUCK DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$39.97	$8.00	$10.96	$0.00	$0.00	$58.93
HEAVY EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	$47.01	$8.00	$13.22	$0.00	$0.00	$68.23
JOURNEYMAN LINEMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$51.71	$8.00	$15.55	$0.00	$0.00	$75.26

Apprentice: JOURNEYMAN LINEMAN

Effective Date: 9/1/2019

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$31.03	$8.00	$3.43	$0.00	$0.00	$42.46
2	65.00	$33.61	$8.00	$3.51	$0.00	$0.00	$45.12
3	70.00	$36.20	$8.00	$3.59	$0.00	$0.00	$47.79
4	75.00	$38.78	$8.00	$5.16	$0.00	$0.00	$51.94
5	80.00	$41.37	$8.00	$5.24	$0.00	$0.00	$54.61
6	85.00	$43.95	$8.00	$5.32	$0.00	$0.00	$57.27
7	90.00	$46.54	$8.00	$7.40	$0.00	$0.00	$61.94

Apprentice to Journeyworker Ratio: 1:2

TELEDATA CABLE SPLICER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$30.73	$4.70	$0.92	$2.25	$0.00	$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TRACTOR-TRAILER DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	$44.67	$8.00	$12.55	$0.00	$0.00	$65.22

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42							

Additional Apprentice Information

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

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DOCUMENT A00801

SPECIAL PROVISIONS

CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD
Bridge Preservation of 26 Bridges along I-91

Labor participation goals for this Project shall be 15.3% for minorities and 6.9% for women for each job category. The goals are applicable to both Contractor's and SubContractor's on-site construction workforce. Refer to Document 00820 for details.

SCOPE OF WORK

All work under this Contract shall be done in conformance with the *2025 Standard Specifications for Highways and Bridges, the Supplemental Specifications* contained in this book, the *Construction Standard Details* in effect as of June, 2025, the *1990 Standard Drawings for Signs and Supports*, the 2015 *Overhead Signal Structure and Foundation Standard Drawings*, the *2009 Manual on Uniform Traffic Control Devices (MUTCD) with Revisions 1, 2, and 3 and the November 2022 Massachusetts Amendments to the MUTCD, the 1968 Standard Drawings for Traffic Signals and Highway Lighting*, the latest edition of The *American Standard for Nursery Stock*, the Plans and these Special Provisions.

The work to be done under this Contract consists of substructure repairs, minor structural steel repairs and cleaning and painting of repaired structural steel. The work will also include extending deck weeps, and the application of an elastomeric protective coating to concrete surfaces at the piers, and abutments.

The scope of work also includes maintenance of traffic during all operations according to Document A00805 – Traffic Management Plans.

The extent of the work is location dependent; locations of work are listed below under the heading "Location of Work".

All work shall be performed within, and accessed by, existing State, or City roadway layouts. No rights to enter on, or occupy, private property have been acquired for this project.

SUBSECTION 7.05 INSURANCE REQUIREMENTS
B. Public Liability Insurance

The insurance requirements set forth in this subsection are in addition to the requirements of the Standard Specifications.

7.05.B Public Liability Insurance 1. and
7.05.B Public Liability Insurance 2

The Massachusetts Department of Transportation and applicable railroads shall be named as additional insureds.

Paragraph 3

Railroad Protective Liability Insurance and Protective Property Damage Liability Insurance shall be obtained in the amount of $5,000,000/$10,000,000, on behalf of Genesee and Wyoming Railroad, Inc.

LOCATION OF WORK

The following bridges are to have work performed as follows.

BRIDGE NO.	FACILITY CARRIED	FACILITY INTERSECTED	SUBSTRUCTURE REPAIRS	CLEAN & PAINT SUPERSTRUCTURE	STRUCTURAL STEEL REPAIRS	WELDING
N-19-066 (10E)	I-91 SB Ramp	US-5/SR 10/ N King St	X	X	X	
N-19-065 (10A & 10B)	I-91 SB & NB	I-91 Ramp & GWRR	X	X	X	X
N-19-064 (10C & 10D)	I-91 SB & NB	Damon Road	X			
N-19-063 (109)	I-91 SB	Norwottuck Rail Trail	X	X	X	
N-19-062 (107)	I-91 SB	SR 9/Bridge Street	X	X	X	
N-19-062 (106)	I-91 NB	SR 9/Bridge Street		X	X	
N-19-061 (104 & 105)	I-91 SB & NB	Old Ferry Road	X	X	X	

LOCATION OF WORK (Continued)

BRIDGE NO.	FACILITY CARRIED	FACILITY INTERSECTED	SUBSTRUCTURE REPAIRS	CLEAN & PAINT SUPERSTRUCTURE	STRUCTURAL STEEL REPAIRS	WELDING
H-21-053 (0YL & 0YM)	I-91 SB & NB	SR 141 WB/ Hampden Street			X	
H-21-054 (0YN & 0YP)	I-91 SB & NB	Bemis Road	X	X	X	
H-21-051[1] (0YG & 0YF)	I-91 SB & NB	Scott Tower Road	X	X	X	
H-21-049 (0YD)	I-91 SB	US-202/Cherry Street	X		X	
H-21-049 (0YE)	I-91 NB	US-202/Cherry Street	X	X	X	
W-21-046 (10X)	I-91 SB & NB	I-91 Ramp	X	X	X	
W-21-047 (10W)	I-91 SB & NB	US-5/Riverdale Street		X	X	
C-13-037 (0X2)	I-91 SB & NB	I-391 Ramp	X	X	X	
S-24-085 (10T)	I-91 SB & NB	Noble Street		X	X	
S-24-080 (10R)	I-91 SB & NB	SR 116/Main Street	X	X	X	
S-24-078 (10P)	I-91 SB & NB	Huntington Street	X	X	X	
S-24-079[2] (10Q)	I-91 SB & NB	Gerena School	X	X	X	
S-24-087 (10M)	US-20/ Plainfield Street	I-91 SB & NB	X	X	X	

LOCATION OF WORK (Continued)

Two bridges listed above require special access. Access contacts for bridges H-21-051 (0YG & 0YF) and S-24-079 (10Q) are listed below.

Bridge No. H-21-051 (0YG & 0YF)
I-91 over Scott Tower Road

Gate to access roadway is locked on the east side of the bridge. To unlock the gate please contact:

Holyoke Parks & Recreation Department
Holyoke City Hall
536 Dwight Street #14
Holyoke, MA 01040
Office: 413-322-5620

OR

David Beoudion
Holyoke Department of Public Works
63 North Canal Street
Holyoke, MA 01040
Office: 413-322-5645

Bridge No. S-24-079 (10Q)
I-91 over the German Gerena Community School Tunnel

Access to the substructure and superstructure is only available through two locked doors on the Bernie Street on the west side of the bridge.

John Carignan
Director of School and Municipal Buildings
City of Springfield
Facilities Management Division
233 Allen Street
Springfield, MA 01108
Office: 413-787-6496

EMERALD ASH BORER ADVISORY

To the extent possible, all trees and brush shall be disposed on site, typically chipped and spread in place. When trees or brush must be removed, such as in urban, or otherwise populated areas, Contractor shall identify proposed location for disposal, and provide written notification to the Engineer for approval. Disposal shall be in city or town of project, or at minimum, within county, of construction operations.

SCHEDULE OF WORK

All proposed work hours shall conform to Subsection 7.09 and be subject to the written approval of the Engineer.

All work that requires a lane closure shall be done at night on a 10-hour night, 4-night week, Monday evening through Friday morning between 7:00 PM and 5:00 AM.

Daytime work is permitted when there are no temporary traffic control measures required on I-91. Work schedule during the day shall be based on normal 8-hour day, 5-day week Monday through Friday. This work shall be scheduled during the day between the hours of 7:00 AM to 3:30 PM.

Night Time Work

All work locations requiring night hours, as approved by the Engineer, are restricted as follows:

Monday:	7:00 PM to 5:00 AM Tuesday
Tuesday:	7:00 PM to 5:00 AM Wednesday
Wednesday:	7:00 PM to 5:00 AM Thursday
Thursday:	7:00 PM to 5:00 AM Friday

Approval to work beyond the scheduled work times will only be given when special conditions exist that warrant working beyond the scheduled work, as determined by the Engineer.

These time periods include the "set-up" and "breakdown" of the traffic pattern employed. No operations, personnel, or equipment will be allowed on the roadways except during working hours.

The Engineer may direct the Contractor to cease any operation that is deemed unsafe, or which unduly impedes traffic, with no additional expense to the Commonwealth.

The Contractor may schedule shifts longer than 10 hours with prior approval by the Engineer.

No additional compensation will be made for work scheduled during nighttime or longer working hours.

MassDOT has determined that the Contractor shall schedule work to expedite bridge work with a minimum disruption to road users and minimal impact to environmental resources while providing work zone safety. As a result, the Contractor is encouraged to perform concurrent work to facilitate on-time, on-budget project completion.

The Contractor shall schedule operations such that any beam requiring temporary support or jacking shall be performed efficiently and will be paid once per location. This may require concurrent substructure and superstructure repairs.

SCHEDULE OF WORK (Continued)

Project coordination:

It is assumed that the work under Project 613219 will be performed concurrently with two other existing contracts (129070 & 124913) which fall within the limits of Project 613219. When applicable, the Contractor shall coordinate his construction and temporary traffic control activities with these projects and extend or supplement their temporary traffic control as necessary. Should a conflict in the work schedule or temporary traffic control plan arise, Contracts 129070 & 124913 shall have priority.

CONTRACTOR QUESTIONS AND ADDENDUM ACKNOWLEDGEMENTS

Prospective bidders are required to submit all questions to the Construction Contracts Engineer by 3:00 P.M. on the Tuesday of the previous week before the scheduled bid opening date. Any questions received after this time will not be considered for review by the Department.

Contractors should email questions and addendum acknowledgements to the following email address massdotspecifications@dot.state.ma.us The MassDOT proposal number and municipality is to be placed in the subject line.

HOLIDAY WORK RESTRICTIONS

(Supplementing Subsection 7.09)

The District Highway Director (DHD) may authorize work to continue during these specified time periods if it is determined by the District that the work will not negatively impact the traveling public. DHD may allow work in those areas on a case-by-case basis and where work is behind barrier and will not impact traffic.

Below are the holiday work restrictions:

New Year's Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day. No work on local roadways on the holiday without permission by the DHD and the local police chief.

Martin Luther King's Birthday (Federal Holiday)
No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

President's Day (Federal Holiday)
No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

HOLIDAY WORK RESTRICTIONS (Continued)

Evacuation Day (Suffolk County State Holiday)
No work restrictions due to traffic concerns.

Patriot's Day (State Holiday)
Work restrictions will be in place for Districts 3 and 6 along the entire Boston Marathon route and any other locations that the DHD in those districts determine are warranted so as to not to impact the marathon. All other districts work restrictions will be as per DHD.

Mother's Day
No work on Western Turnpike and Metropolitan Highway System from 5:00 AM on the Friday before, until the normal start of business on the following day.

Memorial Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the Friday before, until the normal start of business on the following day.

Bunker Hill Day (Suffolk County State Holiday)
No work restrictions due to traffic concerns.

Juneteenth
No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

Independence Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day. No work on local roadways on the holiday without permission by the DHD and the local police chief.

Labor Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the Friday before, until the normal start of business on the following day.

Columbus Day (Federal Holiday)
No work on major arterials from 5:00 AM on the Friday before, until the normal start of business on the following day

Veterans' Day (Federal Holiday)
No work restrictions due to traffic concerns.

Thanksgiving Day (Federal Holiday)
No work on major arterials from 5:00 AM two days before until the normal start of business on the following Monday.

Christmas Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day.

CONTAMINATED SOIL

Soil to be removed from the project area shall not be assumed to be uncontaminated and must be evaluated prior to off-site management for potential contamination with hazardous materials. No soil may be disposed of off-site without proper assessment by the Contractor and approval from the Resident Engineer (RE) or the project designee.

SOIL STOCKPILING DIRECTIVE P-22-001

Any stockpiling of soil must be performed in compliance with Policy Directive P-22-001, Off-Site Stockpiling of Soil from MassDOT Construction Projects. This directive limits the allowable locations for off-site stockpiling of soil generated during MassDOT projects and includes various requirements that must be satisfied by the Contractor prior to off-site stockpiling. The Contractor is responsible for identifying a suitable stockpile location.

FORMWORK AND SITEWORK

The temporary formwork used for concrete placement, must be removed, and disposed of by the Contractor. Any formwork that is not removed within forty-five (45) days after the concrete placement and is reported by Bridge Inspection or other MassDOT personnel shall impose a damage of $500.00 for each work location (On one bridge there may be multiple locations). Payment for this work shall be included in the unit price under the applicable Item from which the material was obtained.

The Contractor is required to broom and clean all work site areas after the removal of excavated debris, regardless of the pre-existing conditions. These include areas excavated under joints such as pier caps, revetment areas. This removal of debris is incidental to the contract with no additional compensation.

PREPARATION OF CONCRETE SURFACES

All concrete surfaces to be patched shall be roughened, cleaned of all laitance, dirt, grease, oil, other contaminants, and all standing water. All reinforcing steel encountered in the excavation shall be thoroughly cleaned by abrasive blasting and coated with a zinc-rich primer conforming to MassDOT Standard Specification M7.04.11 before being covered with new concrete.

In bonding new concrete to concrete already set, the surface of the concrete shall be thoroughly cleaned, roughened, wetted with clean water, and then flushed with a mortar composed of equal parts of the cement and sand specified for the new concrete, before new concrete is placed adjacent thereto. New concrete shall be placed before mortar has taken initial set. In lieu of the mortar, an epoxy adhesive suitable for bonding fresh concrete to hardened concrete for load bearing applications may be used. The epoxy adhesive shall conform to AASHTO M 235M/M 235 Type V and shall be applied in accordance with the manufacturer's recommendations.

ENVIRONMENTAL PERMITTING

The proposed work does not occur in jurisdictional wetland resources subject to section 401 or section 404 of the Clean Water Act; therefore, the project does not require a Water Quality Certification from the Massachusetts Department of Environmental Protection or authorization from the US Army Corps of Engineers. The proposed work qualifies for the bridge exemption authorized in the Transportation Bond Bill and is therefore not subject to the Massachusetts Wetlands Protection Act, the Massachusetts Public Waterfront Act (Chapter 91), or the Massachusetts Environmental Policy Act.

If Contractor erection, demolition, storage, or other procedures require work to occur in or otherwise impact water or wetland resource areas or their buffer zones, the Contractor is advised that no associated work can occur until all required environmental permits have been obtained allowing such work. The Contractor must notify the District Highway Director and Resident Engineer in writing at least 60 days prior to desired commencement of the proposed activity.

All environmental submittals, including any contact with Local, State, or Federal environmental agencies, must be coordinated through the District Environmental Section. The Contractor shall fully cooperate with requests for information and provide same in a timely manner. The Contractor is further advised that the Department will not entertain a delay claim due to the time required to obtain the environmental permits.

After Notice to proceed, the Contractor is responsible to complying with any and all environmental permits issued for the work covered under this Contract. The Contractor will not receive additional compensation will be allowed for work required to achieve compliance with any issued environmental permit as payment for the work shall be included in the various bid Items.

NORTHERN LONG-EARED BAT AND TRICOLORED BAT PROTECTION

The northern long-eared bat (*Myotis septentrionalis*; NLEB) and tricolored bat (*Perimyotis subflavus*; TCB) are listed as federally endangered or proposed endangered, respectfully, under the Endangered Species Act (ESA). The U.S. Fish and Wildlife Service (USFWS) developed this guidance to address ESA compliance and promote conservation of NLEB and TCB. MassDOT, on behalf of FHWA, submitted a Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key Consultation through Information for Planning and Consultation (IPaC) and generated a May Affect, Not Likely to Adversely Affect (NLAA) determination (see **Document A00844 - USFWS NLAA**). Subsequently, the project has completed Section 7 consultation under the ESA.

In advance of the uplisting of the TCB to endangered under the ESA, the following Avoidance and Minimization Measures (AMMs) must be strictly adhered to in order to protect NLEB and TCB and to be in compliance with the ESA. Contact MassDOT Environmental Services - Wildlife Unit Supervisor for questions about project limits, restrictions, or conservation measures.

NORTHERN LONG-EARED BAT AND TRICOLORED BAT PROTECTION (Continued)

General AMMs

- The Contractor shall ensure all personnel working in on the project site are aware of all environmental commitments related to NLEB and TCB, including all applicable AMMs. NLEB and TCB information (https://www.fws.gov/midwest/endangered/mammals/nleb/ and https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus) shall be made available to all personnel.

Lighting AMMs

- Direct temporary lighting away from suitable habitat during the active season: **April 15 to October 31**
- replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

Tree Removal AMMs

- *If additional cutting is proposed by the Contractor that is outside the scope of this contract, additional review is required by the MassDOT Highway Division's Environmental Services Section, and additional review and restrictions may be required by the USFWS.*
- Ensure tree removal is limited to that specified in project plans and ensure that Contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure Contractors stay within clearing limits).
- No tree cutting, trimming, or removal of trees and/or woody vegetation >3-inch in diameter shall be conducted between **April 15 to September 30**
- The Contractor shall ensure all personnel working in on the project site are aware of all environmental commitments related to NLEB and/or TCB, including the **TOY** restriction. If this restriction needs to be waived at any location(s) the Resident Engineer shall send a locus map of the proposed work to MassDOT Highway Division's Environmental Services Section for review and a determination if the restriction can be waived.

Bridge AMMs

- On October 7, 2024, MassDOT Highway Division Environmental Services, conducted a northern long-eared bat bridge/structure bat assessment, in accordance with the USFWS guidelines. The assessment did not find presence of, or evidence of use by bats, and as stated within the guidelines, the assessment is valid for two years. If bridge work is not complete before October 7, 2026, assessment of the bridge for the presence of, or evidence of use by, bats shall be completed by the MassDOT Wildlife Unit prior to continuing bridge work. The Contractor shall notify the MassDOT Wildlife Unit no later than fourteen (14) days prior to October 7, 2026, to provide adequate time for inspection. If bats are found to be present, or, if there is evidence of bat usage, work at the bridge shall not commence until after the MassDOT Wildlife Unit has completed coordination with the US Fish and Wildlife Service to determine the appropriate follow up or mitigation actions.

NHESP RARE SPECIES CONTRACT LANGUAGE

If any locations are located within rare species habitat as designated by the Massachusetts Natural Heritage and Endangered Species Program (NHESP), coordination will be undertaken by the MassDOT District Environmental Engineer. HQ MassDOT Environmental Services Unit is available to provide support. The Contractor must notify the District Highway Director and Resident Engineer in writing at least 60 days prior to desired commencement of the proposed activity, and coordination with the MassDOT District Environmental Engineer should occur as early as possible. The Contractor shall be responsible for complying with any permit/restrictions/stipulations regarding work in rare species habitat.

PIGEON WASTE

The Contractor shall remove and dispose of the pigeon waste and any other debris accumulated on the steel members and bridge seats in areas where work is being performed. Pigeon waste and debris material contaminants will require special handling and disposal in accordance with all Federal, state, and local requirements. No separate payment will be made for removal and disposal of pigeon waste. Cost shall be incidental to the contract pay Items.

GENERAL REQUIREMENTS FOR DEMOLITION AND WORK INVOLVING PAINTED STEEL

(02/06/2020)

Demolition and work involving painted steel shall conform to the requirements of Subsection 961 of the Standard Specifications.

Work Involving Painted Steel.

Hazardous materials shall be removed in the immediate area of any intended welding, heating, saw cutting or burning of steel. Hazardous material removal is required to allow the demolition of structural steel, railings, drainage systems, utility supports, steel lamp posts, etc.

The Contractor shall assume that the coatings on the steel contain lead (Pb), unless otherwise determined by testing. The Contractor shall certify in writing to the Engineer the results of all testing, and shall also certify that any lead (Pb) coated steel removed from the project was not reused or buried, but was sent to a scrap metal recycling facility.

Implement and maintain programs and procedures, which comply with the requirements of this specification and all applicable standards and regulations. Comply with all applicable regulations even if the regulation is not specifically referenced herein. If a state or local regulation is more restrictive than the regulation of this specification, follow the more restrictive requirements.

This requirement is intended only for the demolition and preparation prior to repair and does not include provisions for recoating of steel.

GENERAL REQUIREMENTS FOR DEMOLITION AND WORK INVOLVING PAINTED STEEL (Continued)

Environmental

All applicable portions of Subsections 961.65 "Worker Protection" and 961.66 "Environmental Protection and Monitoring" shall be followed when performing this work.

During chemical stripping a hand washing facility may be used in lieu of a decontamination/changing facility.

Hazardous material shall be collected during the disassembly and disposed of as outlined in Subsection 961.68 "Handling of Hazardous Waste and Reporting Release Programs".

The applicable submittals shall be according to Subsection 961.69 "Submittals".

Cleaning/Removal

Cutting Or Burning Of Steel

All surfaces to be welded, heated, saw cut or burned shall be cleaned so as to remove all contaminants and/or hazardous materials, which could be discharged to the environment as a function of the subsequent operations.

Lead paint shall be removed in its entirety in an area prescribed by a 6 inch (15 cm) minimum offset from the required work. The paint removal operation may be dry abrasive blasting, wet abrasive blasting or chemical stripping.

Proper level of containment shall be used when performing this work in accordance with Subsection 961.67 "Containment". Full containment is not required during chemical stripping operation however; the Contractor shall install proper shielding and/or tarpaulins under the chemical stripping operations in order to catch all debris generated during this procedure. A cleaned area must be inspected and approved before the demolition operations are started.

During cleaning operations the Contractor shall be required to furnish and erect temporary floodlights illuminating the steel surface at a minimum of 30-foot candles. This lighting shall be used in areas where there is insufficient lighting for proper cleaning operations and inspection. The Contractor shall supply electrical power.

The Contractor shall provide support for interim and final inspection of the bridge during cleaning operations. This support shall include the necessary traffic controls and safe access to the work.

GENERAL REQUIREMENTS FOR DEMOLITION AND WORK INVOLVING PAINTED STEEL (Continued)

Mechanical Disassembly Of Steel

All surfaces to be mechanically disassembled by shear cutting or removing bolts or rivets shall not require deleading. When shear cutting or removing bolts or rivets, the Contractor shall not use any method that will cause dust and/or particles to be emitted and/or dispersed into the environment to an extent that would expose the workers above the Action Levels of 30µg/m3.

For purposes of limiting the lead (Pb) dust, the Contractor will be required to dampen the lead paint work areas.

The Contractor shall install a proper shielding and/or tarpaulins under all lead-paint-coated surfaces to be shear cut or bolts or rivets ordered removed in order to catch any loose lead paint chips, dust or particles.

NOTICE TO OWNERS OF UTILITIES

(Supplementing Subsection 7.13)

District 2 Utility/Constructability Engineer
Paul Kelly 857-368-2066
Paul.Kelly@dot.state.ma.us

The original bridge plans indicate the location of the existing known utilities in the vicinity of the work. As the accuracy and completeness of the plans are not guaranteed in any manner, it is the Contractor's responsibility to make his own investigation in order to assure that no damage to existing structures, drainage lines, traffic signal conduits, etc., will occur.

Written notice shall be given by the Contractor to all public service corporations or officials owning or having charge of publicly or privately owned utilities of the Contractor's intention to commence operations affecting such utilities at least one week in advance of the commencement of such operations and the Contractor shall at that time file a copy of such notice with the Engineer.

Where equipment and conduit related to Intelligent Transportation Systems (ITS) and other utilities are located, the Contractor shall survey and record the location of existing conduits, pull boxes and all equipment to be removed and replaced and/or adjusted to the lines and grades of the proposed work. The Contractor shall take all due precaution not to damage the ITS and all existing equipment. Work of any nature that is to take place shall not begin until positive location of the various conduit runs in the vicinity of the proposed work has been confirmed.

NOTICE TO OWNERS OF UTILITIES (Continued)

A list of public and private utilities can be found on the MassDOT website at:
https://www.mass.gov/info-details/utility-contacts-by-district-and-municipality

Select District 2 on the webpage,
Select the City and then locate the utility.

The utility contact list is for guidance only and is not guaranteed to be complete or up to date.

NATIONAL GRID EMERGENCY TELEPHONE NUMBERS

GAS:
Emergency: 1-800-233-5325
New Service: 1- 877-696-4743
Customer Support: 1-800-732-3400

ELECTRIC:
Outage/ Emergency: 1-800-465-1212
New Service: 1-800-375-7405
Customer Support: 1-800-322-3223

EVERSOURCE EMERGENCY TELEPHONE NUMBERS

GAS:
Outage/ Emergency: 800-592-2000
New Service: 866-678-2744
Customer Support: 800-592-2000

ELECTRIC:
Outage/ Emergency: 800-592-2000 or 844-726-7562
New Service: 1-888-633-3797 (1-888-need pwr)
Customer Support: 1-800-340-9822

BERKSHIRE GAS EMERGENCY TELEPHONE NUMBERS

GAS:
Outage/Emergency: 1-800-292-5012 or 413-499-1680
New Service: 1- 800-297-7144
Customer Support: 1-800-292-5012

PIONEER VALLEY TRANSIT AUTHORITY TELEPHONE NUMBERS

Sandra Sheehan
Administrator
2808 Main Street
Springfield, MA 01036
Office: 413-732-6248 Ex. 216
asheehan@pvta.com

Paul Burns-Johnson
Director of Transit Operations
Office: 413-732-6248 Ex. 2230
Cell: 413-234-0549
pburns@pvta.com

NOTIFICATION OF PUBLIC OFFICIALS

Town officials are shown at website https://www.mass.gov/lists/massachusetts-cities-and-towns and select the required City/Town website.

State Police are shown at website https://www.mass.gov/info-details/massachusetts-state-police-troop-boundaries. Select the area of jurisdiction to find the local station.

The Contractor shall inform the following officials in each area that he is assigned to work in:

Superintendent, Department of Public Works, or Town Engineer. Superintendent, Water Department, Superintendent, Sewer Departments. Police Department, Fire Department, Electric Company, Gas Company, Railroads.

TRUCK SAFETY DEVICES

(Supplementing Subsection 7.04: Motor Vehicles)

All motor vehicles subject to section 7 of chapter 90 to be operated under this Contract shall be equipped with safety devices as provided therein and in 540 CMR 4.00.

By December 31, 2025, the Contractor shall certify to the Registry of Motor Vehicles, in a manner prescribed by the Registrar, that all applicable vehicles are equipped with Lateral Protective Devices, Convex Mirrors, Cross Over Mirror(s) and Back Up Cameras in accordance with the requirements of 540 CMR 4.00.

The Contractor shall provide evidence satisfactory to the Department to demonstrate compliance with the above certification requirement for all applicable vehicles operated under this contract by the Contractor and its subContractors and vendors in a manner set forth by the Department. Thereafter, the Contractor shall have an affirmative obligation to continue to provide such evidence of compliance on an ongoing basis and no later than 7 days after certification with the Registry of Motor Vehicles of any additional vehicles operated under this contract by the Contractor and its subContractors and vendors.

Non-compliance with respect to a vehicle that is subject to 540 CMR 4.00 may subject the Contractor to statutory fines as established in M.G.L. c. 90, § 7 and/or contractual remedies up to and including termination of the contract.

SUBSECTION 8.02 SCHEDULE OF OPERATIONS

Replace this subsection with the following:

An integrated cost and schedule controls program shall be implemented by the Contractor to track and document the progress of the Work from Notice to Proceed (NTP) through the Contractor Field Completion (CFC) Milestone. The Contractor's schedules will be used by the Engineer to monitor project progress, plan the level-of-effort required by the Department's work force and consultants and as a critical decision-making tool. Accordingly, the Contractor shall ensure that it complies fully with the requirements specified herein and that its schedules are both accurate and updated as required by the specification throughout the life of the project. Detailed requirements are provided in Division II, Section 722 Construction Scheduling.

SUBSECTION 8.14 UTILITY COORDINATION, DOCUMENTATION, AND MONITORING RESPONSIBILITIES

A. GENERAL

In accordance with the provisions of Section 8.00 Prosecution and Progress, utility coordination is a critical aspect to this Contract. This section defines the responsibility of the Contractor and MassDOT, with regard to the initial utility relocation plan and changes that occur as the prosecution of the Work progresses. The Engineer, with assistance from the Contractor shall coordinate with Utility companies that are impacted by the Contractor's operations. To support this effort, the Contractor shall provide routine and accurate schedule updates, provide notification of delays, and provide documentation of the steps taken to resolve any conflicts for the temporary and/or permanent relocations of the impacted utilities. The Contractor shall provide copies to the Engineer of the Contractor communication with the Utility companies, including but not limited to:

- Providing advanced notice, for all utility-related meetings initiated by the Contractor.
- Providing meeting minutes for all utility-related meetings that the Contractor attends.
- Providing all test pit records.
- Request for Early Utility work requirements of this section (see below).
- Notification letters for any proposed changes to Utility start dates and/or sequencing.
- Written notification to the Engineer of all apparent utility delays within seven (7) Calendar Days after a recognized delay to actual work in the field – either caused by a Utility or the Contractor.
- Any communication, initiated by the Contractor, associated with additional Right-of-Way needs in support of utility work.
- Submission of completed Utility Completion Forms.

B. PROJECT UTILITY COORDINATION (PUC) FORM

The utility schedule and sequence information provided in the Project Utility Coordination Form (if applicable) is the best available information at the time of the bid and has been considered in setting the contract duration. The Contractor shall use all of this information in developing the bid price and the Baseline Schedule Submission, inclusive of the individual utility durations sequencing requirements, and any work that has been noted as potentially concurrent utility installations.

SUBSECTION 8.14 (Continued)

C. INITIATION OF UTILITY WORK

The Engineer will issue all initial notice-to-proceed dates to each Utility company based on either the:

1) Contractor's accepted Baseline Schedule
2) An approved Early Utility Request in the form of an Early Utility sub-net schedule (in accordance with the requirements of this Subsection)
3) An approved Proposal Schedule

C.1 - BASELINE SCHEDULE – UTILITY BASIS

The Contractor shall provide a Baseline Schedule submission in accordance with the requirements of Subsection 8.02 and inclusive of all of the information provided in the PUC Form that has been issued in the Contract documents. This is to include the utility durations, sequencing of work, allowable concurrent work, and all applicable considerations that have been depicted on the PUC Form.

C.2 – EARLY UTILITY REQUEST – (aka SUBNET SCHEDULE) PRIOR TO THE BASELINE

All early utility work is defined as any anticipated/required utility relocations that need to occur prior to the Baseline Schedule acceptance. In all cases of proposed early utility relocation, the Contractor shall present all known information at the pre-construction conference in the form of a 'sub-net' schedule showing when each early utility activity needs to be issued a notice-to-proceed. The Contractor shall provide advance notification of this intent to request early utility work in writing at or prior to the Pre-Construction meeting. Prior to officially requesting approval for early utility work, the Contractor shall also coordinate with MassDOT and all utility companies (private, state or municipal) which may be impacted by the Contract. If this request is acceptable to the Utilities and to MassDOT, the Engineer will issue a notice-to-proceed to the affected Utilities, based on these accepted dates.

C.3 – PROPOSAL SCHEDULE - CHANGES TO THE PUC FORM

If the Contractor intends to submit a schedule (in accordance with MassDOT Standard Specifications, Division I, Subsection 8.02) that contains durations or sequencing that vary from those provided in the Project Utility Coordination (PUC) Form, the Contactor must submit this as an intended change, in the form of a Proposal Schedule and in accordance with MassDOT Standard Specifications, Division I, Subsection 8.02. These proposed changes are subject to the approval of the Engineer and the impacted utilities, in the form of this Proposal Schedule and a proposed revision to the PUC form. The Contractor shall not proceed with any changes of this type without written authorization from the Engineer, that references the approved Proposal Schedule and PUC form changes. The submission of the Baseline Schedule should not include any of these types of proposed utility changes and should not delay the submission of the Baseline Schedule. As a prerequisite to the Proposal Schedule submission, and in advance of the utility notification(s) period, the Contractor shall coordinate the proposed utility changes with the Engineer and the utility companies, to develop a mutually agreed upon schedule, prior to the start of construction.

SUBSECTION 8.14 (Continued)

D. UTILITY DELAYS

The Contractor shall notify the Engineer upon becoming aware that a Utility owner is not advancing the work in accordance with the approved utility schedule. Such notice shall be provided to the Engineer no later than seven (7) calendar days after the occurrence of the event that the Contractor believes to be a utility delay. After such notice, the Engineer and the Contractor shall continue to diligently seek the Utility Owner's cooperation in performing their scope of Work.

In order to demonstrate that a critical path delay has been caused by a third-party Utility, the Contractor must demonstrate, through the requirements of the monthly Progress Schedule submissions and the supporting contract records associated with Subsection 8.02, 8.10 and 8.14, that the delays were beyond the control of the Contractor.

All documentation provided in this section is subject to the review and verification of the Engineer and, if required, the Utility Owner. In accordance with MassDOT Specifications, Division I, Subsection 8.10, a Time Extension will be granted for a delay caused by a Utility, only if the actual duration of the utility work is in excess of that shown on the Project Utility Coordination Form, and only if;

1) proper Notification of Delay was provided to MassDOT in accordance with the time requirements that are specified in this Section
2) the utility delay is a critical path impact to the Baseline Schedule (or most recently approved Progress Schedule)

E. LOCATION OF UTILITIES

The locations of existing utilities are shown on the Contract drawings as an approximation only. The Contractor shall perform a pre-construction utility survey, including any required test pits, to determine the location of all known utilities no later than thirty (30) calendar days before commencing physical site work in the affected area.

F. POST UTILITY SURVEY – NOTIFICATION

Following completion of a utility survey of existing locations, the Contractor will be responsible to notify the Engineer of any known conflicts associated with the actual location of utilities prior to the start of the work. The Engineer and the Contractor will coordinate with any utility whose assets are to be affected by the Work of this Contract. A partial list of utility contact information is provided in the Project Utility Coordination Form.

G. MEETINGS AND COOPERATION WITH UTILITY OWNERS

The Contractor shall notify the Engineer in advance of any meeting they initiate with a Utility Owner's representative to allow MassDOT to participate in the meeting if needed.

Prior to the Pre-Construction Meeting, the Contractor should meet with all Utility Owners who will be required to perform utility relocations within the first 6 months of the project, to update the affected utilities of the Project Utility Coordination Form and all other applicable Contract requirements that impact the Utilities. The Contractor shall copy the Engineer on any correspondence between the Utility Owner and the Contractor.

SUBSECTION 8.14 (Continued)

H. FORCE ACCOUNT / UTILITY MONITORING REQUIREMENTS

The Engineer will be responsible for recording daily Utility work force reports. The start, suspension, re-start, and completion dates of each of the Utilities, within each phase of the utility relocation work, will be monitored and agreed to by the Engineer and the Contractor as the work progresses.

I. ACCESS AND INSPECTION

The Contractor shall be responsible for allowing Utility owners access to their own utilities to perform the relocations and/or inspections. The Contractor shall schedule their work accordingly so as not to delay or prevent each utility from maintaining their relocation schedule.

COMPLIANCE WITH THE NATIONAL DEFENSE AUTHORIZATION ACT

(Supplementing Subsection 7.01)

On all projects, the "Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment" Regulation (2 CFR 200.216) prohibits the Contractor from using or furnishing the following telecommunications equipment or services:

- Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
- For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- Telecommunications or video surveillance services provided by such entities or using such equipment.
- Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

This prohibition applies to all products manufactured by the aforementioned companies, including any individual components or parts.

By submitting a bid on a project, the Contractor certifies that all work will be in compliance with the terms of 2 CFR 200.216. The Contractor shall submit a COC indicating compliance with the above provisions for all telecommunications equipment or services included in the Contract.

Payment for the item in which the materials are incorporated may be withheld until these COCs are received. Any cost involved in furnishing the certificate(s) shall be borne by the Contractor.

VALUE ENGINEERING CHANGE PROPOSAL

This Subsection defines the conditions and requirements which apply to Value Engineering Change Proposals ("VECPs"). The purpose of this provision is to encourage the Contractor to propose changes in certain project requirements that will maintain the project's functional requirements at a savings in contract time, contract price, or both. The net savings obtained by using a VECP that meets the conditions and requirements set forth here will be shared by the Contractor and MassDOT.

VECP's under this provison are to be initiated, developed and submitted to MassDOT by the Contractor. The VECP must show the contemplated changes to the Drawings, Specifications and other requirements in the Contract. When a VECP submitted pursuant to this section is fully accepted by MassDOT, the VECP will be implemented by the Contractor and paid using the current cost and resource loaded schedule. Contractor shall demonstrate that the VECP is equal to, or better than, the original design or material; that there is an interest in public safety within the VECP; that there is a life-cycle cost benefit; and/or that end users will benefit from the shortened schedule. VECPs shall be consistent with the MassHighway/MassDOT Standard Specifications for Highways and Bridges and other applicable reference documents and directives. Any proposed deviation from these documents will need to be clearly identified in the VECP Proposal Documents, and must be approved by MassDOT's Chief Engineer before accepting this VECP.

A. In order to be considered for MassDOT review each VECP shall:
   1. Be clearly labeled pursuant to this Subsection;

   2. Yield a net savings at least two hundred and fifty thousand (250,000.00) Dollars and/or a net saving of contract completion duration of at least three (3) months;

   3. The proposed changes to contract Items must:

      a. maintain the specified Items' required functions (service life, reliability);

      b. meet applicable safety regulations and codes;

      c. material substitutions must be in accordance with DOT prequalified/preapproved products and must be tested in accordance with standard material specs/testing methods (and considering all relevant environmental, load, and other relevant factors);

      d. show economy of operation, ease of maintenance, ease of construction, and necessary standardized features and appearance; and

   4. Shall not require an extension of Contract Time or Contract Milestones, with the exception of cases when there are anticipated significant cost saving.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

The thresholds above are considered to be a general guideline. MassDOT will consider VECPs outside of these thresholds if a significant benefit is demonstrated. Additionally, notwithstanding this VECP process, MassDOT will consider minor revisions in the form of a Contract Modification.

Further, any VECP submitted shall be in sufficient detail to clearly define the proposed change. The Contractor's failure to provide information of the type, detail and in a format to facilitate the MassDOT's review, may be grounds for rejection of the VECP. Additionally, the Contractor will not be entitled to any equitable adjustment or increased Time, due to any aspect of any of the proposed VECP including permitting, right of way, utility coordination or delayed responses by MassDOT. If, after the progression of the work associated with the executed Contract Modification for the VECP, any additional costs are realized by the Contractor or any of the sub- consultants, sub-Contractors, or suppliers, the Contractor shall be obligated to pay for any and all costs.

B. The following initial Items shall be provided by the Contractor for MassDOT's review. *Items 1-6 need to be submitted prior to the start of MassDOT's review of the VECP and Item 7 is an important consideration for the pricing of the VECP and the timeline of the proposed VECP schedule.*

1. ***VECP Description***: A description of the difference between the existing and the proposed Contract requirements, and the comparative advantages and disadvantages of each;

2. ***VECP Change Listing***: A listing of the Contract requirements that will need to be changed, modified, or reviewed as well as the proposed Contract document changes in the Instructions to Bidders, Contract, Standard Specifications, General Requirements and Special Provisions required by the VECP.

3. ***Construction Schedule Update*:** Any changes in the Contract Time(s) or Contract Milestone(s), that will result from acceptance of the VECP, shall be accompanied by a contemporaneous schedule analysis *(i.e, the Contractor's baseline schedule submission, all past/required monthly schedule updates, a detailed assessment of all past delays, and a resource loaded Crticial Path Method schedule as specified in Section 8.0 / Subsection 8.02 of this Contract)* of the projected Work that remains including the proposed VECP related schedule changes *(inclusive of the timeline to review accept the VECP and the timeline for implementing the design changes)* in the remaining work. This shall be submitted in the form of a Proposal Schedule until the VECP has been formally accepted. Note: All of this information is to be updated, recertified, and formally accepted by MassDOT before final acceptance of this this VECP is issued.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

4. ***Date for MassDOT's Acceptance***: A statement that clearly justifies the date by which the VECP must be accepted to obtain the maximum price reduction, noting any effect upon the Contract Time(s) and/or Contract Milestone(s). This statement must include a narrative that demonstrates the most recent construction schedule has been utilized to justify that proposed acceptance date *(e.g. "in order to start to fabricate critical materials, authorization must be provided to work on the shop drawings by no later than [date]").* The Contractor should allow for at least sixty (60) to ninety (90) days for acceptance by MassDOT once all of the VECP documentation has been provided. Acceptance shall mean that MassDOT has received a finalized and executed contract modification. However, this is a proposed Contract change.

   The Contractor is fully obligated to progress the Work of the original Contract and MassDOT is not liable for any delays or costs that may occur in the review phase of any VECP proposal.

5. ***Cost and Savings Estimates***: A detailed estimate of the anticipated net savings, calculated as follows:

   a. ***Original Scope:*** Isolate the cost of performing the original contract construction activities, in accordance with the original Contract Documents, as originally bid by the Contractor, that are anticipated to be superseded by the VECP. *This cost is to include any original contract scope that is anticipated to be altered or eliminated by the VECP such as, shop drawing preparation, inspection work, testing, maintenance of traffic, or any other original contract costs, that have yet to have been performed at the time of this VECP submission.*

   b. ***New VECP Scope:*** Calculate the cost of performing the comparable construction activities associated with the VECP.

   c. ***Contractor's Engineer & Inspection***: Calculate the cost of Engineering, inspection, and design work by the Contractor's Engineer/Designer. This should be a realistic estimate of the costs of any required Engineering, design and review work by the Contractor's Engineer.

   d. ***MassDOT's Costs:*** MassDOT's estimate of costs to perform Engineering/design reviews, cost estimate reviews, schedule reviews, and any other administrative costs to review and recommend implementation of the proposed VECP. *(including all anticipated increased costs to MassDOT on other Contracts and all anticipated follow-on increased costs to MassDOT, if any)* as provided by MassDOT. MassDOT's estimated costs must be included the VECP calculation and will be provided by MassDOT in support of the VECP evaluation process.

   e. ***Other Costs:*** Estimated costs associated with any revisions to other project related costs, such as Environmental Permits or Right of Way acquisitions, including other agency or municipality costs, as provided by MassDOT.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

Net Savings:

The net savings to be split between MassDOT and the Contractor shall be calculated using the Items above as follows: a - (b+c+d+e) = net savings

6. *The Contractor shall also provide:*

   a. A proposed Change Order, which explains and justifies any required Equitable Adjustment in the Contract Price.

   b. The Contractor's actual costs expended for developing the VECP as of the date of the VECP submission;

7. ***Design Changes and Drawings*:** The costs that are outlined above should be inclusive of the following design and Engineering responsibilities.

   a. Design changes shall be prepared and stamped by the Contractor's professional designer and/or Engineer. In addition, in the development of the VECP; the Contractor is responsible for anticipating and managing all aspects associated with any VECP design work that must be performed by a licensed Engineer.

   b. The Contractor's Engineer must analyze and stamp all components of any aspect of the project that has been redesigned, changed, or altered as a result of this VECP.

   c. The Contractor's Engineer shall provide all calculations and supporting design/Engineering documentation that was utilized to develop the changes and stamped drawings. These will be used by MassDOT's Designer-of-Record to review the VECP changes. The Contractor is limited to selecting only those Engineer's that have been pre-qualified by MassDOT's A&E Board.

   d. MassDOT's Designer-of-Record will review and respond to all completed design submissions related to this VECP within thirty (30) calendar days, unless determined to be a non-critical path Item.

   e. MassDOT will be responsible for estimating and managing MassDOT's Designer-of-Record during the VECP review and implementation. Should any significant conflicts arise, between the Contractor's Engineer and MassDOT's Designer-of-Record, the DOT and the Contractor will work expeditiously to resolve the conflict. Should this type of conflict continue for greater than five (5) days, the Contractor is to bear all financial and time related impacts of such delay and must seek to resolve the design conflict, in an acceptable manner to MassDOT. The resolution of this conflict will be funded at the Contractor's expense – exclusive of the net saving that was agreed to at the execution of the contract modification for this VECP.

   f. The Contractor's Engineer may also be required to inspect the construction work. The Contractor is to include such anticipated inspection costs in the initial VECP.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

g. MassDOT's Designer of Record will remain the Designer-of-Record for the entire Project. Any costs incurred in the use of MassDOT's Designer-of-Record by MassDOT or Contractor associated with the review of a VECP are to be included in the calculated net savings.

C. Approval of the VECP shall not occur until a Contract Modification, incorporating the VECP, is issued by MassDOT and properly executed by the Contractor. MassDOT may accept or reject part or all of any VECP at any time prior to an executed Contract Modification for the applicable VECP. The decision of MassDOT, concerning acceptance or rejection of any VECP, shall be final and shall not be subject to dispute resolution.

It is expected that several weeks may go by before the final VECP documentation has been executed with a Contract Modification. Therefore, MassDOT intends to make certain that the initial cost estimate information has not changed before entering into a Contract Modification. As the VECP evaluation process is finalized, and prior to the signed Contract Modification for the VECP, the Contractor and MassDOT must re-certify the current status of the originally proposed cost and/or schedule savings.

Until a contract modification is issued and schedule and cost/savings re-certification is complete and accepted by MassDOT, the Contractor shall remain obligated to perform the Work in accordance with the terms and conditions of the original Contract Documents.

Upon completion of the work associated with the VECP, MassDOT may require verification that the VECP savings has been achieved.

D. VECPs will be processed (distributed, reviewed, commented upon, accepted or rejected) expeditiously (pursuant to M.G.L. c. 30, § 39R); however, as this is an elective modification to the contract, MassDOT shall not be liable for any delay or cost in the review and acceptance of the VECP. During the review of the VECP, the Contractor remains obligated to progress the original Contract scope, and schedule, as planned; until a Contract Modification, accepting the Contractor re-certified VECP, has been executed by MassDOT.

The Contractor has the right to withdraw part, or all of any VECP, prior to acceptance by MassDOT. Such withdrawal shall be made in writing to the Engineer. The Contractor shall state the period of time, from the date of the initial VECP submittal, that the VECP shall remain valid and feasible. Revision of this validity and feasibility period shall be allowed only by mutual agreement of the Contractor and the Engineer in writing.

If the Contractor desires to withdraw the proposal prior to the expiration of this period for non-technical reason, MassDOT reserves the right to recover all actual costs that have been incurred to MassDOT.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

If the Contractor withdraws the VEC Proposal, MassDOT reserves the right to proceed with the VECP or any portion of the VECP as a normal change and the Contractor waives any right it may have had to share in net savings thereunder.

For purposes of this provision, expiration of the time established by the Contractor for approval shall be considered as withdrawal by the Contractor if MassDOT requests an extension of that time and the Contractor does not provide a written extension.

E. With regard to unknown conditions or sub-surface work, in general, the expectation is that the Contractor and MassDOT will strive to gain enough knowledge about the risks in order to provide a forward-priced Change Proposal. Therefore, any costs to fully evaluate the proposal, such as additional borings and/or test pits, must be considered in the cost evaluation of whether the VECP is worth pursuing. However, if it is impractical to gather conclusive exploratory information, before the VECP is executed, MassDOT may consider provisions in the VECP that clearly identifies the risk sharing (cost and time) related specifically to the unknown/sub-surface conditions. If these VECP provisions are acceptable to MassDOT they are to include supplemental language to provide a determination of the final savings/cost, and time impacts, no later than 45 days after the sub-surface work is completed. All other aspects of the VECP, unrelated to these Provisions, will be binding upon execution of the VECP.

SECTION 722
CONSTRUCTION SCHEDULING
DESCRIPTION

722.20 General

The Contractor's approach to prosecution of the Work shall be disclosed to the Department by submission of a Critical Path Method (CPM) schedule and a cost/resource loaded Construction Schedule as defined by the schedule type set forth below. These requirements are in addition to any requirements imposed in other sections.

This section establishes the requirement for scheduling submissions. There are four schedule types identified as types A, B, C and D.

All schedules shall be prepared and submitted in accordance with this specification and the instructions contained in the Construction Schedule Toolkit located on the MassDOT-Highway Division website at https://www.mass.gov/info-details/massdot-highway-Contractors-schedule-toolkit.

Type A –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Cost-loaded & Resource Loaded CPM
- Resources Graphic Reporting
- Cash Flow Projections from the CPM
- Cash Flow Charts
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

Type B –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Cost-loaded & Resource Loaded CPM
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

Type C –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

SECTION 722 (Continued)

Type D -

- Bar chart schedule updated monthly or at the request of the Engineer
- Short-term Construction Schedule
- Monthly Projected Spending Report (PSR)

EQUIPMENT, PERSONNEL

722.40 General

A. **Software Requirements**

The Contractor shall use Primavera P6 computer scheduling software.

In addition to the requirements of Section 740 – Engineer's Field Office and Equipment, the Contractor shall provide to the Department one (1) copy of the scheduling software, one (1) software license and one (1) computer capable of running the scheduling software for the duration of the Contract. This computer and software shall be installed in the Engineer's Field Office. The computer and software shall be maintained and serviced at no additional cost to the Department.

B. Scheduler Requirements

The Scheduler shall be approved by the Engineer.

For Type A, B and C Schedules the name of the Contractor's Project Scheduler together with his/her qualifications shall be submitted to the Department for approval by the Engineer within seven (7) Calendar Days after NTP. The Project Scheduler shall have a minimum of five (5) years of project CPM scheduling experience, three (3) years of which shall be on projects of similar scope and value as the project for which the Project Scheduler is being proposed. References shall be provided from past projects that can attest to the capabilities of the Project Scheduler.

SCHEDULING METHODS

722.60 General

A. **Schedule Planning Session**

The Contractor shall conduct a schedule planning session prior to submission of the Baseline Schedule. This session will be attended by the Department and its consultants. During this session, the Contractor shall present its planned approach to the project including, but not limited to:

1. the Work to be performed by the Contractor and its subContractors;
2. the planned construction sequence and phasing; planned crew sizes;
3. summary of equipment types, sizes, and numbers to be used for each work activity;
4. all early work related to third party utilities;
5. identification of the most critical submittals and projected submission timelines;
6. estimated durations of major work activities;
7. the anticipated Critical Path of the project and a summary of the activities on that Critical Path;
8. a summary of the most difficult schedule challenges the Contractor is anticipating and how it plans to manage and control those challenges;

SECTION 722 (Continued)

9. a summary of the anticipated quarterly cash flow over the life of the project.

This will be an interactive session and the Contractor shall answer all questions that the Department and its consultants may have. The Contractor shall provide a written summary of the information presented and discussed during the session to the Engineer. The Contractor's Baseline Schedule and accompanying Schedule Narrative shall incorporate the information discussed at this Schedule Planning Session.

B. **Schedule Reviews by the Department**

1. Baseline Schedule Reviews
   The Engineer will respond to the Baseline Schedule Submission within thirty (30) Calendar Days of receipt providing comments, questions and/or disposition that either accepts the schedule or requires revision and resubmittal. Rejected Baseline Schedules shall be resubmitted within fifteen (15) Calendar Days after receipt of the Engineer's comments.
2. Contract Progress Schedule / Monthly Update Reviews / Recovery Schedules
   The Engineer will respond to each submittal within twenty-one (21) Calendar Days. Rejected schedules shall be resubmitted by the Contractor within five (5) Calendar Days after receipt of the Engineer's comments.

The Engineer's review comments shall not be construed as direction to change the Contractor's means and methods. The review and acceptance of the CPM schedule does not relieve the Contractor of the responsibility for accomplishing the work within the contract required completion dates. Omissions and errors in the accepted CPM schedule shall not excuse performance less than that required by the Contract.

722.61 Schedule Content and Preparation Requirements

All schedules shall be prepared and submitted in accordance with the instructions contained in the Construction Schedule Toolkit located on the MassDOT-Highway Division website at:
https://www.mass.gov/info-details/massdot-highway-Contractors-schedule-toolkit
and the following:

A. **LOGIC**

The schedules shall divide the Work into activities with appropriate logic ties to show:

1. conformance with the requirements of this Section and Division I, Subsection 8.02 - Schedule of Operations
2. the Contractor's overall approach to the planning, scheduling, and execution of the Work
3. conformance with any additional sequences of Work required by the Contract Documents, including, but not limited to, Subsection 8.03 - Prosecution of Work and Subsection 8.06 – Limitations of Operations.

SECTION 722 (Continued)

B. **ACTIVITIES**

The schedule shall clearly define the progression of the Work from the Notice to Proceed (NTP) to Contractor Field Completion (CFC) by using separate activities, or including attributes within appropriate activities, to address each of the following:

1. Notice to Proceed
2. Work Breakdown Structure
3. The Critical Path is clearly defined and organized.
4. Float shall be clearly identified.
5. Detailed activities to satisfy permit requirements.
6. SubContractor approvals at fifteen (15) Calendar Days from submittal to response
7. The preparation and submission of shop drawings, procedures, and other required submittals, with a planned duration that is to be demonstrated to the Engineer as reasonable.
8. The review and return of shop drawings, procedures, and other required submittals, approved or with comments, the duration of which shall be thirty (30) Calendar Days, unless otherwise specified or as approved by the Engineer.
9. Procurement of fabricated materials and equipment with long lead times, including time for review and approval of submittals required before procuring and fabricating.
10. Each component of the Work defined by specific activities.
11. Right-of-Way (ROW) takings that have been identified in the Contract.
12. Early Utility Relocation (by others) that has been identified in the Contract.
13. Interfaces with adjacent work, utility companies, other public agencies, sensitive abutters, and/or any other third-party work affecting the Contract.
14. Utility work to be performed in accordance with the Project Utility Coordination (PUC) Form as provided in Section 8.14 - Utilities Coordination, Documentation and Monitoring Responsibilities
15. Access Restraints – restrictions on access to areas of the Work that are defined by the Department in the bid package, in Subsection 8.06 – Limitations of Operations or elsewhere in the Contract
16. Limitations of Work – time of year restrictions and any other limitations identified in the contract
17. Traffic work zone set-up and removal, night work and phasing
18. Material Certifications
19. Milestones listed in Subsection 8.03 - Prosecution of Work or elsewhere in the Contract Documents
20. For Type A and B Contracts only: All Items to be paid for, including all Unit Price and Lump Sum pay Items, shall be identified by activity. This shall include all non-construction activities such as Engineering work; purchase of permanent materials and equipment, purchase of structural steel stock, equipment procurement, equipment delivery to the site or storage location and the representative amount of overhead/indirect costs that was included in the Contractor's Bid Prices.

SECTION 722 (Continued)

21. Contractor's request for validation of FBU (ready to open to traffic)
22. Full Beneficial Use (FBU) Contract Milestone per the following requirements: The majority of contract Work has been completed and the asset(s) has been opened for full multi-modal transportation use, except for limited contract work Items that do not materially impair or hinder the intended public use of the transportation facility. All anticipated lane takings have been completed, except for minor, short term work Items and as defined in Subsection 8.03 - Prosecution of Work
23. The Department's confirmation of completed work to allow for FBU.
24. Contractor's request for validation of Substantial Completion
25. Department generated punch list of twenty-one (21) Calendar Days
26. Substantial Completion Contract Milestone as defined in the standard specifications.
27. Punch list Completion Period of at least thirty (30) Calendar Days per the requirements of Subsections 5.11 - Final Acceptance, 7.15 - Claims Against Contractors for Payment of Labor, Materials and Other Purposes
28. Contractor confirmation that all punchlist work and documentation has been completed.
29. Physical Completion of the Work Contract Milestone per the requirements of Subsections 5.11 - Final Acceptance and 8.03 - Prosecution of Work
30. Documentation Completion per the requirements of Subsections 5.11 - Final Acceptance and 8.03 - Prosecution of Work
31. Contractor Field Completion Contract Milestone (which can also be considered the completion date) per the following requirements: All physical contract Work is complete including punchlist. The Contractor has fully de-mobilized from field operations and as defined in Subsection 5.11

C. **EARLY AND LATE DATES**

Early Dates shall be based on proceeding with the Work or a designated part of the Work exactly on the date when the corresponding Contract Time commences. Late Dates shall be based on completing the Work or a designated part of the Work exactly on the corresponding Contract Time, even if the Contractor anticipates early completion.

D. **DURATIONS**

Activity durations shall be in Work Days. Planned Original Durations shall be established with consideration of resources and production rates that correspond to the Contractor's Bid Price. Within all of the Department-required schedules, the Contractor shall plan the Work using durations for all physical construction activities of no less than one (1) Work Day and no greater than fourteen (14) Work Days, unless approved by the Engineer as part of the Baseline Schedule Review.

SECTION 722 (Continued)

Should there be an activity with a duration that is determined by the Engineer to be unreasonable, the Contractor will be asked to provide a basis of the duration using bid documents, historic production rates for similar work, or other form of validation that is acceptable to the Engineer. Should the Contractor and the Engineer be unable to agree on reasonable activity durations, the Engineer will, at a minimum, note the disagreement in the Baseline Schedule Review along with a duration the Engineer considers reasonable and the basis for that duration. A schedule that contains a substantial number of activities with durations that are deemed unreasonable by the Engineer will not be accepted.

E. **MATERIALS ON HAND**

The Contractor shall identify in the Baseline Schedule all Items of permanent materials (Materials On Hand) for which the Contractor intends to request payment prior to the incorporation of such Items into the Work.

F. **ACTIVITY DESCRIPTIONS**

The Contractor shall use activity descriptions in all schedules that clearly describe the work to be performed using a combination of words, structure numbers, station numbers, bid Item numbers, work breakdown structure (WBS) and/or elevations in a concise and compact label.

G. **ACTIVITY IDENTIFICATION NUMBERS**

The Contractor shall use the activity identification numbering system specified in the MassDOT Highway Division Contractor Construction Schedule Toolkit.

H. **ACTIVITY CODES**

The Contractor shall use the activity codes specified in the MassDOT Highway Division Contractor Construction Schedule Toolkit.

I. **CALENDARS**

Different calendars may be created and assigned to all activities or to individual activities. Calendars define the available hours of work in each Calendar Day, holidays and general or project-specific non-Work Days such as Fish Migration Periods, time-of-year (TOY) restrictions and/or area roadway restrictions. All calendars shall extend two years beyond the current project completion date.

Project Special Provisions identify specific calendar restrictions some examples of special calendars include, but are not limited to:

- Winter Shutdown Period, specific work is required by separate special provision to be performed during the winter. See Special Provision 8.03 (if applicable)
- Peak traffic hours on heavily traveled roadways. This shall be from 6:30 am to 9:30 am and from 3:30 pm to 7:00 pm, unless specified differently elsewhere in the Contract.
- Special requirements by sensitive abutters, railroads, utilities and/or other state agencies as defined in the Contract.
- Planting seasons for trees, shrubs and grasses and wetlands mitigation work.

SECTION 722 (Continued)

- Cape Cod and the Islands Summer Roadway Work Restrictions: A general restriction against highway and bridge construction is enforced between Memorial Day and Labor Day, unless otherwise directed by the Engineer. Cape Ann Summer Roadway Work Restrictions: While there are no general restrictions for Cape Ann as there are for Cape Cod and the Islands, project-specific restrictions may be enforced.
- Turtle and/or Fish Migration Periods and/or other in-water work restrictions: Refer to the Project Special Provisions for specific restrictions.
- Working over Waterways Restricted Periods.
- Night-time paving and striping operations, traffic, and temperature restrictions.
- Utility Restrictions shall be as specified within the Contract.

J. **FLOAT**

For the calculation of float in the CPM schedule, the setting for *Retained Logic* is required for all schedule submissions, starting with the Baseline Schedule Submission. Should the Contractor have a reason to propose that an alternative calculation setting such as *Progress Override* be used, the Contractor shall obtain the Engineer's approval prior to modifying to this setting.

K. **COST AND RESOURCE LOADING (Types A and B only)**

For all Type A and B Schedules, the Contractor shall provide a cost and resource-loaded schedule with an accurate allocation of the costs and resources necessary to complete the Work. The costs and resources shall be assigned to all schedule activities in order to enable the Contractor to efficiently execute the Contract requirements and the Engineer to validate the original plan, monitor progress, provide cash flow projections, and analyze delays.

1. Each schedule activity shall have an assigned cost that accurately represents the value of the Work. Each schedule activity shall have its resources assigned to it by craft and the anticipated hours to accomplish the work. Each schedule activity's equipment resources shall be assigned to it by equipment type and hours operated. Front-loading or other unbalancing of the cost distribution will not be permitted.
2. The sum of the cost of all schedule activities shall be equal to the Contractor's Bid Price.
3. Indicating the labor hours per individual, per day, by craft and equipment hours/day will be acceptable.
4. The Engineer reserves the right to use the cost-loading as a means to resolve changes, disputes, time entitlement evaluations, increases or decreases in the scope of Work, unit price renegotiations and/or claims.
5. For all Type A and B Schedules, all subnets, fragnets, Proposal Schedules, and Recovery Schedules shall be cost and resource- loaded to help to quickly validate and monitor the duration of the Work to be performed.
6. For Type A Schedules, cost-loading of the schedule will also be used for cash flow projection purposes.
7. The cost-loading of each activity shall indicate the portion of the cost for that activity that is applicable to a specific bid Item (cost account.) The total cost for each cost account must equal the bid Item price.

SECTION 722 (Continued)

L. **NOT TO BE USED IN THE CONTRACTOR'S CPM SCHEDULE**

1. Milestones or constraint dates not specified in the Contract.
2. Scheduled work not required for the accomplishment of a Contract Milestone
3. Use of activity durations, logic ties and/or sequences deemed unreasonable by the Engineer.
4. Delayed starts of follow-on trades.
5. Float suppression techniques.
6. Leads such as leads, lags, SS, SF, & FF relationships without the expressed permission of the Department.

722.62 Submittal Requirements

All schedules shall be prepared and submitted in accordance with the requirements listed below.

Each monthly Contract Progress Schedule submittal shall be uniquely identified.

Each Submission shall, at a minimum, include the following:

a. Narrative
b. Schedule submittals shall be signed by the Scheduler
c. Schedule Printout - All Activities
d. Schedule Printout - Critical Path Layout
e. Schedule Printout - Remaining Work
f. Schedule Printout - Top 3 Float Path
g. Work Breakdown Structure (WBS) Summary
h. Project Spending Report (PSR) in Portable Document Format (.PDF)
i. Project Spending Report (PSR) in Microsoft Excel spreadsheet (.XLS)
j. Oracle Primavera P6 Schedule File (.XER)

All digital file submittals will be labeled with the following information.

- Contract Number
- Project Number
- Project locations (i.e., town(s))
- Brief description
- Submittal description (i.e., UP07)
- Data Date (MM-DD-YY)
- File Description (i.e., Critical Path)

Example: C110464 (P606309) - Orange Route 2 over 202 – UP23 (07-15-22) - Critical Path

A. **Narratives**

A written narrative shall be submitted with every schedule submittal. The narrative shall:

1. Itemize and describe the flow of work for all activities on the Critical Path in a format that includes any changes made to the schedule since the previous Contract Progress Schedule / Monthly Update or the Baseline Schedule, whichever is most recent.
2. provide a description of any specification requirements that are not being followed. Identify those that are improvements and those that are not considered to be meeting the requirements.

SECTION 722 (Continued)

3. provide all references to any Notice of Delay that has been issued, within the time period of the Contract Progress Schedule Update, by letter to the Engineer. Note that any Notice of Delay that is not issued by letter will not be recognized by the Engineer. See Subsection 722.64.A – Notice of Delay.
4. provide a description of each third-party utility's planned vs. actual progress and note any that are trending late or are late per the durations and commitments as provided in the PUC Form; provide a description of the five (5) most important responses needed from the Department and the need date for the responses in order to maintain the current Schedule of Record.
5. provide a description of all critical issues that are not within the control of the Contractor or the Department (third party) and any impact they had or may have on the Critical Path.
6. provide a description of any possible considerations to improve the probability of completing the project early or on time.
7. compare Early and Late Dates for activities on the Critical Path and describe reasons for changes in the top three (3) most critical paths.
8. describe the Contractor's plan, approach, methodologies, and resources to be employed for completing the various operations and elements of the Work for the top three (3) most critical paths. For update schedules, describe and propose changes to those plans and verify that a Proposal Schedule is not required.
9. describe, in general, the need for shifts that are not 5 days/week, 8 hours/day, the holidays that are inserted into each calendar and a tabulation of each calendar that has been used in the schedule.
10. describe any out-of-sequence logic and provide an explanation of why each out-of-sequence activity does not require a correction, if one has not been provided, and an adequate demonstration that these changes represent the basis of how these activities will be built, including considerations for resources, dependencies, and previously approved production rates.
11. identify any possible duration increases resulting from actual or anticipated unit price Item quantity overruns as compared to the baseline duration, with a corresponding suggestion to mitigate any possible delays to the Critical Path. If the delay is anticipated to impact the Critical Path, refer to Subsections 4.06 – Increased or Decreased Contract Quantities and 8.10 – Determination and Extension of Contract Time for Completion and submit a letter to the Engineer notifying of a potential delay.
12. include a schedule log consisting of the name of the schedule, the data date and the date submitted.
13. include and describe any notifications, communications and coordination meetings with third-parties such as utility companies that occurred from the last update including personnel names, job titles and contact information, date of meeting(s)/correspondence(s), topics discussed, and reasons the third party provided for deviations from the PUC form.

SECTION 722 (Continued)

B. **CPM Bar Charts**

One (1) timescaled bar chart containing all activities shall be prepared and submitted using a scale that yields readable plots and that meets the requirements of Subsection 722.61 – Schedule Content and Preparation Requirements Activities shall be linked by logic ties and shown on their Early Dates. Critical Paths shall be highlighted, and Total Float shall be shown for all activities.

A second timescaled bar chart shall also be prepared containing only the Critical Path or, if the Critical Path is not the longest path, the Longest Path using a scale that yields readable plots and that meets the requirements of Subsection 722.61 – Schedule Content and Preparation Requirements. Activities shall be linked by logic ties and shown on their Early Dates. Total Float shall be shown for all activities.

C. Detailed Activity Schedule Comparisons

A Detailed Activity Schedule Comparison (DASC) is a simple reporting tool in the format of a graphical report that will provide Resident Engineers with immediate, timely and up-to-date information. The DASC consists of an updated bar chart that overlays the current time period's bar chart onto the previous time period's bar chart for an easily read comparison of progress during the present and previous reporting periods.

D. Activity Cost Report and Monthly Cash Flow Projections (Type A only)

With each Contractor Quantity Estimate (CQE), the Contractor shall submit an Activity Cost Report and Cash Flow Projection that includes all activities grouped by Contract Bid Item.

The Activity Cost Report shall be generated from the Schedule of Record and shall be the basis of the Monthly Cash Flow Projection. Within each contract Bid Item, activities shall be sequenced by ascending activity identification number and shall show:

1. activity ID and description,
2. forecast start and finish dates for each activity and,
3. when submitted as a revised schedule, actual start, and finish dates for each completed activity.
4. any variance to the estimated contract quantity shall be shown.

E. Resource Graphs (Type A only)

Monthly and cumulative resource graphs for the remaining Contract period using the Early Dates and Late Dates in the Contract Progress Schedule shall be included as part of each schedule submittal.

SECTION 722 (Continued)

F. Projected Spending Reports

A Projected Spending Report (PSR) shall be prepared and submitted monthly. The PSR shall indicate the monthly spending (cash flow) projection for each month from NTP to Contractor Field Completion (CFC). Each month's actual spending shall be calculated using all CQEs paid during that month. The Projected Spending Report (PSR) shall be depicted in a tabular format and provided in both an .XLS and .PDF.

722.63. Progress Schedule Requirements

A. Baseline Schedule

The Baseline Schedule shall be due thirty (30) Calendar Days after Notice to Proceed (NTP). The Baseline Schedule shall only reflect the Work awarded to the Contractor and shall not include any additional work involving Extra Work Orders or any other type of alleged delay. The Baseline Schedule shall be prepared and submitted in accordance with Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements. Once the Baseline Schedule has been accepted by the Engineer, with or without comments, it shall represent the as-planned schedule for the Work and become the Contract Progress Schedule of Record until such time as the schedule is updated or revised under Subsections 722.63.C - Contract Progress Schedules / Monthly Updates, 722.64.C - Recovery Schedules and 722.64.D - Proposal Schedules.

The Cost and Resource-Loading information (Types A and B only) shall be provided by the Contractor within forty-five (45) Calendar Days after NTP.

The Engineer's review comments on the Baseline Schedule and the Contractor's responses to them will be maintained for the duration of the Contract and will be used by the Engineer to monitor the Contractor's work progress by comparing it to the Contract Progress Schedule / Monthly Update.

B. Interim Progress-Only Schedule Submissions

The first monthly update of the Contract Progress Schedule/Monthly Update is due within seventy (70) Calendar Days after Notice to Proceed (NTP.) The Baseline Schedule review period ends at sixty (60) Calendar Days after NTP, see Subsection 722.60.B - Schedule Reviews by the Department. If the Baseline Schedule has not been accepted within sixty (60) Calendar Days after NTP, an Interim Progress-Only Schedule shall be due within seventy (70) Calendar Days after NTP. The purpose of the Interim Progress-Only Schedule is to document the actual progress of all activities, including non-construction activities, from NTP until the Baseline Schedule is accepted.

SECTION 722 (Continued)

C. Contract Progress Schedules / Monthly Updates

The first Contract Progress Schedule shall be submitted by the Contractor no later than seventy (70) Calendar Days after NTP. The data date for this first Progress Schedule shall be two months (approximately sixty (60) Calendar Days) after NTP. Subsequent Progress Schedules shall be submitted monthly.

Each Contract Progress Schedule shall reflect progress up to the data date. Updated progress shall be limited to asbuilt sequencing and asbuilt dates for completed and inprogress activities. Asbuilt data shall include actual start dates, remaining Work Days and actual finish dates for each activity, but shall not change any activity descriptions, the Original Durations, or the Original Resources (as planned at the time of bid), without the acceptance of the Engineer. If any activities have been completed out-of-sequence, the Contractor shall propose new logic ties for affected in-progress and future activities that accurately reflect the previously approved sequencing. Alternatively, the Contractor may submit to the Engineer for approval an explanation of why an out-of-sequence activity does not require a correction and an adequate demonstration that the changes accurately represent how the activities will be built, including considerations for resources, dependencies, and previously approved production rates. Once approved by the Engineer, the Contractor may incorporate the changes in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

No revisions to logic ties, sequence, description, or duration of future activities; or planned resource costs shall be made without prior approval by the Engineer.

Any proposed logic changes for in-progress or future activities shall be submitted to the Engineer for approval before being incorporated into a Contract Progress Schedule. The logic changes must be submitted using a Proposal Schedule or a schedule fragnet submission. Once approved by the Engineer, the Contractor may incorporate the logic in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

For any proposed changes to the original sequence, description or duration of future activities, the Contractor shall submit to the Engineer for approval an explanation of how the proposed description or duration change reflects how the activity will be progressed, including considerations for resources and previously approved production rates. Any description or duration change that does not accurately reflect how the activity will be progressed will not be approved by the Engineer. Once approved by the Engineer, the Contractor may incorporate the changes in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

Contract Progress Schedules that extend performance beyond the Contract Time or beyond any Contract Milestone shall not be approved by the Engineer. The Contractor shall submit a Recovery Schedule, or a Time Entitlement Analysis, if any Contract Progress Schedule/Monthly Update indicates a failure to meet the Contract Dates.

SECTION 722 (Continued)

D. Short-Term Construction Schedule

The Contractor shall provide a Short-Term Construction Schedule that details daily work activities, including any multiple shift work that the Contractor intends to conduct, in a spreadsheet format. The daily activities shall directly correspond to the Contract Progress Schedule activities, with a matching reference to the activity identification number in the Contract Progress Schedule and may be at a greater level of detail. The Short-Term Construction Schedule shall be submitted every two weeks. It shall display all work for a thirty-five (35) Calendar Day period consisting of completed work for the two (2) week period prior and all planned work for the following three (3) week period. The initial submission shall be provided no later than thirty (30) Calendar Days after NTP or as required by the Engineer.

The Contractor shall be prepared to discuss the Short-Term Construction Schedule, in detail, with the Engineer in order to coordinate field inspection staff requirements, the schedule of work affecting abutters and any corresponding work with affected utilities. Short-Term Construction Schedules shall be prepared and submitted in accordance with Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements.

722.64 Impacted Schedule Requirements

A. Notice of Delay

The Contractor shall notify the Engineer in writing, with copies to the District and State Construction Engineers, within fifteen (15) of the start of any delays to the Critical Path that are caused by actions or inactions that were not within the control of the Contractor. Delay notifications that are not provided in a letter to the Engineer, such as a delay notification in the schedule narrative, will not be recognized as contractual notice in the determination of any Time Extension related to the impacts to the work associated with this specific alleged delay. Should such a delay continue for more than one (1) week, the Contractor shall note it in the Schedule Narrative until the delay is no longer impacting the Critical Path for the completion of the Contract Milestones. The Engineer will evaluate the alleged delay and its impact and will respond to the Contractor within ten (10) Calendar Days after receipt of a notice of delay.

B. Time Entitlement Analysis

A Time Entitlement Analysis (TEA) shall consist of a descriptive narrative, prepared in accordance with Subsection 722.62.A - Narratives, and an as-built CPM schedule, which may be in the form of a schedule fragnet that has been developed from the project's Contract Progress Schedule of Record, and illustrates the impact of a delay to the Critical Path, Contract Milestones and/or Contract Completion Date as required in Subsection 8.10 - Determination and Extension of Contract Time for Completion. TEAs shall also be used to determine the schedule impact of proposed Extra Work Orders (EWO) as also required in Subsection 8.10.

TEAs shall be prepared and submitted in accordance with the requirements of Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements and shall be based on the Contract Progress Schedule of Record applicable at the start of the delay or impact from an EWO. A TEA fragnet must start with a specific new activity describing the work contained in either a Notice of Delay previously submitted to the Department per Subsection 722.64.A - Notice of Delay or an EWO.

SECTION 722 (Continued)

TEAs shall be submitted:

1. as part of any Extra Work Order that may impact Contract Time,
2. with a request for a Time Extension,
3. within fifteen (15) Calendar Days after a request for a TEA by the Engineer for any other reason.

A TEA shall be submitted to the Engineer before any Time Extension is granted to the Contractor. Time Extensions will not be granted unless the TEA accurately reflects an evaluation of all past delays and the actual events that occurred that impacted the Critical Path. The TEA must also demonstrate a plan for the efficient completion of all of the remaining work through an optimized CPM Schedule. The analysis shall include all delays, including Contractor-caused delays, and shall be subdivided into timeframes and causes of delays.

TEAs shall incorporate any proposed activities, logic ties, resource considerations, and activity costs required to demonstrate the schedule impacts most efficiently in addition to detailing all impacts to existing activities, logic ties, the Critical Path, Contract Milestones, and the Contract Completion Date. In addition, TEAs shall accurately reflect any changes made to activities, logic ties, restraints, and activity costs, necessitated by an Extra Work Order or other schedule impact, for the completion of the remaining work. The Contractor shall provide TEAs that demonstrate that all delays have been mitigated to the fullest extent possible without requiring an Equitable Adjustment to the original bid basis.

All TEAs shall clearly indicate any overtime hours, additional shifts and the resources that are proposed to be incorporated in the schedule. The Engineer shall have final discretion over the use of overtime hours and additional shifts. The Engineer shall have the right to require that overtime hours and/or additional shifts be used to minimize the duration of Time Extensions if it is determined to be in the best interest of the Department to do so.

When accepted, the changes included in a TEA shall be incorporated into the next Contract Progress Schedule per the requirements of Subsection 722.63.C - Contract Progress Schedules / Monthly Updates. During the review of any TEA, all Contract Progress Schedules shall continue to be submitted as required.

The Engineer may request that the Contractor prepare a Proposal Schedule or a Recovery Schedule to further mitigate any delays that are shown in the accepted TEA or Contract Progress Schedule.

C. Recovery Schedules

The Contractor shall promptly report to the Engineer all schedule delays during the prosecution of the Work. Contract Progress Schedules that predict performance extended beyond the Contract Time or beyond any Contract Milestone shall not be approved as the schedule of record. This requirement is critical to the Department's ability to make informed decisions regarding Contract Time and costs.

The Contractor shall submit a Recovery Schedule within fifteen (15) Calendar Days of a Contract Progress Schedule submission that shows failure to meet the Contract Dates unless a recovery schedule is waived by the Department. Waiving the recovery schedule does not relieve the Contractor of the responsibility for the delay. The Department may revoke the waiver of a Recovery Schedule, at which time a Recovery Schedule shall be submitted within fifteen (15) Calendar Days of the Contractor being notified.

Changes represented in accepted Recovery Schedules shall be incorporated into the next Contract Progress Schedule.

SECTION 722 (Continued)

D. Proposal Schedules

A Proposal Schedule is an alternative schedule used to evaluate proposed changes to the Contract scope or significant alternatives to previously approved approaches to complete the Work, which may include changes to activity durations, logic, and sequence. For Types A and B Schedules, the Proposal Schedule shall be cost and resource loaded.

A Proposal Schedule may be requested by the Department at any time or may be offered by the Contractor. The Engineer may request that the Contractor prepare a Proposal Schedule to further mitigate any delays that are shown in an accepted TEA or Contract Progress Schedule.

The Contractor shall submit the Proposal Schedule within thirty (30) Calendar Days of a request from the Department.

The Proposal Schedule shall not be considered a Schedule of Record until the logic, durations, narrative, and basis of the Proposal Schedule have been accepted by the Engineer. If the Proposal Schedule took the form of a fragnet, it must be incorporated into the Contract Progress Schedule of Record showing the current progress of all other activities and the impacts/results of the changes made by the Proposal Schedule before the Proposal Schedule is accepted by the Department.

Proposal Schedules shall clearly indicate any proposed acceleration including overtime hours, additional shifts, and the resources that are proposed to be incorporated in the schedule. The Engineer shall have final discretion over the use of overtime hours and additional shifts. Proposal Schedules that contain a cost element shall be submitted with a separate Cost Proposal.

Changes represented in the accepted Proposal Schedules shall be incorporated into the next Contract Progress Schedule. During the review of any Proposal Schedule, all Contract Progress Schedules shall continue to be required every month.

E. Disputes

All schedules shall be submitted, reviewed, dispositioned, and accepted in the timely manner specified herein so as to provide the greatest possible benefit to the execution of this Contract.

The Contractor may dispute a decision by the Engineer by filing a claim notice within seven (7) days after the Contractor's request for additional time has been denied or if the Contractor does not accept the number of days granted in a time extension. The Contractor's claim notice shall include a revised time entitlement analysis that sufficiently explains the basis of the time-related claim. Failure to submit the required time entitlement analysis with the claim notice shall result in denial of the Contractor's claim. A determination on the Contractor’s claim shall be in accordance with Subsection 7.16 Claims of Contractor for Compensation. Pending resolution of any dispute, the last schedule accepted by the Engineer will remain the Contract Schedule of Record.

SECTION 722 (Continued)

722.65 Schedule Type D Requirements

This section is to detail the requirements for Type D Schedules and is separate from the requirements listed above. These schedules are intended for a project in which a more formal schedule would not be practical.

Schedules for Type D projects shall be submitted for each work assignment. The Schedule Type D shall be submitted electronically in .XLS and .PDF format and meet the following requirements.

The schedule requirements for work assignments that are anticipated to last three weeks or less shall conform to the requirements for Short-term Construction Schedules below.

Work assignments that are anticipated to last longer than three weeks shall submit a bar chart baseline and provided update schedules upon request of the Engineer as required under Bar Chart Schedule below in addition to meeting the Short-term Construction schedule requirements.

A. **Bar Chart Schedule**

A Bar Chart that shall include the following:

- Work Assignment start date.
- Activities to identify.
  - Major work operations broken down to be no longer than 14 days.
  - Procurement of fabricated materials and equipment with long lead times, including time for review and approval of submittals required before procuring and fabricating.
  - The preparation and submission of shop drawings, procedures, and other required submittals, with a planned duration that is to be demonstrated to the Engineer as reasonable.
  - The review and return of shop drawings, procedures, and other required submittals, approved or with comments, the duration of which shall be shown as thirty (30) Calendar Days,
  - Detailed activities to satisfy permit requirements.
  - SubContractor approvals at fifteen (15) Calendar Days from submittal to response
  - Project Close out activities including a 21-calendar day creation of a punchlist activity and 30 calendar day minimum completion of punchlist activity.
- Interfaces with adjacent work, utility companies, other public agencies, sensitive abutters, and/or any other third-party work affecting the Contract.
- Access Restraints – restrictions on access to areas of the Work
- Traffic work zone set-up and removal, night work and phasing
- Contract Milestones including Full beneficial Use, Substantial Completion and Contractor Field Completion

The Bar Char Schedule shall be provided at the beginning of the project and updated with each work order created for the project.

SECTION 722 (Continued)

B. **Short-Term Construction Schedule**

The Contractor shall provide a Short-Term Construction Schedule that details daily work activities, including any multiple shift work that the Contractor intends to conduct, in a spreadsheet format. The daily activities shall directly correspond to the Contract Progress Schedule activities, with a matching reference to the activity identification number in the Contract Progress Schedule and may be at a greater level of detail. See schedule toolkit for suggested format.

The Short-Term Construction Schedule shall be submitted every two weeks. It shall display all work for a thirty-five (35) Calendar Day period consisting of completed work on the assignment for the two week period prior and all planned work for the following three week period. The initial submission shall be provided no later than thirty (30) Calendar Days after NTP or as required by the Engineer.

The Contractor shall be prepared to discuss the Short-Term Construction Schedule, in detail, with the Engineer in order to coordinate field inspection staff requirements, the schedule of work affecting abutters and any corresponding work with affected utilities.

C. **Project Spending Report (PSR)**

A Projected Spending Report (PSR) shall be prepared and submitted monthly. The PSR shall be for all active work assignments, broken down by work assignment. The PSR shall indicate the monthly spending (cash flow) projection for each month from NTP to Contractor Field Completion (CFC). Each month's actual spending shall be calculated using all CQEs paid during that month. The Projected Spending Report (PSR) shall be depicted in a tabular format and provided in both an .XLS and .PDF

SECTION 722 (Continued)

COMPENSATION

722.80 Method of Measurement

Schedule of Operations (Type A, B and C)

The project bid documents specify the fixed-price amounts to be paid to the Contractor for the Project Schedule requirements contained herein. Each bidder shall include this fixed price bid Item amounts in their bid. Failure to do so may be grounds for the rejection of the bid.

This fixed price amount is for payment purposes only and is separate from what the Department considers to be the Contractor's General Condition costs. If the Contractor deems it necessary to include additional costs to provide all of the requirements of this section, these additional costs shall be included in the Contractor's overall bid price.

All required schedule-related work, including, but not limited to computers, computer software, the planning and coordination with utilities, training, schedule preparation and schedule submittals will be paid for under the fixed price amount.

Twenty percent (20%) of this pay Item will be paid upon the Engineer's acceptance of the Contractor's Baseline Schedule, prepared and submitted in accordance with Subsection 722.63.A.

The remaining eighty percent (80%) of this pay Item will be paid in equal monthly installments distributed across the Contract Duration from Notice to Proceed (NTP) to Contractor Field Completion (CFC), less the 2 months required for the submittal and review of the Baseline Schedule in accordance with the following formula:

$$\text{Monthly Payment} = \frac{\text{Remaining Fixed Price amount (80\% of the Item Cost.)}}{\text{Contract Duration in whole months} - 2 \text{ months}}$$

The Schedule of Operations pay Item will be adjusted to pay for only the actual quantity of schedules that have been submitted in accordance with this section.

Should there be a Time Extension granted to the Contractor, the Engineer may provide an Equitable Adjustment for additional Contract Progress Schedule Updates at intervals directed by the Engineer. The monthly payment will be the basis for this Equitable Adjustment.

Schedule of Operations (Type D)

For projects assigned with Type D schedule requirements, all scheduling work shall be considered incidental to the project with no separate payment under this section.

SECTION 722 (Continued)

722.81 Basis of Payment

The timely and accurate submission of the Baseline Schedule is critical to the Contract and the Department's ability to make informed decisions. Only payments under Item 740 - Engineer's Field Office and Item 748 – Mobilization will be made until the Baseline Schedule is accepted by the Engineer.

All required schedule-related work, including, but not limited to computers, computer software, the planning and coordination with utilities, training, schedule preparation and schedule submittals (including monthly progress schedules, short-term schedules, project spending reports, TEAs, recovery schedules or impacted schedules) shall be included in this work.

No payment for any other pay Item will be processed beyond seventy-five (75) Calendar Days from Notice to Proceed (NTP) until the Baseline Schedule is accepted by the Engineer. Until the Engineer's acceptance of the Baseline Schedule, the combined total of all payments made to the Contractor will be limited to an amount no greater than the total price for Item 748 - Mobilization or 3% of the contract price, whichever is less.

All Contract Progress Schedule Updates submitted later than ten (10) Calendar Days after the CQE (Contract Quantity Estimate) completion date, or greater than forty (40) Calendar Days from the Data Date of the previous submission, will be deemed to be no longer useful and will not qualify for payment. The late submission of Impacted schedules, including TEAs, recovery schedules and proposal schedules will result in the forfeiture of the monthly payment for the month in which they were due and subsequent months until the submission is made. Late submission of missed submittals will not result in recovery of the previously forfeited portion of the Schedule of Operations Fixed Price Payment Item.

Failure to submit schedules as and when required may result in the forfeiture of that portion of the Schedule of Operations Fixed Price Payment and/or the withholding of the full or partial CQE payments by the Engineer.

Failure to submit schedules that are acceptable to the Engineer may result in the forfeiture of that portion of the Schedule of Operations Fixed Price Payment and/or the withholding of the full or partial CQE payments by the Engineer.

The Schedule of Operations pay Item will be adjusted to pay for only the actual quantity of schedules that have been submitted in accordance with this section.

The Contractor's failure or refusal to comply with the requirements of this Section shall be reasonable evidence that the Contractor is not prosecuting the Work with due diligence and may result in the Engineer withholding of full or partial payments of all work performed.

722.82 Payment Items

722.1	SCHEDULE OF OPERATIONS (TYPE A) - FIXED PRICE $_____	LUMP SUM
722.2	SCHEDULE OF OPERATIONS (TYPE B) - FIXED PRICE $_____	LUMP SUM
722.3	SCHEDULE OF OPERATIONS (TYPE C) - FIXED PRICE $_____	LUMP SUM

ITEM 100.004 **WELDER** **HOUR**

The Contractor will furnish competent welders, possessing all pertinent licenses and/or certifications, as required by the Engineer, to maintain and repair various components of the bridges as they relate to the specialties Itemized. The Contractor shall submit to the Engineer all pertinent licenses and/or certifications for each welder prior to the commencement of any work.

The payment under this Item will only be for the time spent by the welder on the project.

Payment for equipment (other than the usual welder's toolkit) will be made under payment for equipment rental.

All tools and equipment in welder's toolkit shall be in excellent working condition.

Welders and toolkits are described below:

Welder

Spud wrench, dowels, alignment pins, tape measure, pouch, levels, eye shields, gloves, protective clothing, rivet buster, air hammer, jackhammer, reamers, chipping hammer, wire brushes AC/DC-300 amp-100% duty cycle (minimum size) welding machine, torches for cutting, burning, or preheating steel, including fuel tanks & fuel / oxygen, grinders, heating oven for all welding consumables and other equipment that is normally used in the trade.

DAILY FORCE ACCOUNT REPORT - (Form CSD-123)

The Contractor will be required to submit a signed "Daily Force Account Report" or similar acceptable form, for each day he is performing work under this pay Item.

The form (Document A00876) should contain number and type of workmen, actual hours on jobsite for each, hours identified as regular or overtime, work location, a significant description of work accomplished including square feet or linear feet of material applied and Sub-Contractor men and accomplishments.

METHOD OF MEASUREMENT

Item 100.004 will be measured per HOUR worked by each individual welder on the project.

BASIS OF PAYMENT

Item 100.004, Welder, will be paid for at the Contract unit price per HOUR, which price shall include all equipment and tools required to perform the normal welder's work. All clothing or safety equipment normally associated with the welder's work is also considered incidental to this Item.

Any transportation required for a welder and his toolkit to travel to and from a job site will be incidental to the work. Ownership and operating costs, fuel and maintenance are not reimbursable for the vehicles and tools utilized under the this Item.

ITEM 100.004 (Continued)

Payment will be based upon time spent on the project doing actual work on the MassDOT's bridges and shall not include travel time to and from the Contractor's place of business and it shall also not include time for investigative field trips.

No payment will be made for work considered incidental to any of the contract specified bid Items.

ITEM 102.21 SELECTIVE CLEARING AND GRUBBING SQUARE YARD

The work under this Item shall conform to the relevant provisions of Subsections 101 and 170 of the Standard Specifications and the following:

The work under this Item consists of clearing trees and shrubs that interfere with the clear view of safety signs, detour signs, and existing signs within the limits of work shall be trimmed, as directed by the Engineer to provide access for inspection, painting and repair work. Trees and shrubs growing adjacent to wingwalls, bridge rail, abutments or within the revetment under the bridges shall be removed, as directed by the Engineer.

All debris shall be removed and properly disposed from the site. This work shall include any required grading of loam areas and seeding in order to provide a stand of grass in the disturbed areas.

METHOD OF MEASUREMENT

Item 102.21 will be measured for payment by the SQUARE YARD of area where trimming or removal of trees and shrubs is to be performed.

BASIS OF PAYMENT

Item 102.21 will be paid for at the Contract unit bid price per SQUARE YARD, which price shall include all grading, loam, seed, labor materials, equipment, disposal costs and incidental costs required to complete the work.

ITEM 106.16 BRIDGE DECK DRAIN PVC PIPE EXTENSION EACH

Description

The work under this Item consists of furnishing and installing PVC pipe extensions as shown and referenced on Drawing Number 7.9.1 of the "MassDOT Bridge Manual – Hundredth Anniversary Edition" (Part II - Conventional Construction (Hundredth Anniversary Edition)

For specific beam types, see Drawing Numbers 8.1.25, 8.2.31, 9.1.24, 9.2.18, 11.1.33, and 11.2.29.

MassDOT Bridge Manual – Hundredth Anniversary Edition located at the link below:

https://www.mass.gov/manual/massdot-bridge-manual-hundredth-anniversary-edition

These Drawings depict standard details associated with the initial installation of deck drainpipes and are an appropriate reference for this pay Item in that they establish the size, length, and attachment requirements associated with the proposed extensions, and as required by the Engineer.

Materials

The Polyvinyl Chloride (PVC) pipes for the deck drains and their fitting shall conform to ASTM D1785, Schedule 40. Solvent Cement Fittings shall conform to ASTM D2468, Schedule 40. All support straps and hardware shall be hot dip galvanized and be of the same type as used with steel pipe. Jointing of the pipes and couplers shall be done by solvent welding process and be in accordance with Manufacturer's recommendations. All joints are to be set with P.V.C. primer and P.V.C. cement.

Construction Methods

The efflorescence and debris inside the existing deck drainpipes shall be removed by mechanical means and power washing. The clogged existing deck drainpipes shall be cleaned by the Contractor using a method approved by the Engineer. If the existing deck drainpipes are in good condition and approved for reuse by the Engineer, the Contractor shall extend the pipes 12" beyond the beam bottom flange by installing couplings and new pipe sections. The lower end of all deck drainpipe extensions shall be adequately fastened and secured to the beam bottom flange with galvanized conduit clamps. The Contractor shall submit the cut sheets of the selected conduit clamp for the Engineer's approval.

METHOD OF MEASUREMENT

Item 106.16 will be measured for payment per EACH set of three deck drainpipes cleaned and extended, complete in place.

BASIS OF PAYMENT

Item 106.16 will be paid for at the Contract Unit Price per EACH set of three deck drainpipes, which price shall include all labor, materials, equipment, cleaning of existing deck drainpipes, connection, conduit clamps for securing of deck drainpipes, and all incidental costs required to complete the work.

ITEM 106.88 JACKING AND SHORING EACH

The work under this Item consists of jacking and supporting existing beams/girders, pier caps and columns as required by the Engineer.

Shoring materials may be new or second hand. The Contractor shall submit a plan of the proposed work showing the details and indicating the materials to be used. The submittal shall include the jacking load calculations and shoring design computations, based on the bridge configurations and the working stresses of the materials used, sequence of operations, and all details incidental thereto. Unless otherwise directed by the Engineer, the proposed jacking and shoring system shall be designed to apply force in increments to the existing beam/girder to relieve load from the existing substructure. The jack(s) shall have a locking mechanism preventing the beam/girder from lowering in the event of loss of hydraulic pressure. All components of the system shall have load capacity greater than the total calculated load carried by the existing beam/girder during normal traffic operation, which includes but is not limited to, dead load, live load, and impact load.

Bridge Loads: The Contractor shall be responsible for calculating loads (live and impact loads, dead loads...etc.) necessary to design shoring paid under this Item. Soil bearing values shall be determined per section 2.5.2 of the AASHTO Guide Design Specifications for Bridge Temporary Works. All materials (except jacks) shall be designed by working stress design (ASD). Type of jacks used, and factor of safety shall be per industry standards.

Approval of this submission shall be obtained prior to the commencement of any work under this Item. The above plan and computations shall bear the seal and signature of a Professional Engineer of the appropriate discipline registered in Massachusetts.

Materials shall meet the following:

Anchor Bolts, Nuts and Washers: M8.01.5
Structural Steel: M8.05.0
Wood Products: M9.05.1

All treated wood supplied by the Contractor shall meet the requirements of M9.05.1 for Wood Products, including the most recent versions of AWPA U1 and M4 which are incorporated by reference. No new wood shall be treated with inorganic arsenic (including chromated copper arsenate (CCA), ammoniacal copper arsenate (ACA), and ammoniacal copper zinc arsenate (ACZA)), creosote or pentachlorophenol in all project construction.

The Contractor is alerted that some of the beams/girders may have been temporarily shored by MassDOT personnel or by others. At such locations, the Contractor shall install a jacking support system before removing any temporary supports. The cost of removing and stacking, or the disposal of the temporary supports at an on-site location, as directed by the Engineer, shall be considered incidental work hereunder with no additional compensation.

Maintenance of previously installed shoring is incidental until repairs are completed.

ITEM 106.88 (Continued)

When required by the Engineer extensive repairs require temporarily supporting some of the beams/girders on one or both sides of a pier cap(s), or abutment(s), those beams/girders shall be jacked/shored all at once as one unit for the length of time required.

The work shall be performed as follows:

Erect supports under each beam/girder as required by the Engineer. When possible, all supports shall be located 4'-0" from the centerline of each corresponding pier or centerline of bearing at each corresponding abutment. The cribbing for the support footings shall be of sufficient size to prevent any settlement or damage to the footings while the superstructure is being adequately supported to the satisfaction of the Engineer.

In the event of any damage to the structure by the Contractor's operations, the Contractor shall repair or replace any such damaged components at no cost to the department.

The support of beams/girders shall remain in place until all the requirements of Item 107.97 Structural Steel Repairs, Item 127.12 Reinforced Concrete Substructure Excavation, and Item 905.2 5000 PSI, 3/8 INCH, 710 HP Cement Concrete repair is completed and accepted by the Engineer.

When the repairs are completed and the supports are no longer needed as determined by the Engineer, all supporting materials shall be removed and become the property of the Contractor unless other prior arrangements were previously made with MassDOT.

Each bridge will be kept open to traffic while the beams/girders or pier caps/columns are supported. The expressways and some other roads are heavily traveled high-speed roads with high volumes of truck traffic.

METHOD OF MEASUREMENT

Item 106.88, Jacking and Shoring will be measured for payment per EACH steel or concrete beam/girder end jacked and shored as required by the Engineer. Multiple jacking of the same end for the same repair will not be measured separately.

BASIS OF PAYMENT

Item 106.88 Jacking and Shoring will be paid for at the Contract unit price per EACH, which price shall include all labor, materials, tools, equipment, Engineering services, and all incidental costs required to complete the work.

Placement of shoring that is required to support a pier cap during the repair of a pier column will also be compensated under this Item.

ITEM 106.881 JACKING AND SHORING REMOVED AND RESET EACH

When an assigned work location requires more than one shoring tower and one or more of those towers can be reset at a subsequent repair within the same work location after the initial repair has been completed, those tower(s) shall be removed and reset to the new location as required by the Engineer. It is not intended for this Item to be used when shoring towers are to be transported to a different work location. Bridges adjacent to each other will not be considered as different work locations.

METHOD OF MEASUREMENT

Item 106.881 will be measured for payment per EACH occurrence of jacking and shoring removed and reset.

BASIS OF PAYMENT

Item 106.881 will be paid for at the Contract unit price per EACH, which price shall include all labor, materials, tools, equipment, and incidentals necessary to disassemble the shoring unit, prepare the bedding on which the tower will be reset, re-assemble the shoring unit and place jack or shims as necessary, removing and resetting thrie beam or w-beam guardrail and all incidental costs required to complete the work.

Any jacking and shoring reused at the same bridge crossing shall be considered removed and reset.

Jacking and shoring transported to a new location will be considered a new payment of the Jacking and Shoring Item.

ITEM 107.855 PRESSURE INJECTION OF CRACKS FOOT

The work under this Item shall conform to the relevant provisions of Subsection 901 of the Standard Specifications and the following.

The work under this Item consists of repairing cracks in sound concrete during substructure repairs. Existing cracks to be repaired by pressure injection shall be bonded by penetration with an epoxy adhesive in accordance with the epoxy manufacturer's recommendations and the following:

The epoxy adhesive shall be listed on MassDOT's Qualified Construction Materials List, and the Contractor shall submit manufacturer's literature completely describing the products to be used. The materials shall be delivered clearly marked with legible and intact labels containing the manufacturer's name, brand name, and identifications of the temperatures that conform to the manufacturer's recommendations and instructions.

The Contractor shall comply with all manufacturers' instructions and recommendations regarding all aspects of the product, especially safety. The surrounding work, vehicles, and vegetation shall be protected from damage by epoxy injection materials and operation.

Not included under this Item are the repairs to cracks that pass through areas of unsound concrete to be removed under Item 127.12. The Engineer will designate these areas.

The Contractor will perform their own investigations and will "evaluate" and mark out the cracks to be repaired. Before any repairs are made, the Contractor will provide the Engineer with clear access to the areas designated for repair. During this time, the Engineer will perform an inspection of the areas and will approve and/or designate the areas where repair will be required. It shall be the responsibility of the Contractor to inform the Engineer, in writing, of the date that a structure(s) will be available for inspection operations. Notification shall be given to the Engineer at least seven (7) days prior to the date that the area in question will be in a condition acceptable to the Engineer.

The Contractor will not be allowed to do any repair work until all necessary inspection operations have been performed, unless given permission by the Engineer. The Contractor will include any costs related to this inspection in the general cost of the work.

As crack repair operations commence, the Contractor shall provide at least one 4-inch diameter core at a location designated by the Engineer. The Engineer reserves the right to order additional cores at locations he/she designates. The core shall penetrate the full crack depth of the area being restored. The cores shall be submitted to the Engineer for testing by the MassDOT Highway Division Research and Materials Section.

Further crack repairs may not continue until the test results confirm that the methods and materials being utilized by the Contractor are deemed acceptable by the Engineer. The test will be considered acceptable if upon visual examination the injection has achieved more than 90 percent penetration of the crack, and the bond strength has conformed to the following: concrete failure before adhesive failure, or 6500 psi with no failure of either concrete or adhesive. If a core fails a test, an evaluation of the methods and materials used must be made before the area represented by the failed test is re-injected and re-tested. The Contractor will not be permitted to continue to inject cracks until the cause of failure is determined and the Engineer is satisfied that corrective measures have been taken to prevent additional failures. The Contractor shall make additional cores as necessary until the work is considered acceptable**.**

ITEM 107.855 (Continued)

The Contractor shall furnish to the Engineer samples of materials proposed for use at least six weeks prior to scheduled use.

The Contractor shall arrange with the materials manufacturer or distributor to have the services of a competent field representative at the work site prior to any mixing of components to instruct the work crews in the proper mixing and application procedures. The field representative shall remain at the job site after work commences and continue to instruct until the Engineer is satisfied that the crew has mastered the technique of installing the system successfully. The representative shall make periodic visits to the project as the work progresses and shall confer on each visit with the Contractor and the Engineer.

The manufacturer's field representative must be fully qualified to perform the work and shall be subject to the approval by the Engineer.

METHOD OF MEASUREMENT

Item 107.855 will be measured for payment by the FOOT of crack repaired and accepted by the Engineer.

BASIS OF PAYMENT

Item 107.855 will be paid for at the Contract unit price per FOOT, which price shall include labor, materials, tools, equipment, Engineering services and incidental costs including the costs of the manufacturer's field representative and the costs for taking test cores and repairing all test core locations required to complete the work.

ITEM 107.97 STRUCTURAL STEEL REPAIRS POUND

The work under this Item shall conform to relevant provisions of Subsections 960 and 961 of the Standard Specifications and the following:

The work shall include furnishing, fabricating, transporting, and erecting structural steel for repairing the deterioration of the structural steel as required by the Engineer. It shall also include replacing structural steel bracing, utility support, keeper plates, shapes, angles, and diaphragms, as required by the Engineer.

The Contractor shall take all precautions necessary not to damage those portions of the superstructure that are to remain. Structural steel components damaged by the Contractor's operation shall be repaired in conformance with these specifications. The costs of such repairs shall be borne by the Contractor.

Structural steel repairs will include repairing deteriorated beam ends at locations as directed by the Engineer; also, the in-kind replacement of deteriorated bracing and/or utility supports when deemed required by the Engineer. The final limits for each of the repairs and additional in-kind replacement will be provided by the Engineer, after cleaning and priming of the steel.

Structural steel components damaged by the Contractor's operation shall be repaired in conformance with these specifications. The costs of such repairs shall be borne by the Contractor.

All work shall be done as directed by and to the acceptance of the Engineer and in accordance with the details and sequence of construction supplied by the Contractor and approved by the Engineer.

Conditions after cleaning may also vary such that the repairs at each location will require some field measurements and fabrication to ensure proper fit. The Contractor shall satisfy their own investigation and research, regarding all conditions and materials affecting the work to be done. No additional compensation, other than the unit price bid for this Item, will be made if the materials or work prove to be different than that inferred or described herein.

All costs for permits, dump fees, taxes, special handling of hazardous materials, etc., shall be included in the bid price for this Item.

The Contractor shall note that certain steel repair locations are known to have obstacles that are in conflict with the work that is to be performed. Work required to move, remove, replace, protect, work around, or modify any obstacles interfering with cleaning and painting work, such as utilities, drainpipes, existing shielding, cables, netting, and diaphragms, shall be included in this Item and be performed with no additional compensation, and shall be deemed incidental to the unit price bid for this Item.

The limits of the repairs are to be determined by the Engineer after the repair area has been cleaned of all materials, including all rust, such that the base metal areas can be visually examined and allow the use of an ultrasonic thickness gauge. After inspection, the Engineer may adjust the repair limits as conditions warrant.

ITEM 107.97 (Continued)

MATERIALS

All new structural steel and new high strength bolts shall conform to the requirements of Sections M8.05.0 and M8.04.3 of the Specifications, respectively.

All structural steel shall be AASHTO M270, Grade 36 or Grade 50 steel.

The repair steel shall be considered main member and conform to the Charpy V - notch impact test requirements for AASHTO Temperature Zone T2.

All high strength bolts for bolted connections shall be slip critical and conform to the requirements of ASTM F3125 and installed in accordance with the Standard Specifications. All proposed nuts shall conform to ASTM A563. Washers shall conform to ASTM F436 specifications for hardened steel washers. All bolts, nuts and washers shall be mechanically galvanized in accordance with requirements of ASTM B695, Class 50. Galvanized bolts shall be retested after galvanizing as required by ASTM F3125.

Prior to installing steel repair components, an epoxy-based metal filler compound shall be applied to existing deteriorated steel web surfaces and flanges in a manner which restores deteriorated sections to their original thicknesses to prevent voids between the filler surface and proposed repair plates. Filler material shall be applied as per Documents A00803 & A00804 and as directed by the Engineer. Epoxy filler compound shall be "ITW Philadelphia Resin Repair Compound (RRC)" (web site: http://chockfast.com/products/repair-and-accessory-products/itw-repair-compound/), or Sikadur 31, Hi-Mod Gel (web site: http://usa.sika.com), or Adhesives Technology Ultrabond 2100, Class C (web site: http://atcepoxy.com/medium-viscosity-bonding-agent-ultrabond-2100/), or an approved equal. The filler compound shall be applied in strict accordance with the manufacturer's specifications.

The Contractor shall apply silicone caulking at all locations where the existing steel and the proposed steel meet after the topcoat of paint has fully cured. Silicone caulking shall be recommended, applied, and be compatible with the paint system manufacturers' requirements. At locations where the gap between the existing steel and proposed steel is 1/8" or greater, the silicone caulk shall be tooled into gaps. The silicone caulk and its installation shall be considered incidental to this Item.

The Contractor is alerted that the existing paint maybe lead-based. Any removal and disposal of paint for the operations described herein shall be performed in strict conformance with all State and Federal health and environmental regulations, as stipulated in these specifications.

ITEM 107.97 (Continued)

CONSTRUCTION METHODS

All steel repair dimensions shall be field verified by the Contractor prior to developing shop drawings and fabrication of steel repair components. The limits of steel repairs shall be verified via Non-destructive testing (PT, MT, UT) at locations as directed by the Engineer. Testing shall be performed by a certified testing agency and shall meet the requirements of Subsection 960.61, Inspection paragraphs of the Standard Specifications. The cost associated with the Non-destructive testing will be compensated under the T&M provisions of this Contract. The Contractor shall submit shop drawings using field measurements. The Engineer will verify the proposed repair limits shown on the shop drawings. Fabrication of repair components shall not start prior to acceptance of shop drawings by the Engineer.

All steel superstructure members shall be cleaned to meet the requirements of SSPC SP-10, Near-White Blast Cleaning and receive a prime coat prior to beginning steel repairs, in accordance with Subsection 961, "Maintenance Painting of Steel Bridges". The Engineer shall verify the deterioration extents prior to fabrication of repair components. Subsequent to successful steel repairs at each span and primer touch up of repair areas the superstructure steel shall be painted with the intermediate and final coats. All costs of cleaning and painting shall be paid for under Item 961.211.

Welding

All welding shall conform to the latest edition of the Bridge Welding Code AASHTO/AWS D1.5 and meet the following requirements unless specified otherwise:

All welding required to complete the repairs will be considered as incidental to the repair and no separate compensation will be allowed. All welders shall be certified. Welders' qualifications certificates must be submitted to the Engineer for approval. Electroslag and electro gas welding will not be permitted. Welding will not be permitted when the air temperature is below 35 F or when the surfaces to be welded are wet from condensation, rain, snow or ice. When the temperature is between 35 F and 45 F, the surface within 3" of the point where the weld is to be started shall be heated to a temperature of approximately 100 F, and this temperature shall be maintained as a minimum within this distance until the bead is completed.

The Contractor shall submit for approval by the Engineer a welding procedure for each of the repair areas that will require welding.

Inspection and Non-Destructive Weld Testing

All welds are to be inspected and tested (non-destructively) in accordance with AASHTO/AWS D1.5M/D1.5 and the applicable provisions of the Standard Specifications Section 960, and the specifications stipulated in these special provisions.

Inspection shall consist of checking the type, location, size, length, returns and profile of field welds and shop welds. Welds will be evaluated by their surface appearance, completeness for penetration and fusion, avoidance of undercutting, freedom from slag, inclusions, porosity, cracks and general appearance.

ITEM 107.97 (Continued)

All welds that are found to be defective shall be corrected in accordance with the AWS procedures and to the satisfaction of the Engineer and shall then be re-inspected as outlined above. The expense of such corrective work shall be borne by the Contractor.

The Contractor shall be responsible for Quality Control Inspection and Non-Destructive Weld Testing of all shop welding and field welding of non-fracture-critical members in accordance with the requirements here specified. These costs shall be considered incidental to the various steel repair pay Items.

Cutting of Steel

Existing steel components that are directed for replacement by the Engineer shall be carefully removed by dismantling existing connections and by machine cutting. Cutting of existing steel shall be performed with care to avoid undercutting, overheating, notching or other damage of material which is to remain. The Contractor shall use temperature-indicating crayons which meet the approval of the Engineer for 275 degrees Fahrenheit and 300 degrees Fahrenheit. These indicator crayons shall be used on surfaces of the web and beam adjacent to the area being cut or ground as ordered by the Engineer.

Cutting or grinding shall be discontinued temporarily, to allow cooling, if the temperature of the base steel in the girder web or flange exceeds 275 degrees Fahrenheit.

If the Contractor damages materials to remain during cutting operations, he shall replace, repair, or reinforce the damaged area as may be needed to restore the damage to existing condition prior to damage. This work shall be performed by the Contractor as ordered by the Engineer at no additional cost to MassDOT, and to the satisfaction of the Engineer.

Environmental

All applicable portions of Sections 961.65 "Worker Protection" and 961.66 "Environmental Protection and Monitoring" shall be followed when performing this work.

During chemical stripping, a hand washing facility may be used in lieu of a decontamination/changing facility. Hazardous material shall be collected during the disassembly and disposed of as outlined in Section 961.68 "Handling of Hazardous Waste and Reporting Release Programs". Submittals shall be according to Section 961.69 "Submittals".

Additional Requirements

The edges of the existing steel to be repaired, as well as the faces that will meet the new steel, shall be ground smooth and primed prior to the installation of the new plates or shapes. Holes in steel shall be drilled, not punched or burned. Rust holes +/- 3” in diameters shall be drilled prior to installation of repair plates. Isolated rust holes in the girder web panel shall be drilled or coped to a consistent web thickness of 1/8”. Edges of the holes or copes are to be ground smooth to the satisfaction of the Engineer.

ITEM 107.97 (Continued)

The Contractor is fully responsible for the accuracy and fit of the work and thus shall determine what measurements are required and shall allow adequate time and resources for obtaining field measurements in developing his fabrication and construction.

The Contractor shall submit shop drawings utilizing the field measurements of the replacement/repair areas to confirm bridge components and all other repair dimensions. Fabrication shall not start prior to acceptance of shop drawings.

The Contractor shall provide support for interim and final inspection of the bridge during cleaning operations. This support shall include the necessary traffic controls (if required) and safe access to the work.

When it is necessary to temporarily support utility lines/pipes during steel repairs, the Contractor shall consult with the affected utility owners on the proposed Means and Methods of this work Item. Any damage to the utilities caused by the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer and the affected utilities, at the Contractor's own expense.

Adequate measures shall be taken by the Contractor to prevent work generated debris, tools, and/or materials from entering adjacent roadway lanes or dropping to the ground or waterway below the structure. All debris and any materials which, accidentally fall into such areas shall be removed immediately at the Contractor's expense. Any damage from falling debris shall be repaired by the Contractor to the satisfaction of the Engineer at the Contractor's own expense.

Except as otherwise specified, all removed steel and appurtenances shall become the property of the Contractor who shall remove and dispose of this material.

The Contractor shall take the necessary precautions such as flaggers, warning signs and/or temporary protective structures for the safety of vehicles or pedestrians using any area adjacent to or under the work areas. Any such structure shall be adequate for the purpose and shall be approved by the Engineer.

METHOD OF MEASUREMENT

Item 107.97 will be measured for payment by the POUND of new structural steel installed, accepted, and completed in place as required by the Engineer.

BASIS OF PAYMENT

Item 107.97 will be paid for at the Contract unit price per POUND, which price shall include all materials, labor, submittals, equipment, scaffolding, welding, tools, field inspection, utility support, nuts, bolts heads and permanent washers, and other all incidental costs required by the Engineer to complete the work.

The weight of bolts, nuts, washers and welding material is incidental to the steel and is not included in the calculated weight for payment.

ITEM 127.12 REINFORCED CONCRETE SUBSTRUCTURE EXCAVATION CUBIC YARD

The work under this Item shall conform to the relevant provisions of Subsections 120 and 482 of the Standard Specifications and the following:

The work under this Item consists of the removal and disposal of all deteriorated, spalled, and scaled concrete as required to repair the existing concrete substructure elements to the general lines identified on the drawings and sketches shown in Document A00803 and as required by the Engineer.

During the prosecution of the Work, the Engineer may reject the use of any method or equipment, which causes undue vibration or possible damage to the structure or any part thereof. Pneumatic hammers heavier than the nominal 25 pounds mass shall not be used, unless approved by the Engineer. Any concrete excavation necessary to access concrete substructure elements for repair shall be paid for under this Item.

Minimum depth of excavation to sound concrete shall be one inch (1") beyond the inner most layer of reinforcing steel but not less than four inches (4") from the original surface. The Contractor shall stop excavating deteriorated concrete when the depth of excavation reaches six inches (6") and shall notify the Engineer immediately. The edges of the patch shall be cut to neat lines by saw cutting or by methods approved by the Engineer, and the patch areas shall be made rectangular in shape, if possible, with horizontal and vertical edges and avoid over cutting square corners.

The Contractor shall limit extent of excavation of the pier caps and columns as shown on the repair sequence Documents A00803 & A00804. If the Contractor exceeds the limits of excavation as shown on the repair sequence Documents A00803 & A00804, then temporary shoring shall be installed to alleviate loading on the substructure at no additional costs to the Department. The Contractor may submit an alternate method of reinforced concrete excavation to be approved by the Engineer. The alternate method, if approved by the Engineer, shall not incur any additional costs to the Department, and Item 127.12 Reinforced Concrete Substructure Excavation will be paid at the contract unit price, regardless of the method used to complete the work.

The Contractor shall take all precautions necessary so as not to damage those portions of the bridge including reinforcing steel that are to remain. This includes determining the concrete cover to the steel bars at the edge of each patch prior to excavating concrete. Any steel that is unsuitable for further use through no fault of the Contractor shall be replaced under Item 910.1 Steel Reinforcement for Structures – Epoxy Coated. All reinforcing steel that is loose shall be tied tightly together using epoxy coated wire ties.

Also included under this Item are all costs in connection with the cleaning, cutting, and bending of the existing reinforcing steel designated to be retained in the proposed repair.

ITEM 127.12 (Continued)

DISPOSAL OF EXCAVATED MATERIALS AND SITE CLEANING

Surplus materials obtained from reinforced concrete excavation, and not needed for further use, as determined by the Engineer shall become the property of the Contractor and shall be properly disposed of by the Contractor outside the location at no additional compensation.

The Contractor is required to broom clean all work site areas after the removal of excavated debris regardless of preexisting conditions. Removal of debris, site cleaning, and disposal of debris are incidental to the Contract and no additional payment will be made.

METHOD OF MEASUREMENT

Item 127.12 will be measured for payment at the Contract unit price per CUBIC YARD of substructure concrete excavated, removed and properly disposed of.

BASIS OF PAYMENT

Item 127.12 will be paid for at the Contract unit price per CUBIC YARD, which price shall include all labor, tools, equipment, materials, sawcutting, cleaning, removing and resetting thrie beam or w-beam guardrail and all incidental costs required to complete the work, and final disposal of the excavated material required by the Engineer.

New reinforcing steel will be paid under Item 910.1 Steel Reinforcement for Structures – Epoxy Coated.

The Contractor shall take all measures necessary to protect pedestrian and vehicular traffic from the construction operations. No debris, tools or incidental equipment of any kind will be permitted to fall where vehicular or pedestrian traffic exists. Any material that accidentally falls into such areas shall be removed immediately.

ITEM 740. ENGINEER'S FIELD OFFICE AND EQUIPMENT (TYPE A) MONTH

The work under this Item shall conform to the relevant provisions of Subsection 740 of the Standard Specifications and the following:

Two (2) computer systems and a printer system meeting minimum requirements set forth below including installation, maintenance, power, paper, disks, and other supplies shall be provided at the Resident Engineer's Office:

All equipment shall be UL approved and Energy Star compliant.

The Computer System shall meet the following minimum criteria or better:

Processor:	Intel, 3.5 GHz
System Memory (RAM):	12 GB
Hard Drive:	500 GB
Optical Drive:	DVD-RW/DVD+RW/CD-RW/CD+RW
Graphics Card:	8 GB
Network Adapter:	10/100 Mbit/s
USB Ports:	6 USB 3.0 ports
Keyboard:	Generic
Mouse:	Optical mouse with scroll, MS-Mouse compliant
Video/Audio	the computer system shall be able to perform video calling and recording:
Video camera	shall be High Definition 1080p widescreen capable video calling and recording with built in microphone. The microphone system shall capture natural audio while filtering out background noise.
Audio	shall be stereo multimedia speaker system delivering premium sound.
OS:	Latest Windows Professional with all security updates
Web Browser:	Latest Internet Explorer with all security updates
Applications:	Latest MS Office Professional with all security updates Latest Adobe Acrobat Professional with all security updates Latest Autodesk AutoCAD LT Antivirus software with all current security updates maintained through the life of the contract.
Monitors:	Two 27" LED with Full HD resolution. Max. resolution 1920 x 1080
Flash drives:	2 (two) - 128GB USB 3.0
Internet access:	High Speed (min. 24 mbps) internet access with wireless router.

ITEM 740. (Continued)

The Multifunction Printer System shall meet the following minimum criteria or better:

Color laser printer, fax, scanner, email and copier all in one with the following minimum capabilities:

- Estimated volume 8,000 pages per month
- LCD touch panel display
- 50 page reversing automatic document feeder (RADF)
- Reduction/enlargement capability
- Ability to copy and print 11" x 17" paper size
- email and network pc connectivity
- Microsoft and Apple compatibility
- ability to overwrite latent images on hard drive
- 600 x 600 dpi capability
- 30 pages per minute print speed (color),
- 4 Paper Trays Standard (not including the bypass tray)
- Automatic duplexing
- Finisher with staple functions
- Standard Ethernet. Print Controller
- Scan documents to PDF, PC and USB
- ability to print with authenticated access protection

The Contractor shall supply a maintenance contract for next day service, and all supplies (toner, staples, paper) necessary to meet estimated monthly usage.

The Engineer's Field Office and the equipment included herein including the computer system, and printer shall remain the property of the Contractor at the completion of the project. Disks, flash drives, and card readers with cards shall become the property of the Department.

BASIS OF PAYMENT

Compensation for this work will be made at the contract unit price per MONTH, which price includes full compensation for all services and equipment, and incidentals necessary to provide equipment, maintenance, insurance as specified and as directed by the Engineer.

ITEM 852.11 TEMPORARY PEDESTRIAN BARRICADE FOOT
ITEM 852.12 TEMPORARY PEDESTRIAN CURB RAMP EACH

Description

Work under these Items consist of furnishing, deploying, maintaining in proper operating conditions, and removing temporary pedestrian barricades and temporary pedestrian ramps as part of a Temporary Pedestrian Access Route (TPAR) in order to guide pedestrians around a fully- or partially-closed sidewalk. These devices are intended to prevent pedestrians from entering the work area and to prevent pedestrians from inadvertently entering the vehicle travel lane by providing visual and physical separation between each space.

Materials

The Temporary Pedestrian Barricade shall have a continuous bottom rail or edge no more than two (2) inches above the ground and eight (8) inches in height (minimum) to accommodate cane users, have a smooth and continuous hand railing along the top edge no less than 32 inches above the ground and not obstruct or project into the pedestrian path of travel. Barricade walls shall be nearly vertical and generally within the same plane.

If exposed to traffic, Temporary Pedestrian Barricades shall be crashworthy.

The Temporary Pedestrian Curb Ramp shall provide a 48 inch minimum width, with a firm, stable, and non-slip surface. Protective edging with a two (2) inch minimum height shall be installed when the curb ramp or landing platform has a vertical drop of six (6) inches or greater.

The Temporary Pedestrian Curb Ramp walkway and landing area surface shall be of a solid, continuous, contrasting color abutting up to the existing sidewalk.

If a Temporary Pedestrian Curb Ramp leads to a crosswalk, a detectable warning pad must be used at the base of the ramp; if it leads to a protected path that does not conflict with vehicular traffic then a detectable pad shall not be used.

Construction Methods

The Temporary Pedestrian Barricade shall be placed in an area that will provide pedestrians with a TPAR on a smooth, continuous hard surface for its entirety. The geometry and alignment of the facility shall meet the applicable requirements of the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities" and the Massachusetts Architectural Access Board.

The recommended width of the TPAR is 60 inches, but if constraints exist a minimum clear width of 48 inches shall be provided along its entirety. If a 60 inch width cannot be accommodated in full, a 60 inch by 60 inch passing space shall be provided every 200 feet or less along the TPAR.

Turning areas shall be 60 inches by 60 inches minimum.

Lateral joints between any surfaces shall not exceed 0.5 inches. Lateral edges may be vertical up to 0.25 inches high and shall be beveled at 1V:2H between 0.25 inches and 0.5 inches.

The TPAR shall be kept clear of debris, snow, and ice and the Temporary Pedestrian Barricades and Temporary Pedestrian Curb Ramps shall not obstruct drainage.

ITEM 852.11 & 852.12 (Continued)

Removal and/or resetting of Temporary Pedestrian Barricades and Temporary Pedestrian Curb Ramps shall be considered incidental.

COMPENSATION

Payment for Temporary Pedestrian Barricades will be made at the contract price per FOOT installed in place, including all incidental Items. This price shall include the cost of furnishing, installing, resetting, removal, and maintaining in good working condition.

Payment for Temporary Pedestrian Curb Ramps will be made at the contract price per EACH unit installed in place, including all incidental Items. This price shall include the cost of furnishing, installing, resetting, removal, and maintaining in good working condition.

ITEM 853.8 TEMPORARY ILLUMINATION FOR WORK ZONE DAY

The work under this Item shall conform to the relevant provisions of Subsection 850 of the Standard Specifications and the following:

The work under this Item shall include furnishing, deploying and maintaining in proper operating condition a LED balloon diffuser lighting system. These portable light towers shall be used throughout the project area for temporary work zone lighting. The use of unshielded high wattage flood lights shall not be permitted.

The Contractor shall illuminate the following work zone areas:

- Change in direction (i.e., work zone entrances and exits, crossovers, etc.)
- Tapered areas
- Actual area where the construction is being performed

Light measurement shall be based on the illuminance method and the lighting levels shall be based on the classification of construction activity that is taking place.

At no time shall the light level be below 5 fc and the uniformity shall not exceed 6:1. Task Classifications and recommended illumination levels are shown in Table 1.

ITEM 853.8 (Continued)

Task Classifications	Illumination Level	Average Minimum Maintained Illuminance
All work operations areas, setup of lane or road closures, lane closure tapers, and flagging stations such as Excavation (all types), Embankment Fill and Compaction, Reworking Shoulders, Asphalt Pavement Rolling, Subgrade, Stabilization and Construction, Base Course Rolling, Sweeping, Cleaning and Landscaping.	Level I	5 foot-candles
Areas on or around construction equipment; asphalt paving, milling, and concrete placement and/or removal such as Milling, Removal of Pavement, Asphalt Paving and Resurfacing, Concrete Pavement, Waterproofing and Sealing, Sidewalk Construction, Base Course Grading and Shaping, Surface Treatment, Bridge Decks, Drainage Structures and Drainage Piping, Other Concrete Structures, Barrier Wall and Traffic Separators, Guardrails and Fencing, Striping and Pavement Markings, Repair of Concrete Pavement, Highway Signs, Hole Filling and Repair of Guardrails and Fencing.	Level II	10 foot-candles
Pavement or structural crack/ pothole filling; joint repair, pavement patching and/or repairs, installation of signal/electrical/mechanical equipment such as Traffic Signals, Highway Lighting Systems and Crack Filling	Level III	20 foot-candles

TABLE 1
TASK CLASSIFICATIONS AND ILLUMINATION LEVELS

Prior to commencement of work the Contractor shall submit to MassDOT for approval a description of illumination equipment that is proposed to be used on this project, and shall include photometrics that detail the light levels that are to be provided for the particular operation for the type of equipment, level of luminance, and height to be installed.

Any potential glare from the lighting system should be considered from each direction and on all approaching roadways and opposing lanes of traffic. Glare from the illumination system should be minimized as much as possible for both workers and motorists in adjacent active travel lanes. If required, the Contractor shall provide supplemental hardware such as visors, louvers, shields, glare screen and barrier, to reduce glare in adjacent active travel lanes.

ITEM 853.8 (Continued)

Equipment mounted lighting may be used to supplement light towers to achieve the required lighting levels for the activity involved per Table 1.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 853.8 will be measured and paid per Subsections 850.80 and 850.81, respectively.

ITEM 859.1 REFLECTORIZED DRUMS WITH SEQUENTIAL DAY FLASHING WARNING LIGHTS

The work under this Item shall conform to the relevant provisions of Subsection 850 of the Standard Specifications and the following:

Work under this Item consists of furnishing, installing, maintaining in proper operating conditions, and removing reflectorized drums, and any necessary ballast, equipped with sequential flashing warning lights.

MATERIALS

Reflectorized drums shall be listed on the MassDOT Qualified Traffic Control Equipment List. Reflective sheeting on drums shall meet or exceed ASTM D4956 Type VIII. All drums shall be maintained in a satisfactory manner including the removal of oils, dirt, and debris that may cause reduced retroreflectivity.

The Contractor shall use one of the following sequential flashing warning light systems unless otherwise approved by the Engineer:

1. Empco-Lite LWCSD.
2. Pi-Lit® Sequential Barricade-Style Lamp; or
3. Unipart Dorman SynchroGUIDE.

Sequential flashing warning lights shall be secured to reflectorized drums per the light manufacturer's specifications.

CONSTRUCTION METHODS

The first ten (10) drums in any merging or shifting taper as designated in the Temporary Traffic Control Plan shall be equipped with sequential flashing warning lights. These lights shall be operating, at a minimum, between dusk and dawn when the taper is deployed.

The successive flashing of the sequential warning lights shall occur from the upstream end of the merging or shifting taper to the downstream end of the taper in order to identify the desired vehicle path. Each warning light in the sequence shall be flashed at a rate of not less than 55, nor more than 75 times per minute.

ITEM 859.1 (Continued)

Warning lights shall be powered off when drums are not deployed in a taper.

METHOD OF MEASUREMENT

A group of ten (10) reflectorized drums with sequential flashing warning lights is considered one (1) unit and will be measured by the DAY. Each period of up to 24 hours during which this unit is in use will be measured as one day regardless of the number of times that the drums are positioned, repositioned, removed, or returned to service.

BASIS OF PAYMENT

Reflectorized Drums with Sequential Flashing Warning Lights will be paid for at the Contract unit price per Day, which shall include full compensation for furnishing, positioning, repositioning, and removing the group of ten (10) drums as directed by the Engineer.

ITEM 905.2 5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE CUBIC YARD

The work under this Item shall conform to the relevant provisions of Subsection 901 of the Standard Specifications and the following:

The work under this Item shall consist of forming and placing 5000 PSI, 3/8 inch HP Cement Concrete. This Item shall be used for patching after all deteriorated and/or unsound concrete is removed under Item 127.12.

The Contractor's attention is directed towards the Repair Procedure as noted in Document A00803.

All existing concrete surfaces that will be in contract with the proposed concrete shall be prepared in accordance with PREPARATION OF CONCRETE SURFACES.

All formwork shall be approved by the Engineer prior to concrete placement.

METHOD OF MEASUREMENT

Item 905.2 will be measured for payment per CUBIC YARD of cement concrete furnished and placed, complete in place.

BASIS OF PAYMENT

Item 905.2 will be paid for at the Contract unit price per CUBIC YARD, which price shall include all labor, materials, equipment, surface preparation, and all incidental costs required to complete the work.

No separate payment will be made for the installation of subsequent removal of any formwork, coating/patching of the steel reinforcing, but all costs in connection therewith shall be included in the Contract unit price bid.

Where formwork is installed for concrete placement, payment of seventy percent (70%) of the Cubic Yard price of this Item will be made upon complete concrete installation. The remaining thirty percent (30%) of the Cubic Yard Price of this Item will be paid only after the complete formwork removal by the Contractor.

ITEM 909.2 CEMENTITIOUS MORTAR FOR PATCHING SQUARE FOOT

The work under this Item shall conform to the relevant provisions of Subsection 901 of the Standard Specifications and the following:

The work under this Item consists of patching vertical surfaces on the existing structures at areas of spalled, delaminated, or cracked concrete as directed by the Engineer.

This Item does not include the repair of any vertical patch that exceeds two (2) inches in depth. The repairs to those patches shall be made using Item 905.2.

MATERIALS

Concrete and High Strength Mortar Products shall be in accordance with M4.04.1.

CONSTRUCTION METHODS

The Contractor shall remove all deteriorated and spalled areas as designated by the Engineer. All costs to remove the deteriorated and spalled concrete shall be compensated for under Item 127.12. The Contractor shall have the approval of the Engineer certifying that all spalled and deteriorated concrete has been removed prior to patching deteriorated areas.

All concrete surfaces shall be prepared in accordance with PREPARATION OF CONCRETE SURFACES.

Mortar must be worked into the substrate filling all pores and voids. Force the material against the edge of the repair, working towards the center. After filling, consolidate, then screed.

The maximum thickness of application in one pass shall be one (1) inch. If the depth of patch exceeds one (1) inch, the mortar shall be placed in two passes of approximate equal thickness, with a total thickness not to exceed two (2) inches. Before the first pass has achieved an initial set, the surface shall be prepared for the second pass by scratching with a trowel to form a grid of deformation on the surface. The preceding lift shall be allowed to reach final set before applying fresh material. The fresh mortar must be scrubbed into the preceding lift.

Prime and work the mix into the substrate, filling all pores and voids. Avoid puddling of the primer on horizontal substrates.

Use a fine mist spray of water, wet burlap, or a non-solvent approved curing compound if ambient conditions might cause premature surface drying (high temperature, low humidity, strong winds, etc.). If necessary, protect the newly applied mortar from rain. To prevent freezing, cover with insulating material.

Protective sealing compounds shall be applied to repair areas where required by the Engineer.

Protective sealing compounds shall be in accordance with Subsection 901.41.

ITEM 909.2 (Continued)

METHOD OF MEASUREMENT

Item 909.2 will be measured for payment per the SQUARE FOOT of patch area, complete in place.

BASIS OF PAYMENT

Item 909.2 will be paid for at the Contract unit price per SQUARE FOOT, which price shall include all labor, materials, equipment, certification, samples, curing, protective sealing, and all incidental costs required to complete the work.

ITEM 910.1 STEEL REINFORCEMENT FOR STRUCTURES – EPOXY COATED POUND

The work under this Item shall conform to the relevant provisions of Subsection 901 of the Standard Specifications and the following:

All requirements of Subsection 901.35 Reinforcement shall be adhered to including but not limited to lapping at splices and ties at every other intersection.

The Contractor may be required to submit for approval, detail plans and schedule of bar reinforcement. The Contractor will replace reinforcing bars as required by the Engineer. Any reinforcing steel damaged by the Contractor's operations will be replaced by the Contractor at their own expense.

The Contractor may be instructed to supply replacement reinforcing that is not epoxy coated (black bar).

METHOD OF MEASUREMENT

Item 910.1 will be measured per Subsection 901.70.

BASIS OF PAYMENT

Item 910.1 will be paid per Subsection 901.71.

The use of non-epoxy coated black bar will be substituted with no additional compensation, as required by the Engineer.

ITEM 912. DRILLING AND GROUTING DOWELS EACH

The work under this Item shall conform to the relevant provisions of Subsection 901 of the Standard Specifications and the following:

The work shall consist of drilling holes, furnishing, installing, and grouting of steel dowel reinforcement as required by the Engineer during substructure repairs.

The dowel embedment must be adequate to fully develop 125% of the yield strength of the bar. The embedment length, the method and equipment used to drill the dowel holes, and the diameter of the drilled hole shall at a minimum conform to the recommendations of the manufacturer and be submitted to the Engineer for approval.

MATERIALS

The grout to be used for these dowels shall be selected from the MassDOT Qualified Construction Materials List for its specific application. Reinforcing steel dowels shall meet the requirements of AASHTO M31 Grade 60. All reinforcing steel dowels shall be epoxy coated in accordance with ASTM A775. Reinforcing steel dowels shall be incidental to the work under this Item.

CONSTRUCTION METHODS

All dowel holes shall be air drilled provided that the minimum edge distance of 6 inches is observed. Should, in the Engineer's opinion, air drilling be inappropriate due to questionable strength of the existing /concrete or insufficient edge distance, the dowel holes shall be diamond core drilled. The inner surfaces of the diamond core drilled dowel hole's inner surfaces shall be subject to the approval of the Engineer. The diameter of the drilled dowel holes shall be in accordance with the recommendations of the grout manufacturer. The holes shall be blown clear of any debris and shall have the approval of the Engineer prior to the placement of any grout material. The drilling operation shall be performed without damage to any portion of the existing structure that is to remain in place.

Any damage to any portion of the existing structure that is to remain in place shall be repaired to a condition equal to or better than that existing prior to the beginning of the Contractor's operations and shall be repaired at the Contractor's expense.

The Contractor shall strictly follow the recommendations of the manufacturer for mixing and placing the grout material prior to the placement of the dowel. The Contractor shall adhere to the recommendations of the manufacturer regarding minimum and maximum temperatures while placing the grout. Any excessive grout around the hole after placement of the dowel shall be struck off smooth while the grout is still fresh.

ITEM 912. (Continued)

The Contractor shall perform on site a minimum of two (2) tests of the dowels (one test for each side of stage construction) for capacity in tension in each location or component. The test shall be performed in the presence of and to the satisfaction of the Engineer. The testing, including the necessary material and equipment to perform the test, is incidental to the work under this Item. The pullout force shall correspond to 90% of the yield strength of the bar. If the test bar pulls out or if the concrete utilized in the test shows signs of fracture, the Contractor shall adjust the hole diameter, embedment length, and/or grout material to meet this requirement. The method of applying the tension load to the dowels shall conform to ASTM E488. Details of the test procedure, materials, and equipment shall be submitted to the Engineer for review and approval prior to commencement of the test. Dowels shall not be ordered until the embedment lengths have been approved by the Engineer.

The Contractor shall arrange with the material's manufacturer or distributor to have the services of a competent field representative at the work site prior to any drilling of the proposed dowel holes to instruct the work crews in proper dowel installation procedures. The field representative shall remain at the job site after work commences and continue to instruct until the representative, the Contractor, and Engineer are satisfied that the crew has mastered the technique of installing the dowels successfully. The representative shall make periodic visits to the project as the work progresses and shall confer on each visit with the Contractor, Inspector and/or Engineer. The manufacture's field representative must be fully qualified to perform the work and shall be subject to the approval of the Engineer.

METHOD OF MEASUREMENT

Item 912. will be measured for payment per EACH dowel installed, complete in place.

BASIS OF PAYMENT

Item 912. will be paid for at the Contract unit price per EACH, which price shall include all labor, materials, equipment, furnishing dowels, drilling holes, grouting the dowels regardless of the diameter or depth of the hole, and all incidental costs required to complete the work.

The Contractor shall be completely responsible for the expense of the service of the required field representative and the contract unit price shall be considered full compensation for all costs in connection therewith.

ITEM 913.2 CORING AND GROUTING ANCHOR BOLTS EACH

The work to be done under this Item shall consist of coring holes in the existing abutments as shown in the plans or as directed by the Engineer. This work shall include the installation and grouting of new anchor bolts for the repaired or proposed bearings shown in the steel repair details.

MATERIALS

The grout to be used for these anchor bolts shall be a non-shrink cementitious mortar. Grouting material, which has been tested, approved, and is listed on the Qualified Construction Materials List (QCML); is acceptable for use on MassDOT Highway Division bridge projects. Epoxy, vinyl, or polyester resin adhesives shall not be utilized.

The steel anchor bolts shall meet the requirements of ASTM F 1554 Grade 105 and shall be hot dipped galvanized in accordance with AASHTO M 232.

Submittals

The Contractor shall submit the grout manufacturer's literature completely describing the products to be utilized. The materials shall be delivered clearly marked with legible and intact labels containing the manufacturer's name, brand name, and identification of the areas where temperatures conform to manufacturer's instructions and recommendations.

CONSTRUCTION METHODS

All anchor bolt holes shall be diamond core drilled. The inner surfaces of diamond core drilled holes shall be scored to develop sufficient keying action. The method of scoring of the hole's inner surfaces shall be subject to the approval of the Engineer. The minimum depth of the drilled anchor bolt holes shall be as shown on Documents A00803 & A00804. However, the depth of drilled hole shall be modified as required to comply with the minimum depth of hole specified in the product literature of the cementitious mortar selected by the Contractor. The hole depth shall correspond to the depth required to develop the full yield strength of the anchor bolt. The holes shall be blown clear of any debris and shall have the approval of the Engineer prior to the placement of any grout material.

The coring/drilling operation shall be performed without damage to any existing reinforcing that is to remain in place. Any damage to any existing portion of the structure that is to remain in place shall be repaired to a condition equal to or better than existing condition prior to the beginning of the Contractor's operations and shall be repaired at the Contractor's expense.

The Contractor shall strictly follow the recommendations of the manufacturer for mixing and placing the grout material prior to the placement of the anchor bolts. The Contractor shall, at a minimum, adhere to the ACI code requirements regarding minimum and maximum temperatures while placing the grout. Any excessive grout around the hole after placement of the anchor bolt shall be struck off smooth while the grout is still fresh.

The Contractor shall arrange with the materials manufacturer or distributor, to have the services of a competent field representative at the work site prior to any drilling of the proposed anchor bolt holes to instruct the work crews in proper dowel installation procedures.

ITEM 913.2 (Continued)

The field representative shall remain at the job site after work commences and continue to instruct until the representative and the Contractor, Inspector and/or Engineer are satisfied that the crew has mastered the technique of installing the dowels successfully. The representative shall make periodic visits to the project as the work progresses and shall confer on each visit with the Contractor, Inspector and/or Engineer. The manufacturer's field representative must be fully qualified to perform the work and shall be subject to the approval of the Engineer.

METHOD OF MEASUREMENT

Item 913.2, Coring and Grouting Anchor Bolts will be measured for payment per EACH anchor bolt hole drilled.

BASIS OF PAYMENT

Item 913.2, Coring and Grouting Anchor Bolts will be paid for at the Contract unit price per EACH, which price shall include the cost of furnishing anchor bolts, all labor, materials, equipment, manufacturer's field representative, and incidentals necessary to satisfactorily complete the work.

ITEM 961.211 CLEAN (FULL REMOVAL) AND PAINT STRUCTURAL STEEL SQUARE FOOT

The work under this Item shall conform to the relevant provisions of Subsections 960 and 961 of the Standard Specifications and the following:

The work under this Item includes the surface preparation and painting of all designated steel areas, including but not limited to the beams, cross frames, utility supports, bearings, and railing. This Item also includes environmental protection, containment of work areas, waste disposal and a work barge, if the Contractor chooses this as a staging area.

This work shall be for the cleaning and painting of bridge railing and structural steel in areas where repairs or corrosion arresting measures are required. The Engineer and Contractor shall agree on a square foot area to be paid before work starts for complex areas. It is expected multiple mobilizations will be required for each location. Locations where steel repairs are to be done shall be cleaned and primed prior to steel repairs. After steel repairs have been completed, the areas shall have Intermediate and final coats of paint applied. Painting work will be required at multiple locations.

DESCRIPTION

Work included under this Item consists of cleaning (full removal) and painting all painted structural steel elements within the limits described above.

Full Removal - in designated areas to the limits as specified by the Engineer to 6 inches outside of the designated repair area.

ITEM 961.211 (Continued)

After structural steel repairs have been completed, the entire repair area including previously cleaned exposed steel surfaces, new repair plates and additional steel shall be abraded. Cleaning and preparing new bolts and nuts used in the installation of structural steel repairs shall also be considered incidental.

PAINT

All steel surfaces within the limits shall receive three full coats of paint (primer, intermediate, and finish) to be color, chemical and adherent compatible with the paint to be over-coated.

The Contractor shall over-coat by six (6) inches the previously painted areas with the final coat of the three-coat system. However, the over-coated surfaces must be surface prepared in accordance with the manufacturer's specifications to ensure a proper bond of the new paint to the existing paint.

The Contractor should note that some steel repairs made under previous contracts may have been painted with the XV MAX three coat paint system or other previously approved paint systems and shall be properly abraded to assure a proper bond. There may also be some repairs made with just shop primer on them, these areas are also to be abraded as required to assure a proper bond. Incidental to this Item will be the cleaning and removal of any accumulated materials in the areas to be cleaned and painted.

The Contractor shall remove and dispose of the pigeon waste and any other debris accumulated on the steel members and bridge seats in areas where work is being performed. Pigeon waste and debris material contaminates will require special handling and disposal in accordance with all Federal, State, and Local requirements.

The Contractor shall clean all exposed surfaces of abutment seats and pier caps by power washing to the satisfaction of the Engineer. All costs of cleaning abutment seats and pier caps including debris collection & removal, disposal and pressure washing shall be considered incidental to this Item.

Failure of the Contractor to provide the required submittals under Subsection 961, Subsection 961.69 "Submittals", within 30 days from the required date, which includes Item 961.211, shall be determined to be Non-Responsive and subject to Non-Response Damages.

The Contractor shall note that certain painting locations are known to have obstacles that are in conflict with the work that is to be performed. Work required to move, remove, replace, protect, work around, or modify any obstacles interfering with cleaning and painting work, such as utilities, drainpipes, existing shielding, cables, netting, and diaphragms, shall be included in this Item and be performed with no additional compensation, and shall be deemed incidental to the unit price bid for this Item.

ITEM 961.211 (Continued)

STRUCTURAL STEEL INSPECTION

The Contractor shall notify the Engineer if significant amount of section loss is found on the structural steel during the cleaning and blasting process. If requested by the Engineer, the Contractor shall provide the access and time window to the Engineer to inspect and document the structural steel section loss after the cleaning and blasting operation.

METHOD OF MEASUREMENT

Item 961.211 will be measured for payment per SQUARE FOOT of structural steel cleaned (full removal) and painted, complete in place.

The area measured for payment shall be the total of the horizontal and vertical plane areas to the limits of the over-painted area to complete repairs.

BASIS OF PAYMENT

Item 961.211 will be paid at the Contract unit price per SQUARE FOOT which price shall include all labor, materials, equipment, surface preparation, painting, environmental protection, containment of the work areas, waste disposal, furnishing work barge if required, and all incidental costs required to complete the work.

Payment areas considered incidental shall include any existing stiffeners, diaphragms, and cross bracing remaining in place cleaned and painted, new vertical projections from additional steel thickness of repair plates, bolts, nuts, or additional stiffeners. Incidental to this Item are all costs associated with the design and installation of the required containment system/work platform and working barge.

Incidental to this Item are all costs associated with hazardous waste removal including the safe removal and disposal of accumulated pigeon waste and other toxic contaminants, and the design, installation, and final removal of the required containment system/work platform. The Engineer shall receive a copy of the hazardous waste manifest before final payment is made.

After the final coat of paint has cured, a seal shall be placed around the edges of all high strength bolted repair plates in contact with original steel. The seal will be incidental to this Item and shall be compatible with the paint system being used. The Contractor shall submit a catalogue of the material to be used to the District for review and approval prior to use.

SPECIAL NOTES REGARDING PREVAILING WAGE REQUIREMENTS

Note that the erection and dismantling of scaffolding, rigging and containment for bridge painting work is subject to the "Painter(Bridges/Tanks)" prevailing wage rate. This includes surface preparation, including removal of all types of paint on bridges, the application of paint and the clean-up of debris resulting from paint removal operation on bridges, pursuant to the determination by the Massachusetts Department of Labor Standards' 12/23/2009 "Notice Concerning the Removal and Application of Paint on Bridges and Tanks."

ITEM 964.3 ELASTOMERIC PROTECTIVE COATING SQUARE FOOT

The work under this Item shall consist of applying a minimum of two coats of an elastomeric acrylic protective coating to bridge copings and the above grade surfaces of the substructure components and other locations as directed by the Engineer.

A total dry film thickness (DFT) of 16 mils shall be required.

The acrylic protective coating shall be breathable, durable, flexible, and color retentive. It shall provide protection and be resistant to weathering, carbon dioxide, chlorides, UV light, wind driven rain, dirt pick up and mildew. It shall also bridge hairline cracks up to 1/32". The acrylic protective coating system shall be one of the following or an approved equal:

- SikaGard 550W Elastocolor by Sika Corp.
- Flexxide Elastomer by Carboline
- Colorlastic by ChemMasters

The proposed coating product shall be submitted to the Engineer for approval. The Contractor shall submit the proposed application procedures and Manufacturer's Product Data Sheet(s) that completely describe the product. The color of the coating shall be AMS-STD26559 from the AMS Standard 595 Colors.

PREPARATION AND PROTECTION OF SURFACE

All vegetation growing adjacent to or within the limits of the concrete surfaces to be coated shall be removed and properly discarded. All debris adjacent to or within the limits of the concrete surfaces to be coated shall be removed and properly discarded.

All surfaces to be coated must be dry, clean, sound, and free of all contaminants that could interfere with adhesion of the coating. All loose material shall be removed. If directed by the Engineer, the Contractor shall repair any holes and any spalled and damaged concrete prior to applying the coating. All concrete repair areas shall be cured for a minimum 28 days before coating.

The Contractor shall pressure wash all concrete surfaces to be coated. The pressure washer shall operate at a minimum of 3,000 psi. The protective coating shall not be applied until the surface is dry and the surface preparation has been approved by the Engineer. All concrete to be coated must be tested for the presence of moisture after the surface preparation has been completed and prior to application of coating. Testing shall be in accordance with ASTM D 4263.

ITEM 964.3 (Continued)

APPLICATION

Application shall be done by airless sprayer or roller or a combination of both and in accordance with the manufacturer's recommendations. The use of a primer shall not be required unless stipulated for that particular coating by the manufacturer. A minimum of two coats shall be applied to achieve a total DFT of 16 mils. The recommended minimum wet film thickness (WFT) must be maintained during each application. The manufacturer's specified temperature and weather limitations for the application shall be strictly adhered to.

METHOD OF MEASUREMENT

Item 964.3 will be measured for payment by the SQUARE FOOT for all concrete surfaces to which the coating is applied, complete in place.

BASIS OF PAYMENT

Item 964.3 will be paid for at the Contract unit price per SQUARE FOOT, which price shall include all labor, materials, tools, equipment, preparation and protection of surfaces, wet/dry film thickness gauge for the use by the Engineer, and all incidental costs required to complete the work.

*** END OF DOCUMENT ***

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DOCUMENT A00803

SUBSTRUCTURE REPAIR DETAILS

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DISTRICT 2
BRIDGE SECTION

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GENERAL NOTES:

EXISTING CONDITIONS

THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND EXISTING DETAILS NECESSARY FOR THE COMPLETION OF WORK BY FIELD MEASUREMENT AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF AND SHALL NOT ORDER ANY MATERIALS OR COMMENCE ANY FABRICATION UNTIL THE REQUIRED MEASUREMENTS HAVE BEEN MADE ON THE ACTUAL STRUCTURE AND THE EXTENT OF THE PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

EXISTING BRIDGE PLANS:

ALL DETAILS HEREIN WERE DRAWN FROM ORIGINAL PLANS. THE CONTRACTOR MUST VERIFY DETAILS AND DIMENSIONING. PLANS FOR THE EXISTING BRIDGE ARE AVAILABLE AND MAY BE SEEN AT THE OFFICE OF THE DISTRICT TWO BRIDGE ENGINEER, MASSDOT – HIGHWAY DIVISION, 811 NORTH KING STREET, NORTHAMPTON, MASSACHUSETTS. PLANS FOR THE EXISTING BRIDGES ARE AVAILABLE AND MAY ALSO BE REQUESTED ELECTRONICALLY FROM PLANS AND RECORDS.

UTILITIES

THE CONTRACTOR SHALL SURVEY, LOCATE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE. THERE IS EXISTING ITS EQUIPMENT LOCATED ALONG THE INTERSTATE 90 CORRIDOR.

SHOP DRAWINGS

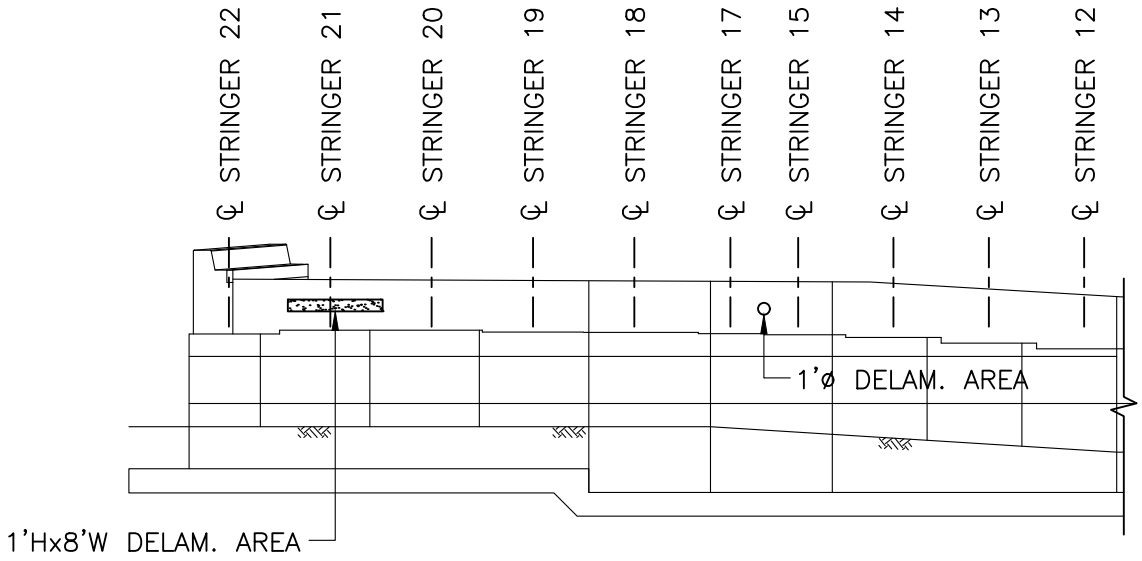
THE CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS AS REQUIRED BY THE STANDARD SPECIFICATION AND THE LATEST MASSDOT BRIDGE MANUAL. PROPOSED COMPONENTS THAT REQUIRE FIELD MEASUREMENTS SHALL BE DESIGNED, DETAILED, AND SUBMITTED TO THE ENGINEER FOR APPROVAL.

CONCRETE REPAIR NOTES

1. DETAILS AS SHOWN ON THE SUBSTRUCTURE REPAIR AREAS DRAWINGS DEPICT THE APPROXIMATE AREAS OF DETERIORATION. THE DETERIORATED AREAS SHOWN IN THOSE DRAWINGS ARE BASED ON AVAILABLE INFORMATION AND ARE NOT INTENDED TO BE ALL INCLUSIVE, BUT RATHER A SIGNIFICANT REPRESENTATION OF THE REPAIRS TO BE PERFORMED. THE CONTRACTOR MUST SOUND ALL CONCRETE SURFACES IN THE FIELD AND MARK OUT SPALLED, DETERIORATED CONCRETE AREAS THAT MUST BE APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF REPAIR WORK.

2. ANY REQUIRED EARTH EXCAVATION FOR CONCRETE REPAIRS WILL BE CONSIDERED INCIDENTAL TO THE REPAIR ITEMS.

3. FOR CONCRETE REPAIR DETAILS SEE SHEETS 67–71.



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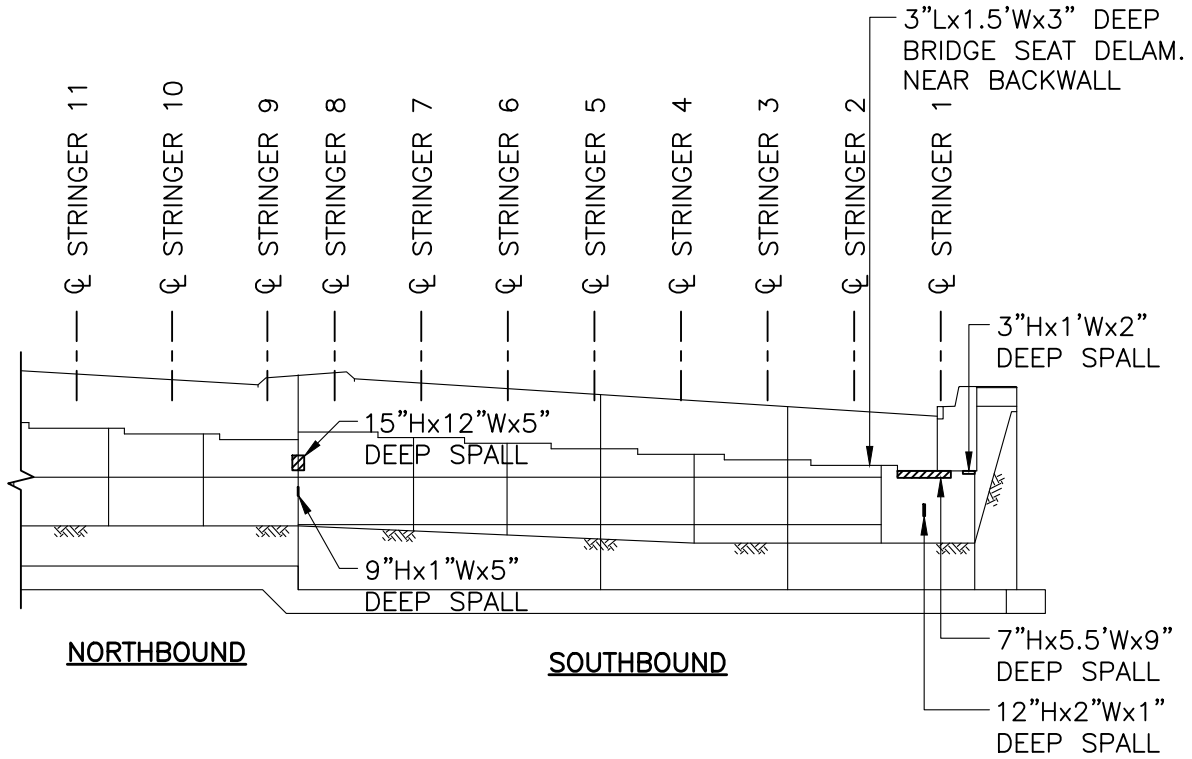


NORTHBOUND SOUTHBOUND

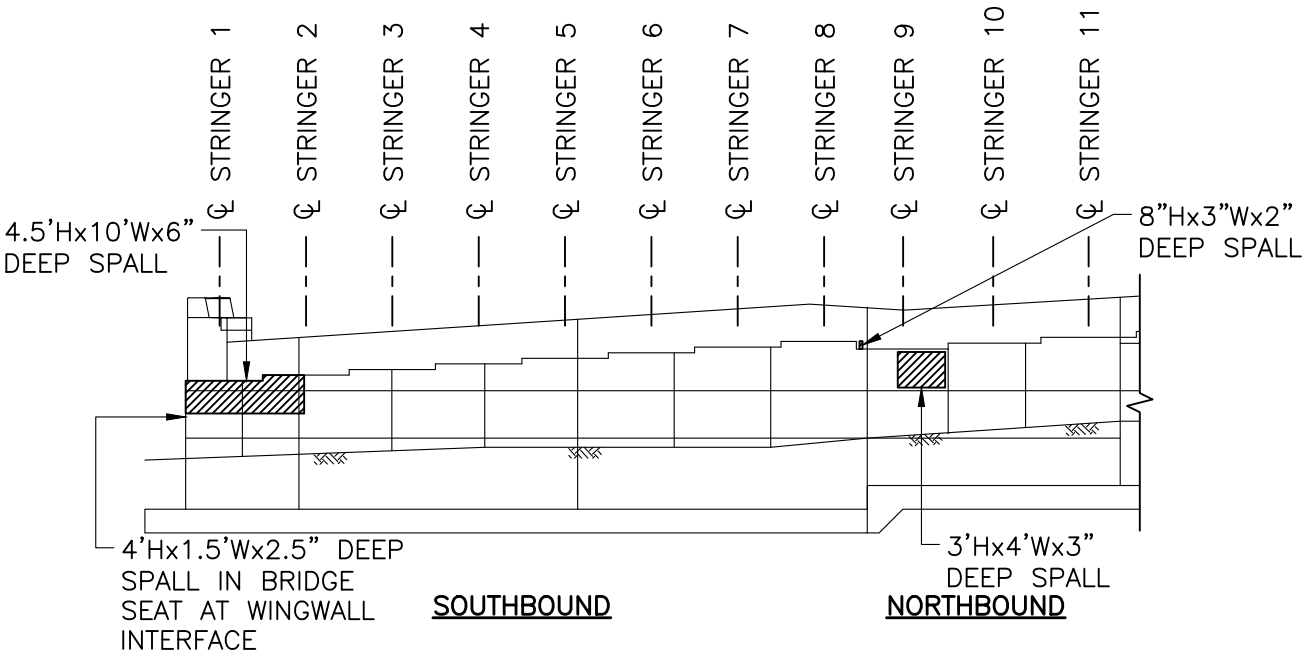
LEGEND

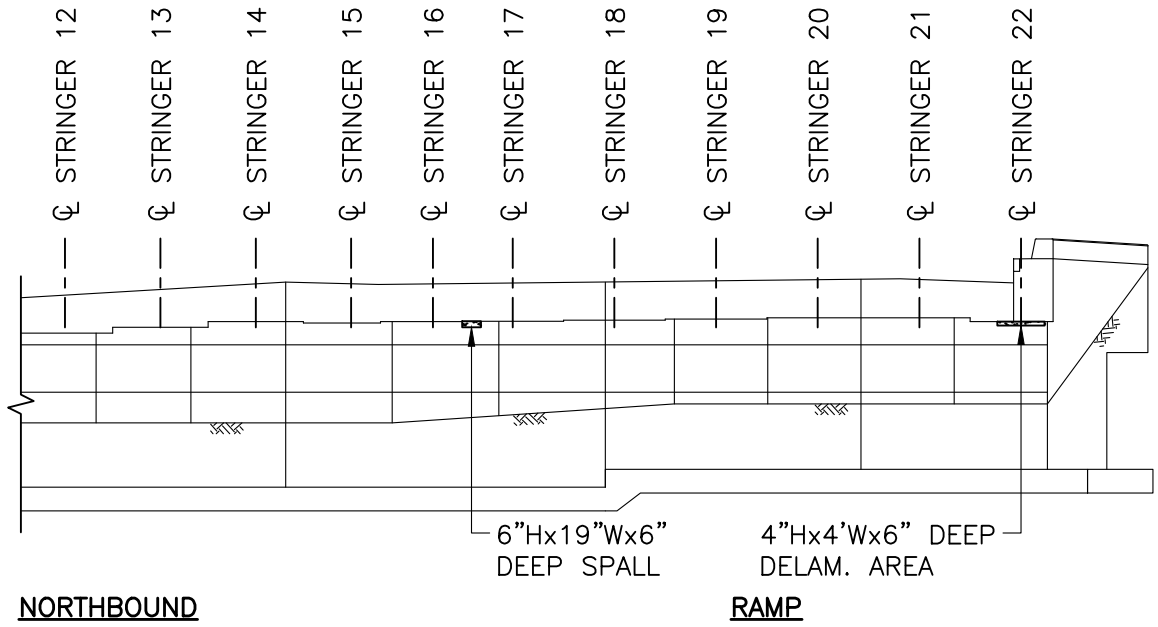
SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. C-13-037 (0X2)** **SOUTH ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 4 OF 77





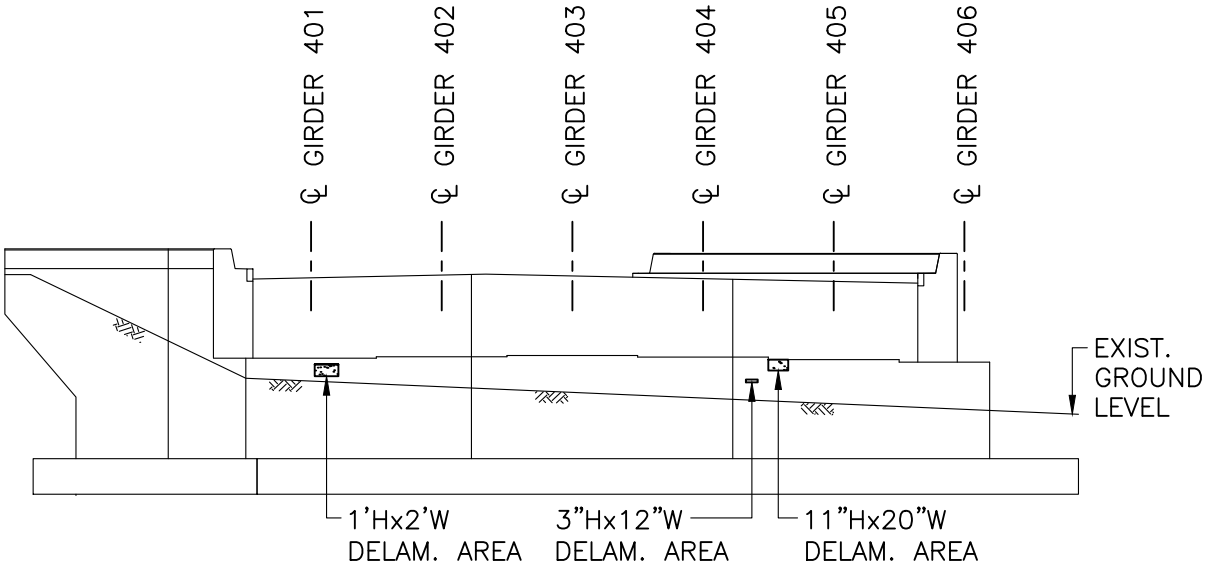
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. C-13-037 (0X2)** **NORTH ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 5 OF 77



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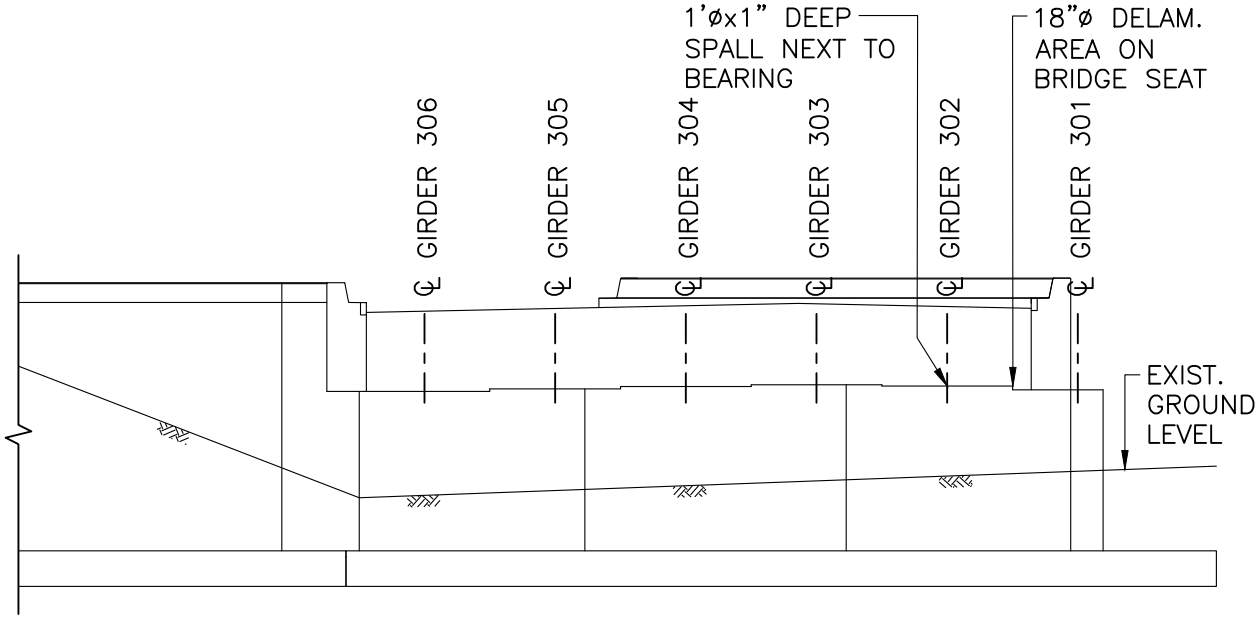

SOUTH ABUTMENT

LEGEND

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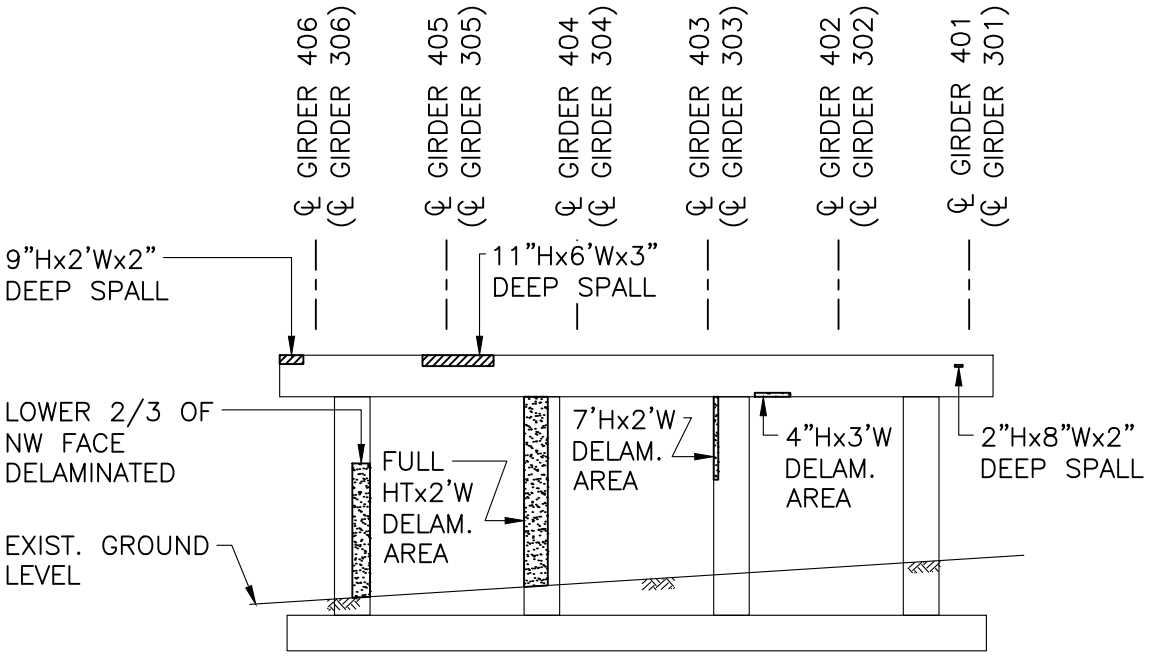

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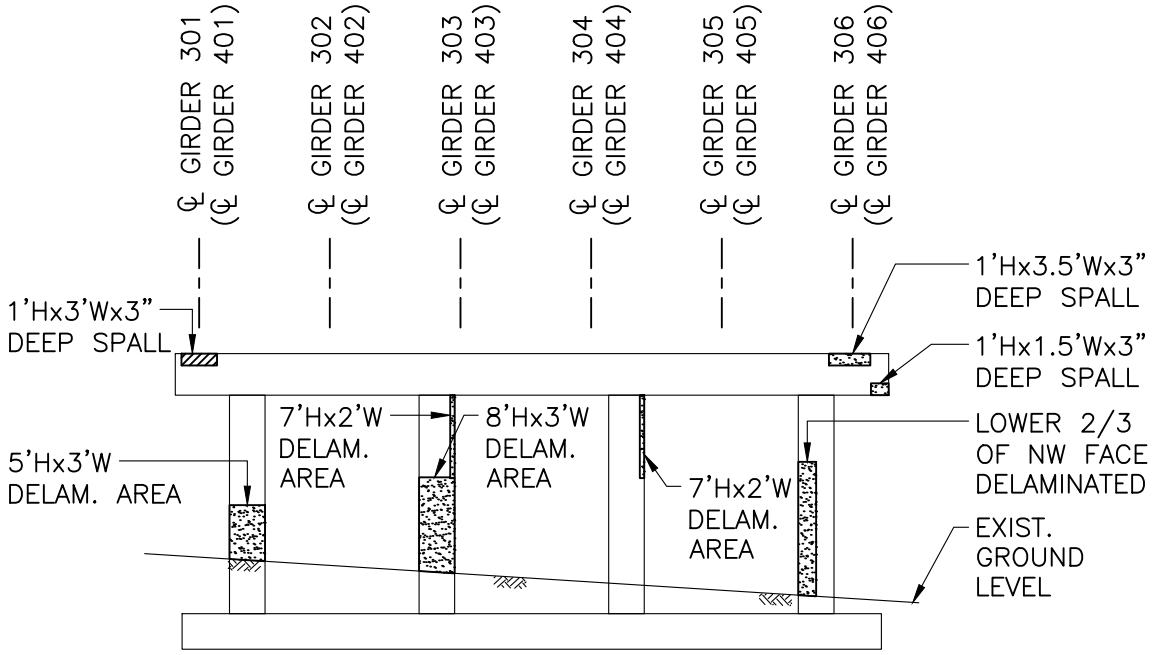

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SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

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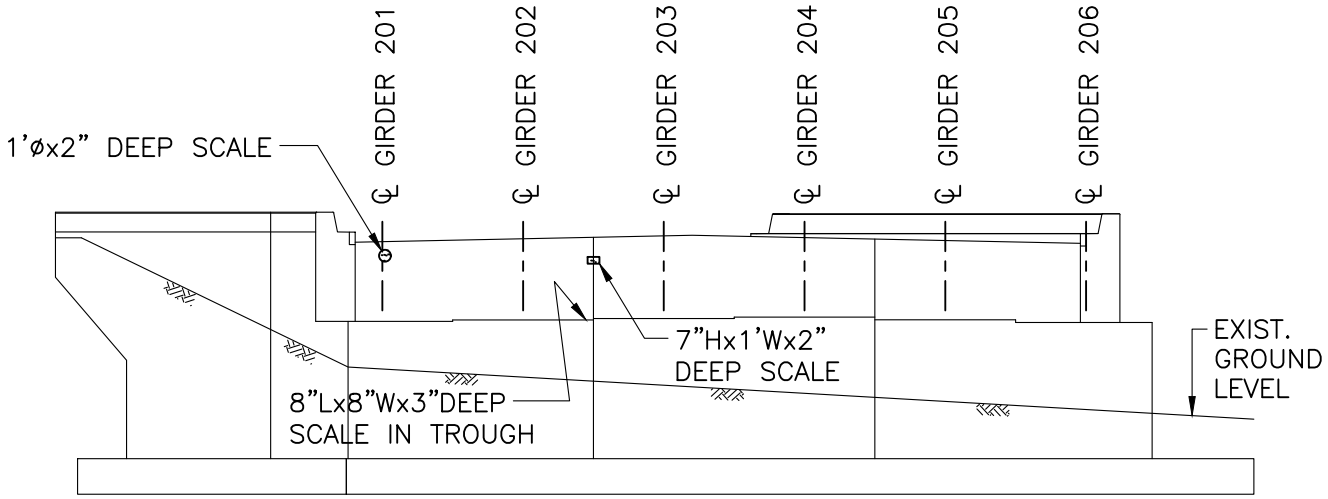
MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-049 (0YD)** **PIER 2**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 7 OF 77



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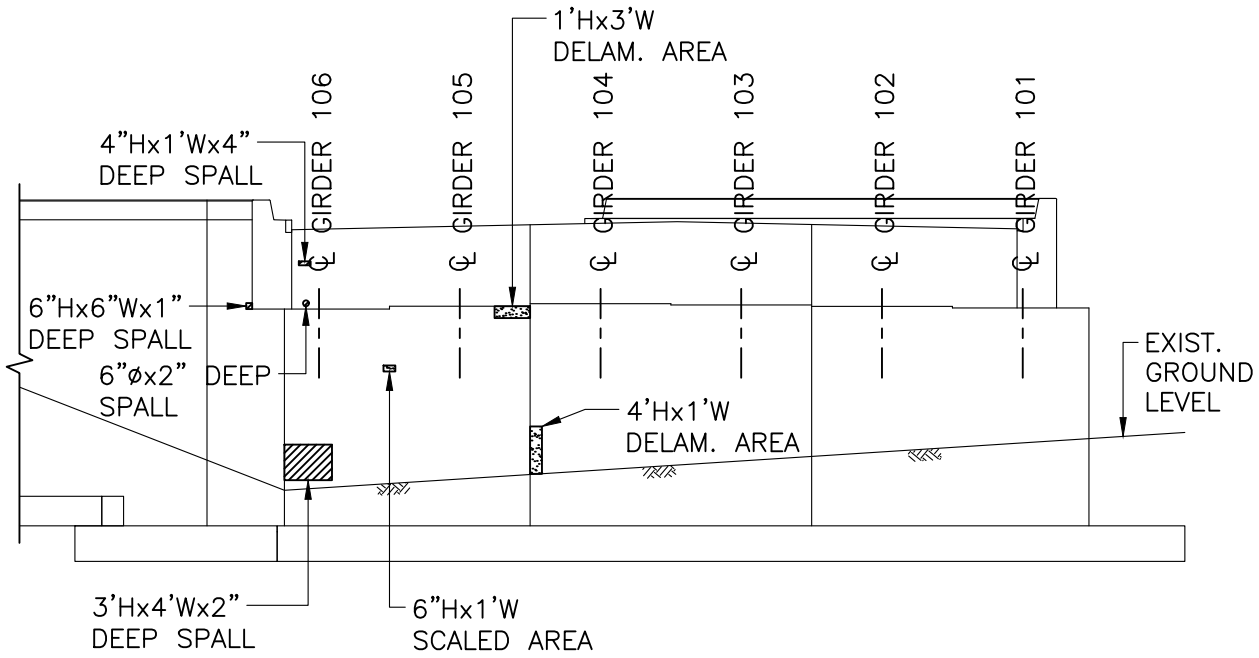

SOUTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

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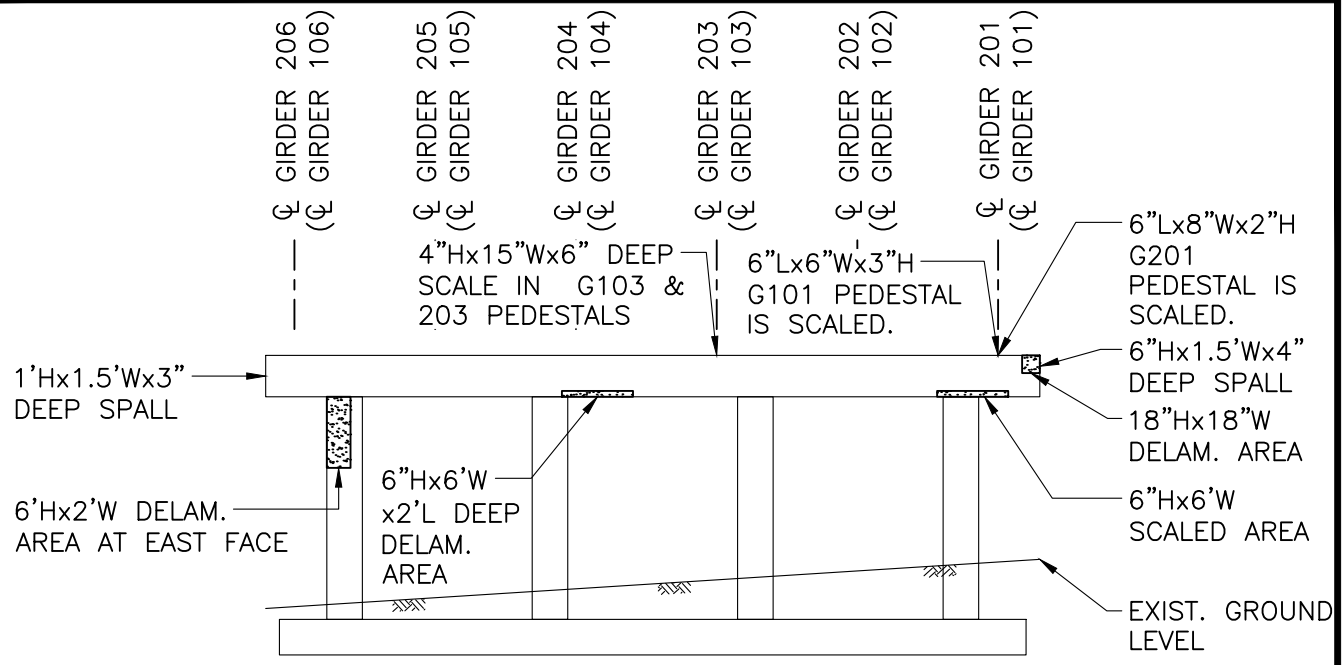
MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-049 (0YE)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 8 OF 77



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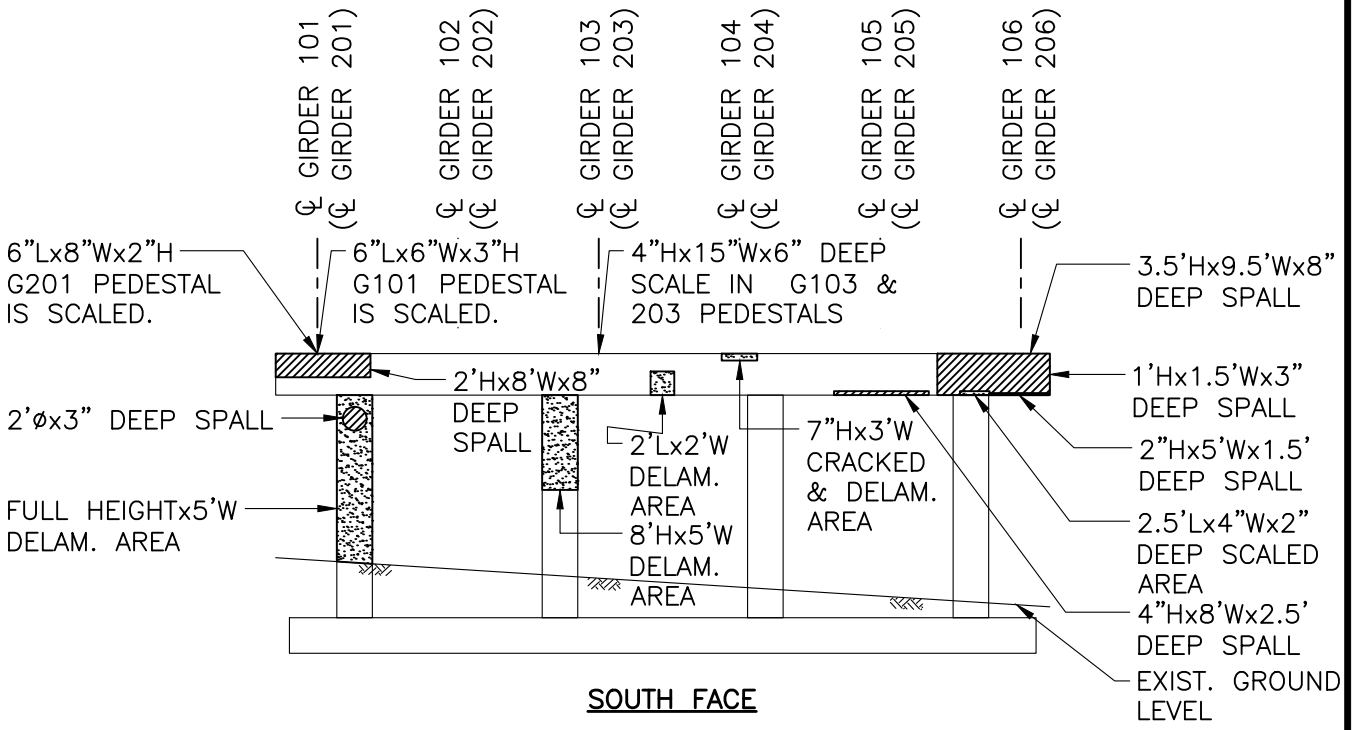


SOUTH FACE

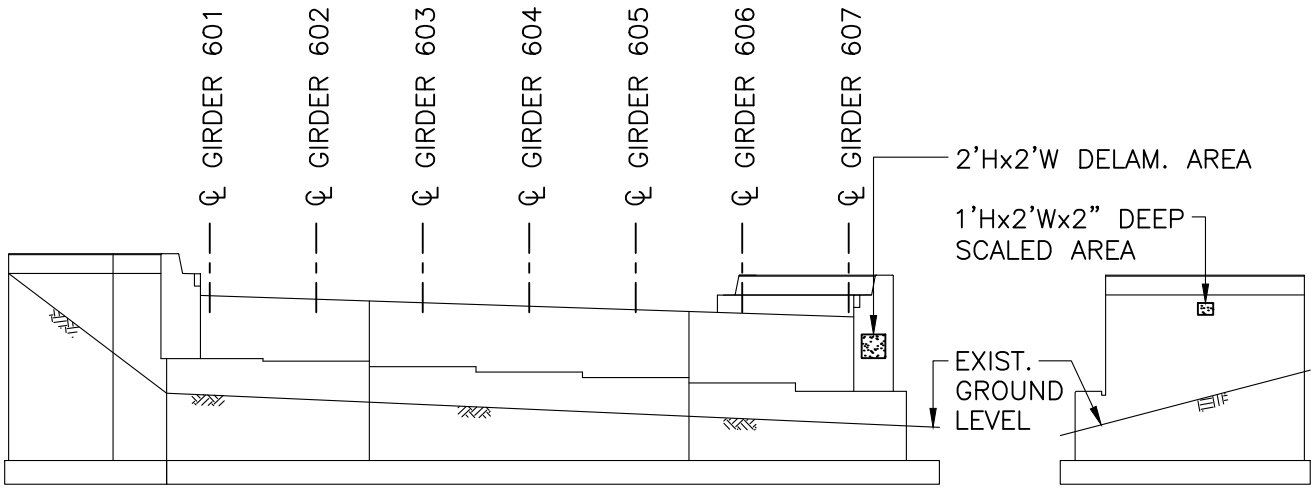
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

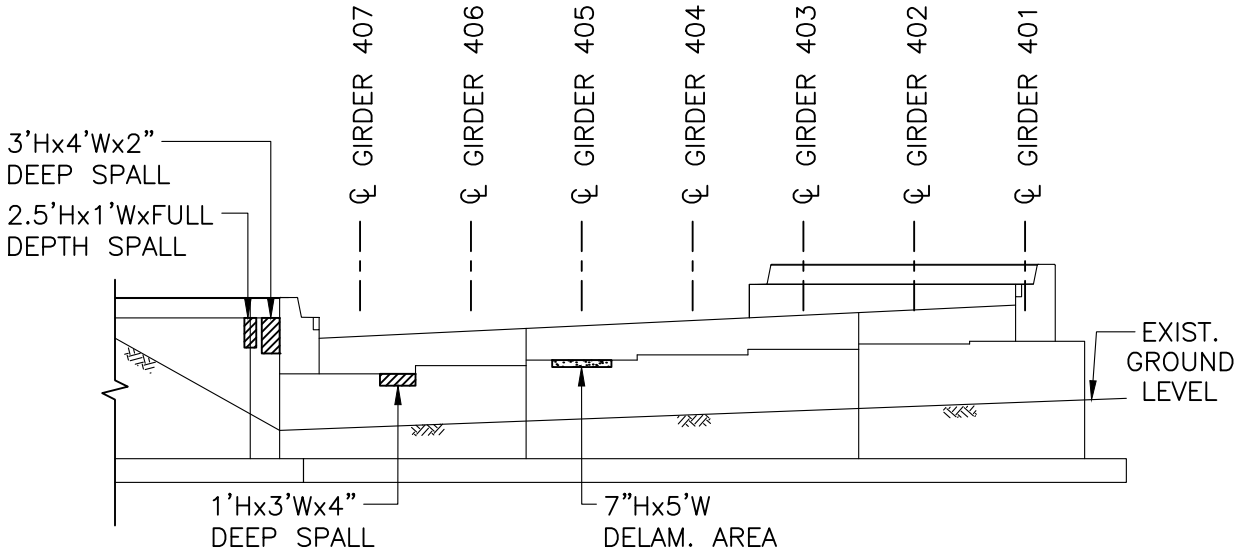
( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-049 (0YE)** **PIER 1**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 9 OF 77



NORTH ABUTMENT

NORTHEAST WINGWALL



SOUTH ABUTMENT

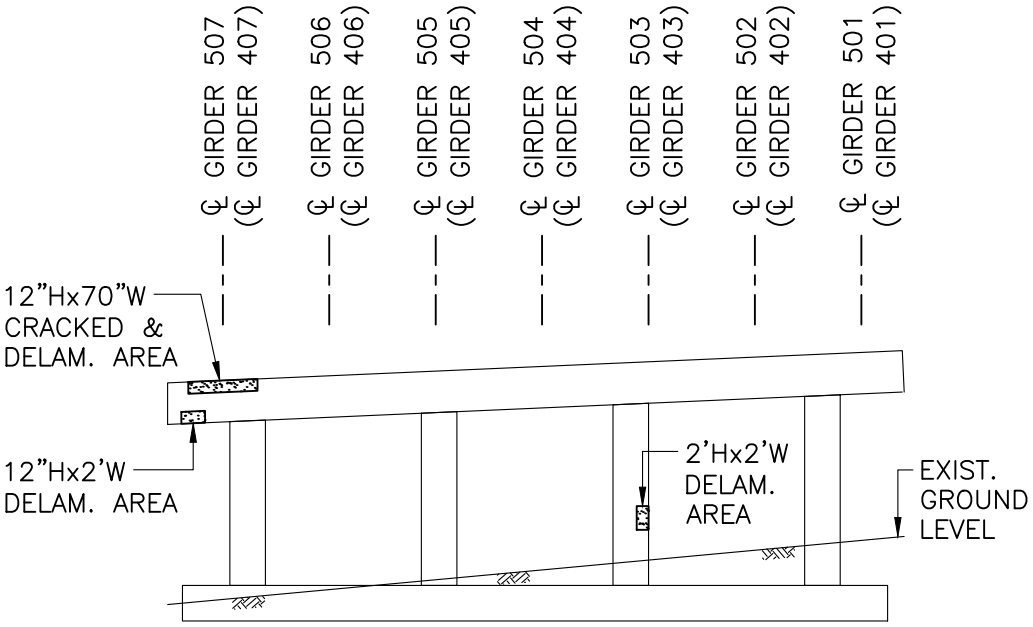
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

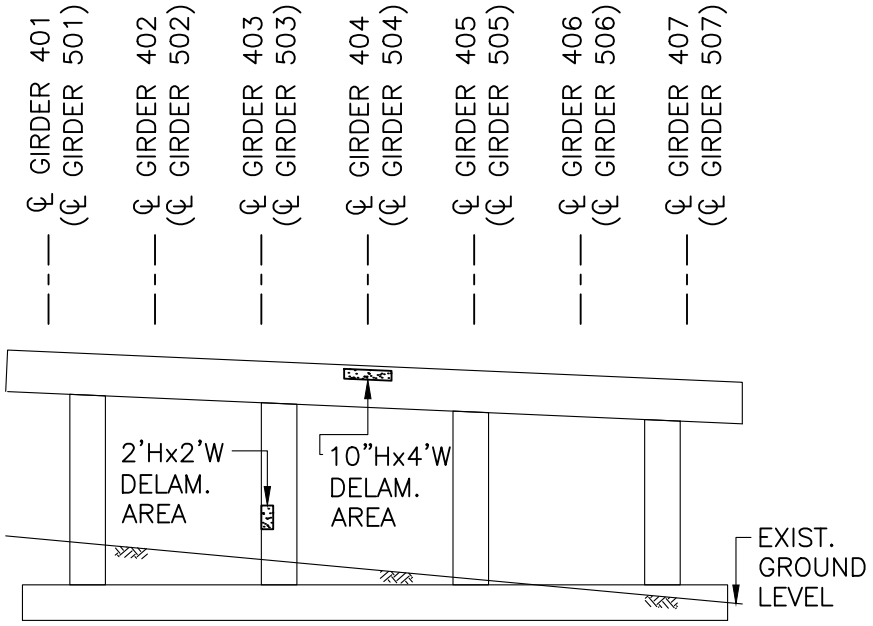
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-051 (0YF)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 10 OF 77



NORTH FACE



SOUTH FACE

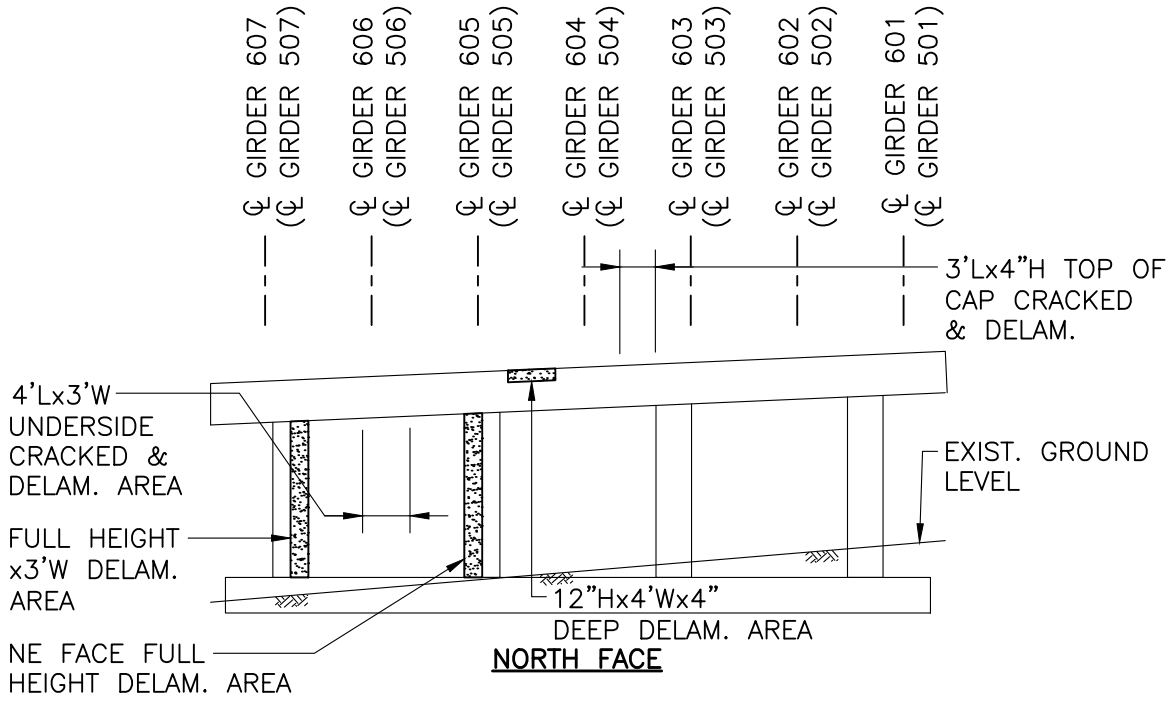
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-051 (0YF)** **PIER 3**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 11 OF 77



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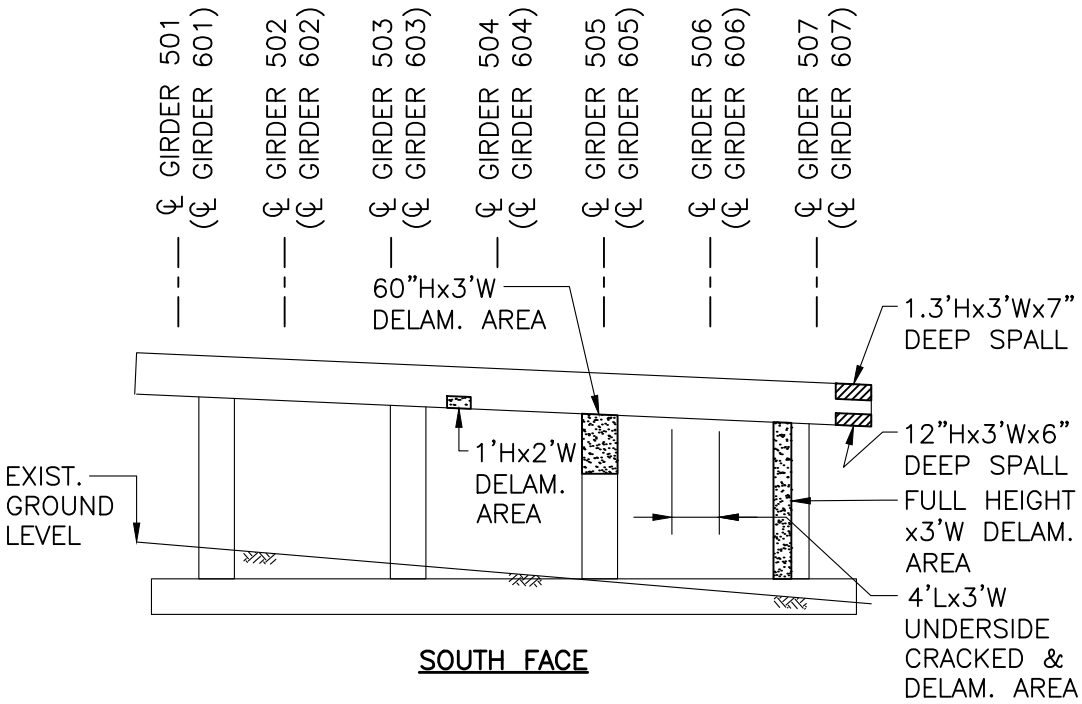


SOUTH FACE

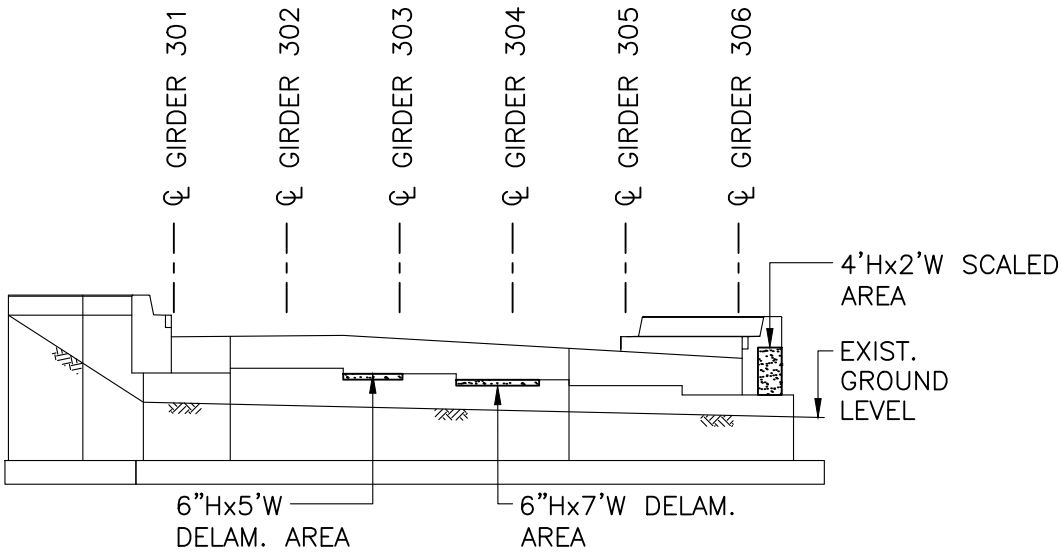
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-051 (0YF)** **PIER 4**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 12 OF 77



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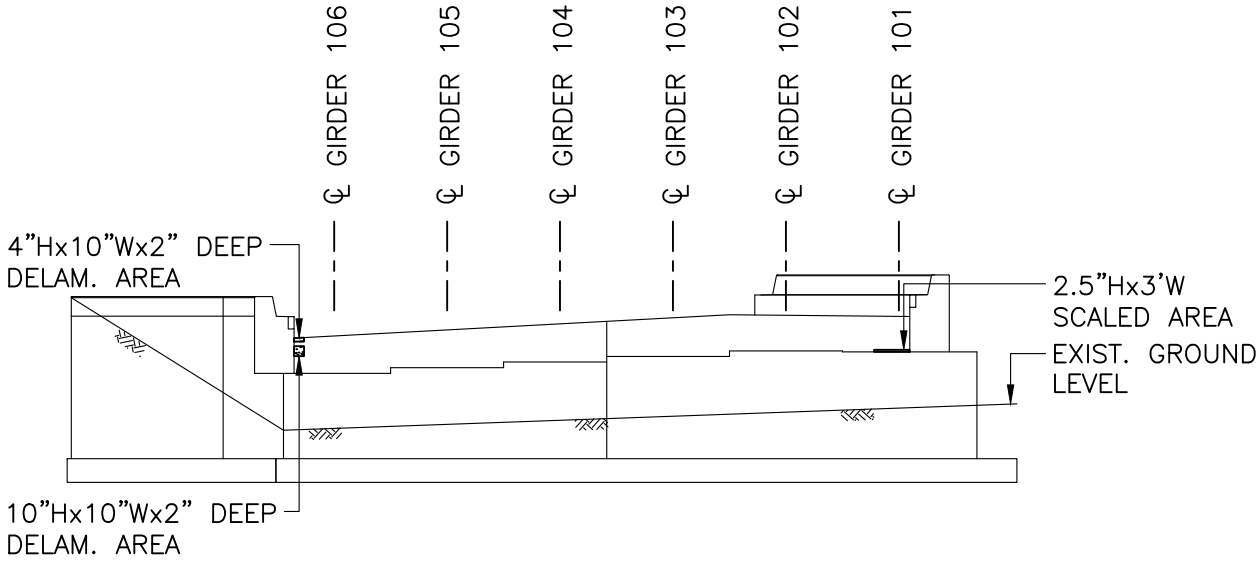


SOUTH ABUTMENT

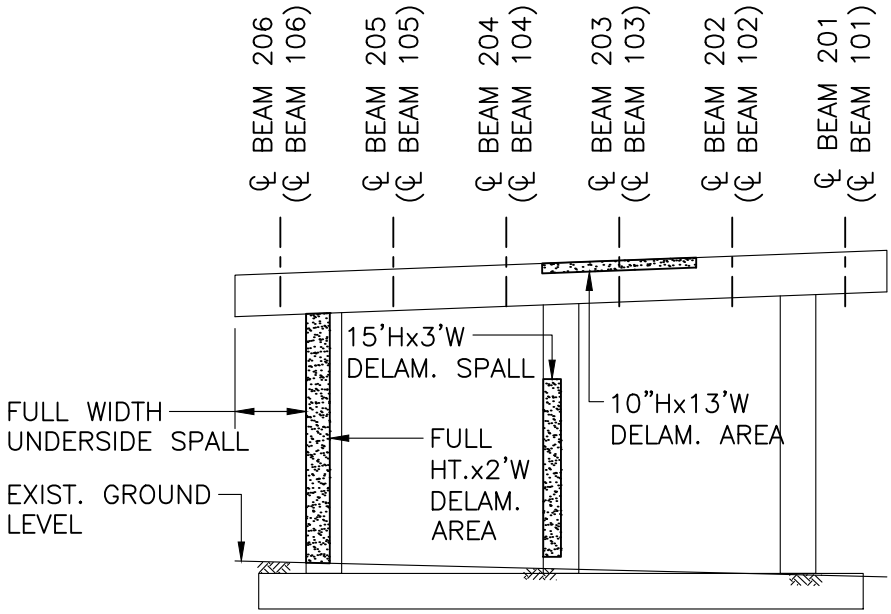
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-051 (0YG)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 13 OF 77



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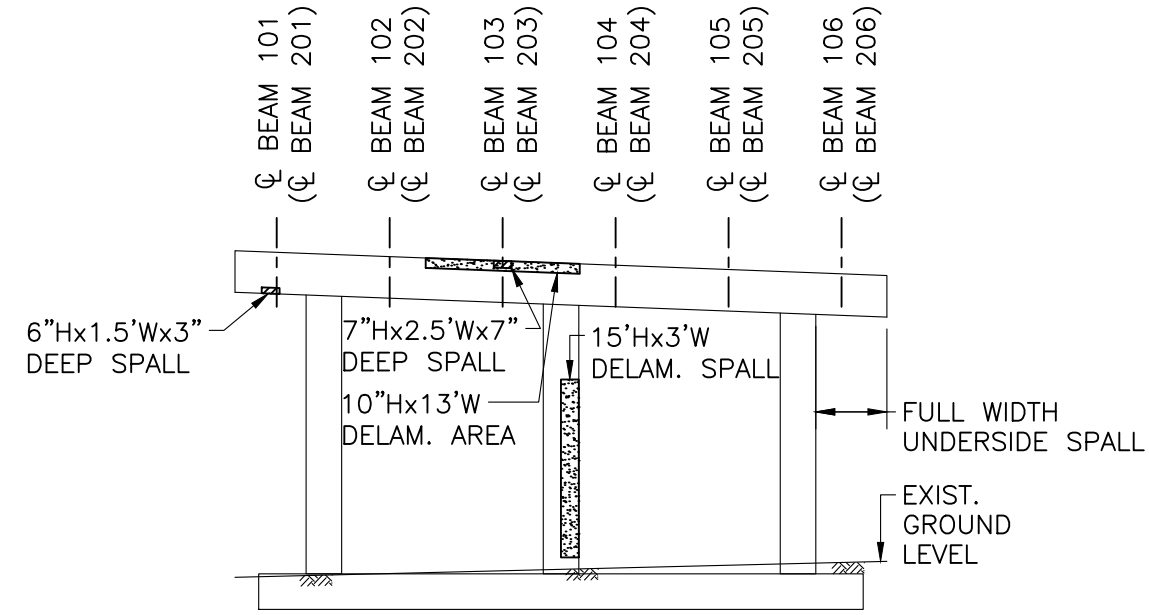


SOUTH FACE

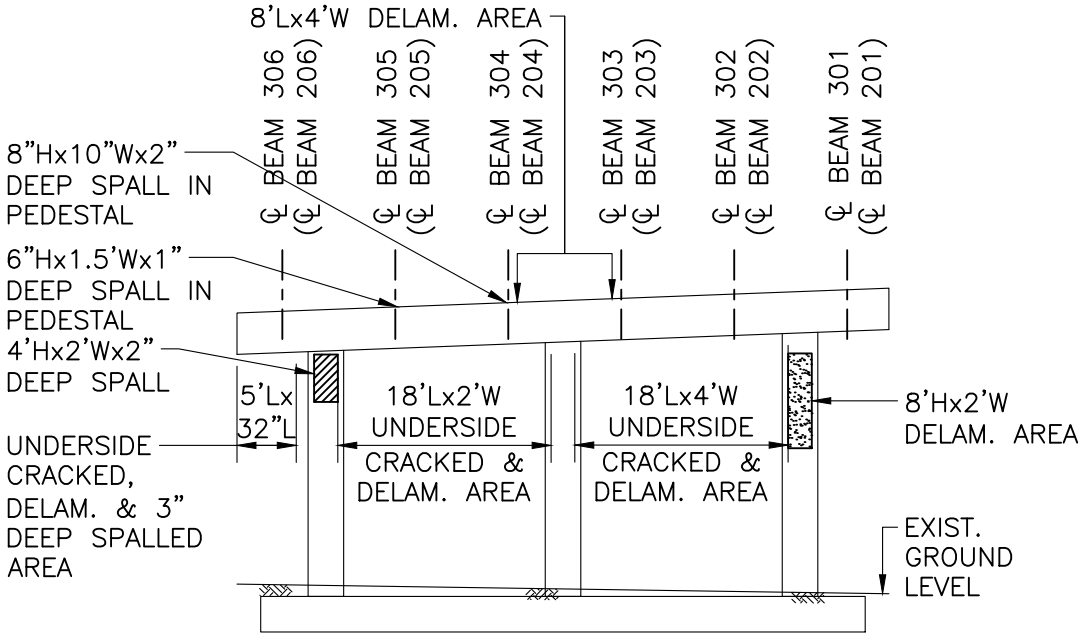
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Highway Division	**SUBSTRUCTURE REP. AREAS**	DATE: 10/22/2025
DISTRICT 2 BRIDGE SECTION	**BRIDGE NO. H-21-051 (0YG)**	PROJECT NO.: 613219
	PEIR 1	SHEET: 14 OF 77



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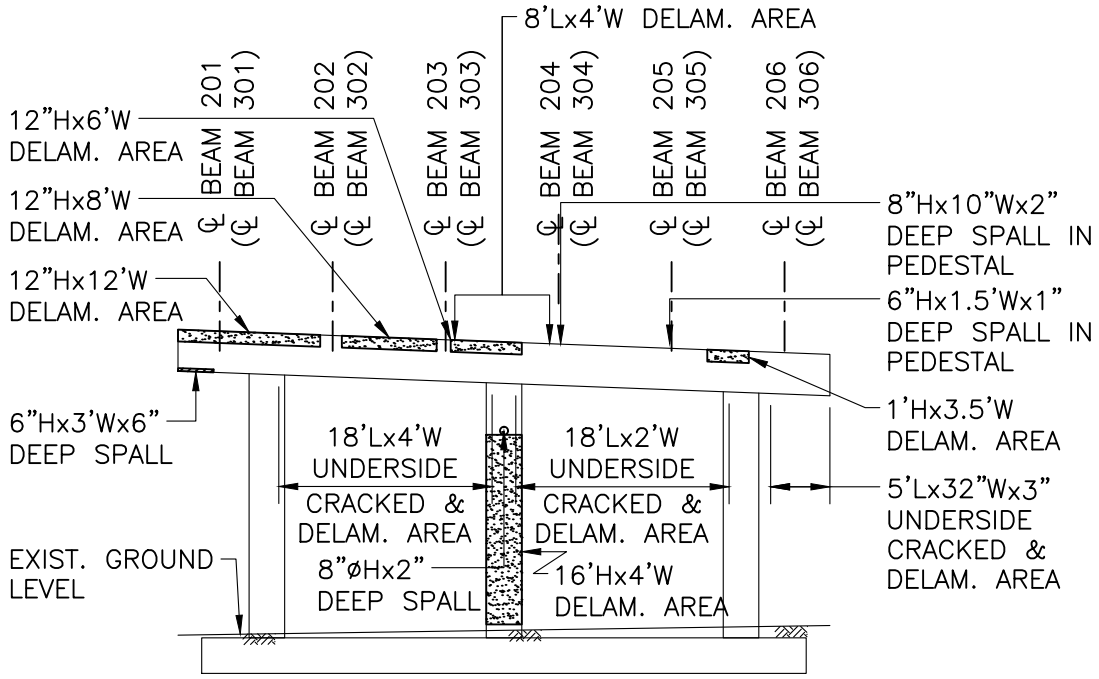


SOUTH FACE

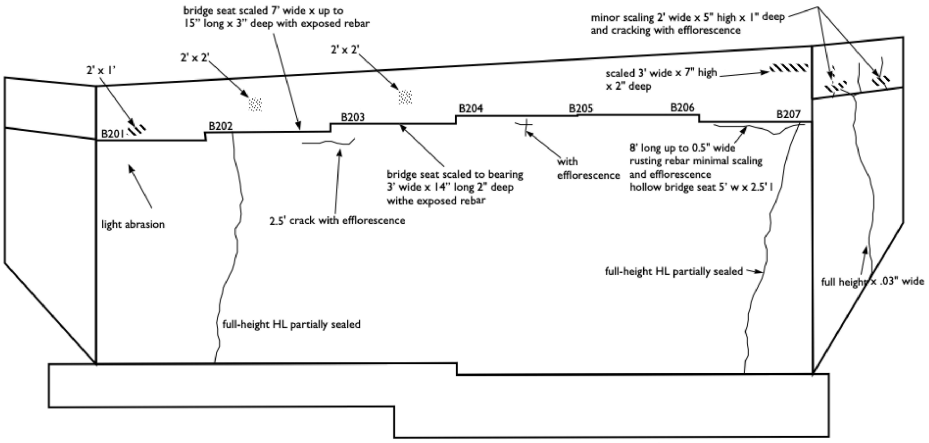
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-051 (0YG)** **PEIR 2**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 15 OF 77



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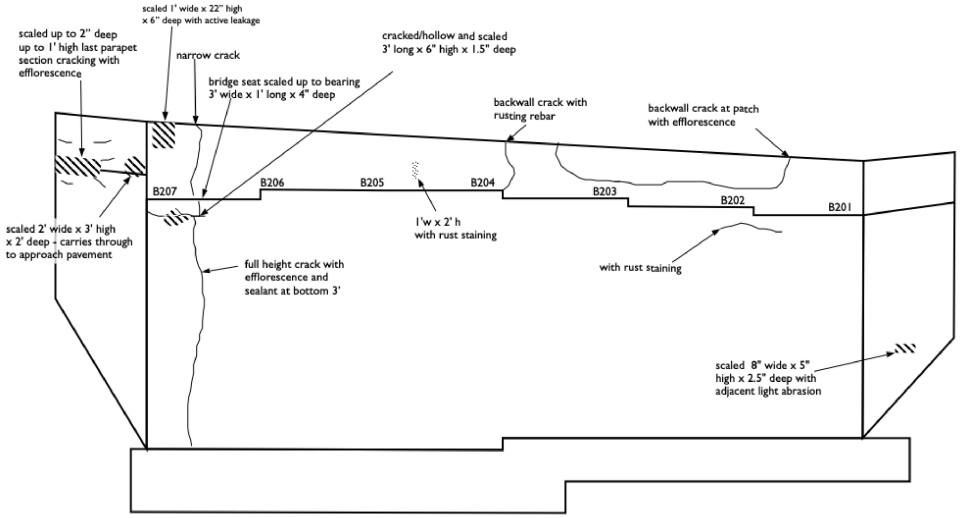


SOUTH ABUTMENT

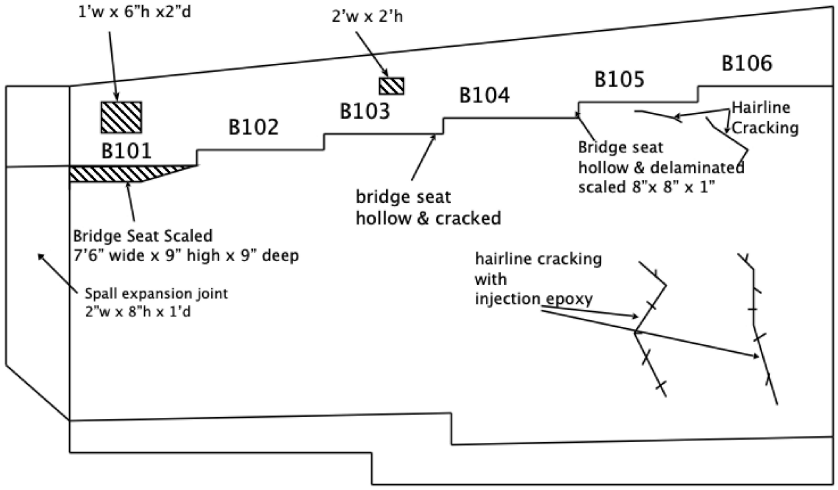
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-053 (0YL)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 16 OF 77



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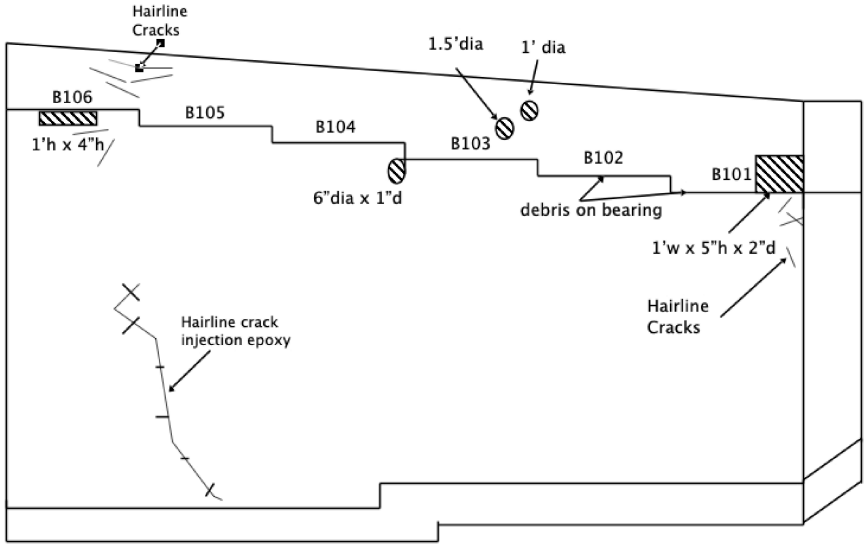


SOUTH ABUTMENT

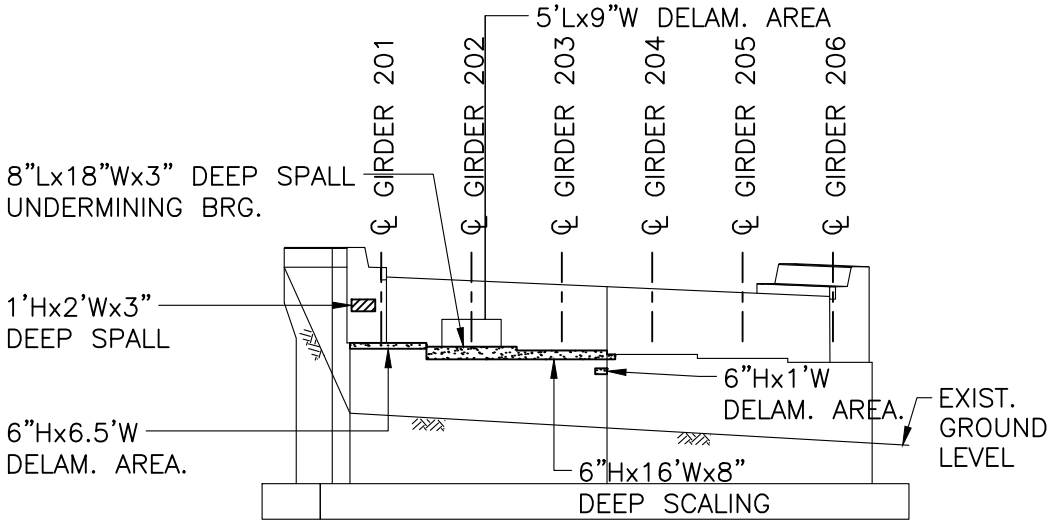
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-053 (0YM)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 17 OF 77



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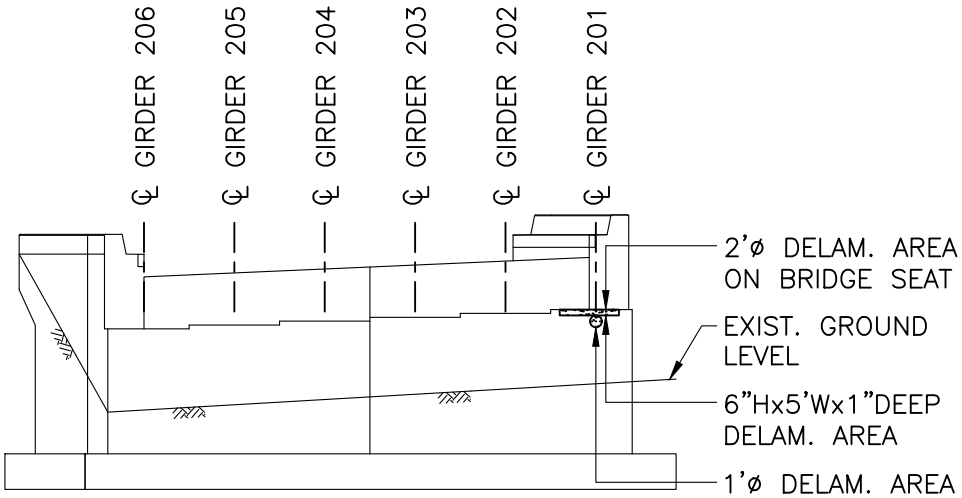


SOUTH ABUTMENT

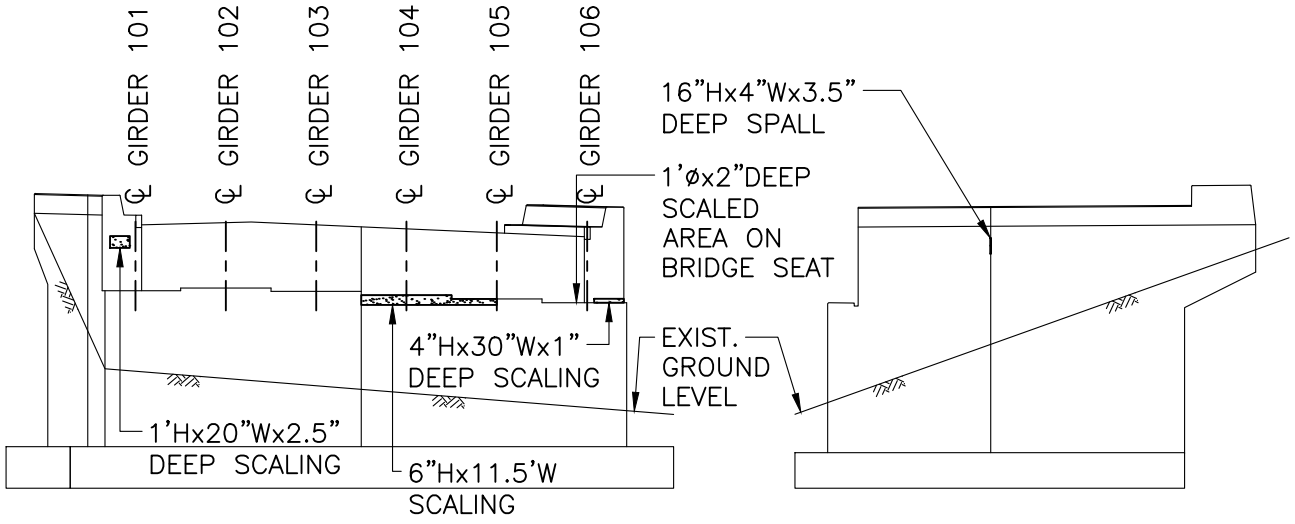
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

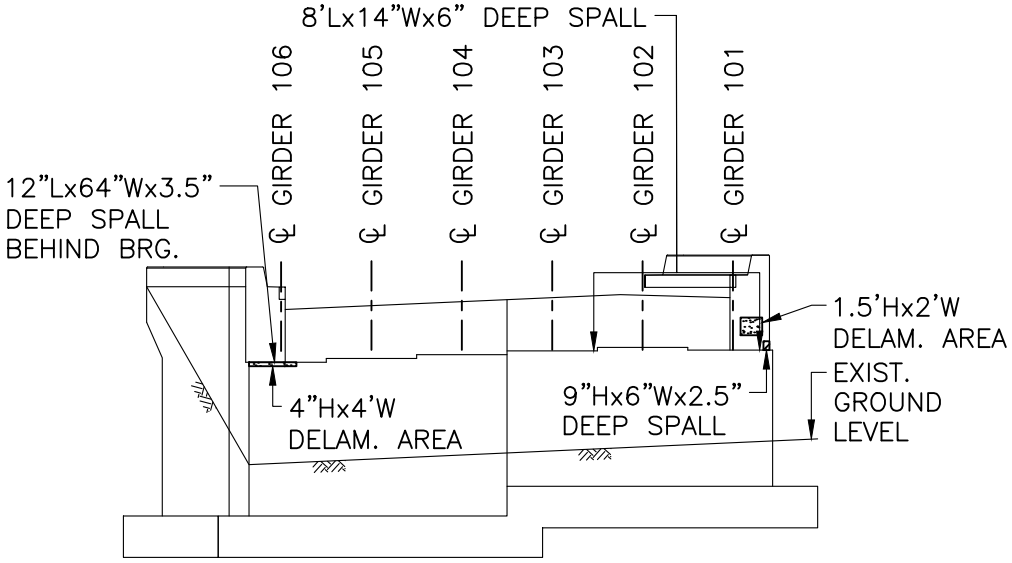
( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-054 (0YN)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 18 OF 77



NORTH ABUTMENT

NORTHEAST WINGWALL



SOUTH ABUTMENT

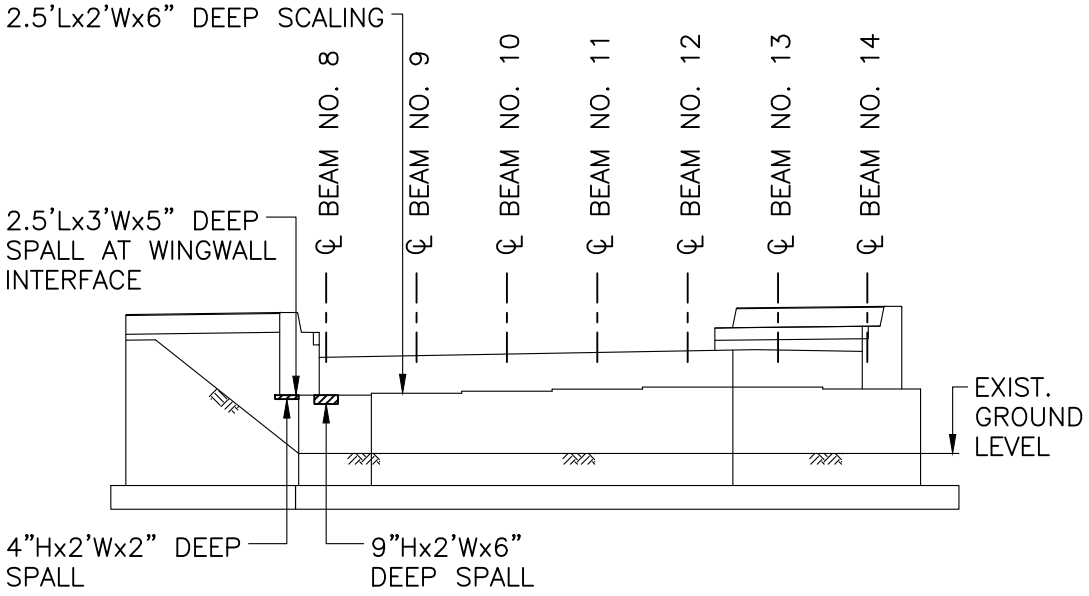
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. H-21-054 (0YP)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 19 OF 77



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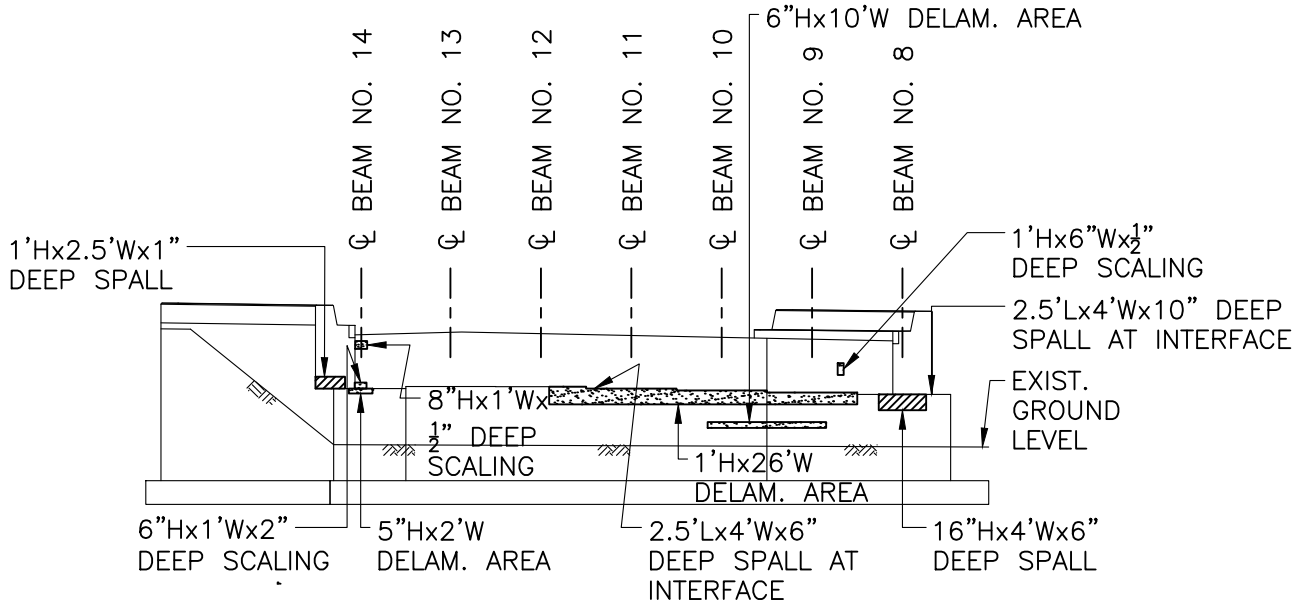


SOUTH ABUTMENT

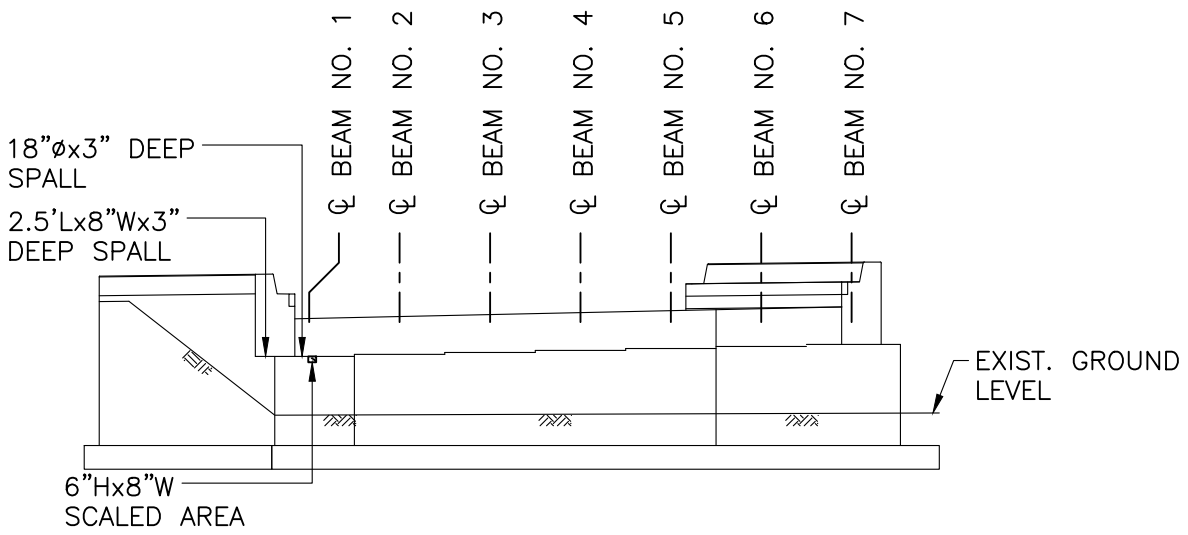
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-061 (104)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 20 OF 77



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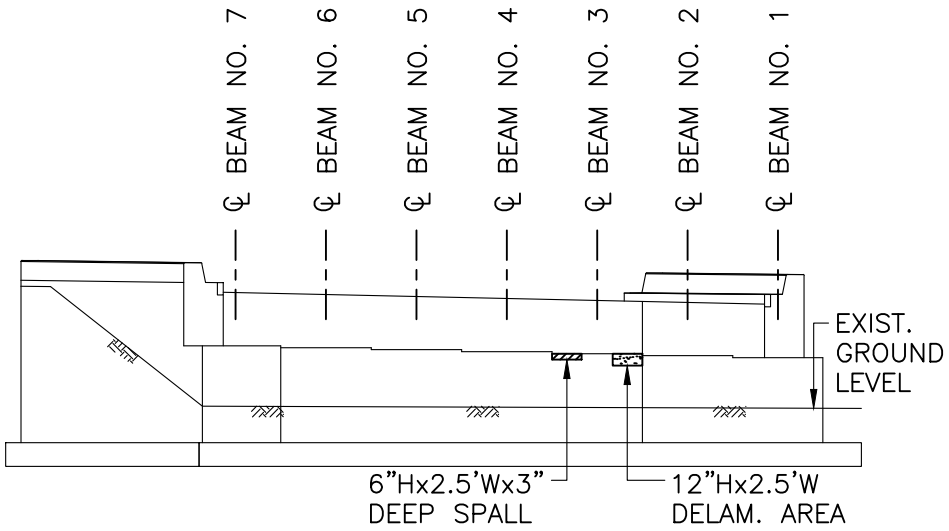


SOUTH ABUTMENT

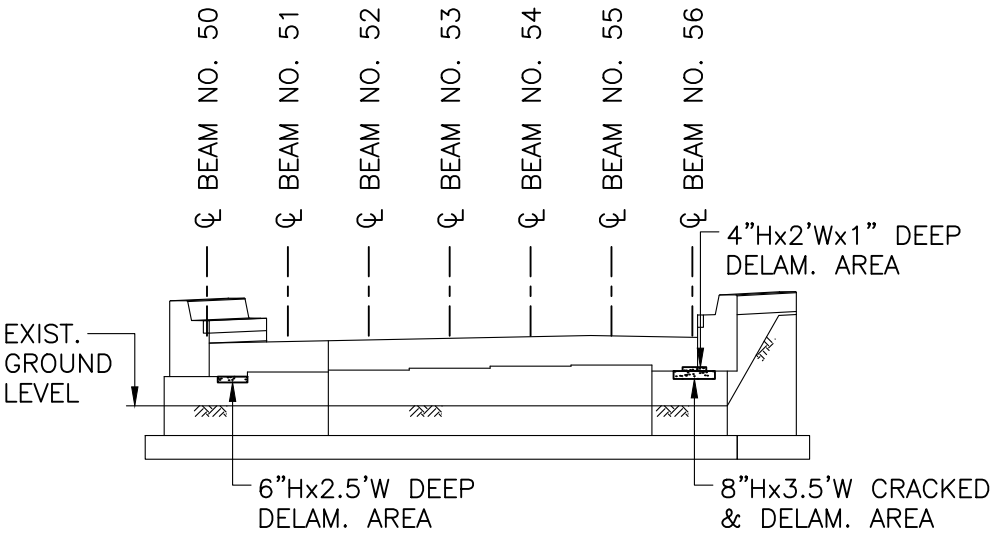
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-061 (105)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 21 OF 77



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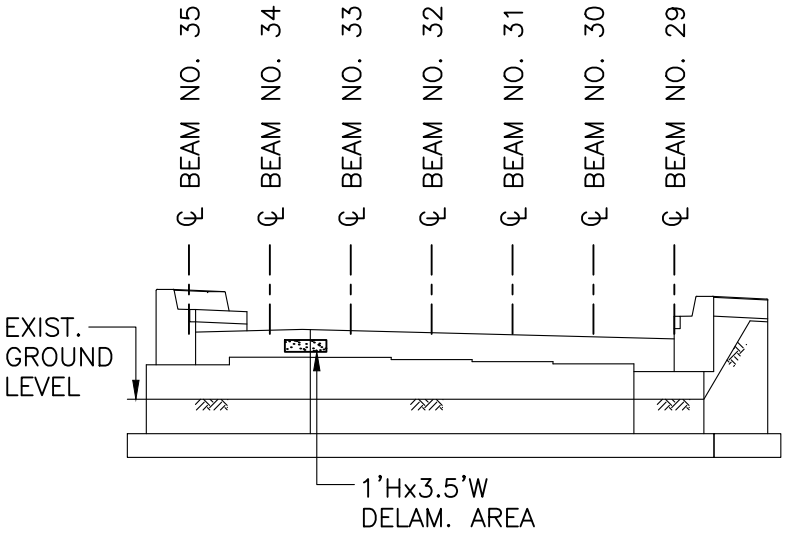


SOUTH ABUTMENT

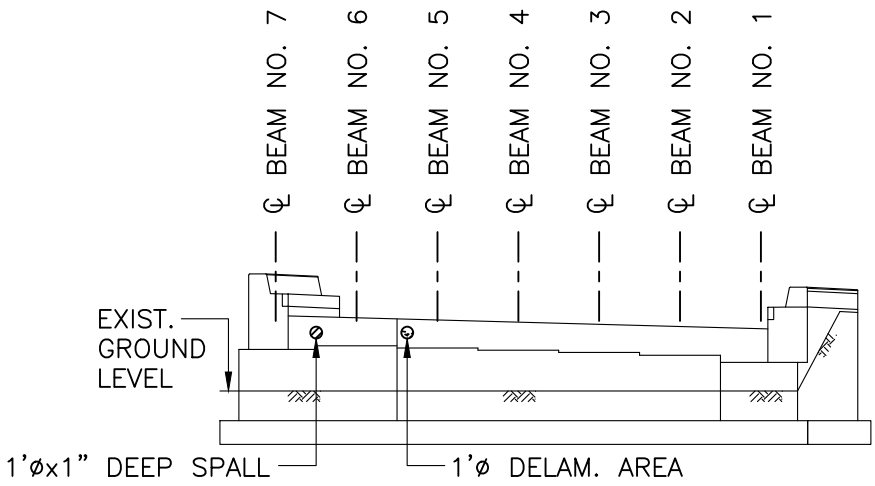
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-062 (106)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 22 OF 77



SOUTH ABUTMENT

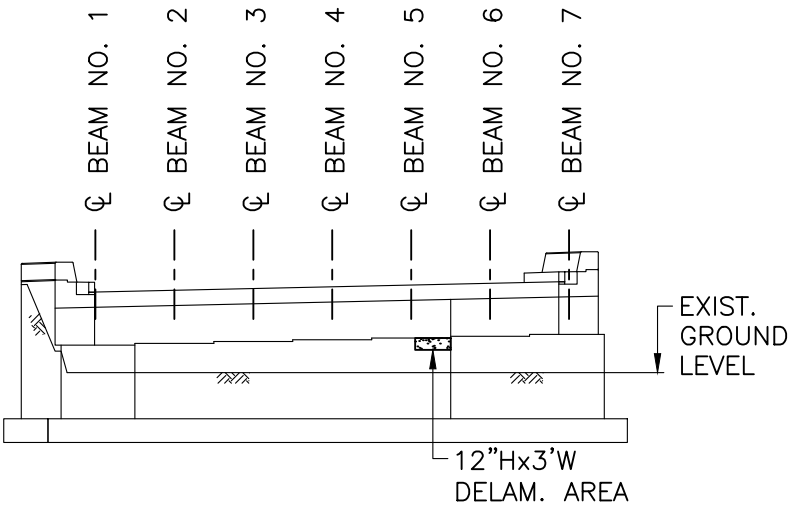
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-062 (107)** **SOUTH ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 23 OF 77



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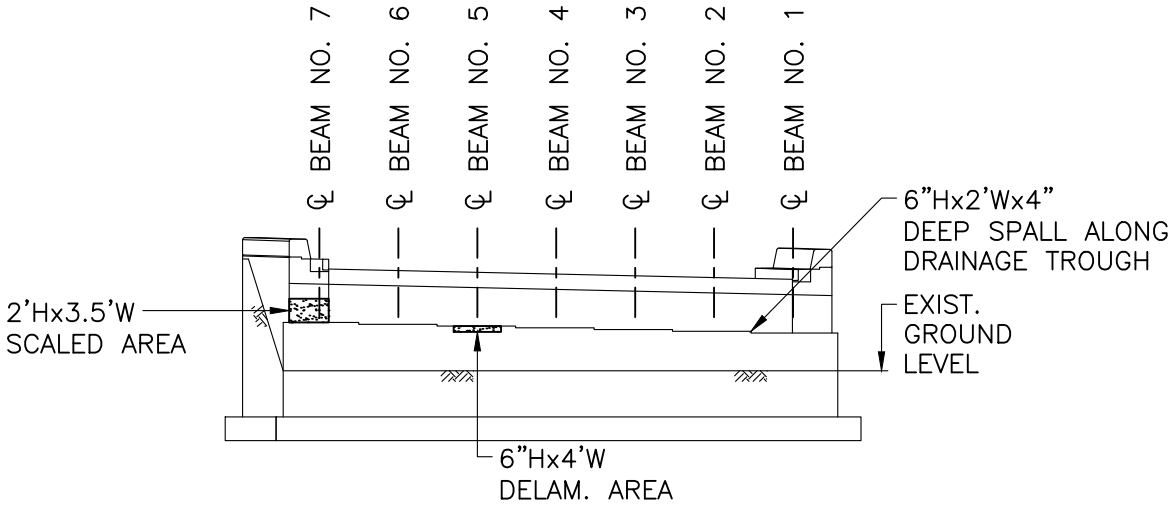


SOUTH ABUTMENT

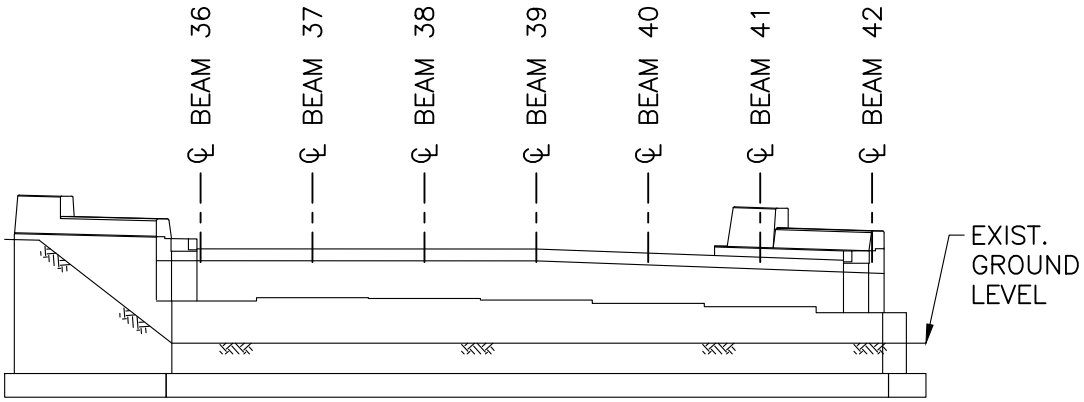
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

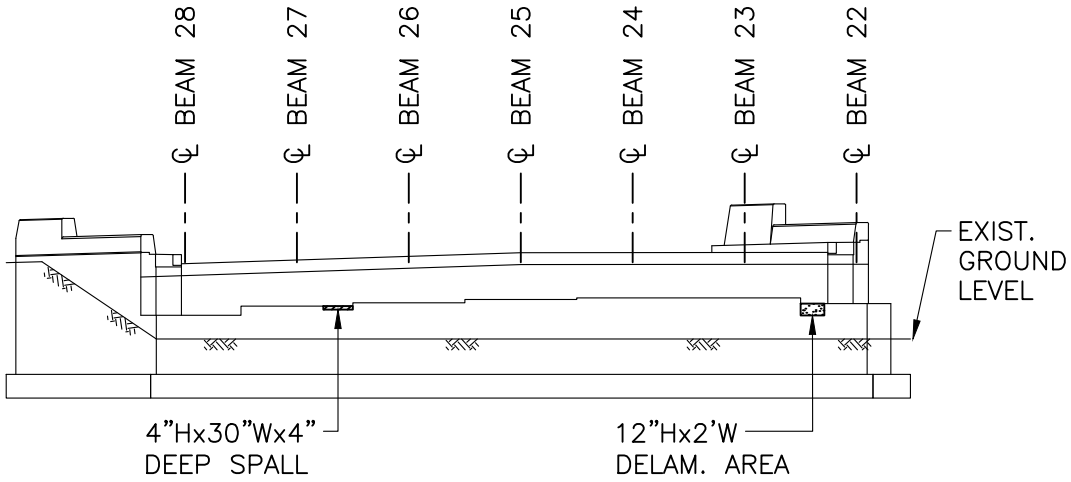
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-063 (109)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 24 OF 77



NORTH ABUTMENT



SOUTH ABUTMENT

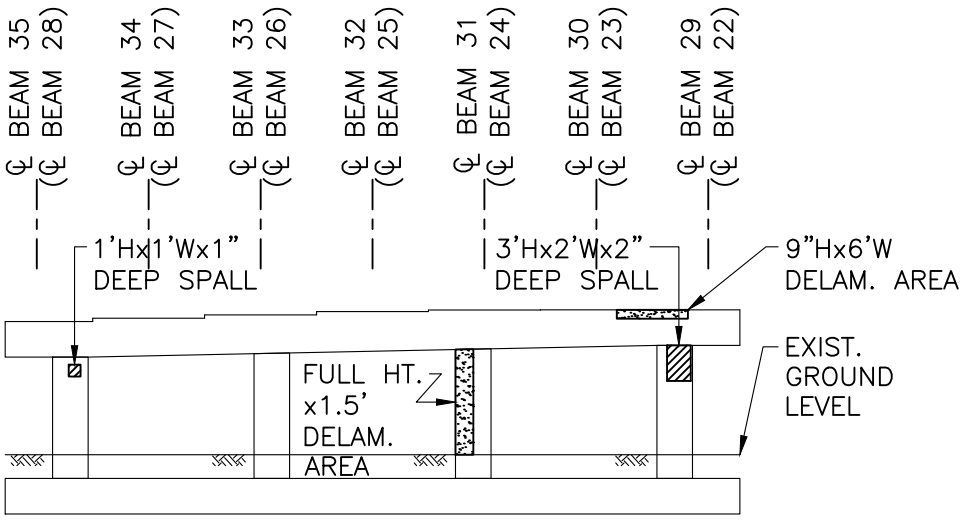
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

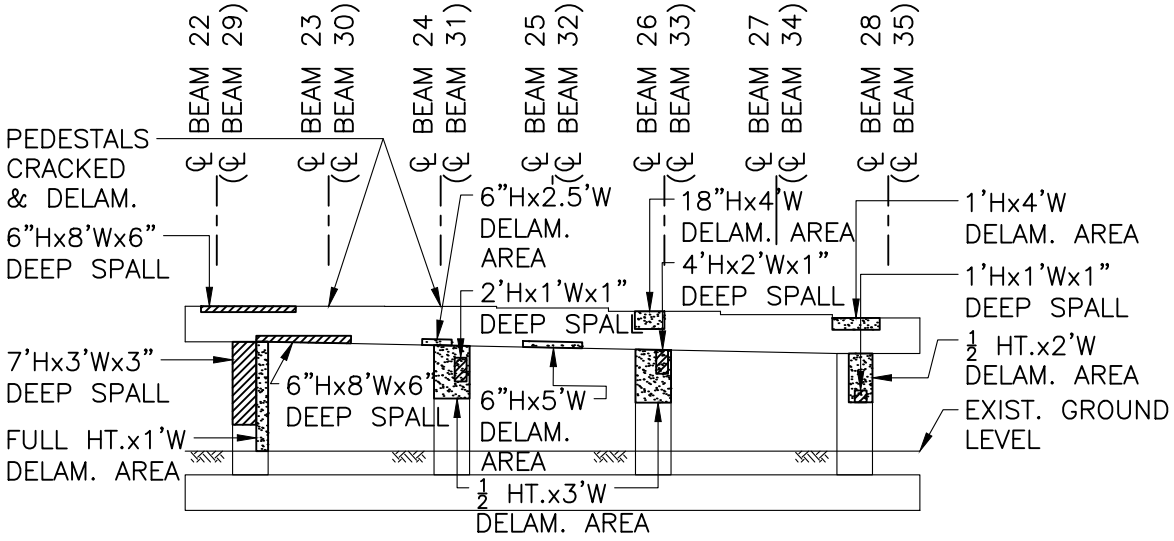
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-064 (10C)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 25 OF 77



NORTH FACE



SOUTH FACE

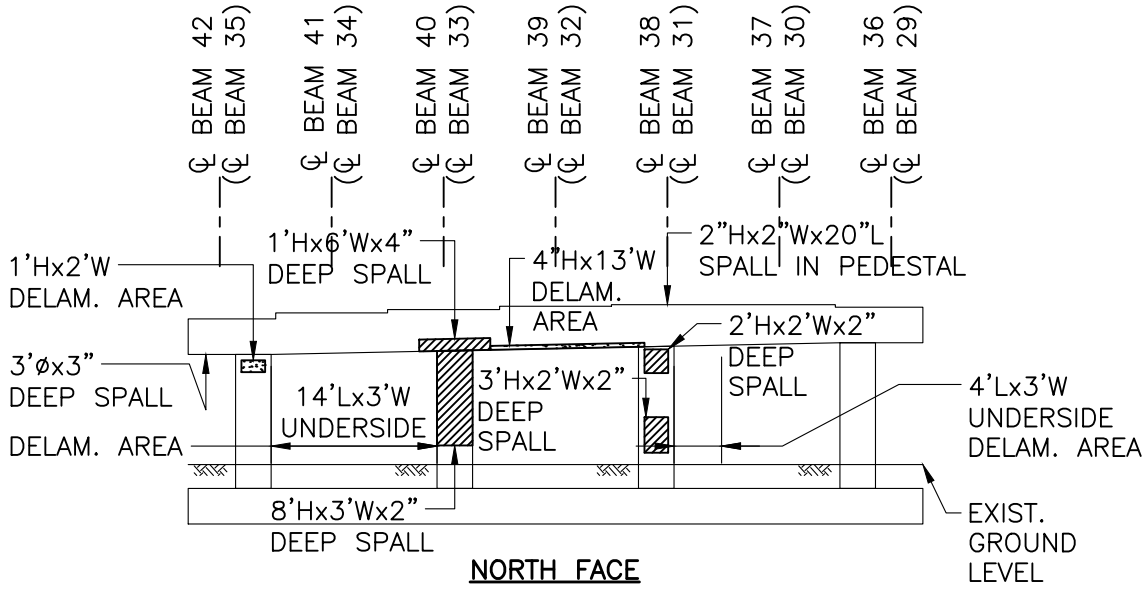
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

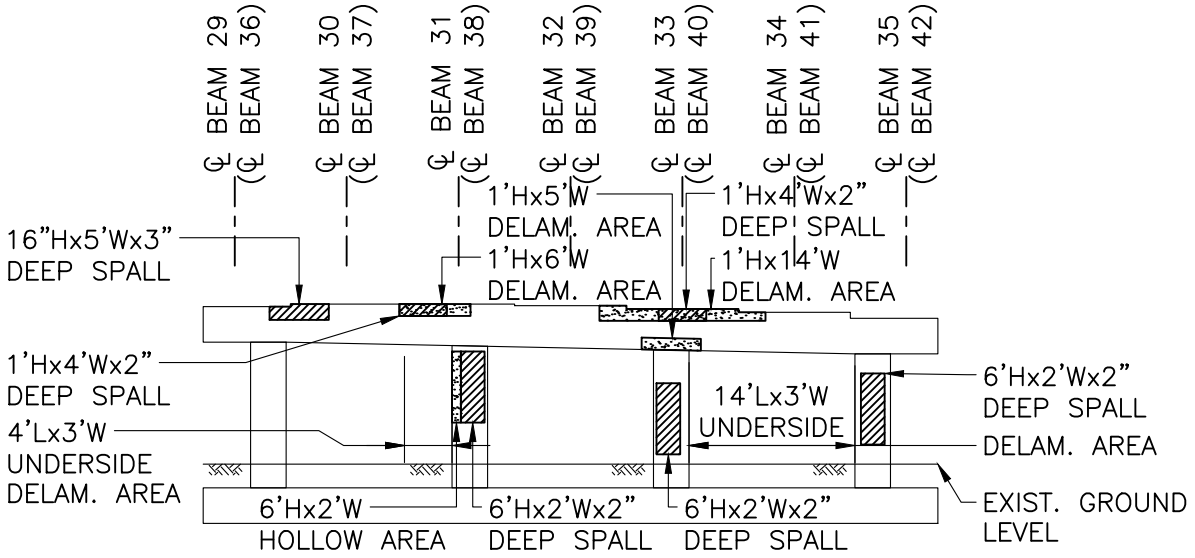
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-064 (10C)** **PIER 1**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 26 OF 77



NORTH FACE



SOUTH FACE

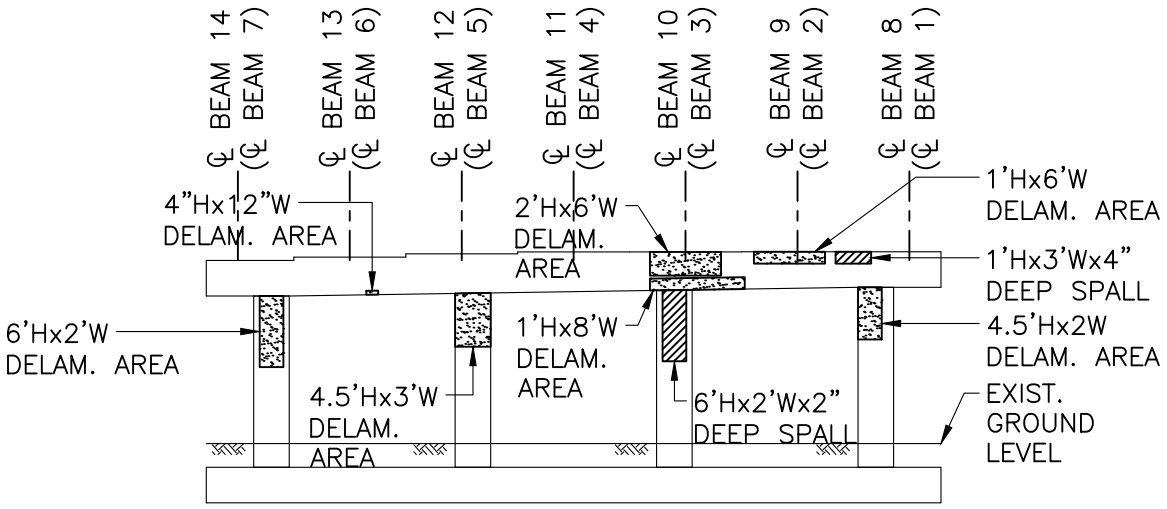
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

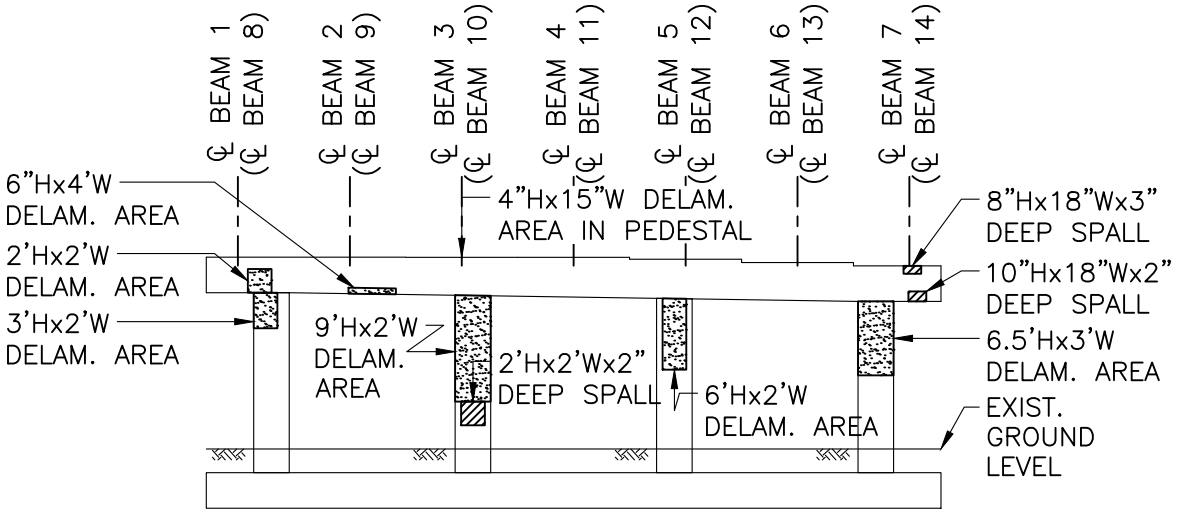
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-064 (10C)** **PIER 2**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 27 OF 77



NORTH FACE



SOUTH FACE

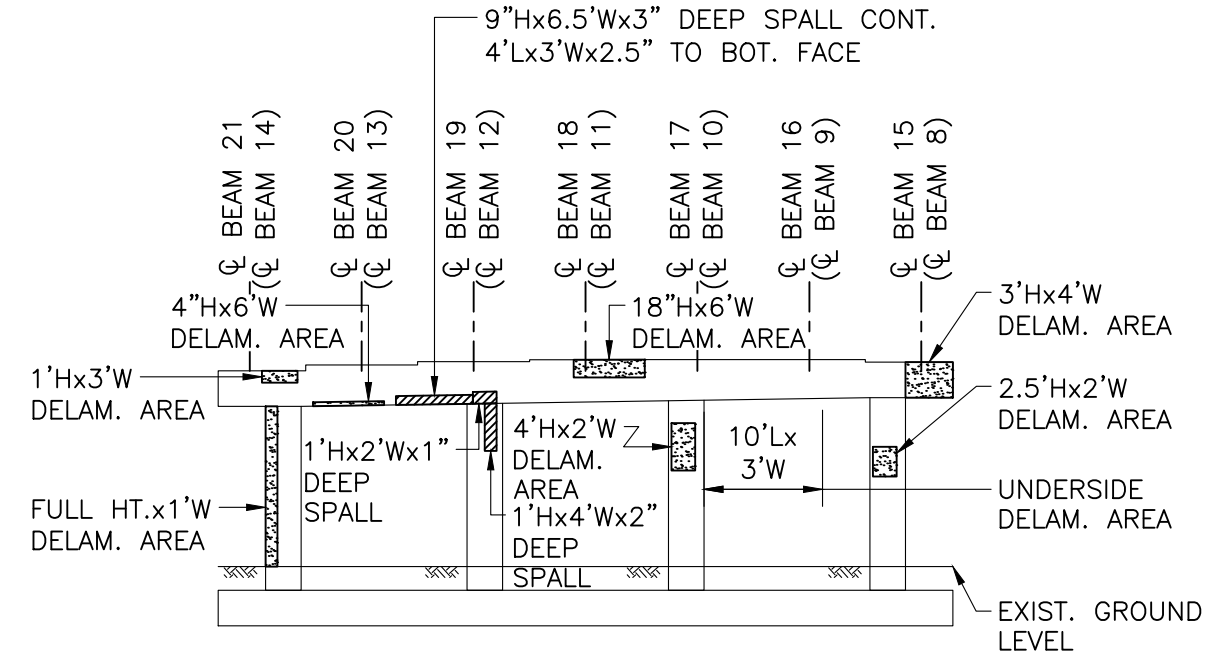
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

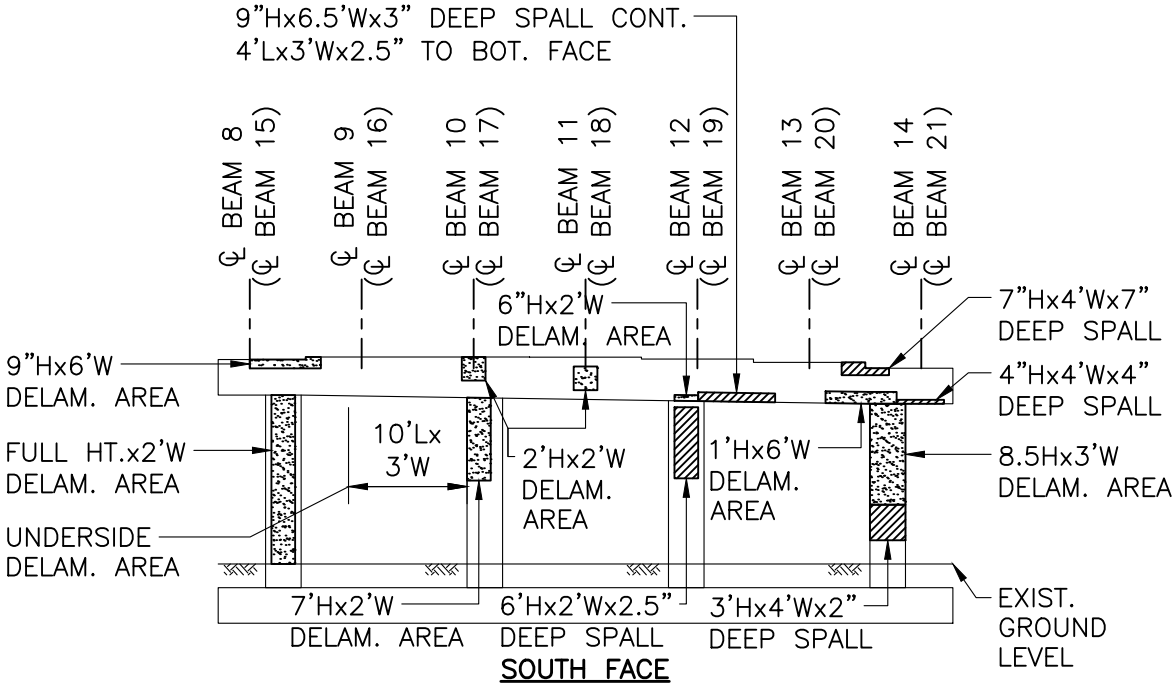
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-064 (10D)** **PIER 1**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 28 OF 77



NORTH FACE



SOUTH FACE

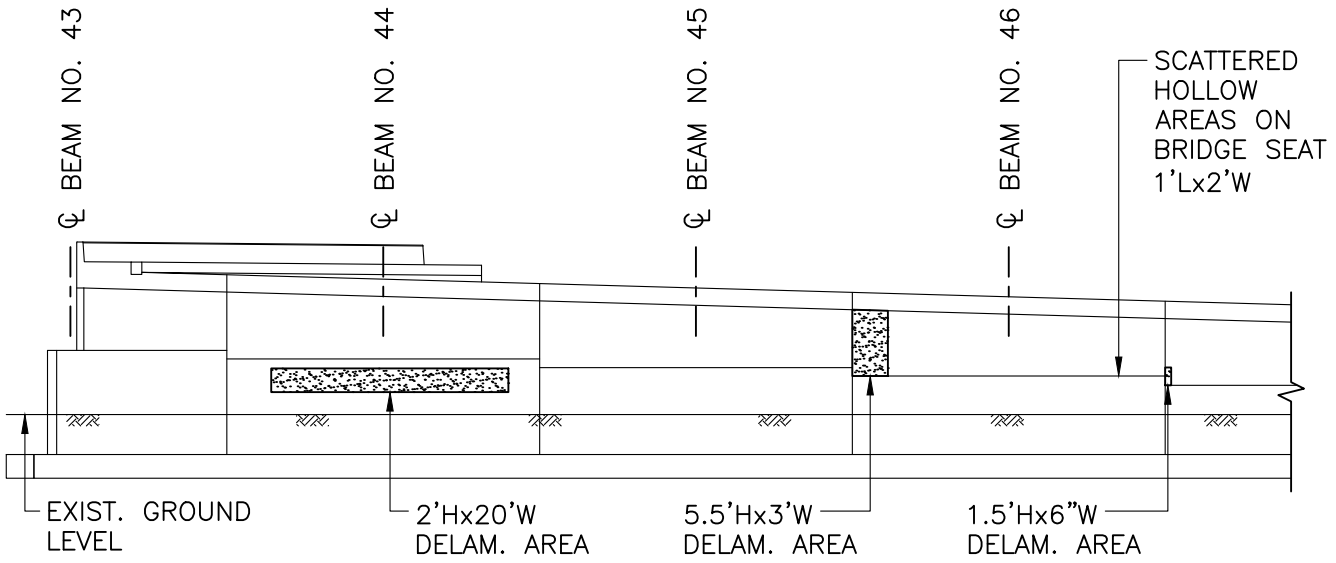
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

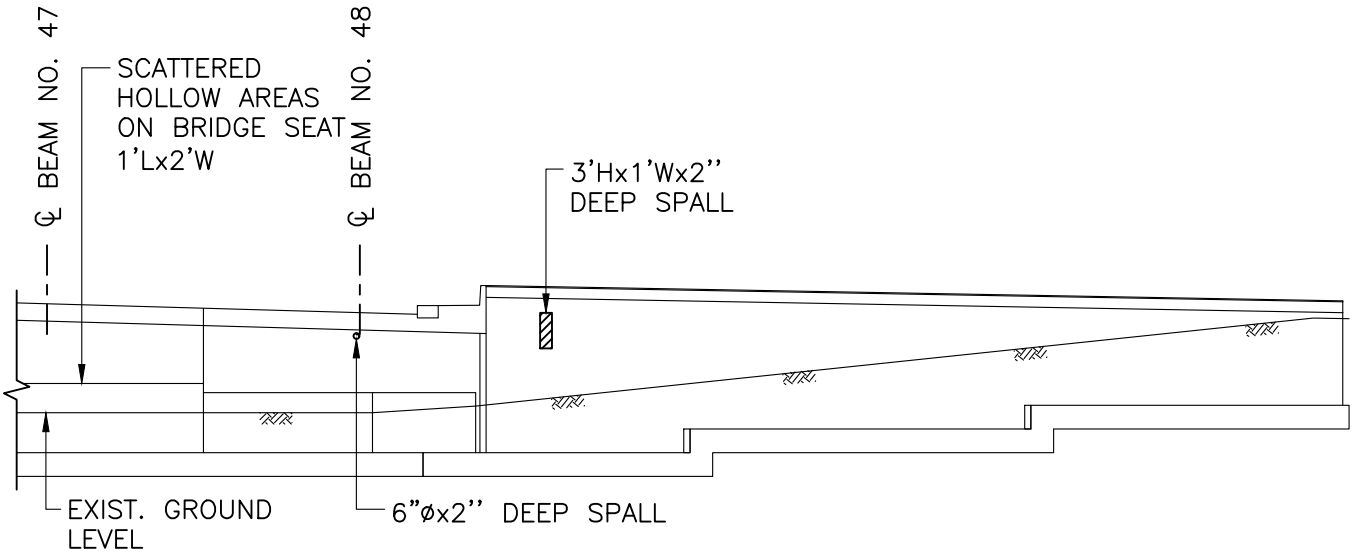
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-064 (10D)** **PIER 2**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 29 OF 77



WEST ABUTMENT



WEST ABUTMENT

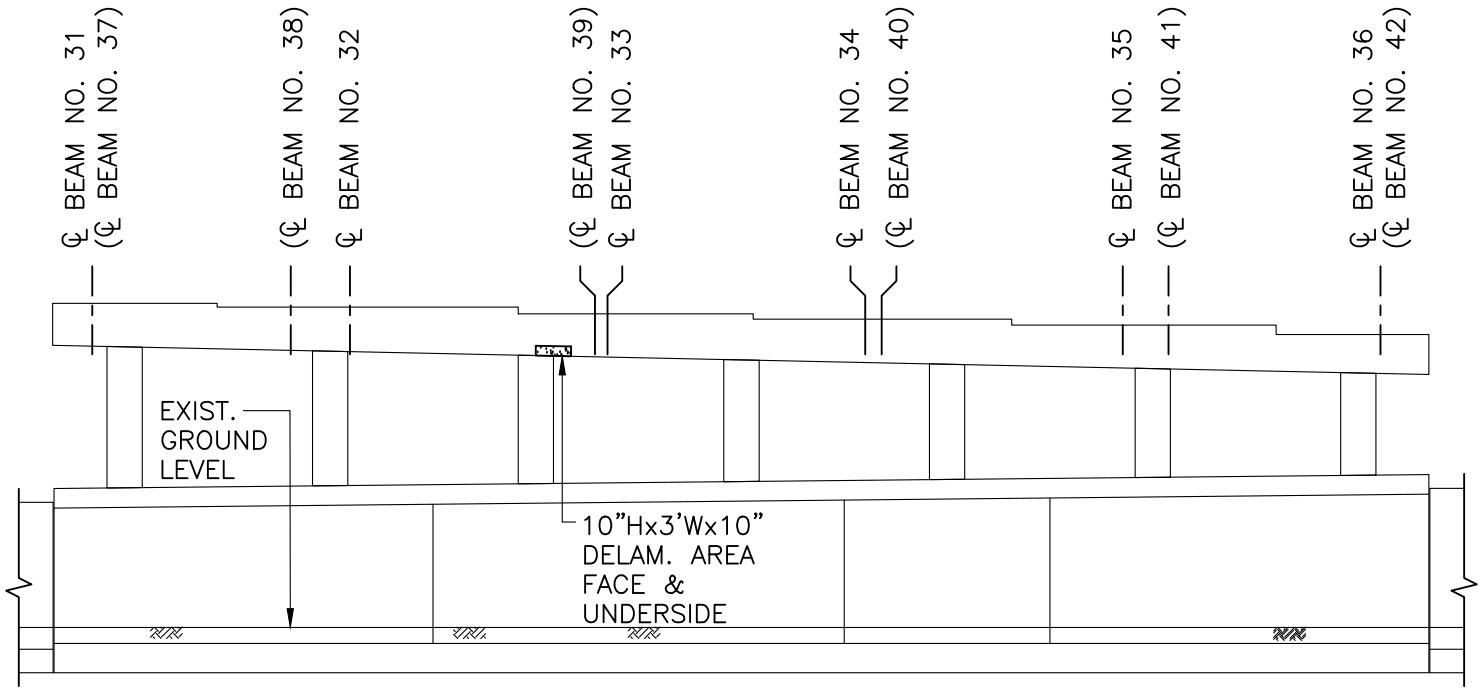
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-065 (10A)** **WEST ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 30 OF 77



EAST FACE

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division

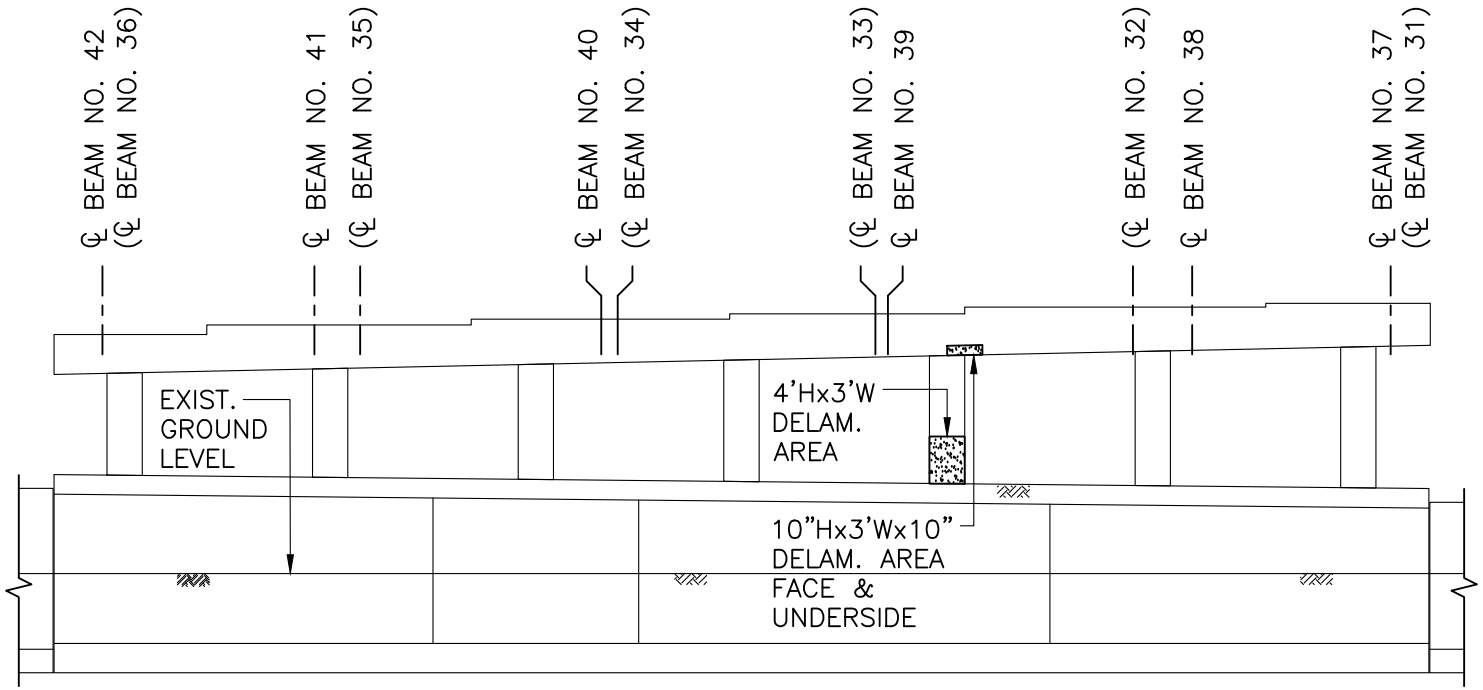
DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. N-19-065 (10A)
PIER 2

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 31 OF 77



WEST FACE

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. N-19-065 (10A)
PIER 2

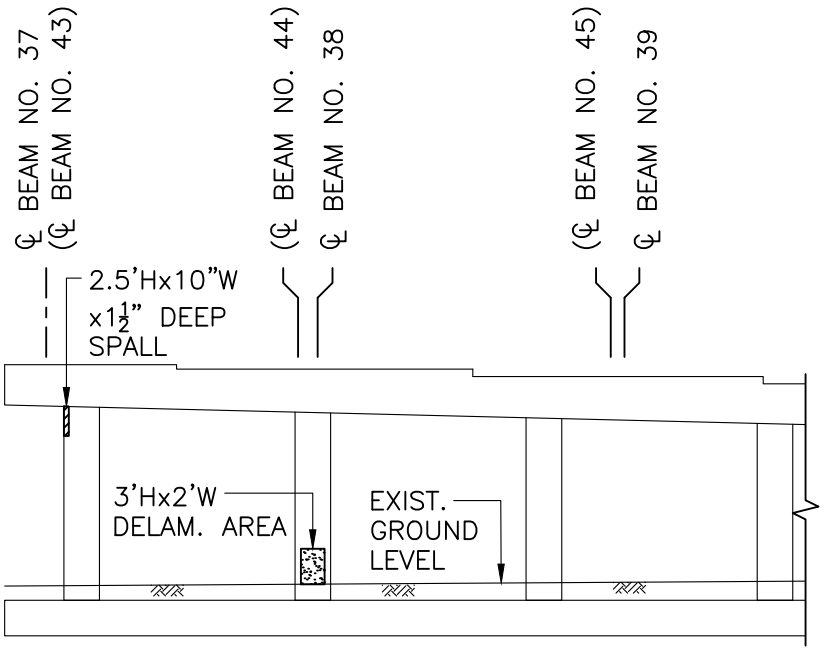
DATE: 10/22/2025

PROJECT NO.: 613219

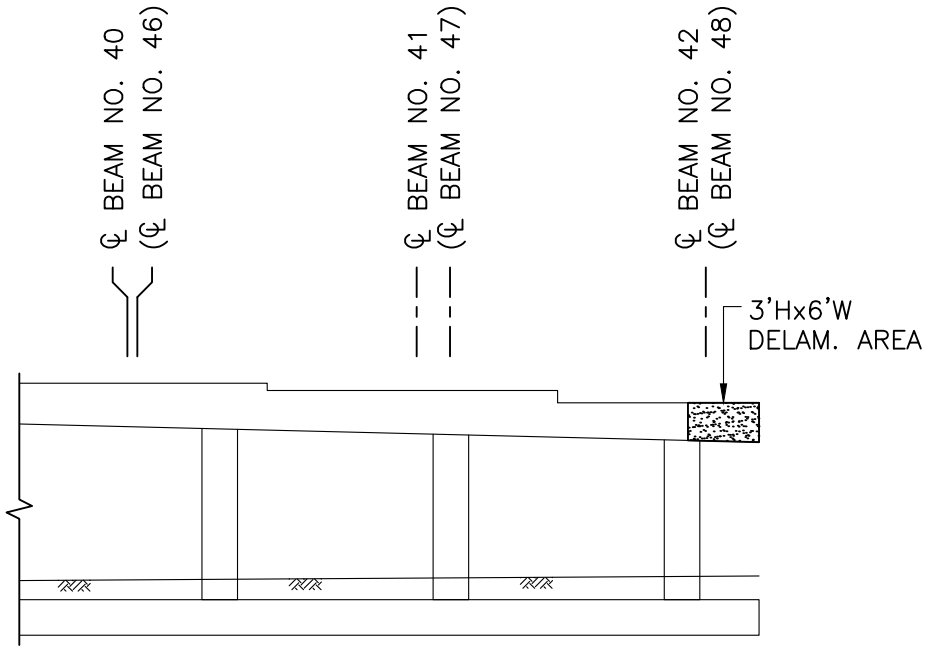
SHEET: 32 OF 77

A00803 - 34

Proposal No. 613219-132950



EAST FACE



EAST FACE

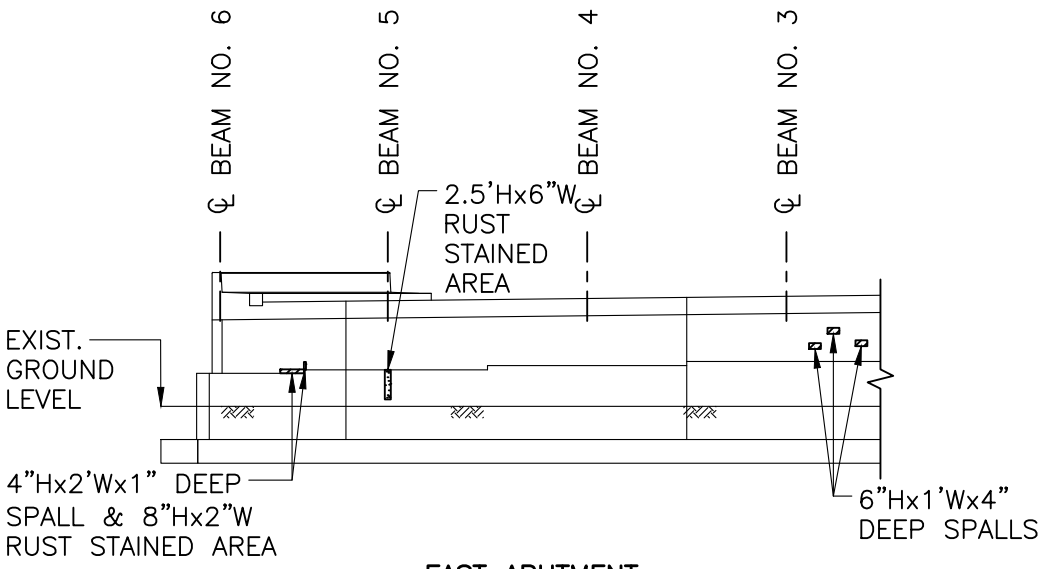
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

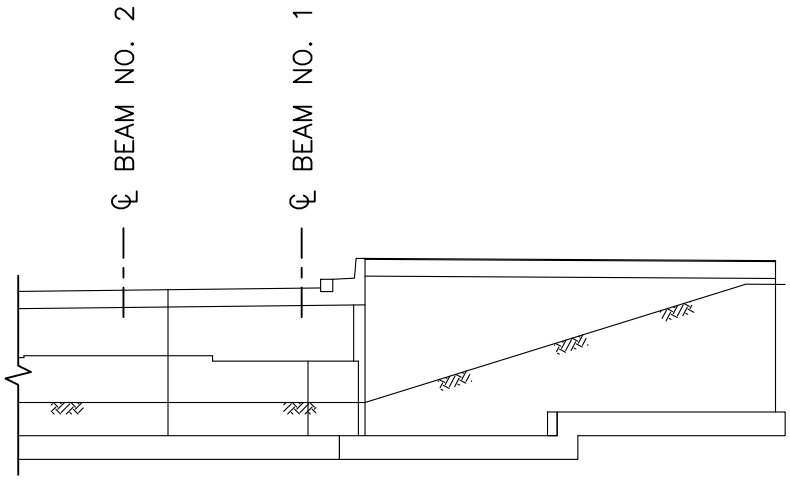
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-065 (10A)** **PIER 3**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 33 OF 77



EAST ABUTMENT



EAST ABUTMENT

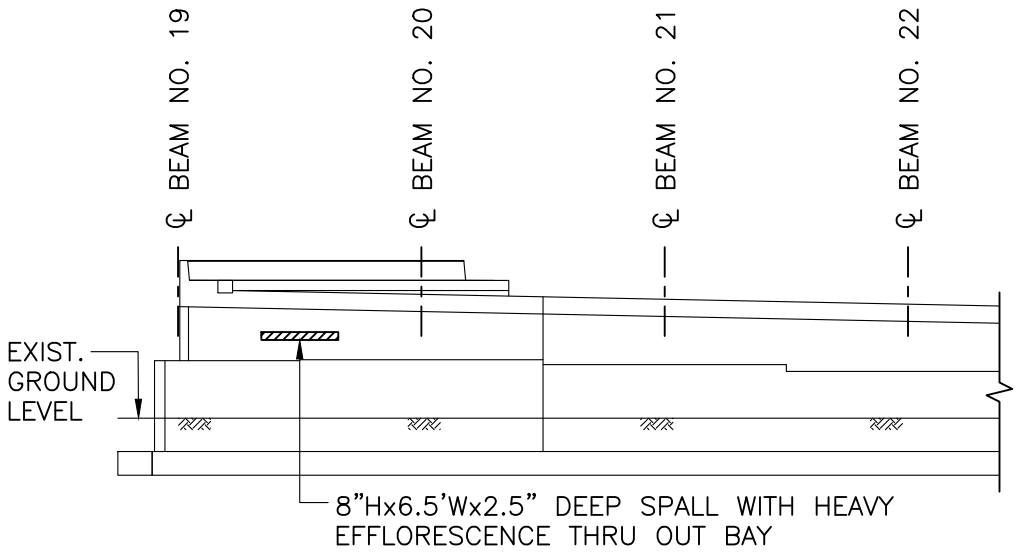
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

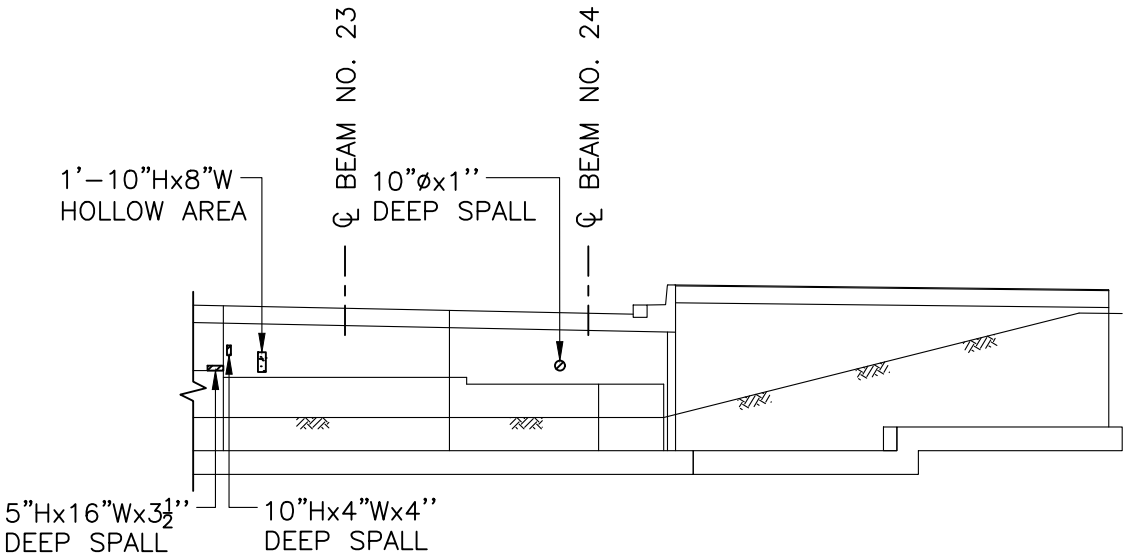
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Highway Division	**SUBSTRUCTURE REP. AREAS**	DATE: 10/22/2025
DISTRICT 2 BRIDGE SECTION	**BRIDGE NO. N-19-065 (10B)**	PROJECT NO.: 613219
	EAST ABUTMENT	SHEET: 34 OF 77



WEST ABUTMENT



WEST ABUTMENT

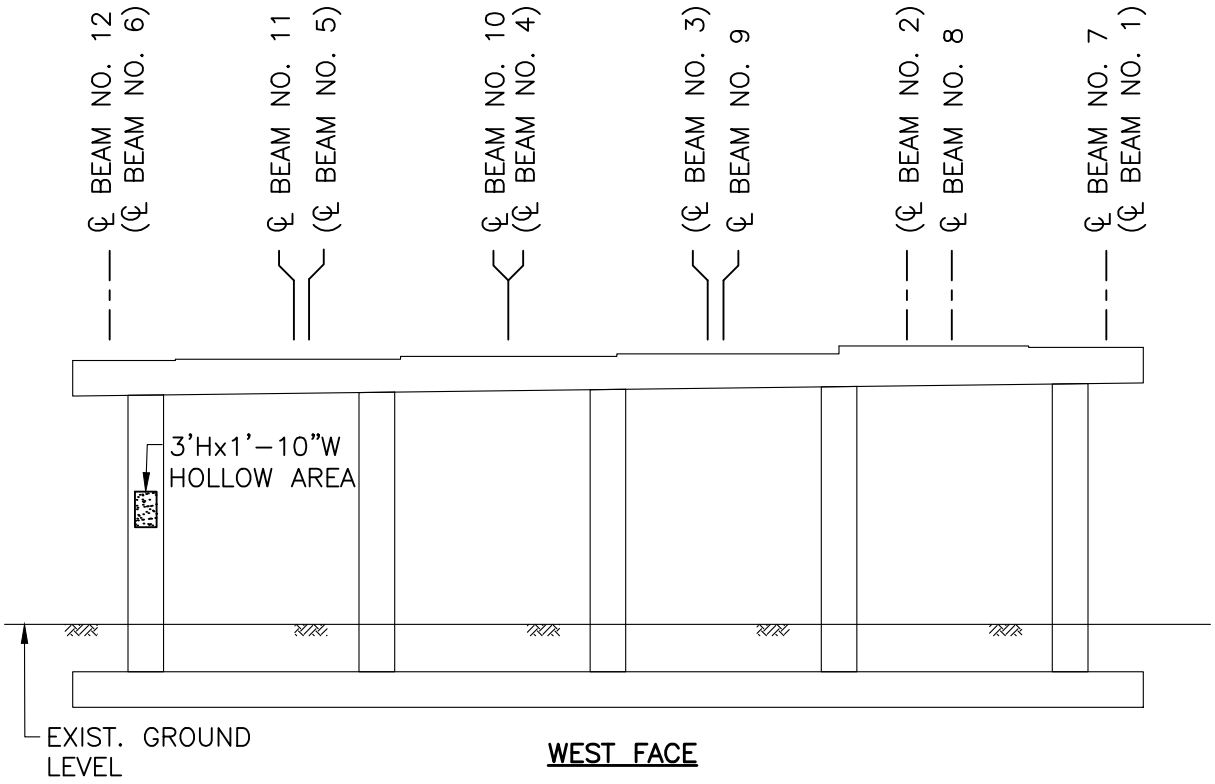
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-065 (10B)** **WEST ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 35 OF 77



WEST FACE

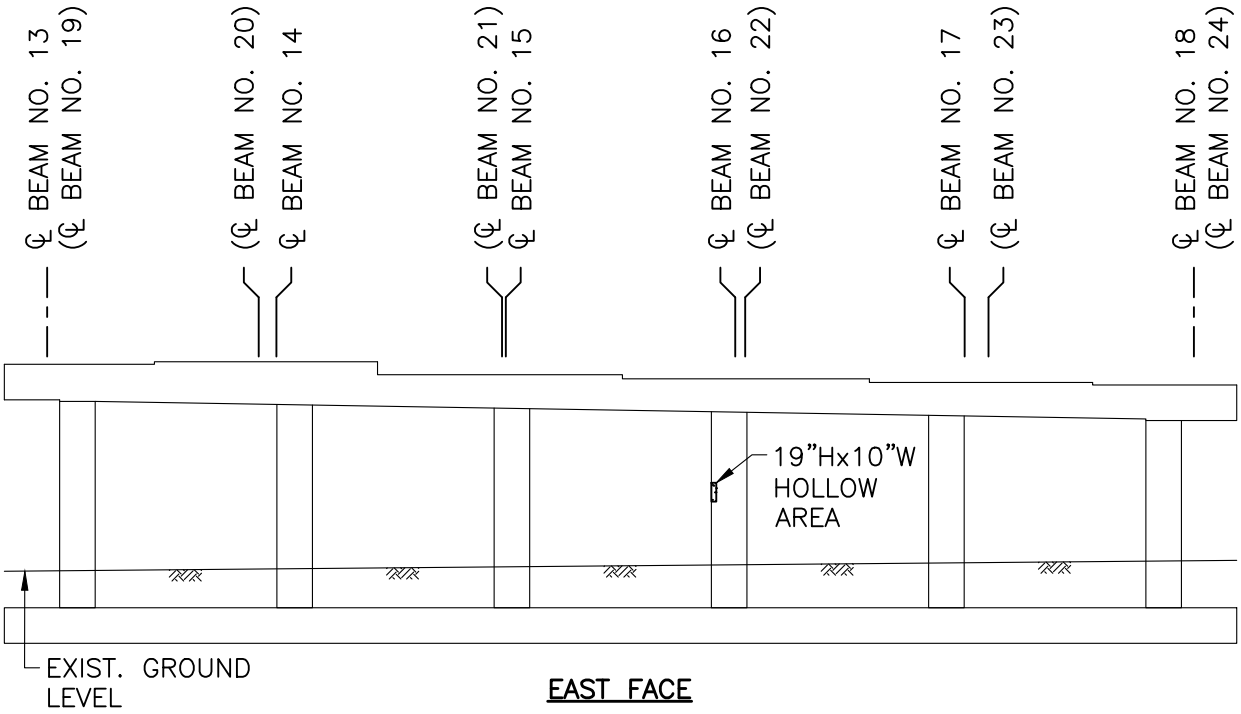
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-065 (10B)** **PIER 1**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 36 OF 77



EAST FACE

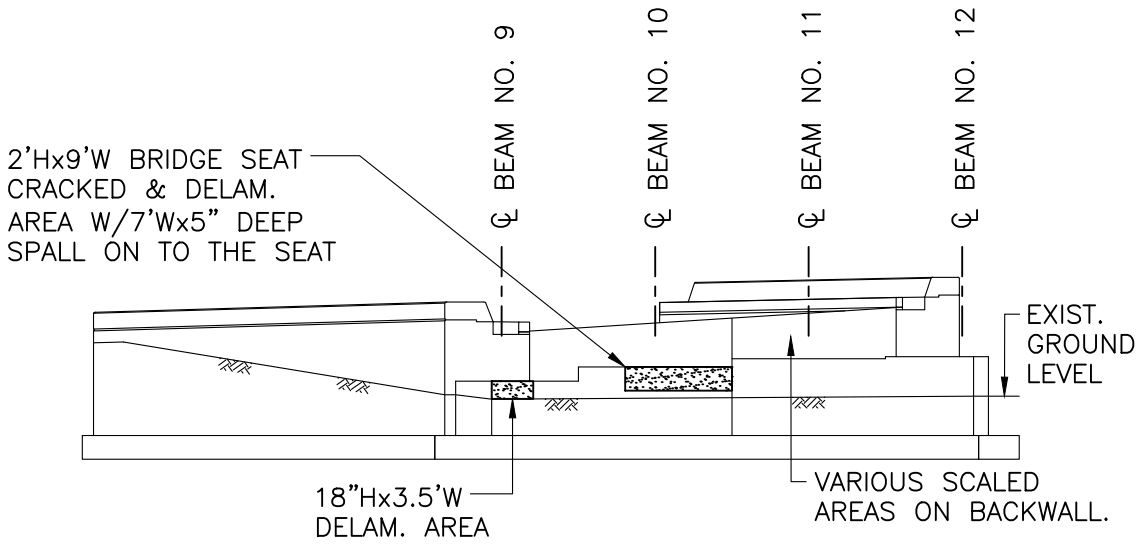
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

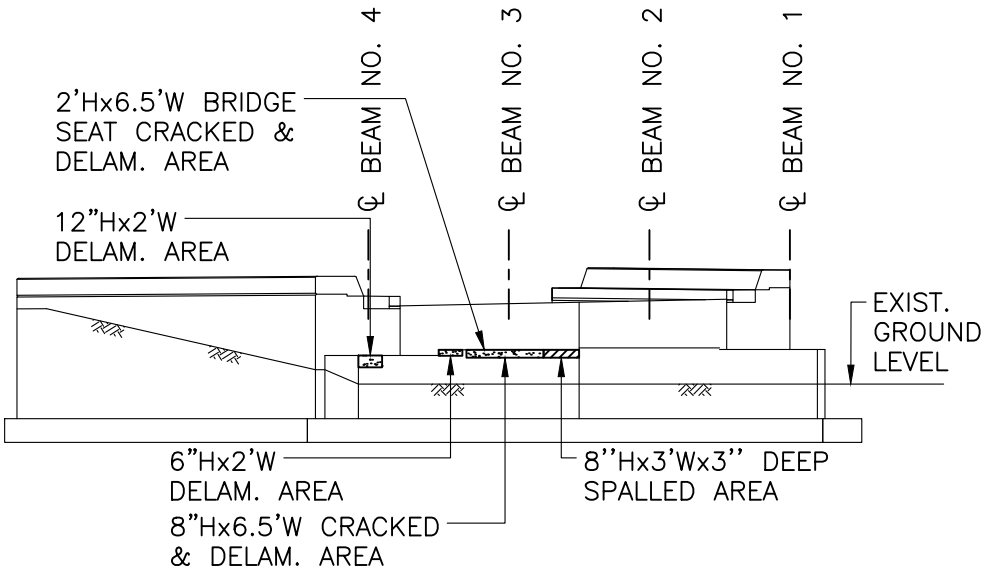
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-065 (10B)** **PIER 3**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 37 OF 77



NORTH ABUTMENT



SOUTH ABUTMENT

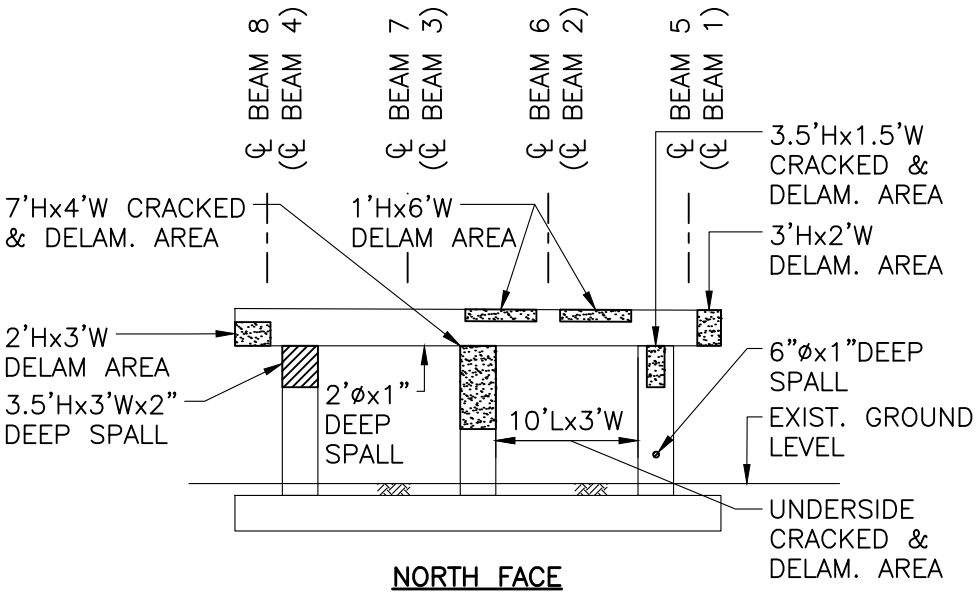
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

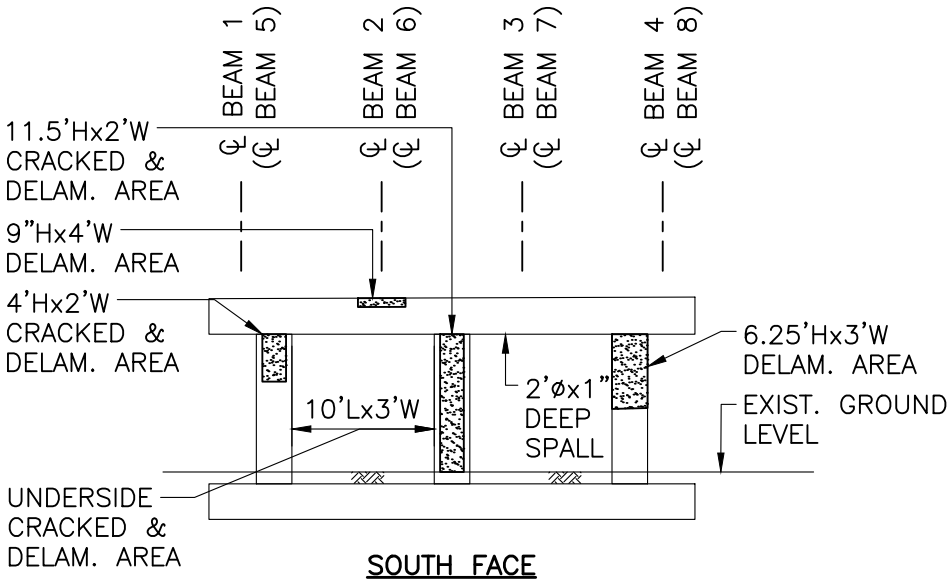
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-066 (10E)** **NORTH AND SOUTH ABUTMENTS**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 38 OF 77



NORTH FACE



SOUTH FACE

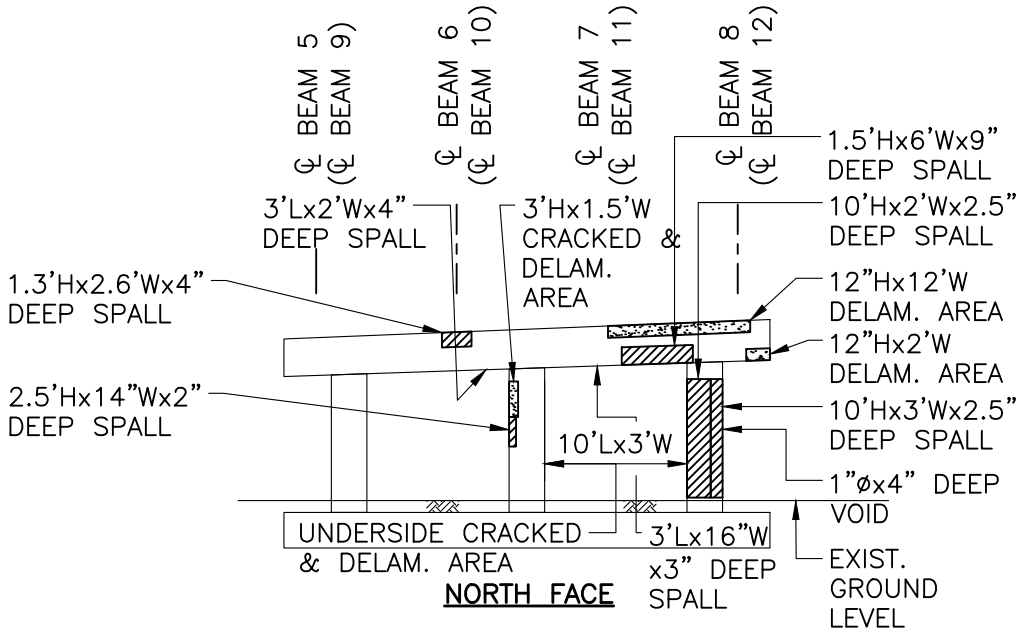
LEGEND

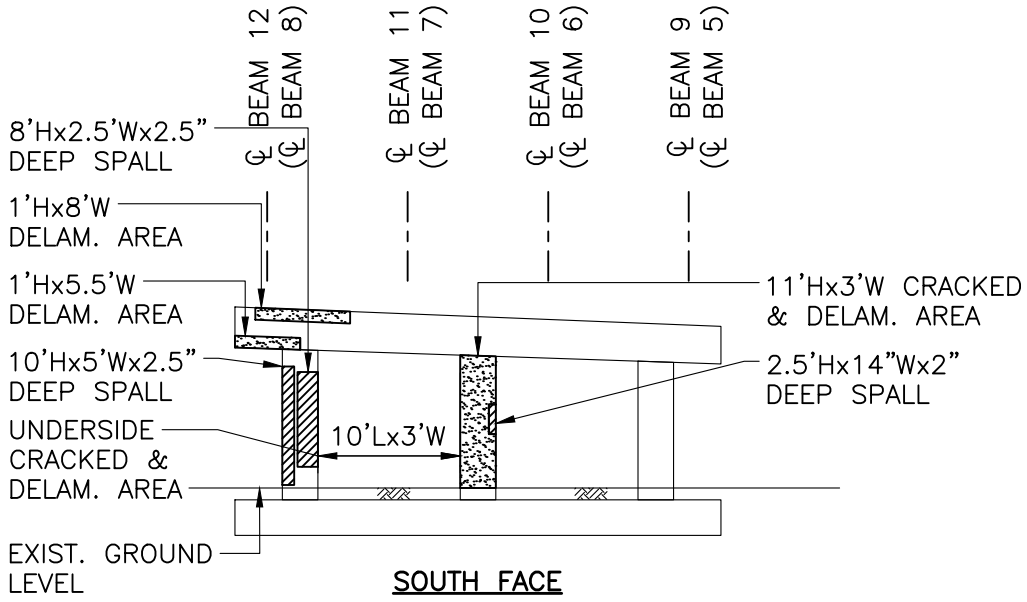
SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. N-19-066 (10E)** **PIER 1**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 39 OF 77





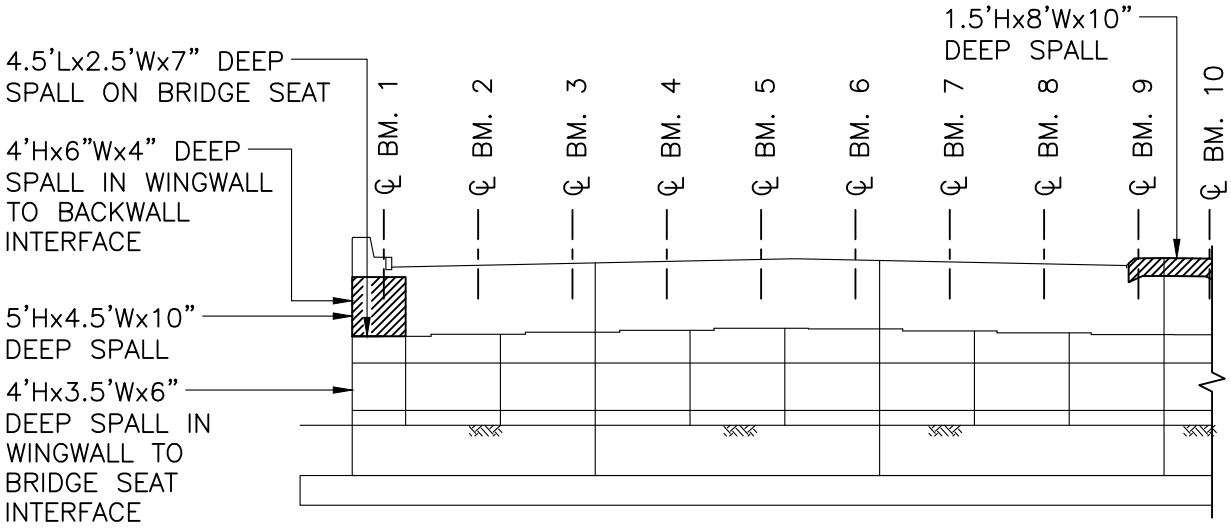
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

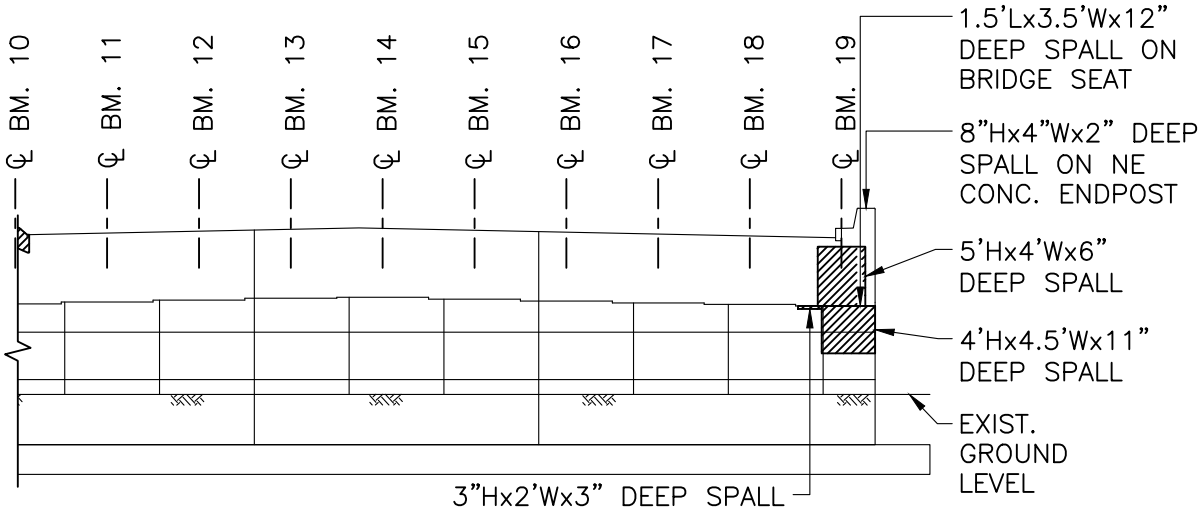
( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division	**SUBSTRUCTURE REP. AREAS**	DATE: 10/22/2025
DISTRICT 2 BRIDGE SECTION	**BRIDGE NO. N-19-066 (10E)**	PROJECT NO.: 613219
	PIER 2	SHEET: 40 OF 77



SOUTHBOUND

NORTH ABUTMENT



NORTHBOUND

NORTH ABUTMENT

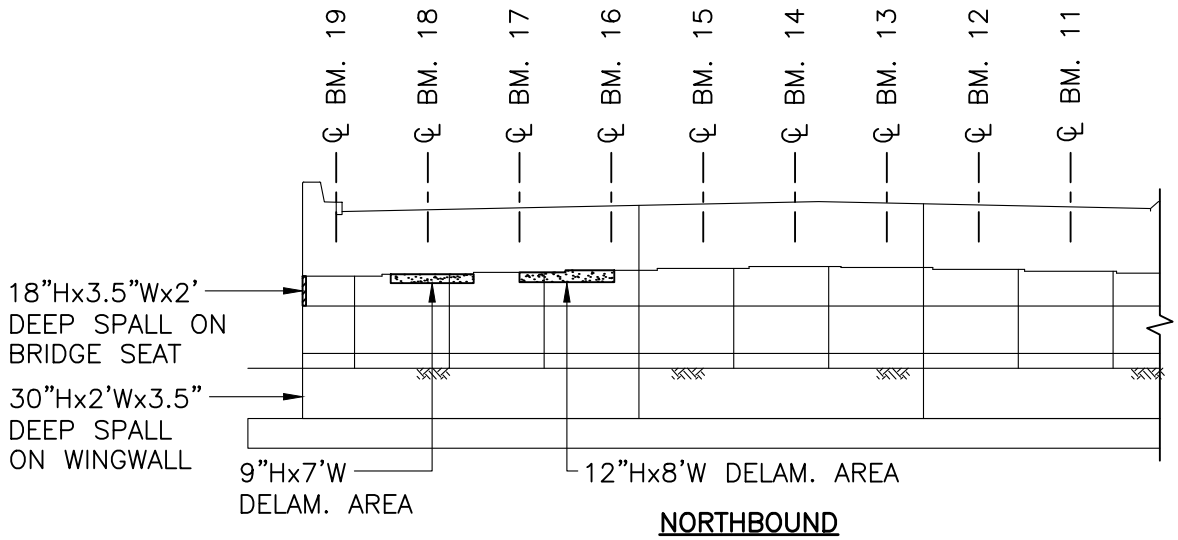
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

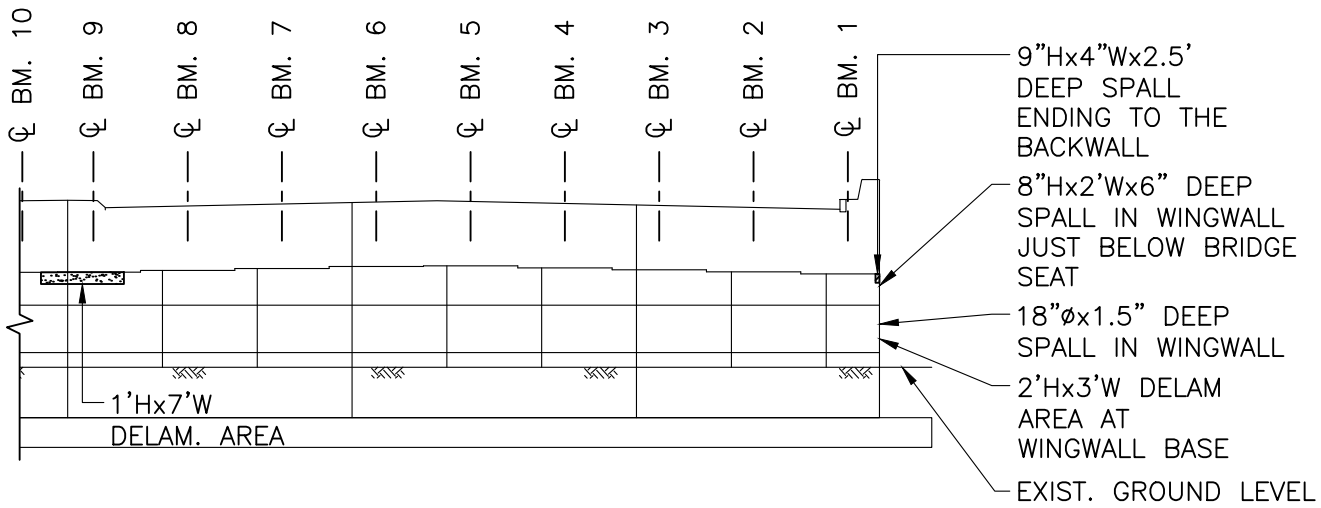
( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. S-24-078 (10P)** **NORTH ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 41 OF 77



NORTHBOUND

SOUTH ABUTMENT



SOUTHBOUND

SOUTH ABUTMENT

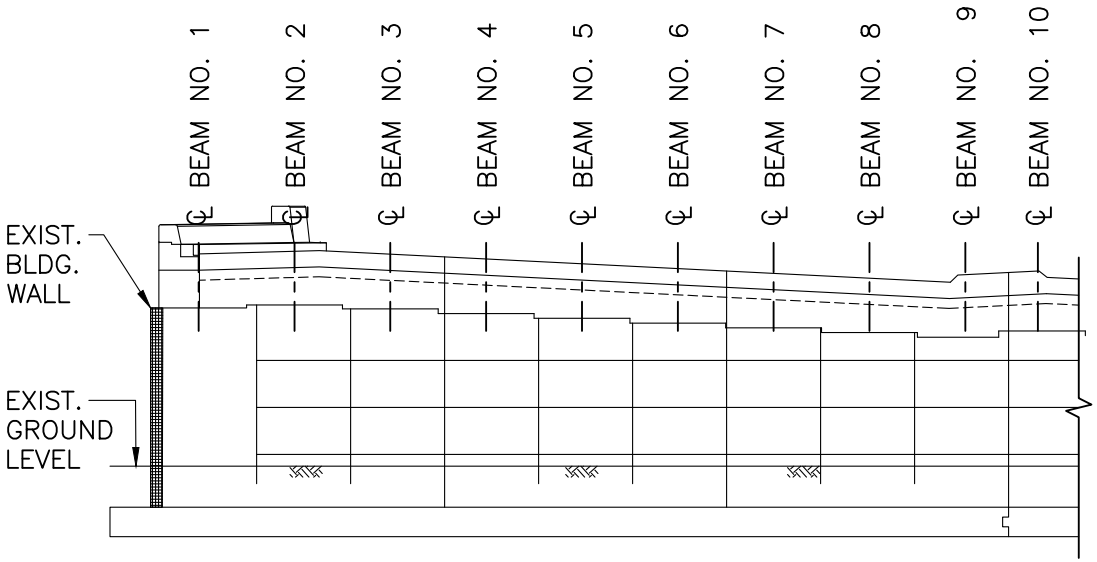
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. S-24-078 (10P)** **SOUTH ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 42 OF 77



SOUTHBOUND

NORTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

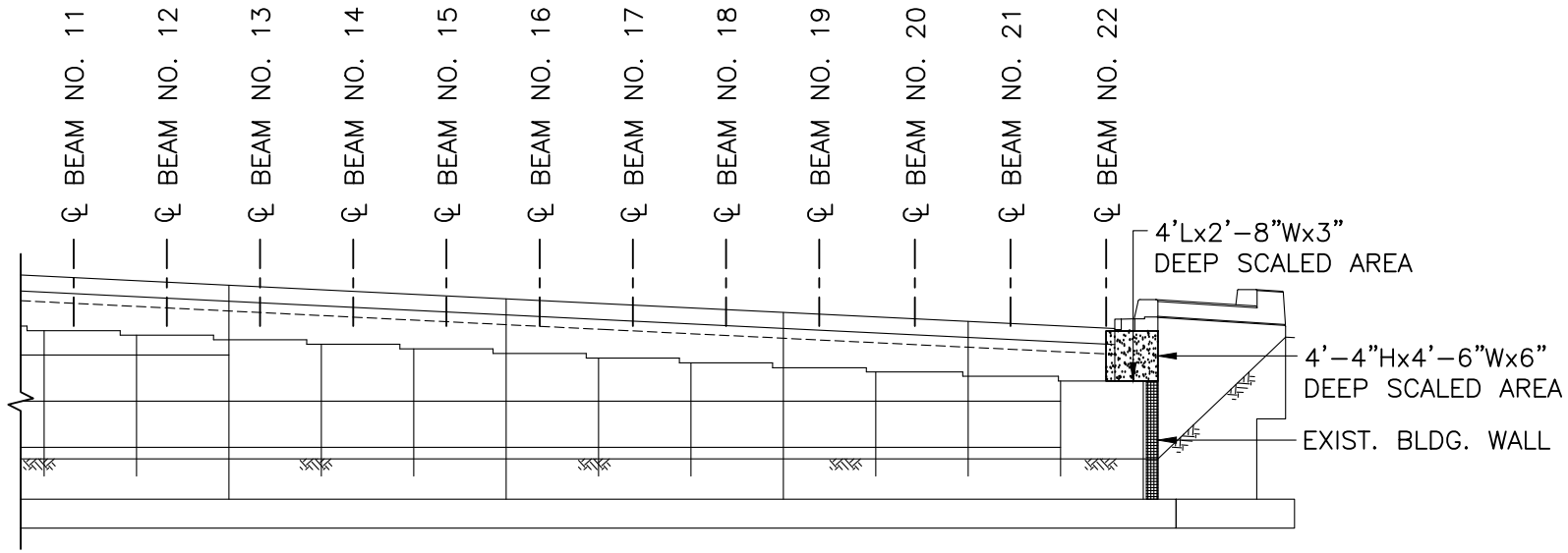
SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-079 (10Q)
NORTH ABUTMENT

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 43 OF 77

Proposal No. 613219-132950



NORTHBOUND N.B. OFF RAMP

NORTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

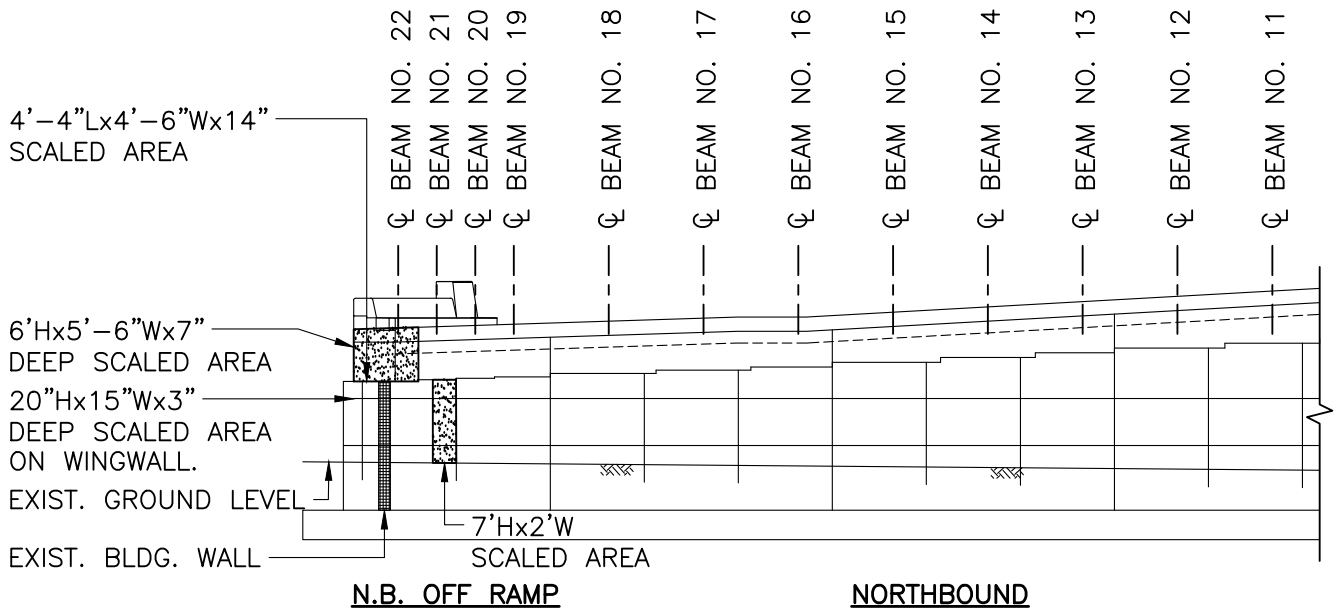
SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-079 (10Q)
NORTH ABUTMENT

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 44 OF 77

Proposal No. 613219-132950



SOUTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Highway Division

DISTRICT 2
BRIDGE SECTION

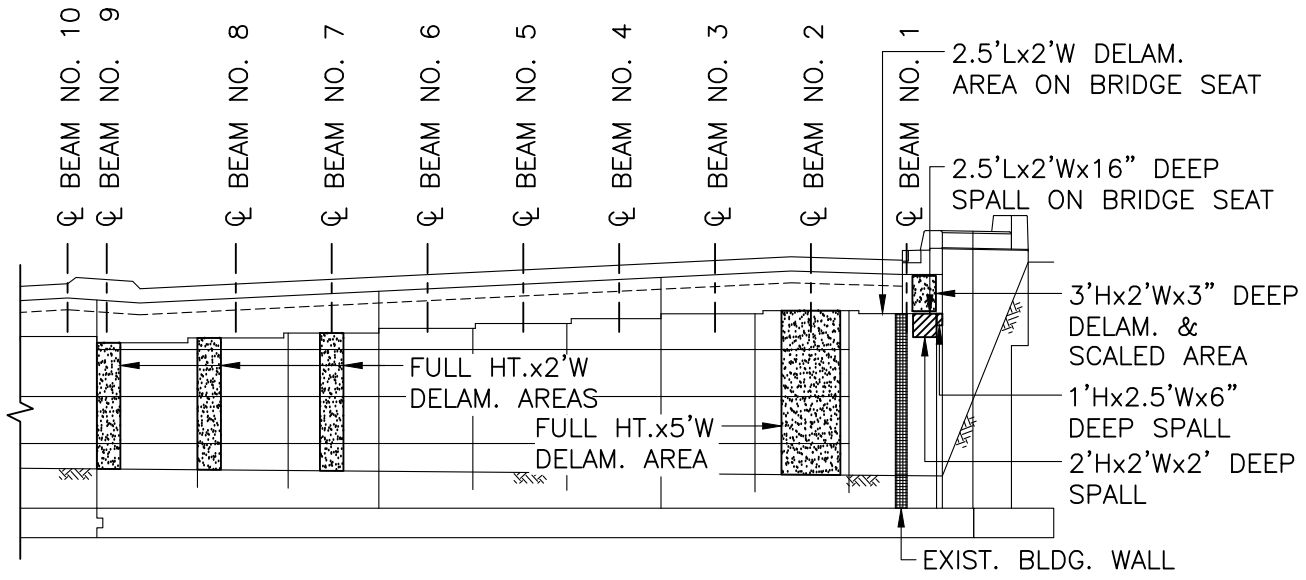
SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-079 (10Q)
SOUTH ABUTMENT

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 45 OF 77

Proposal No. 613219-132950



SOUTHBOUND

SOUTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Massachusetts Department of Transportation Highway Division

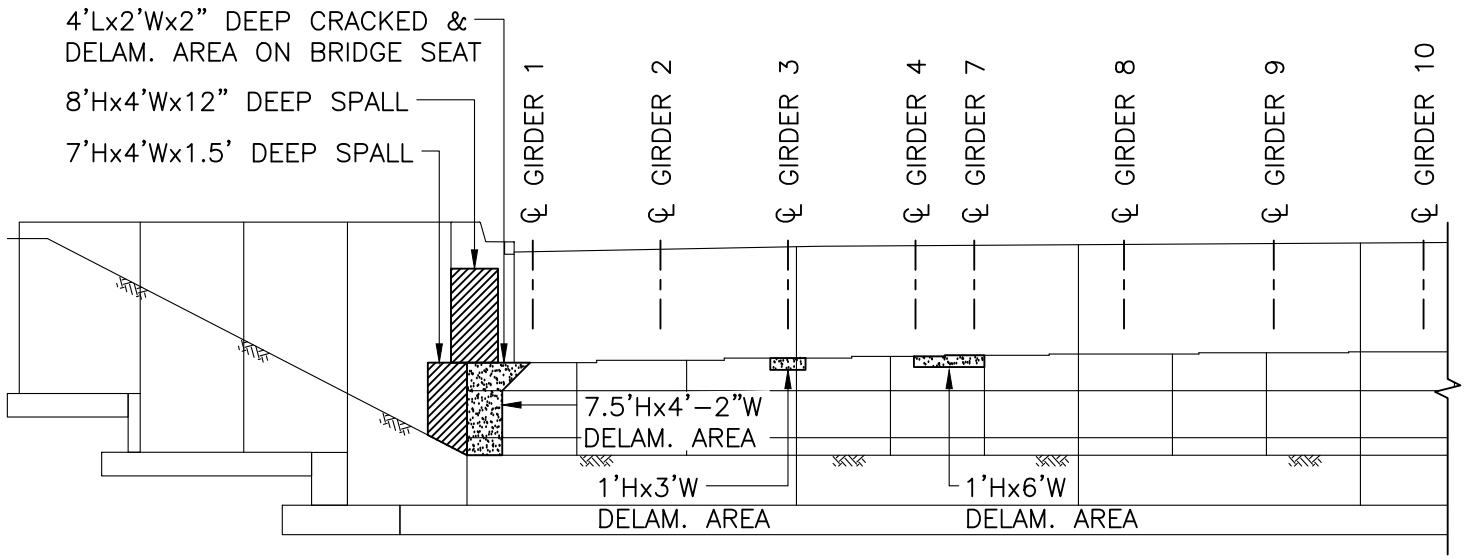
DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-079 (10Q)
SOUTH ABUTMENT

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 46 OF 77



SOUTHBOUND

NORTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Massachusetts Department of Transportation Highway Division

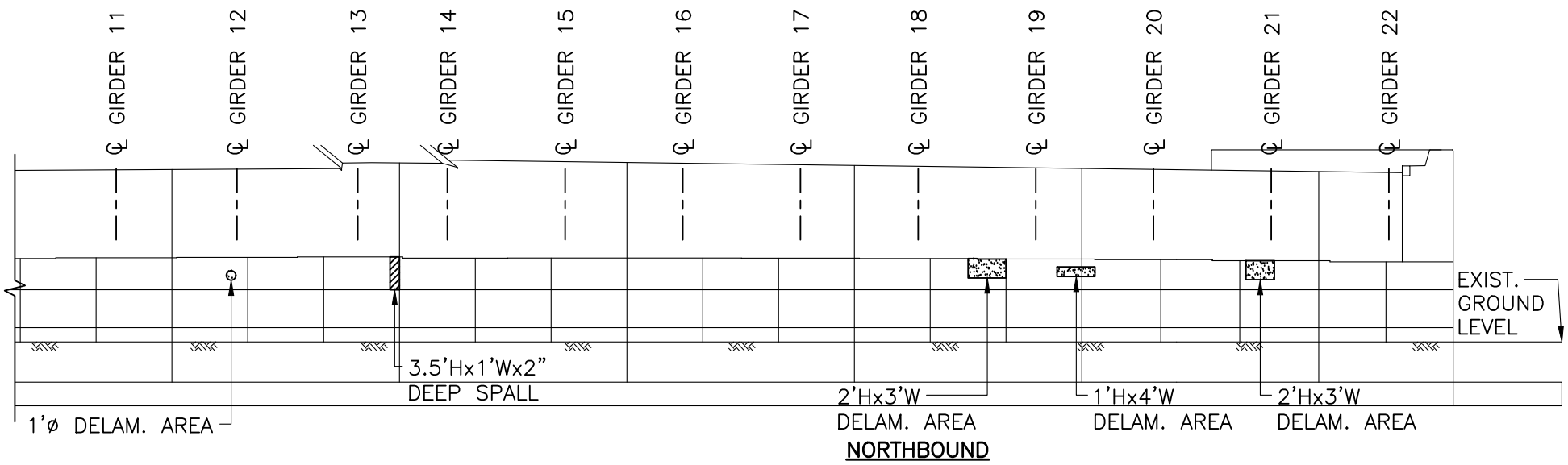
DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-080 (10R)
NORTH ABUTMENT

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 47 OF 77



NORTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Highway Division

DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-080 (10R)
NORTH ABUTMENT

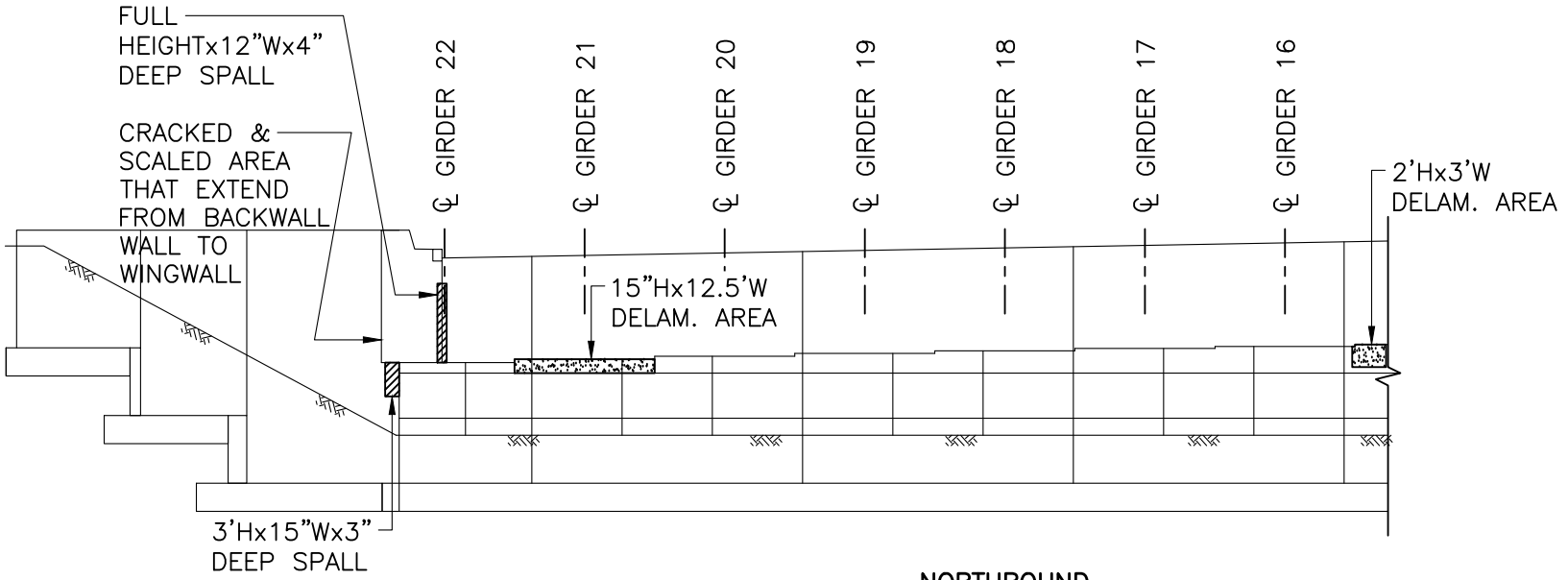
DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 48 OF 77

A00803 - 50

Proposal No. 613219-132950



SOUTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Highway Division

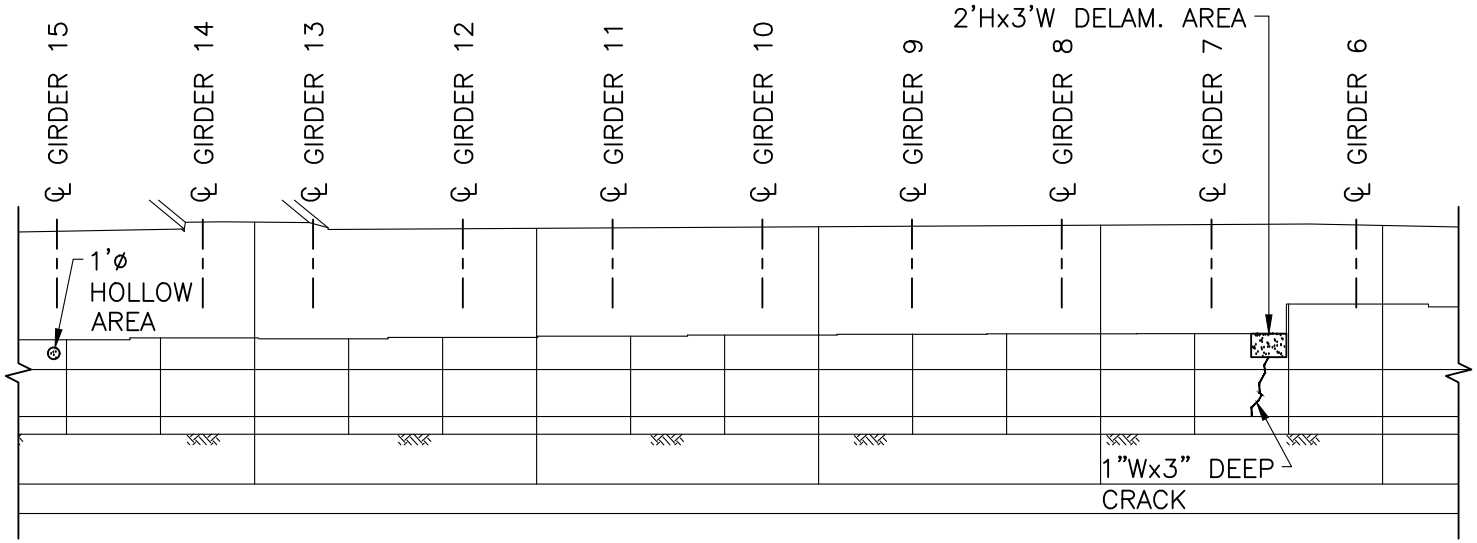
DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-080 (10R)
SOUTH ABUTMENT

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 49 OF 77



SOUTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Highway Division

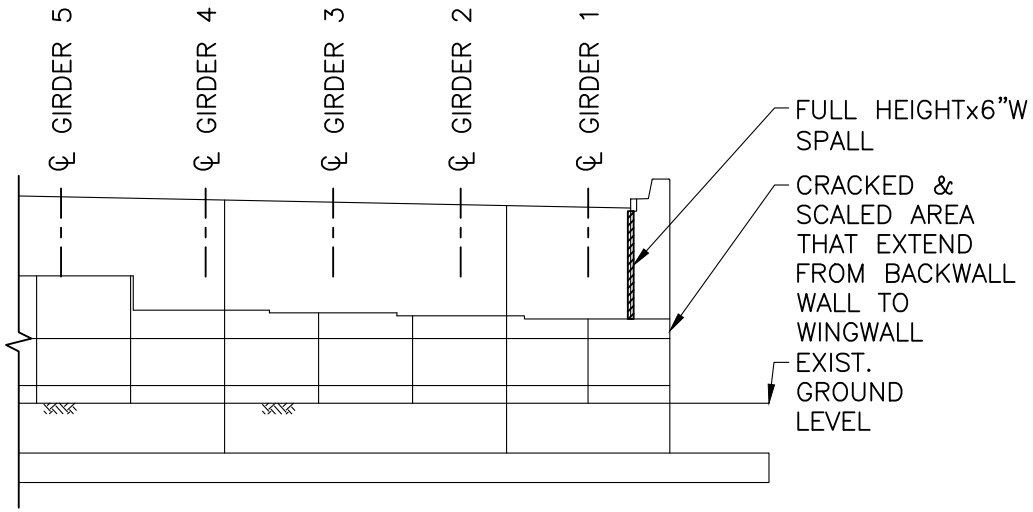
DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-080 (10R)
SOUTH ABUTMENT

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 50 OF 77



SOUTHBOUND

SOUTH ABUTMENT

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

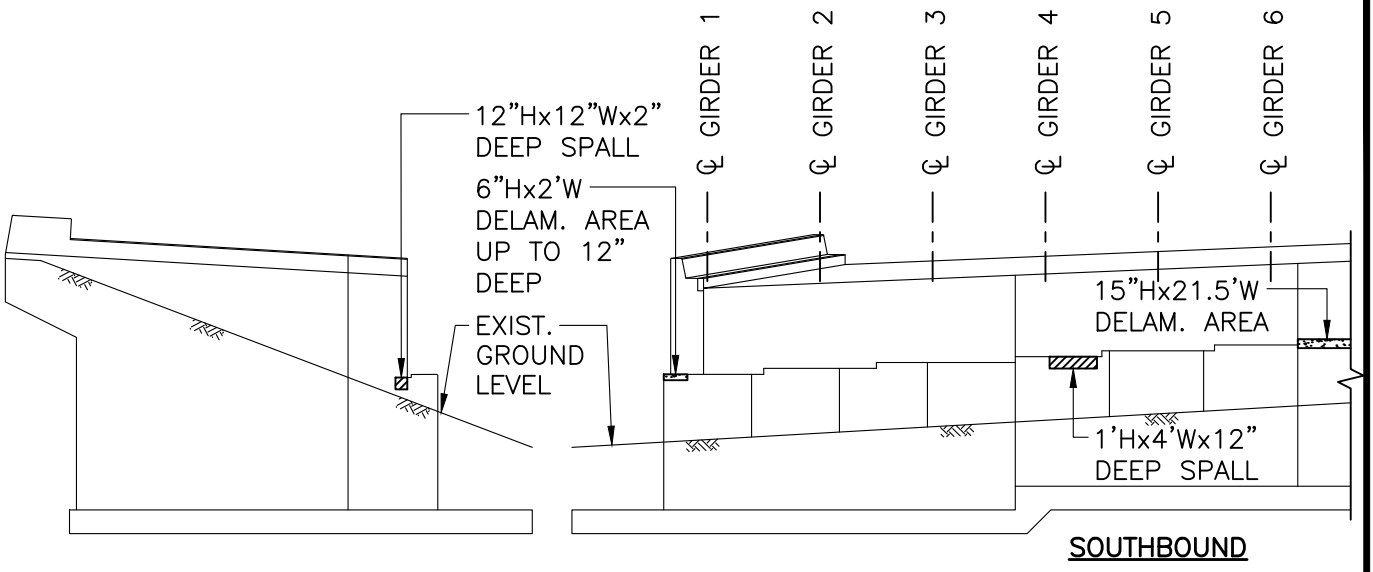
SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-080 (10R)
SOUTH ABUTMENT

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 51 OF 77

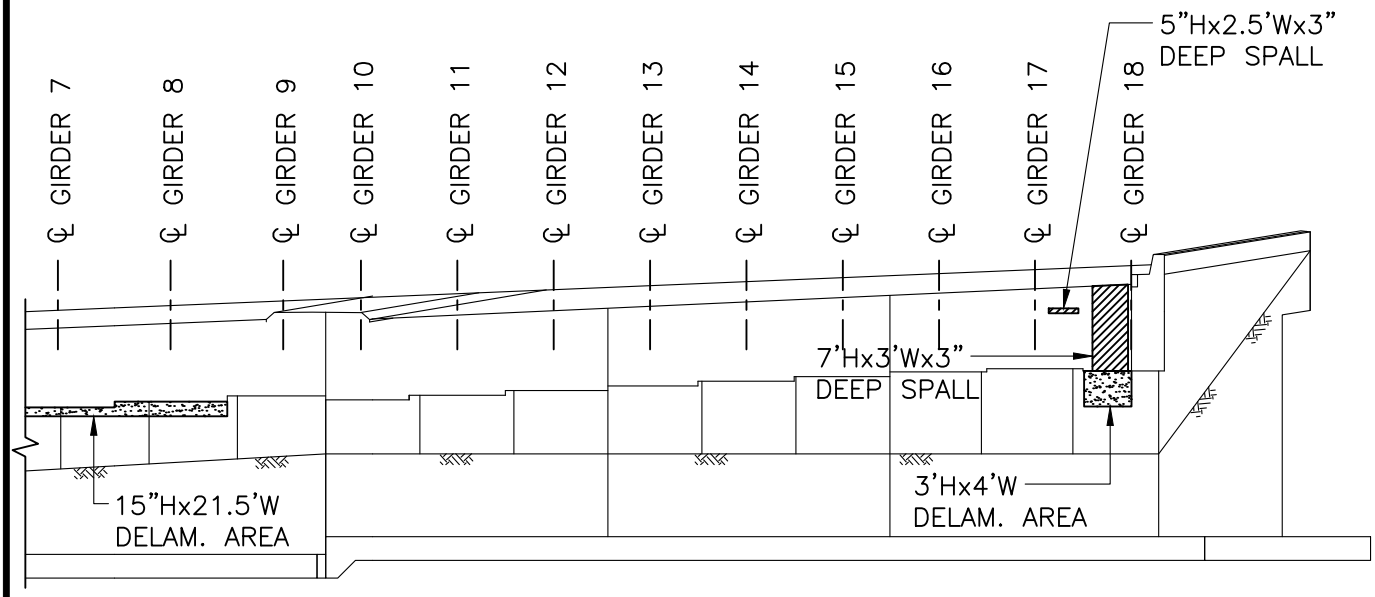
Proposal No. 613219-132950



SOUTHBOUND

NORTHWEST WINGWALL

NORTH ABUTMENT



NORTHBOUND

NORTH ABUTMENT

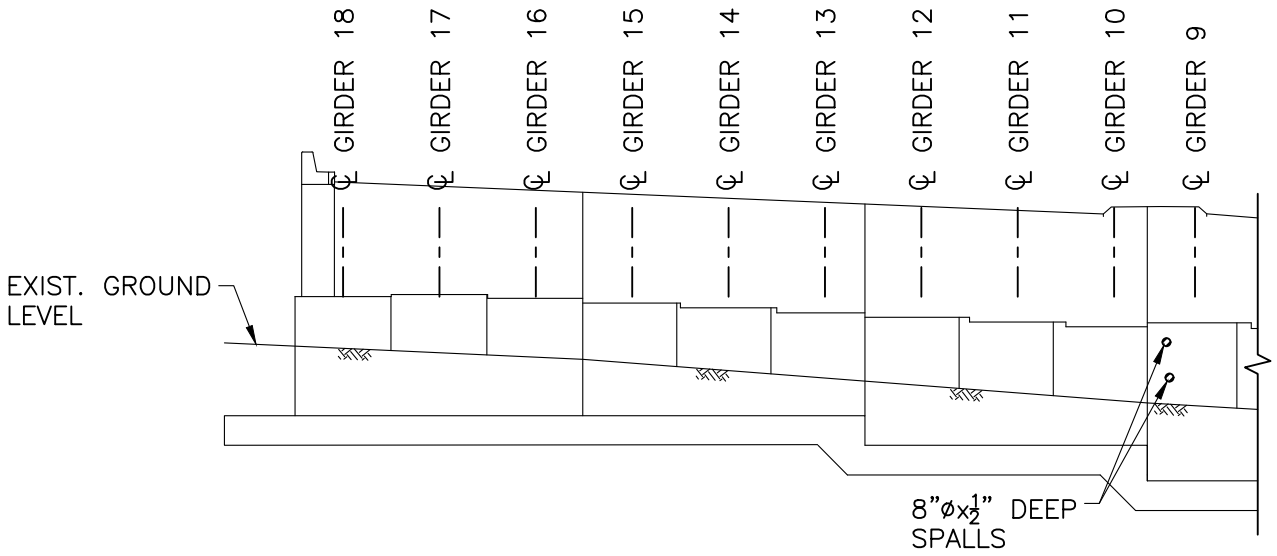
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

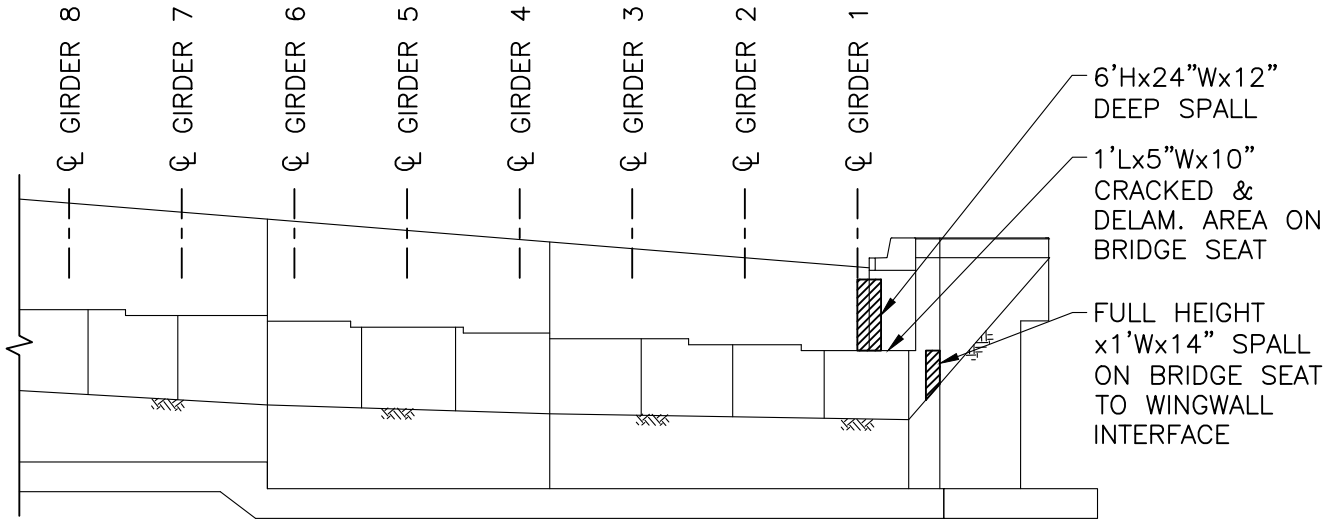
( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. S-24-085 (10T)** **NORTH ABUTMENT & NE WINGWALL**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 52 OF 77



NORTHBOUND

SOUTH ABUTMENT



SOUTHBOUND

SOUTH ABUTMENT

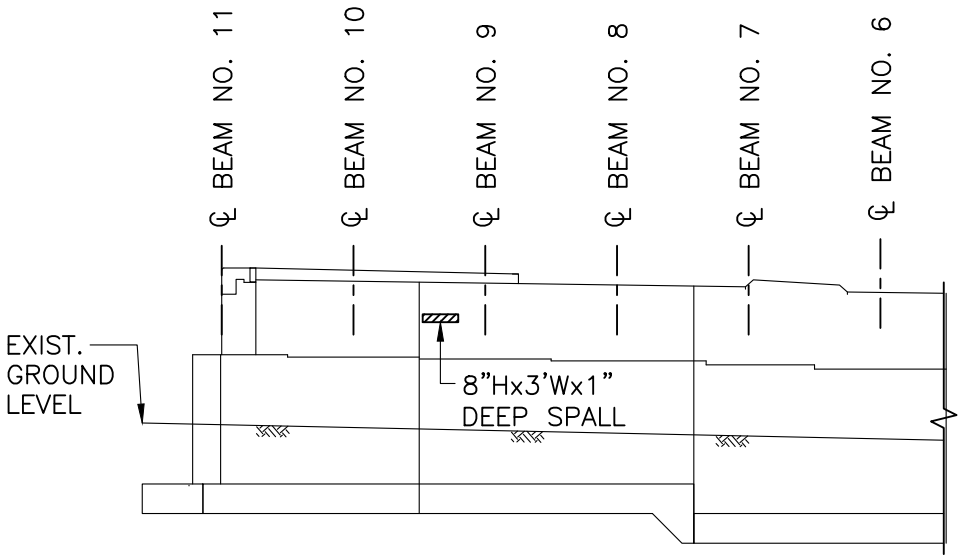
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

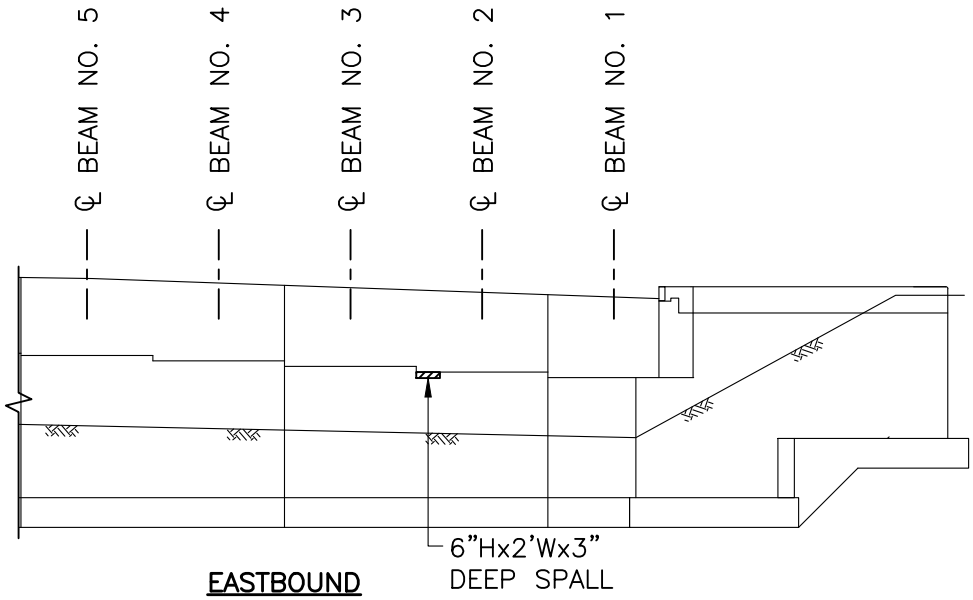
( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. S-24-085 (10T)** **SOUTH ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 53 OF 77



WESTBOUND

EAST ABUTMENT



EASTBOUND

EAST ABUTMENT

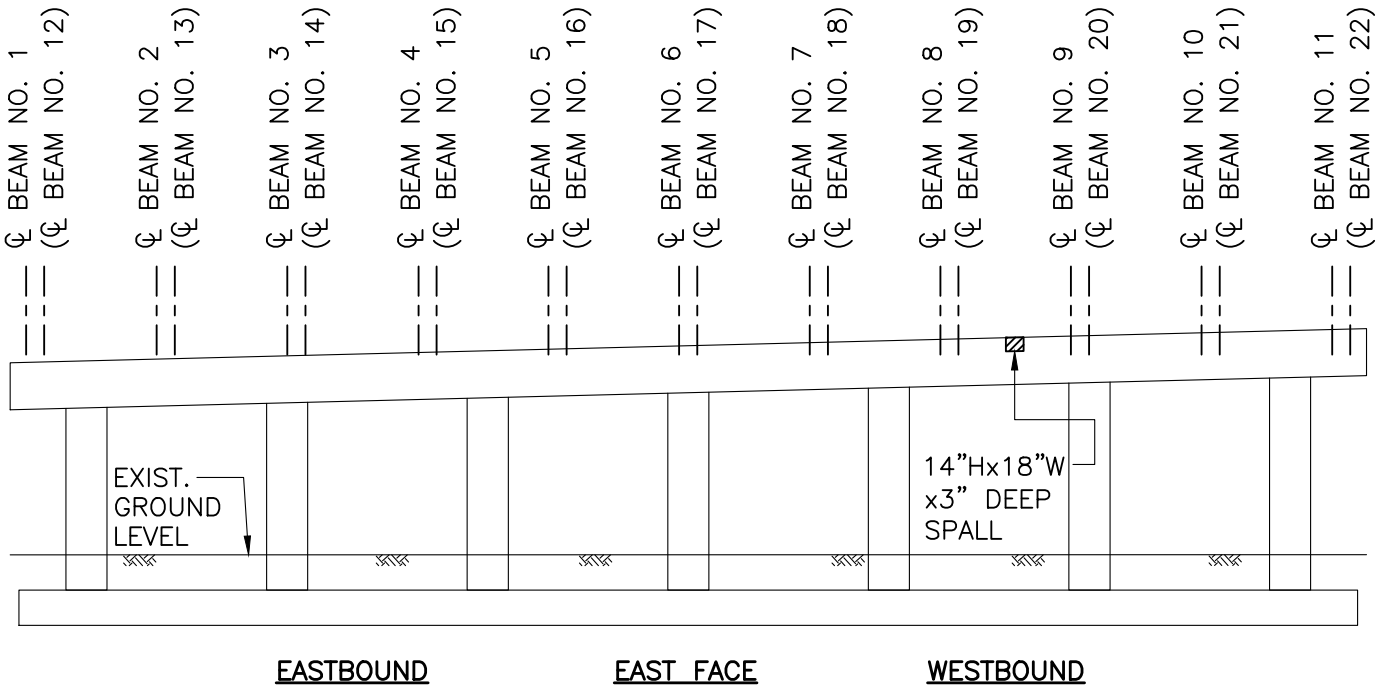
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. S-24-087 (10M)** **EAST ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 54 OF 77



LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Massachusetts Department of Transportation Highway Division

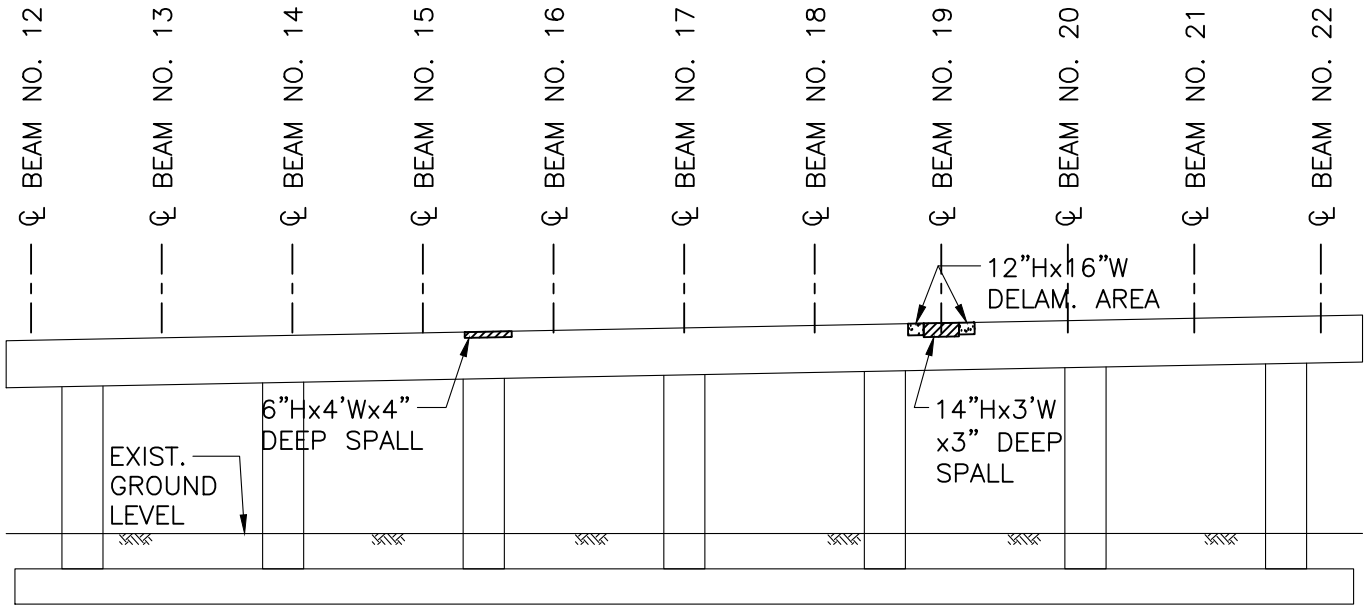
DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-087 (10M)
PIER 1

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 55 OF 77



LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Highway Division

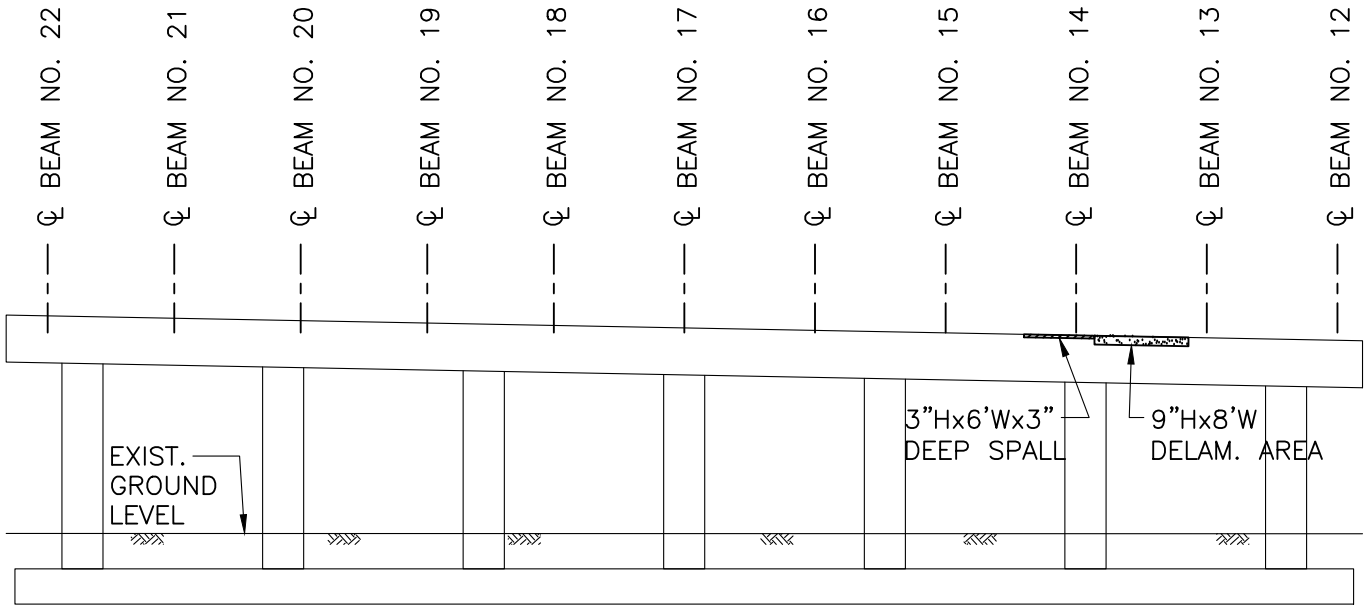
DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-087 (10M)
PIER 2

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 56 OF 77



LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Highway Division

DISTRICT 2
BRIDGE SECTION

SUBSTRUCTURE REPAIR AREAS
BRIDGE NO. S-24-087 (10M)
PIER 2

DATE: 10/22/2025

PROJECT NO.: 613219

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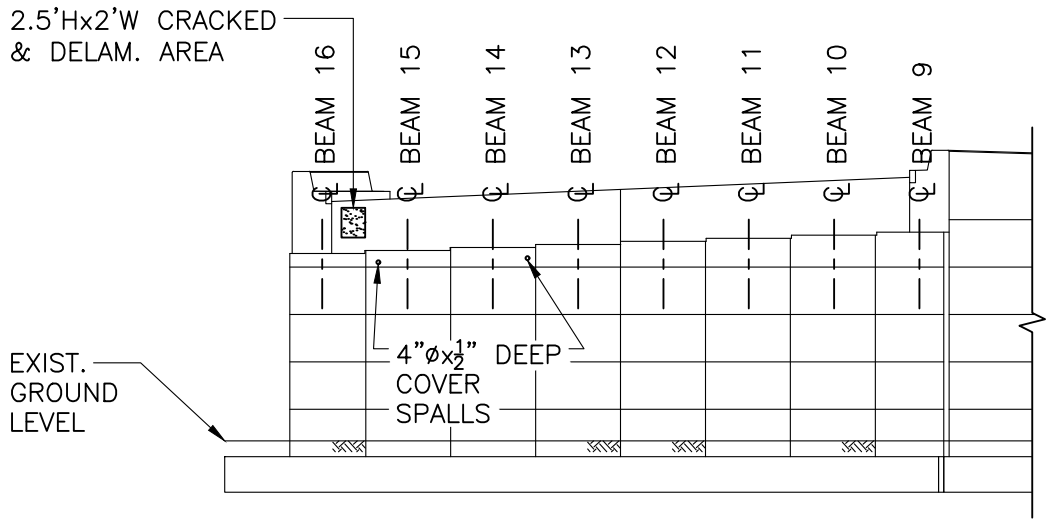
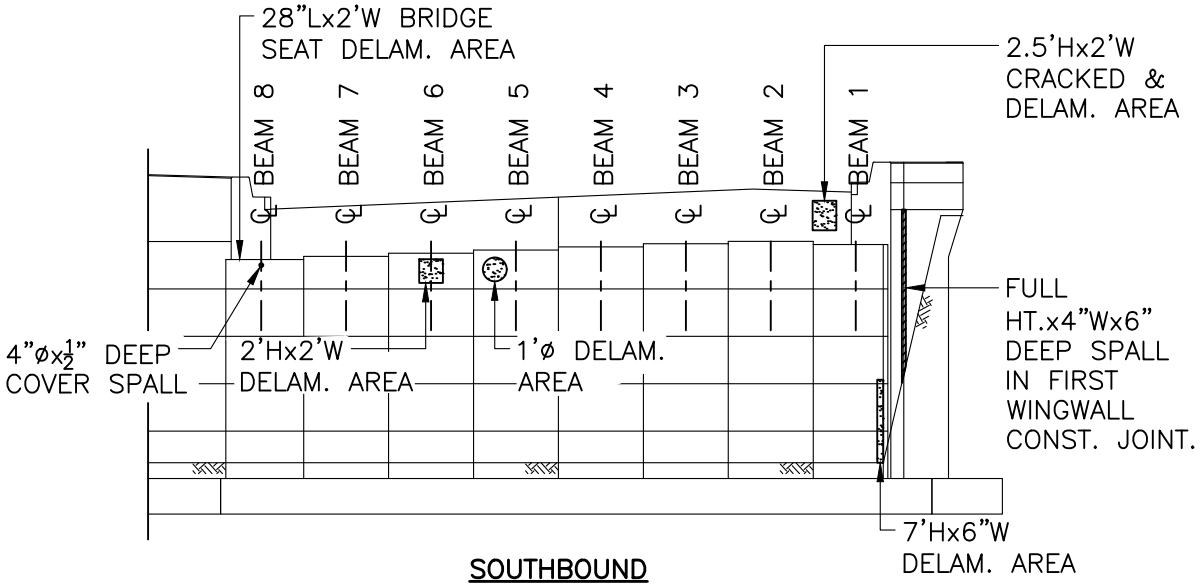
Proposal No. 613219-132950



NORTHBOUND

EAST ABUTMENT



SOUTHBOUND

EAST ABUTMENT

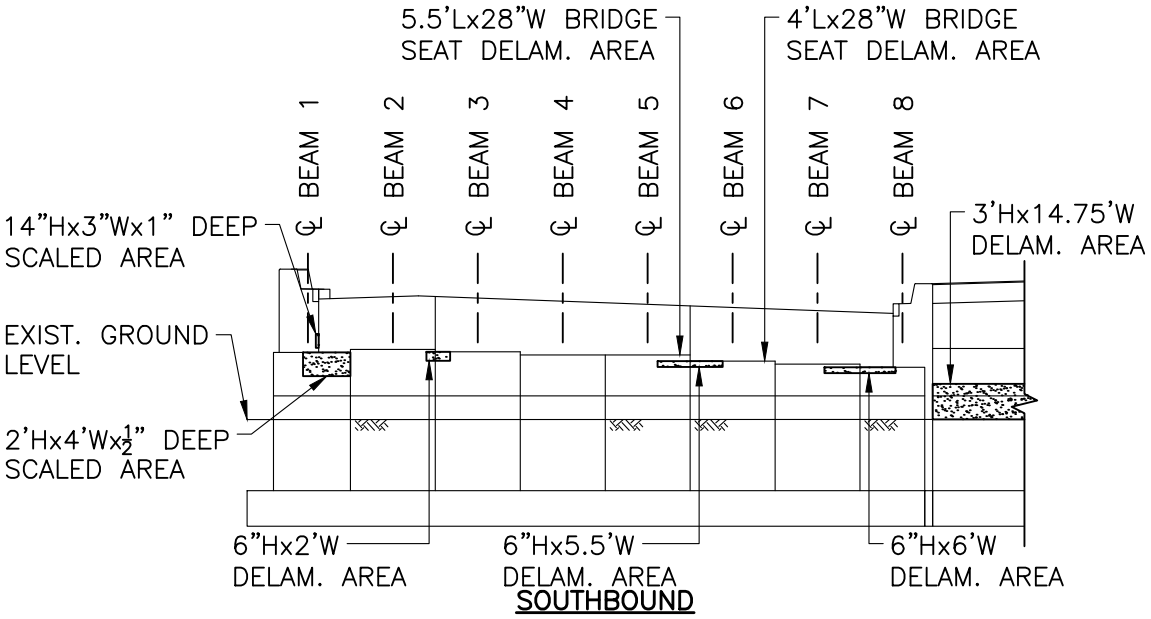
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

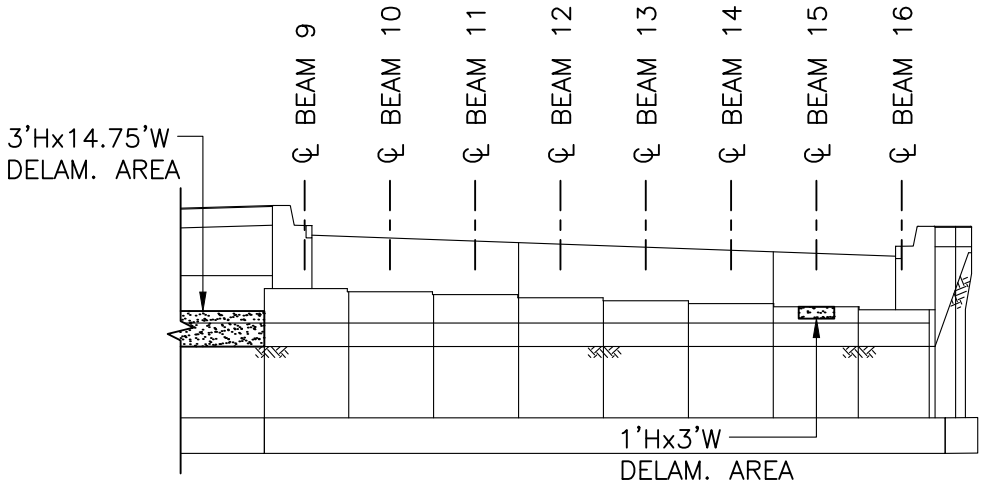
( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. W-21-046 (10X)** **EAST ABUTMENT**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 58 OF 77



SOUTHBOUND

WEST ABUTMENT



NORTHBOUND

WEST ABUTMENT

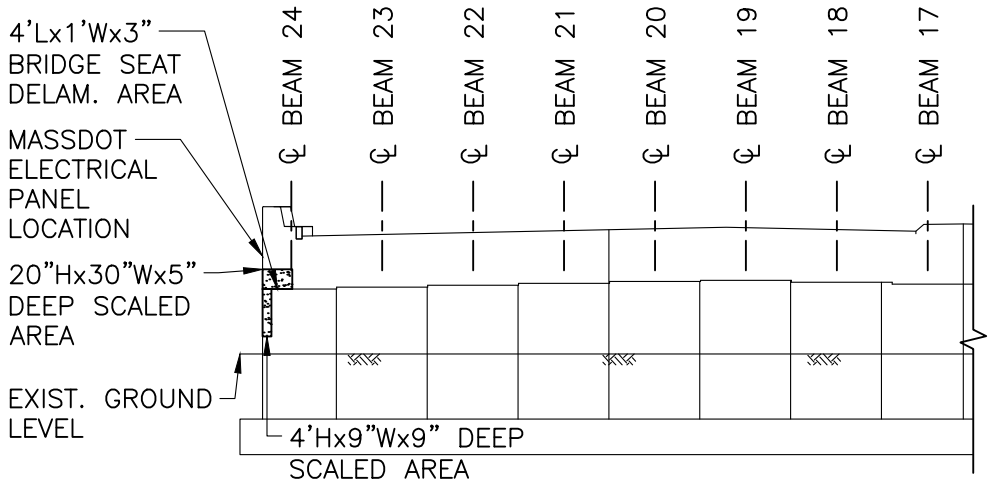
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

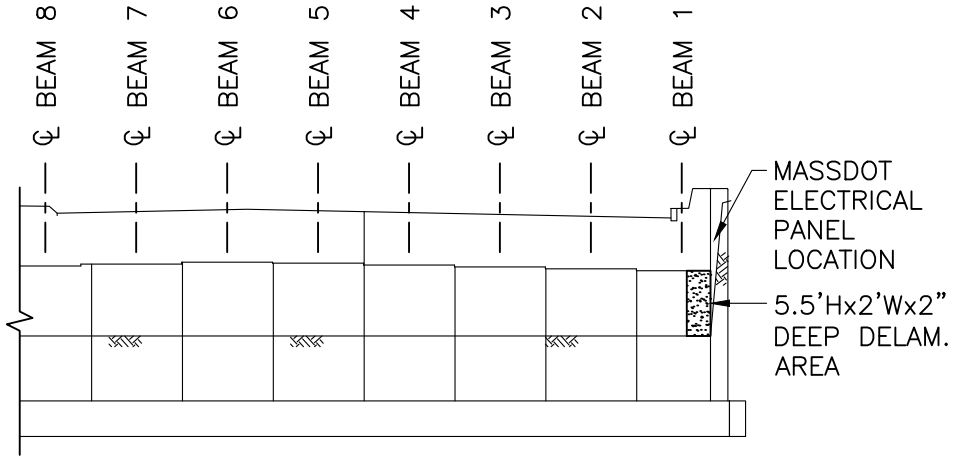
( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division	**SUBSTRUCTURE REP. AREAS**	DATE: 10/22/2025
DISTRICT 2 BRIDGE SECTION	**BRIDGE NO. W-21-046 (10X)**	PROJECT NO.: 613219
	WEST ABUTMENT	SHEET: 59 OF 77



NORTHBOUND

EAST ABUTMENT



SOUTHBOUND

EAST ABUTMENT

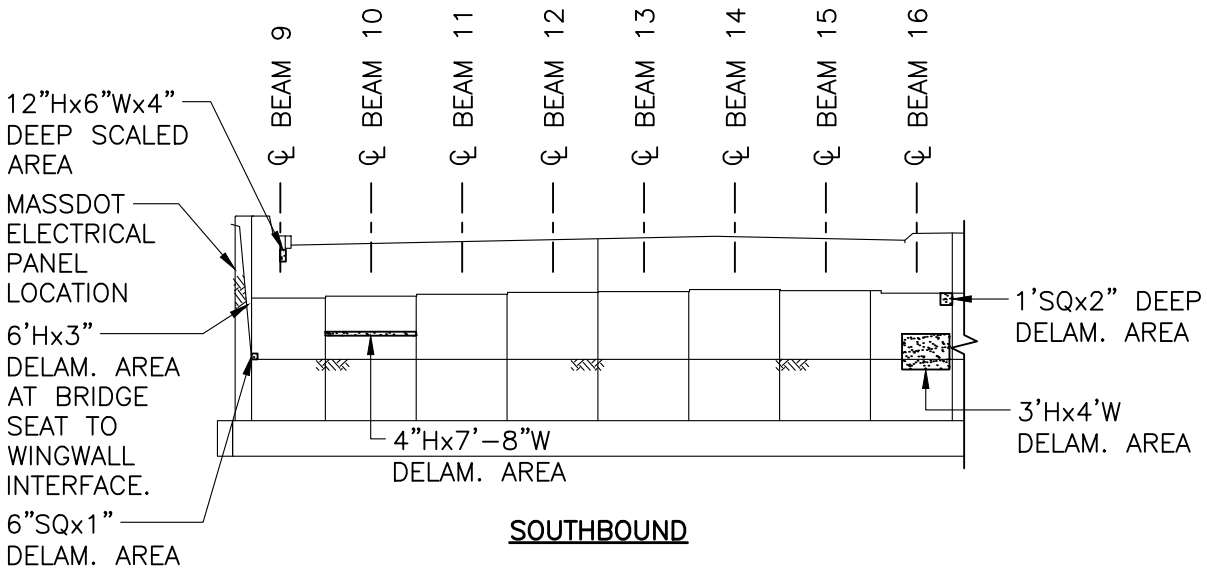
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

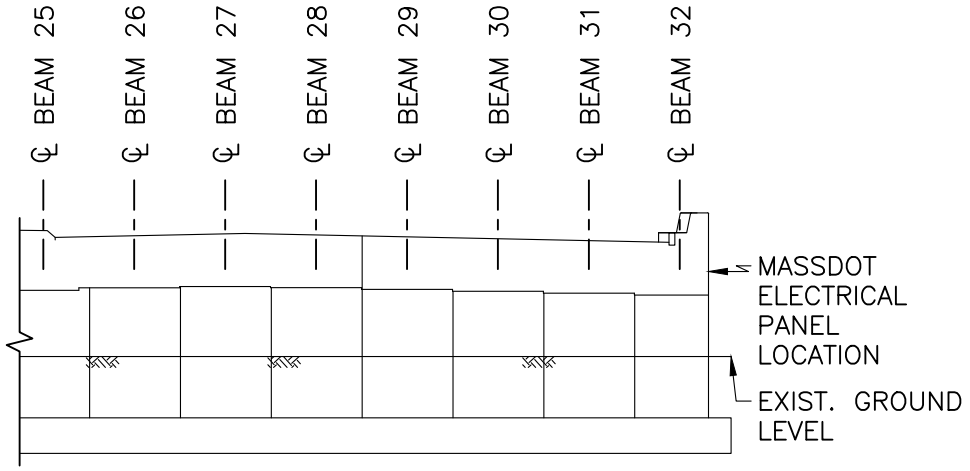
( ) BEAM OR GIRDER BEYOND

massDOT Massachusetts Department of Transportation Highway Division	**SUBSTRUCTURE REP. AREAS**	DATE: 10/22/2025
DISTRICT 2 BRIDGE SECTION	**BRIDGE NO. W-21-047 (10W)**	PROJECT NO.: 613219
	EAST ABUTMENT	SHEET: 60 OF 77



SOUTHBOUND

WEST ABUTMENT



NORTHBOUND

WEST ABUTMENT

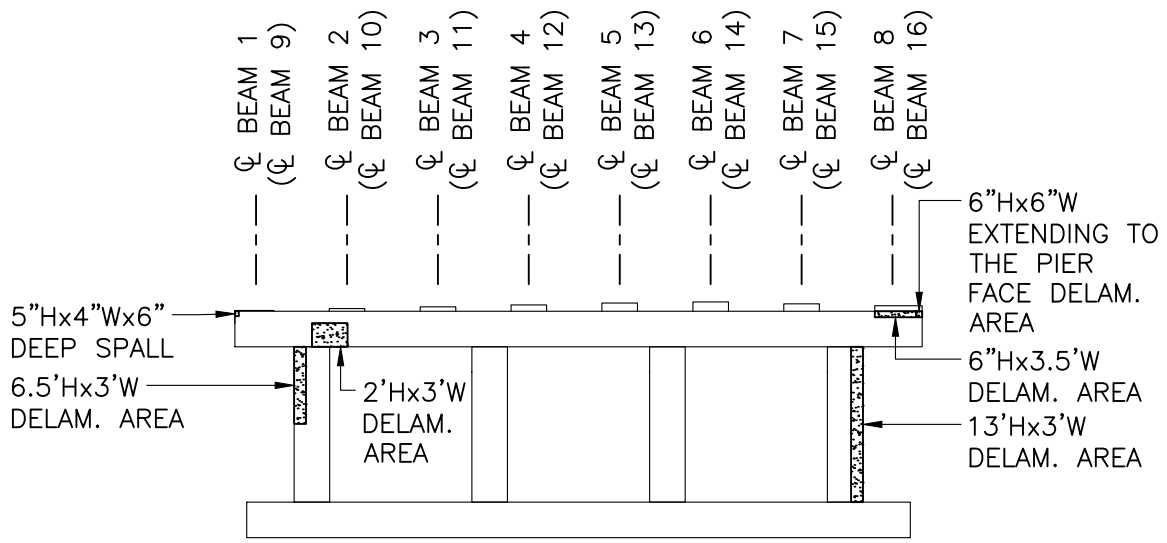
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

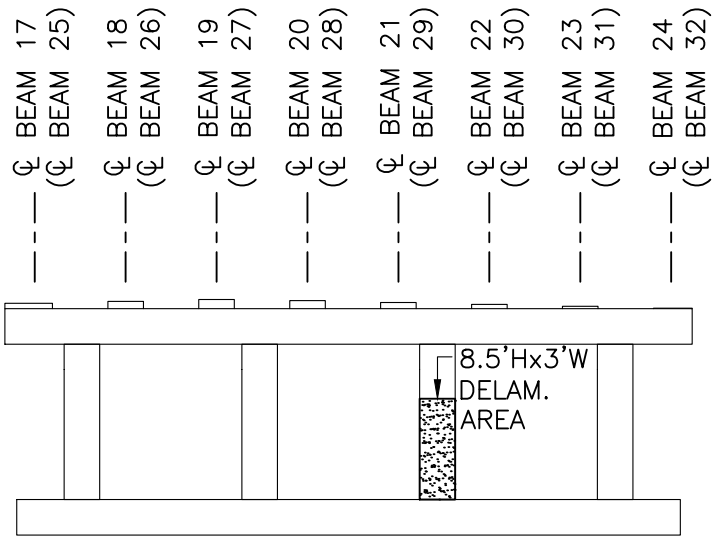
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

massDOT Massachusetts Department of Transportation Highway Division	**SUBSTRUCTURE REP. AREAS**	DATE: 10/22/2025
DISTRICT 2 BRIDGE SECTION	**BRIDGE NO. W-21-047 (10W)**	PROJECT NO.: 613219
	WEST ABUTMENT	SHEET: 61 OF 77



SOUTHBOUND



NORTHBOUND

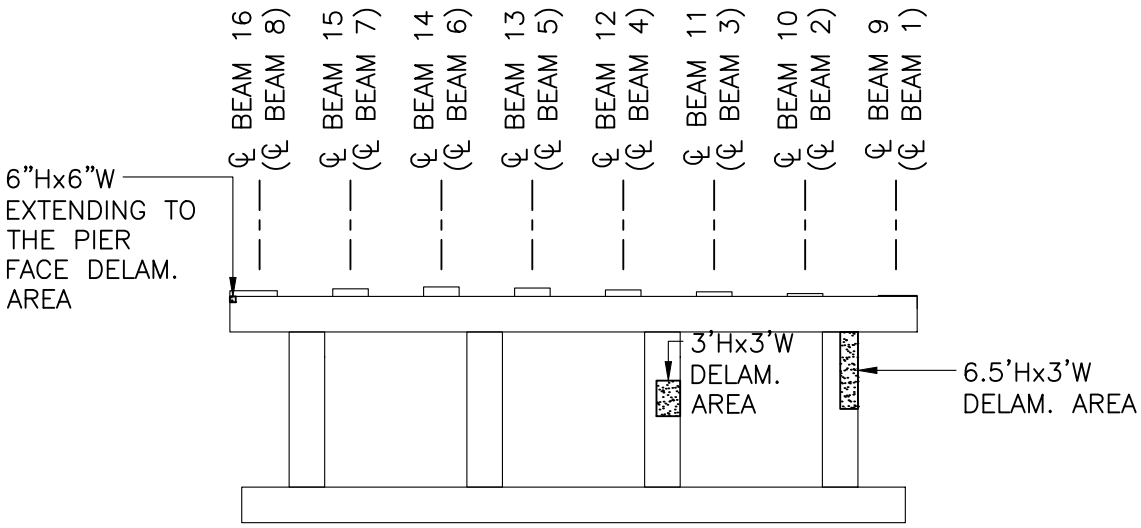
LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

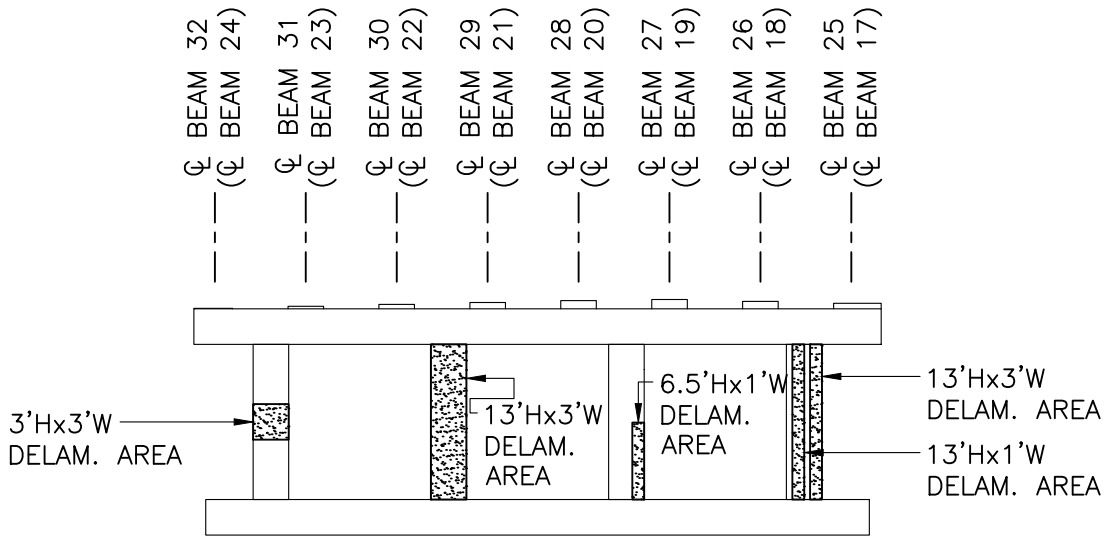
CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. W-21-047 (10W)** **PIER 1 EAST FACE**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 62 OF 77



SOUTHBOUND



NORTHBOUND

LEGEND

SPALLED CONCRETE AREAS TO BE REPAIRED

CRACKED AND/OR DELAMINATED AREAS TO BE REPAIRED

( ) BEAM OR GIRDER BEYOND

MassDOT Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE REP. AREAS** **BRIDGE NO. W-21-047 (10W)** **PIER 1 WEST FACE**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 63 OF 77

NOTES FOR CONTRACTOR:

IF ANY OF THE FOLLOWING CONDITIONS ARE ENCOUNTERED, THE CONTRACTOR SHALL STOP REMOVING DETERIORATED CONCRETE AND IMMEDIATELY NOTIFY THE DISTRICT BRIDGE ENGINEER TO DETERMINE IF THE EXCAVATION CAN BE CONTINUED:

1. WHEN A MAXIMUM EXCAVATION DEPTH OF 6 INCHES IS REACHED IN ANY SUBSTRUCTURE REPAIR.

2. WHEN THE EXCAVATION ENCROACHES WITHIN 6 INCHES OF THE BEARING DEVICES.

SUBSTRUCTURE CONCRETE REPAIR NOTES:

1. SUBSTRUCTURE REPAIRS SHALL CONSIST OF REMOVING DETERIORATED CONCRETE, PREPARING THE REPAIR SURFACE, FORMING WHERE REQUIRED, PLACING AND FINISHING NEW CONCRETE OR CEMENTITIOUS MORTAR. THE SCOPE OF REPAIRS MAY ALSO REQUIRE APPLYING ELASTOMERIC COATING (ITEM 964.3) TO THE REPAIRED SUBSTRUCTURE UNITS. THE LIMITS FOR THE ELASTOMERIC COATING WILL BE ESTABLISHED BY THE ENGINEER.

2. THE REPAIR IS DESIGNATED AS A DEEP PATCH WHEN THE EXCAVATED DEPTH TO SOUND CONCRETE EXCEEDS 2 INCHES FROM THE FACE OF THE CONCRETE OR REINFORCING STEEL IS ENCOUNTERED.

3. THE REPAIR IS DESIGNATED AS A SHALLOW DEPTH WHEN THE DEPTH OF SOUND CONCRETE IS REACHED AT OR LESS THAN 2 INCHES FROM THE FACE OF THE CONCRETE AND REINFORCING STEEL IS NOT ENCOUNTERED.

4. 5000 PSI, $\frac{3}{8}$ INCH, 710 HP CEMENT CONCRETE (ITEM 905.2) SHALL BE USED FOR ALL DEEP CONCRETE REPAIRS. CEMENTITIOUS MORTAR (ITEM 909.2) SHALL BE BE USED FOR SHALLOW PATCHES AND SELECTED FROM MASSDOT QUALIFIED PRODUCT LIST AND APPROVED BY THE ENGINEER.

5. THE CONTRACTOR SHALL ESTABLISH LIMITS OF REPAIRS AT THE DIRECTION OF THE ENGINEER. THE EXTENT, LOCATION AND REPAIR TYPE (DEEP PATCH OR SHALLOW DEPTH REPAIR) ARE TO BE FIELD VERIFIED AND APPROVED BY THE ENGINEER AFTER THE CONTRACTOR HAS SOUNDED AND MARKED OUT THE REPAIR AREA. THE AREAS OF REPAIR SHALL BE MADE APPROXIMATELY RECTANGULAR WITH THE SIDES GENERALLY PERPENDICULAR TO THE SURFACE BEING REPAIRED.

6. THE DETERIORATED CONCRETE SHALL BE REMOVED AS REQUIRED TO PROVIDE GOOD SOUND CONCRETE ON WHICH NEW CONCRETE CAN BE PLACED AND SATISFACTORILY BONDED TO UNDAMAGED OR UNDISTURBED REINFORCEMENT.

7. SAW CUT ALONG NEAT LINES AROUND REPAIR AREA PRIOR TO CONCRETE EXCAVATION. USE SAW CUT DEPTH OF 1 INCH, OR AS REQUIRED TO AVOID CUTTING REINFORCING STEEL.

8. SUBSTRUCTURE REPAIR SHOULD INCLUDE THE REMOVAL OF ALL DETERIORATED, LOOSE, SPALLED, AND HOLLOW SOUNDING CONCRETE. THE DETERIORATED CONCRETE SHALL BE REMOVED FROM WITHIN THE REPAIR AREAS TO THE DEPTH OF SOUND CONCRETE. WHEN REINFORCING STEEL IS UNCOVERED, CARE SHALL BE TAKEN SO AS NOT TO DAMAGE THE STEEL OR ITS BOND TO THE SURROUNDING CONCRETE. MAXIMUM 25 LB. HAMMERS WITH CHISEL POINTS SHALL BE USED FOR CONCRETE REMOVAL. MAXIMUM 15 LB. HAMMERS SHALL BE USED ONCE REINFORCING STEEL IS EXPOSED.

MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 2 BRIDGE SECTION	**SUBSTRUCTURE CONCRETE REPAIR NOTES**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 64 OF 77

9. THE CONTRACTOR SHALL STOP REMOVING DETERIORATED CONCRETE WHEN A MAXIMUM DEPTH OF 6 INCHES IS REACHED. THE DISTRICT BRIDGE ENGINEER SHALL BE IMMEDIATELY NOTIFIED TO DETERMINE IF THE EXCAVATION CAN BE CONTINUED.

10. IF REINFORCING STEEL IS EXPOSED THEN CLEAN BY MECHANICAL CLEANING OR HIGH PRESSURE WASHING WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. WHERE ACTIVE CORROSION HAS OCCURRED THAT WOULD INHIBIT BONDING, CLEAN STEEL USING ABRASIVE BLASTING METHODS ACCEPTABLE TO THE ENGINEER, THEN PAINT WITH A ZINC – RICH PRIMER CONFORMING TO MASSDOT STANDARD SPECIFICATION NO. M7.04.11.

11. AFTER REMOVAL AND EDGE PREPARATIONS ARE COMPLETE, REMOVE BOND INHIBITING MATERIALS (DIRT, GREASE, LOOSELY BONDED AGGREGATE) BY ABRASIVE BLASTING OR HIGH PRESSURE WATER BLASTING WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. CHECK THE CONCRETE SURFACES AFTER CLEANING TO ENSURE THAT SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE OR THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.

12. EXISTING REINFORCING BARS, WHICH ARE BROKEN OR HAVE LOST 25% OR MORE OF THEIR CROSS SECTIONAL AREA, OR AS ORDERED REPAIRED BY THE ENGINEER, SHALL BE REPAIRED BY SPLICING IN NEW REINFORCING BARS OF THE SAME DIAMETER. SEE EXISTING BRIDGE PLANS FOR BAR SIZES. SPLICE LAPS ARE TO BE AT LEAST 32 BAR DIAMETERS AS SHOWN ON THE SPLICE TABLE ON SHEET 74. MISSING OR DETERIORATED REINFORCING STEEL SHALL BE REPLACED AS DIRECTED BY THE ENGINEER AND WILL BE PAID UNDER ITEM 910.1.

13. ALL SURFACES WHERE NEW CONCRETE WILL BE BONDED TO EXISTING CONCRETE SHALL BE PRE–WETTED WITH CLEAN WATER TO SATURATED SURFACE DRY (SSD) CONDITION (WITH NO STANDING WATER) IMMEDIATELY PRIOR TO THE CONCRETE PLACEMENT. IF INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER, APPLY EPOXY BONDING COMPOUND SUITABLE FOR BONDING FRESH CONCRETE TO HARDENED CONCRETE FOR LOAD BEARING APPLICATIONS TO INTERFACE BETWEEN NEW AND EXISTING CONCRETE. THE EPOXY BONDING COMPOUND SHALL CONFORM TO AASHTO M 235 TYPE V, GRADE AND CLASS SHALL BE SPECIFIED FOR EACH APPLICATION AND SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND THE SPECIAL PROVISIONS.

14. IN GENERAL, EPOXY BONDING COMPOUND SHALL BE USED FOR ALL SHALLOW DEPTH REPAIR AND HORIZONTAL SURFACES OF DEEP PATCH REPAIR, SUCH AS TOP EXCAVATED SURFACES OF PIER CAP AND BEAM SEAT.

15. IF EPOXY BONDING COMPOUND IS USED, THE FORMS SHALL BE INSTALLED AT LEAST ONCE PRIOR TO APPLICATION OF THE EPOXY BONDING COMPOUND IN ORDER TO ENSURE FORMS CAN BE REINSTALLED AND FILLED BEFORE THE EPOXY BONDING COMPOUND HARDENS.

16. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL INSTALL CATHODIC PROTECTION ANODES TO THE LIMITS AND AT THE SPACINGS DETERMINED BY THE ENGINEER. THE CATHODIC PROTECTION ANODES WILL BE PROVIDED BY THE ENGINEER. THE COST OF ANODE INSTALLATION AND TESTING SHALL BE CONSIDERED INCIDENTAL TO ITEM 910.1.

17. ALL CONCRETE SURFACES ONCE CURED, SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH TO MATCH EXISTING SURFACES. WET CURING IN ACCORDANCE WITH THE SUPPLEMENTAL SPECIFICATIONS FOR HIGHWAYS AND BRIDGES SECTION 901.38, SUB–SECTION A–2 WILL BE REQUIRED.

18. CONCRETE ABUTMENT SEATS AND EXPOSED SECTIONS OF ABUTMENT STEMS SHALL (AS DETERMINED BY THE ENGINEER) RECEIVE A ELASTOMERIC PROTECTIVE COATING (ITEM 964.3), 30 DAYS AFTER ALL REPAIRS HAVE BEEN MADE.

19. THE REPAIR PHASING AND SEQUENCE MAY BE MODIFIED BY THE ENGINEER SO THAT THE SECTIONS WITH WORSE DETERIORATION ARE REPAIRED FIRST.

MassDOT Massachusetts Department of Transportation Highway Division	**SUBSTRUCTURE CONCRETE REPAIR NOTES (CONTINUED)**	DATE: 10/22/2025
DISTRICT 2 BRIDGE SECTION		PROJECT NO.: 613219
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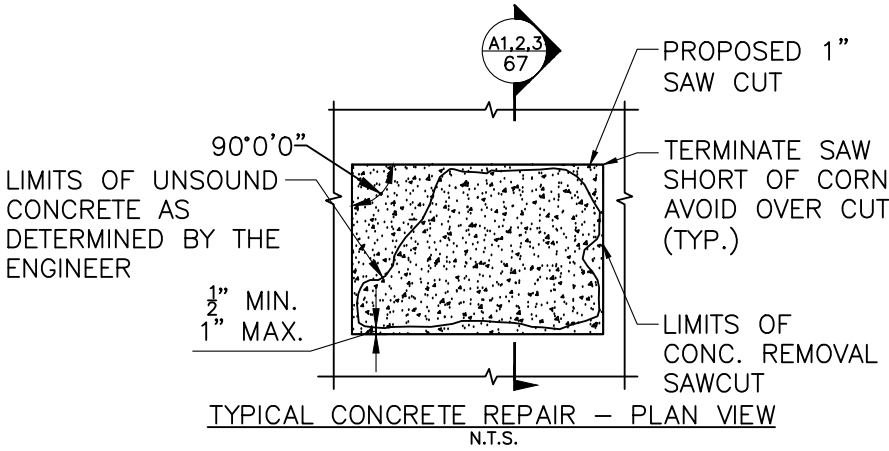
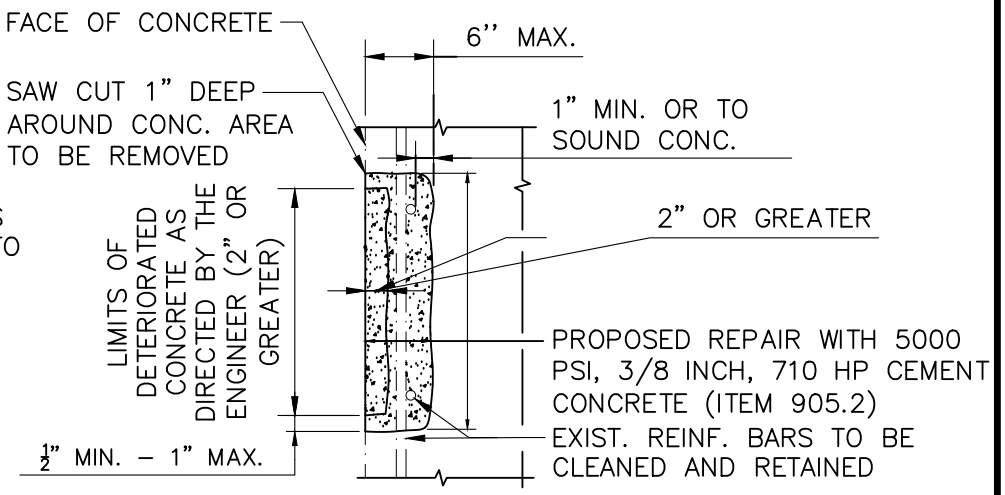


TYPICAL CONCRETE REPAIR – PLAN VIEW
N.T.S.



DEEP PATCH REPAIR
SECTION A1
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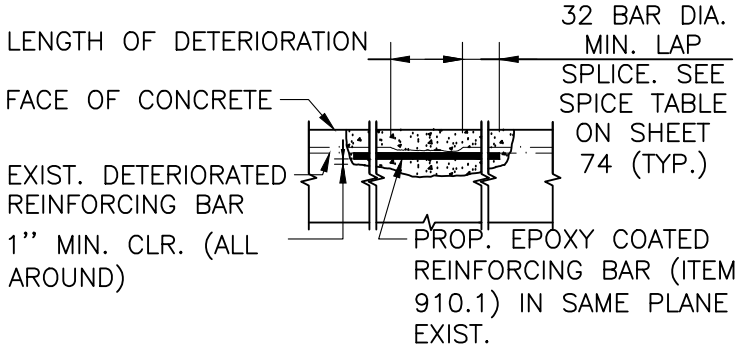

DETERIORATED REINFORCING BAR REPAIR
SECTION A2
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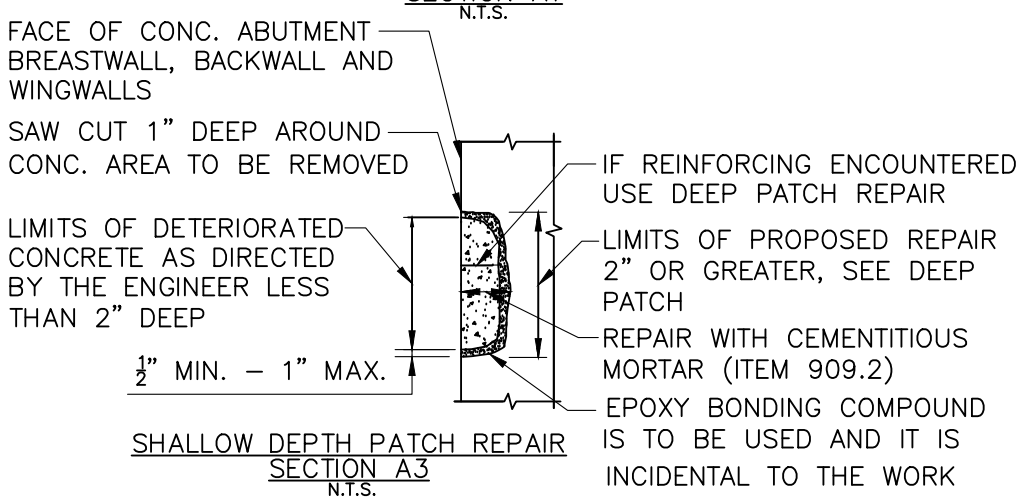

SHALLOW DEPTH PATCH REPAIR
SECTION A3
N.T.S.

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

DEEP AND SHALLOW PATCH REPAIR DETAILS

DATE: 10/22/2025

PROJECT NO.: 613219

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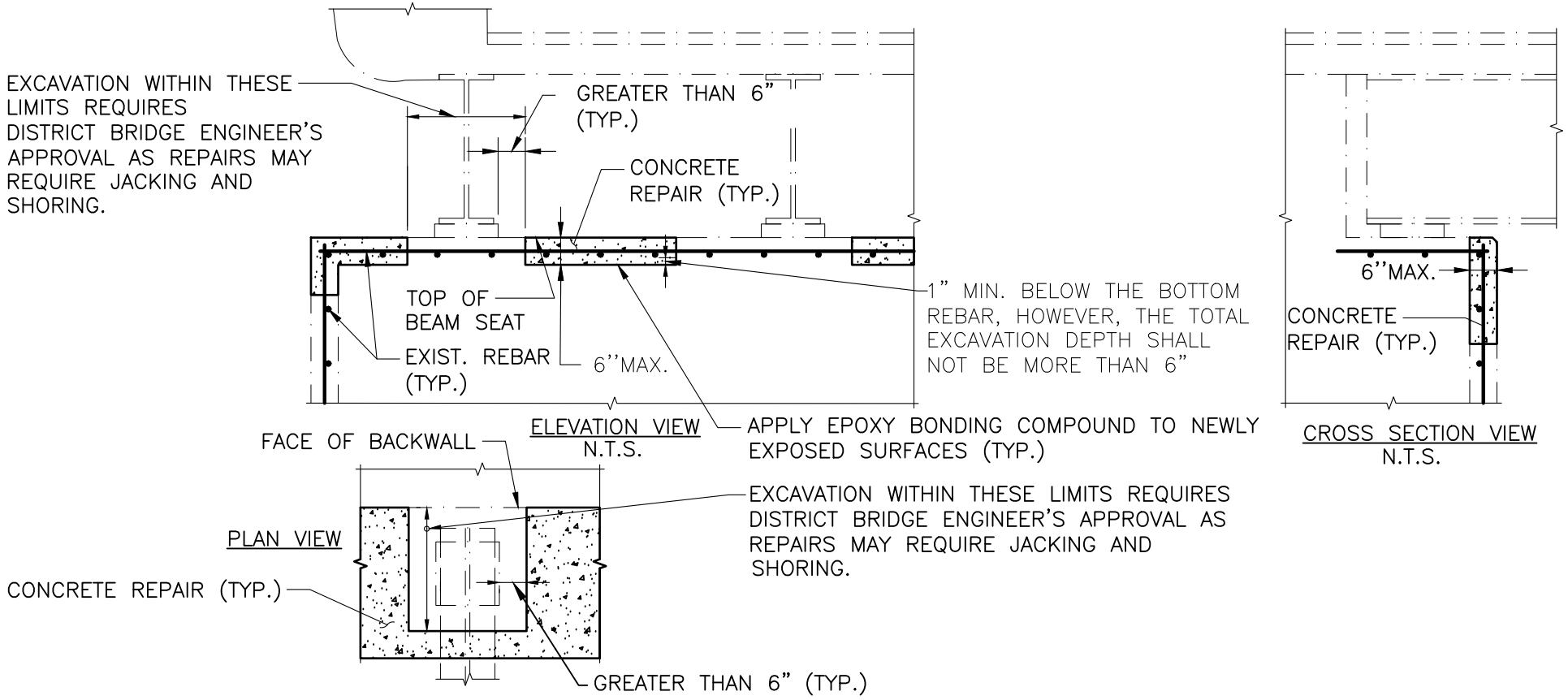

TYPICAL ABUTMENT DEEP PATCH REPAIR LIMITS
N.T.S.

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

TYPICAL ABUTMENT DEEP PATCH REPAIR LIMITS

DATE: 10/22/2025

PROJECT NO.: 613219

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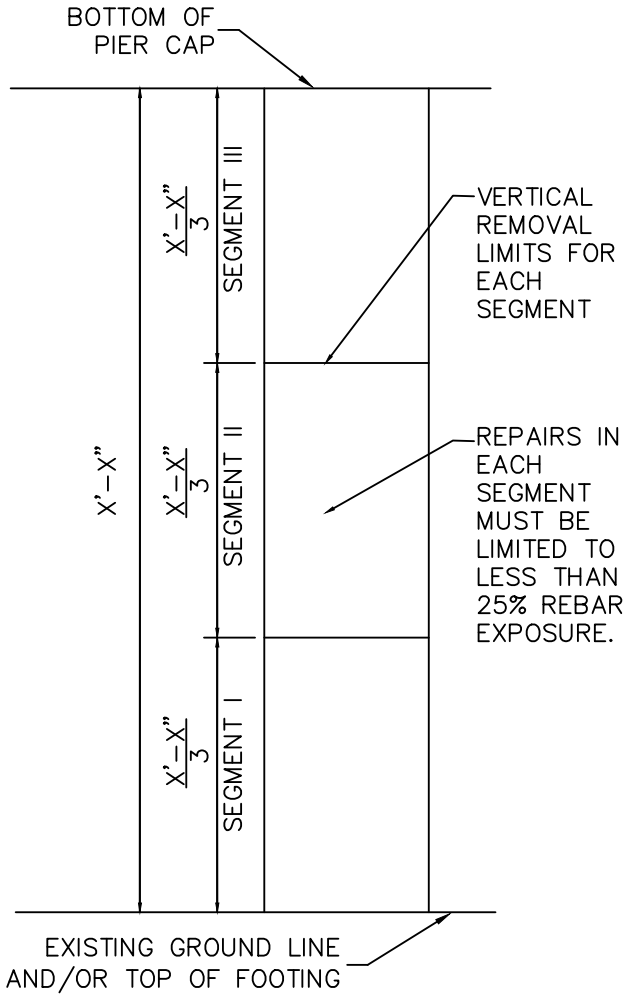
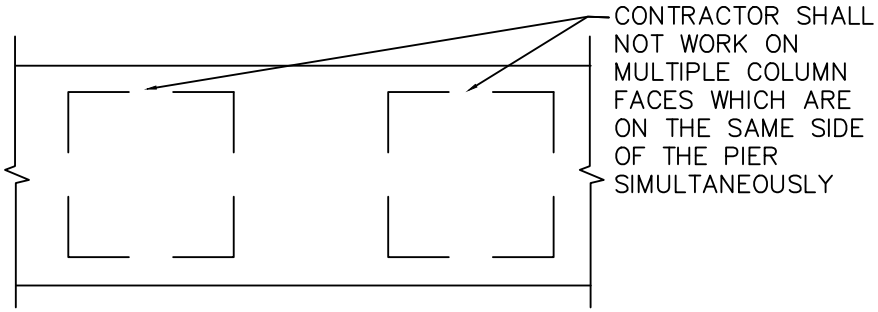


PIER COLUMN REPAIR SEQUENCE

N.T.S.



PIER COLUMN PLAN

N.T.S.

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

PROPOSED PIER CAP REPAIR SEQUENCES

DATE: 10/22/2025

PROJECT NO.: 613219

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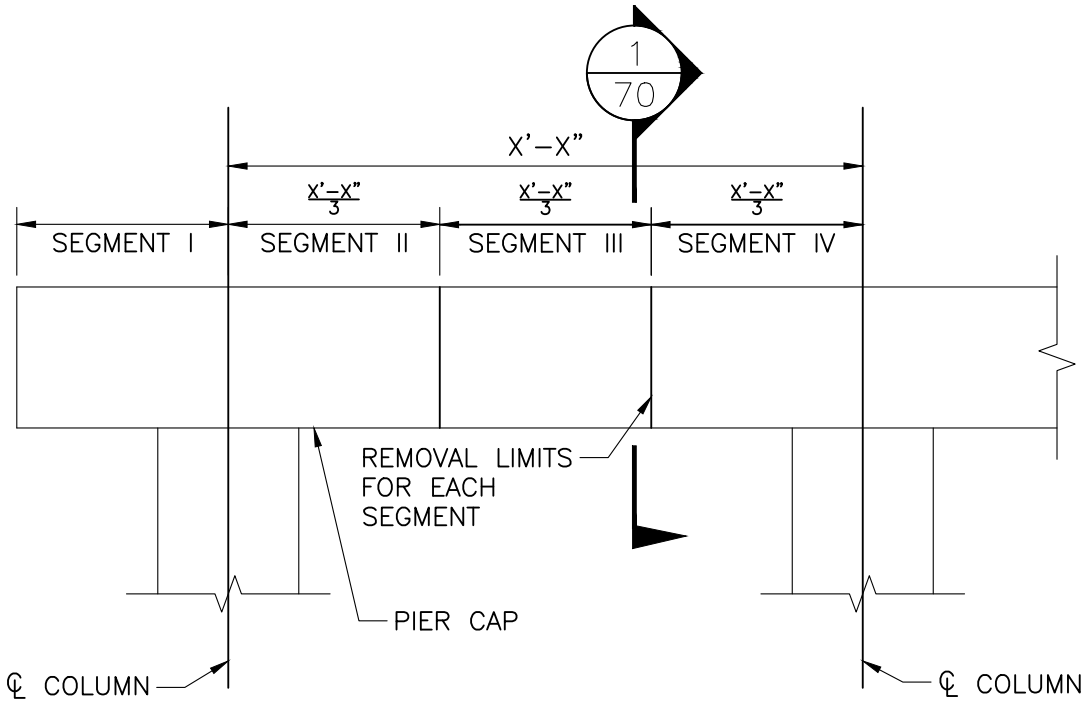

PIER CAP REPAIR SEQUENCE
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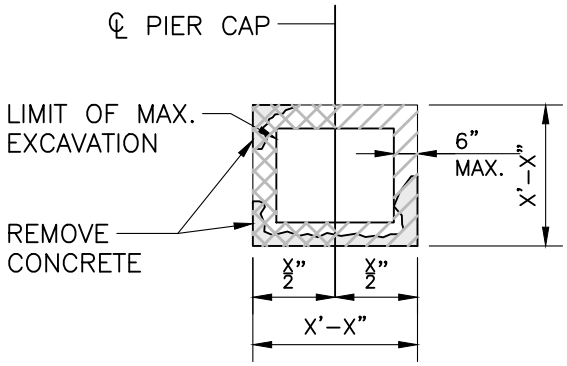

PIER CAP 1/70
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massDOT Massachusetts Department of Transportation Highway Division DISTRICT 2 BRIDGE SECTION	**PROPOSED PIER CAP REPAIR SEQUENCE**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 70 OF 77

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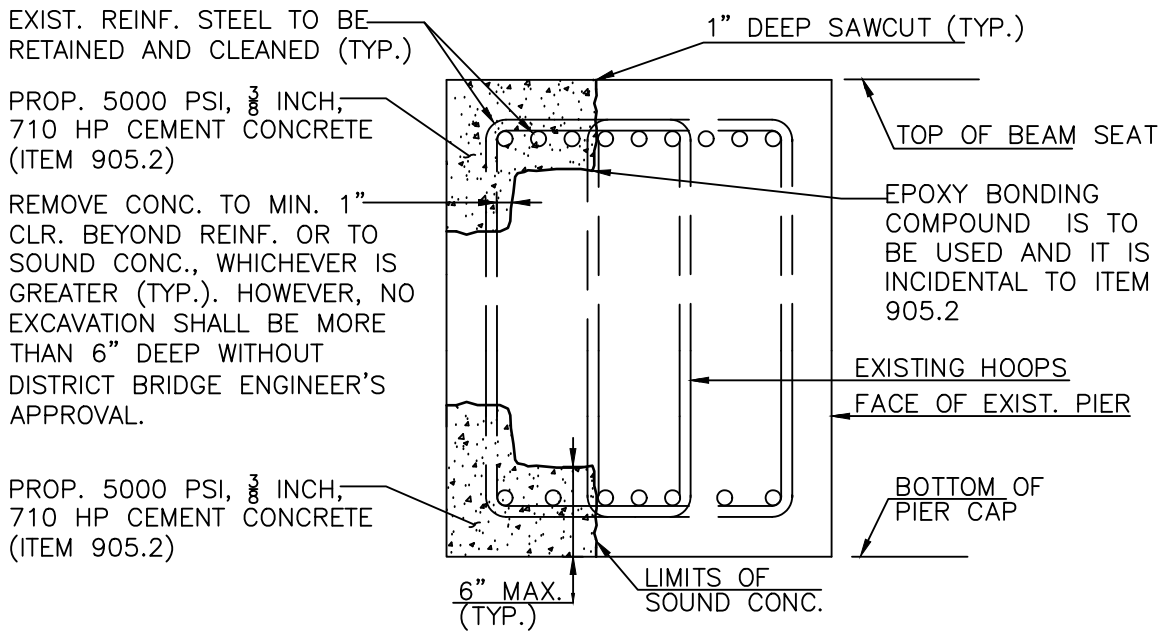
Proposal No. 613219-132950



PIER CAP CONCRETE REPAIR DETAIL

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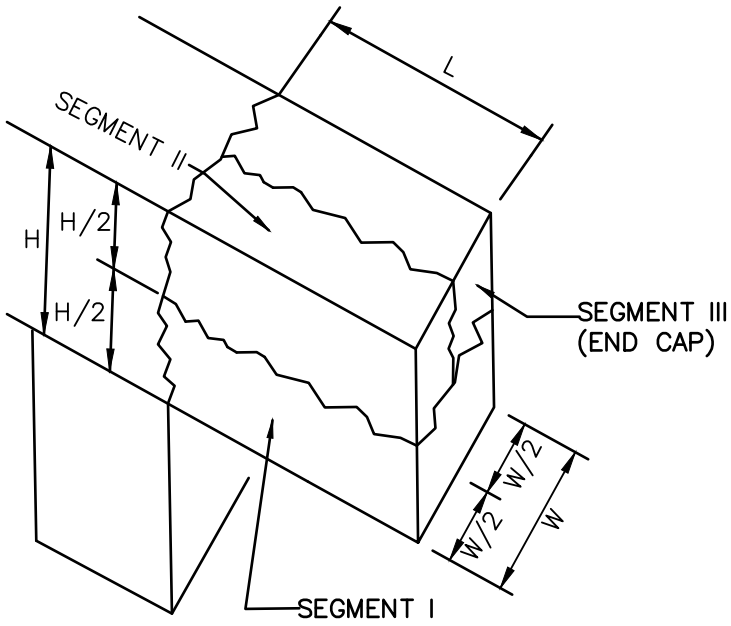

PIER CAP OVERHANG CONCRETE REPAIR SEQUENCE

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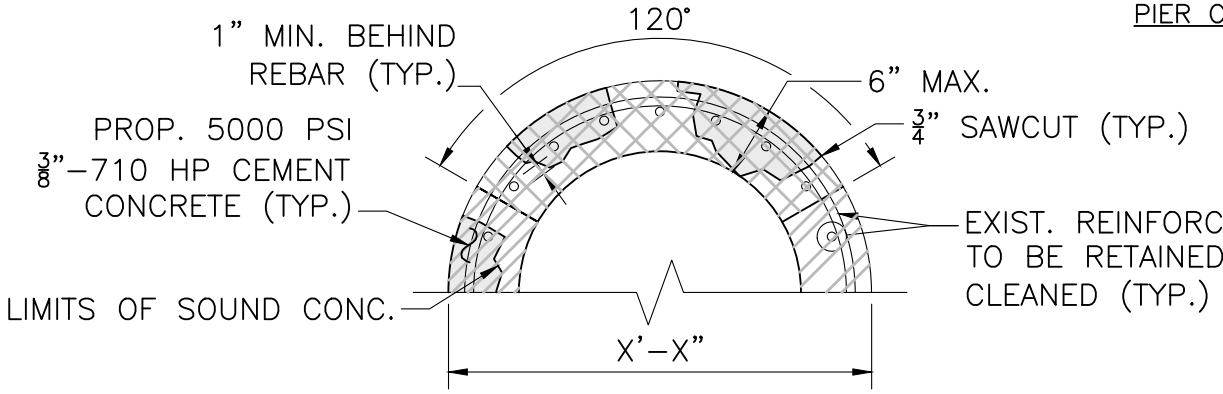

CIRCULAR COLUMN

SECTION 1

SECTION 2

SECTION 3

massDOT Highway Division	**PROP. PIER CAP REPAIR DETAIL, PIER CAP OVERHANG REPAIR SEQUENCE, AND COLUMN REPAIR SECTION**	DATE: 10/22/2025
DISTRICT 2 BRIDGE SECTION		PROJECT NO.: 613219
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NOTES:

1. INSPECT CONCRETE COLUMNS AND PIER CAPS AND IDENTIFY AREAS IN NEED OF REPAIR. DIVIDE THE SURFACES OF THE COLUMNS AND PIER CAPS INTO REPAIR AREAS AS SHOWN. EACH COLUMN REPAIR AREA MEASURES FROM GROUND SURFACE TO BOTTOM OF PIER CAP. THE REPAIR AREAS SHALL BE STAGGERED FROM COLUMN TO COLUMN. EACH PIER CAP REPAIR AREA WILL BE MEASURED FROM THE BEAM CENTERLINE TO BEAM CENTERLINE.

2. THE CONTRACTOR SHALL PROVIDE A TEMPORARY SHORING SYSTEM TO SUPPORT THE PIER CAP DEAD AND LIVE LOADS IF THE EXCAVATION LIMITS ARE TO BE EXTENDED PER EVALUATION OF THE DISTRICT BRIDGE ENGINEER.

3. THE CONTRACTOR MUST PROVIDE A TEMPORARY SHORING SYSTEM TO SUPPORT PIER CAP DEAD AND LIVE LOADS IF EXCAVATION IS WITHIN 6" OF THE BEARING.

4. THE CONTRACTOR SHALL SUBMIT AN ALTERNATE REPAIR SEQUENCE FOR APPROVAL OF THE ENGINEER WHEN TEMPORARY SHORING IS UTILIZED DURING REPAIRS.

5. CONTRACTOR SHALL WAIT 72 HOURS AFTER COMPLETING REPAIRS TO A SECTION BEFORE CHIPPING ADJACENT SECTIONS. HOWEVER THE CONTRACTOR MAY PERFORM WORK ON OTHER BRIDGE ELEMENTS.

6. THE CONTRACTOR MUST STAGE THE WORK SO THAT THE SECTIONS THAT ARE IN POOREST CONDITIONS ARE REPAIRED FIRST, AS APPROVED BY THE ENGINEER.

7. CONTRACTOR SHALL NOT WORK ON ADJACENT COLUMN SECTIONS SIMULTANEOUSLY UNLESS APPROVED BY THE DISTRICT BRIDGE ENGINEER.

8. THE CONTRACTOR MUIST NOT WORK SIMULTANEOUSLY ON MORE THAN TWO NON–ADJACENT SECTIONS UNLESS APPROVED BY THE ENGINEER.

9. WHEN HEIGHT OF COLUMN IS 18 FT. OR MORE, THE CONTRACTOR WILL BE RESTRICTED TO 6 FOOT SEGMENTS.

10. WHEN HEIGHT OF COLUMN IS LESS THAN 18 FEET, THE CONTRACTOR MAYBE RESTRICTED TO THE LENGTH OF SEGMENTS BASED ON THE DISCRETION OF THE ENGINEER.

11. MAXIMUM SEGMENT LENGTH FOR PIER CAPS MUST BE LIMITED TO 8 FEET.

12. CONTRACTOR SHALL STOP REMOVING DETERIORATED CONCRETE WHEN A MAXIMUM DEPTH OF 6 IN. IS REACHED. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED IF MORE REMOVAL SEEMS NECESSARY.

13. EXISTING REINFORCEMENT NOT SHOWN.

14. CLEAN ALL EXISTING COLUMN AND PIER REINFORCING STEEL AND NEWLY EXPOSED CONCRETE. IN CASE THE EXISTING COLUMN STEEL REINFORCING IS SEVERELY DETERIORATED IT MAY BE WARRANTED TO INCLUDE A 6X6–W2.9X2.9 WELDED EPOXY COATED WIRE FABRIC AS DIRECTED BY THE ENGINEER. IN CASE SEVERELY DETERIORATED EXISTING PIER CAP REINFORCEMENT IS ENCOUNTERED, REMOVE AND REPLACE ANY DAMAGED REINFORCEMENT. THE CONTRACTOR MUST USE THE BRIDGE MANUAL STEEL REINFORCEMENT LAP TABLE ON SHEET 74 WHEN RESTORING EXISTING STEEL REINFORCEMENT.

MassDOT Massachusetts Department of Transportation Highway Division	**PIER REPAIR NOTES**	DATE: 10/22/2025
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15. THE CONTRACTOR MUST THOROUGHLY CLEAN, ROUGHEN, WET WITH CLEAN WATER (WITHOUT STANDING WATER) THE EXISTING CONCRETE SURFACES PRIOR TO APPLICATION OF THE EPOXY BONDING COMPOUND. APPLY EPOXY BONDING COMPOUND TO ALL EXISTING REINFORCING STEEL AND NEWLY EXPOSED CONCRETE IMMEDIATELY PRIOR TO INSTALLING FORMS. PLACE CONCRETE BEFORE THE EPOXY BONDING COMPOUND BECOMES TACK–FREE TO TOUCH. THE FORMS MUST BE INSTALLED AND REMOVED AT LEAST ONCE PRIOR TO APPLICATION OF THE EPOXY BONDING COMPOUND TO ENSURE FORMS CAN BE INSTALLED AND FILLED BEFORE THE EPOXY BONDING COMPOUND HARDENS.

16. IF THE CONCRETE REPAIR WILL RESULT IN LESS THAN $1\frac{1}{2}$" OF CONCRETE COVER, THEN THE CONTRACTOR SHALL BUILD OUT THE FORM TO ENSURE A MINIMUM OF 2"+/– COVER.

17. ALL CONCRETE SHALL BE 5000 PSI, $\frac{3}{8}$ INCH, 710 HP CEMENT CONCRETE (ITEM 905.2).

18. ALL CURED CONCRETE SURFACES SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH.

MassDOT Massachusetts Department of Transportation Highway Division	**PIER REPAIR NOTES (CONT.)**	DATE: 10/22/2025
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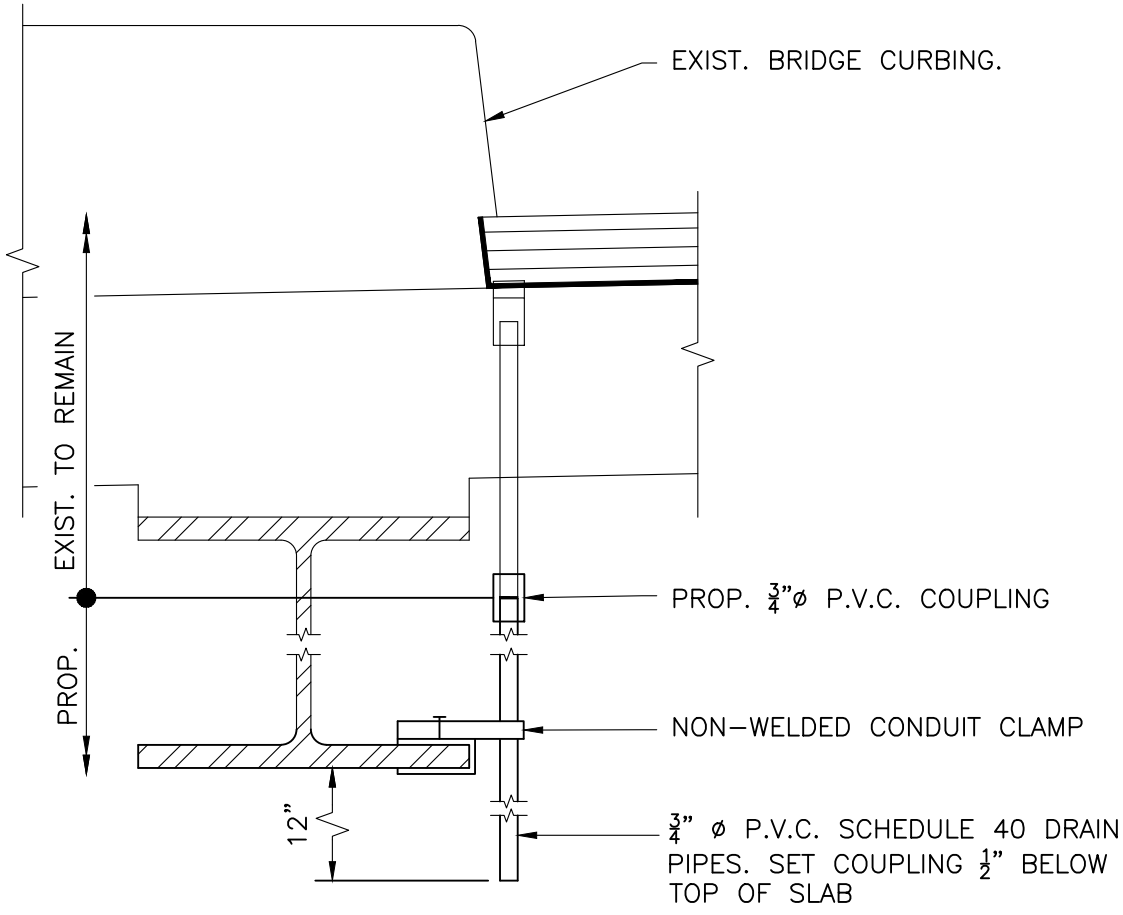
STEEL REINFORCEMENT LAP TABLE			
MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS
1. NONE	16"	17"	21"
2. 12" OF CONCRETE BELOW BAR	18"	22"	27"
3. EPOXY COATED BARS, COVER < $3d_b$, OR CLEAR SPACING < $6d_b$	21"	26"	31"
4. COATED BARS, ALL OTHER CASES	17"	21"	25"
5. CONDITION 2 AND 3	23"	29"	35"
6. CONDITION 2 AND 4	21"	27"	32"

SUBSTRUCTURE CONCRETE EXCAVATION VOLUMES		
BRIDGES	LOCATIONS	ESTIMATED QUANTITY (CY)
CHICOPEE C-13-037 (0X2)	NORTH AND SOUTH ABUTMENTS	1.73
HOLYOKE H-21-049 (0YD & 0YE)	NORTH AND SOUTH ABUTMENTS, PIERS	8.14
HOLYOKE H-21-051 (0YF & 0YG)	NORTH AND SOUTH ABUTMENTS, PIERS 1-4	9.35
HOLYOKE H-21-053 (0YL & 0YM)	NORTH AND SOUTH ABUTMENTS	1.25
HOLYOKE H-21-054 (0YN & 0YP)	NORTH AND SOUTH ABUTMENTS	1.12
NORTHAMPTON N-19-061 (104 & 105)	NORTH AND SOUTH ABUTMENTS	1.75
NORTHAMPTON N-19-062 (106 & 107)	NORTH AND SOUTH ABUTMENTS (106) SOUTH ABUTMENT (107)	0.15
NORTHAMPTON N-19-063 (109)	NORTH AND SOUTH ABUTMENTS	0.20
NORTHAMPTON N-19-064 (10C & 10D)	SOUTH ABUTMENT, PIERS 1-2 (10C) PIERS 1-2 (10D)	11.36
NORTHAMPTON N-19-065 (10A & 10B)	WEST ABUTMENT (10A) EAST AND WEST ABUTMENTS (10B), PIERS 1-3	2.04
NORTHAMPTON N-19-066 (10E)	NORTH AND SOUTH ABUTMENTS, PIERS 1-2	9.71
SPRINGFIELD S-24-078 (10P)	NORTH AND SOUTH ABUTMENTS	4.04
SPRINGFIELD S-24-079 (10Q)	NORTH AND SOUTH ABUTMENTS	5.70
SPRINGFIELD S-24-080 (10R)	NORTH AND SOUTH ABUTMENTS	5.02
SPRINGFIELD S-24-085 (10T)	NORTH AND SOUTH ABUTMENTS	2.18
SPRINGFIELD S-24-087 (10M)	EAST ABUTMENT, PIERS 1-2	0.33
WEST SPRINGFIELD W-21-046 (10X)	EAST AND WEST ABUTMENTS	1.86
WEST SPRINGFIELD W-21-047 (10W)	EAST AND WEST ABUTMENT, PIER 1	3.33



DECK DRAIN PIPES

SCALE: 1½" = 1'–0"

PVC DRAIN PIPE EXTENSIONS	
BRIDGES	ESTIMATED QUANTITY (EA)
CHICOPEE C–13–037 (0X2)	2
HOLYOKE H–21–049 (0XD)	2
HOLYOKE H–21–049 (0YE)	2
HOLYOKE H–21–051 (0YF)	2
HOLYOKE H–21–051 (0YG)	2
HOLYOKE H–21–053 (0YL)	2
HOLYOKE H–21–054 (0YP)	2

MassDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

PROPOSED DRAIN PIPE EXTENSION DETIAL

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PVC DRAIN PIPE EXTENSIONS (CONT.)	
BRIDGES	ESTIMATED QUANTITY (EA)
HOLYOKE H-21-054 (0YN)	2
NORTHAMPTON N-19-061 (104)	2
NORTHAMPTON N-19-061 (105)	2
NORTHAMPTON N-19-062 (106)	2
NORTHAMPTON N-19-062 (107)	2
NORTHAMPTON N-19-063 (109)	2
NORTHAMPTON N-19-064 (10C)	2
NORTHAMPTON N-19-064 (10D)	2
NORTHAMPTON N-19-065 (10A)	2
NORTHAMPTON N-19-065 (10B)	2
NORTHAMPTON N-19-066 (10E)	2
SPRINGFIELD S-24-078 (10P)	2
SPRINGFIELD S-24-079 (10Q)	2
SPRINGFIELD S-24-080 (10R)	2
SPRINGFIELD S-24-085 (10T)	2
SPRINGFIELD S-24-087 (10M)	2
WEST SPRINGFIELD W-21-046 (10X)	2
WEST SPRINGFIELD W-21-047 (10W)	2

MassDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

PROPOSED DRAIN PIPE EXTENSION QUANTITIES

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DOCUMENT A00804

SUPERSTRUCTURE REPAIR DETAILS

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SPRINGFIELD	S-24-087 (10M)	STEEL LEGEND (1 OF 2)	8
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SPRINGFIELD	S-24-087 (10M)	REPAIR DETAILS (3 OF 4)	12
SPRINGFIELD	S-24-087 (10M)	REPAIR DETAILS (4 OF 4)	13
SPRINGFIELD	S-24-078 (10P)	FRAMING PLAN	14
SPRINGFIELD	S-24-078 (10P)	STEEL LEGEND	15
SPRINGFIELD	S-24-078 (10P)	REPAIR DETAILS (1 OF 3)	16
SPRINGFIELD	S-24-078 (10P)	REPAIR DETAILS (2 OF 3)	17
SPRINGFIELD	S-24-078 (10P)	REPAIR DETAILS (3 OF 3)	18
SPRINGFIELD	S-24-079 (10Q)	FRAMING PLAN	19
SPRINGFIELD	S-24-079 (10Q)	STEEL LEGEND	20
SPRINGFIELD	S-24-079 (10Q)	REPAIR DETAILS (1 OF 2)	21
SPRINGFIELD	S-24-079 (10Q)	REPAIR DETAILS (2 OF 2)	22
SPRINGFIELD	S-24-080 (10R)	FRAMING PLAN	23
SPRINGFIELD	S-24-080 (10R)	STEEL LEGEND	24
SPRINGFIELD	S-24-080 (10R)	REPAIR DETAILS (1 OF 4)	25
SPRINGFIELD	S-24-080 (10R)	REPAIR DETAILS (2 OF 4)	26
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WEST SPRINGFIELD	W-21-047 (10W)	REPAIR DETAILS	37
WEST SPRINGFIELD	W-21-046 (10X)	FRAMING PLAN	38
WEST SPRINGFIELD	W-21-046 (10X)	REPAIR DETAILS (1 OF 2)	39
WEST SPRINGFIELD	W-21-046 (10X)	REPAIR DETAILS (2 OF 2)	40
HOLYOKE	H-21-049 (0YD)	FRAMING PLAN	41
HOLYOKE	H-21-049 (0YD)	STEEL LEGEND	42
HOLYOKE	H-21-049 (0YE)	FRAMING PLAN	43
HOLYOKE	H-21-049 (0YE)	STEEL LEGEND	44
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HOLYOKE	H-21-051 (0YF)	REPAIR DETAILS (1 OF 2)	48
HOLYOKE	H-21-051 (0YF)	REPAIR DETAILS (2 OF 2)	49
HOLYOKE	H-21-051 (0YG)	FRAMING PLAN	50
HOLYOKE	H-21-051 (0YG)	REPAIR DETAILS (1 OF 4)	51
HOLYOKE	H-21-051 (0YG)	REPAIR DETAILS (2 OF 4)	52
HOLYOKE	H-21-051 (0YG)	REPAIR DETAILS (3 OF 4)	53
HOLYOKE	H-21-051 (0YG)	REPAIR DETAILS (4 OF 4)	54
HOLYOKE	H-21-053 (0YL)	FRAMING PLAN	55
HOLYOKE	H-21-053 (0YM)	FRAMING PLAN	56
HOLYOKE	H-21-054 (0YN)	FRAMING PLAN	57
HOLYOKE	H-21-054 (0YN)	REPAIR DETAILS	58
HOLYOKE	H-21-054 (0YP)	FRAMING PLAN	59
HOLYOKE	H-21-054 (0YP)	REPAIR DETAILS	60
NORTHAMPTON	N-19-061 (104)	FRAMING PLAN	61
NORTHAMPTON	N-19-061 (104)	REPAIR DETAILS	62
NORTHAMPTON	N-19-061 (105)	FRAMING PLAN	63
NORTHAMPTON	N-19-061 (105)	REPAIR DETAILS	64
NORTHAMPTON	N-19-062 (106)	FRAMING PLAN	65
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NORTHAMPTON	N-19-062 (107)	REPAIR DETAILS	70
NORTHAMPTON	N-19-063 (109)	FRAMING PLAN	71
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NORTHAMPTON	N-19-065 (10A)	FRAMING PLAN (1 OF 2)	73
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NORTHAMPTON	N-19-065 (10A)	STEEL LEGEND	75
NORTHAMPTON	N-19-065 (10A)	REPAIR DETAILS	76
NORTHAMPTON	N-19-065 (10B)	FRAMING PLAN (1 OF 2)	77
NORTHAMPTON	N-19-065 (10B)	FRAMING PLAN (2 OF 2)	78
NORTHAMPTON	N-19-065 (10B)	STEEL LEGEND	79
NORTHAMPTON	N-19-065 (10B)	REPAIR DETAILS	80
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GENERAL NOTES:

EXISTING CONDITIONS

THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND EXISTING DETAILS NECESSARY FOR THE COMPLETION OF WORK BY FIELD MEASUREMENT AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF AND SHALL NOT ORDER ANY MATERIALS OR COMMENCE ANY FABRICATION UNTIL THE REQUIRED MEASUREMENTS HAVE BEEN MADE ON THE ACTUAL STRUCTURE AND THE EXTENT OF THE PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

EXISTING BRIDGE PLANS:

ALL DETAILS HEREIN WERE DRAWN FROM ORIGINAL PLANS. THE CONTRACTOR MUST VERIFY DETAILS AND DIMENSIONING. PLANS FOR THE EXISTING BRIDGES ARE AVAILABLE AND MAY BE SEEN AT THE OFFICE OF THE DISTRICT TWO BRIDGE ENGINEER, MASSDOT – HIGHWAY DIVISION, 811 NORTH KING STREET, NORTHAMPTON, MASSACHUSETTS. PLANS FOR THE EXISTING BRIDGES ARE AVAILABLE AND MAY ALSO BE REQUESTED ELECTRONICALLY FROM PLANS AND RECORDS.

SHOP DRAWINGS

THE CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS AS REQUIRED BY THE STANDARD SPECIFICATION AND THE LATEST MASSDOT BRIDGE MANUAL. PROPOSED COMPONENTS THAT REQUIRE FIELD MEASUREMENTS SHALL BE DESIGNED, DETAILED, AND SUBMITTED TO THE ENGINEER FOR APPROVAL.

STRUCTURAL STEEL CLEANING AND PAINTING:

ALL STEEL REPAIR AREAS INCLUDING BEAMS, STIFFENERS, BRACING AND BEARINGS SHALL BE CLEANED AND PAINTED AT AREAS OF STEEL REPAIRS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. PRIOR TO PAINTING AND AFTER BLASTING AND CLEANING, ALL STEEL REPAIR AREAS MUST BE COMPLETED PER THE CONSTRUCTION PLANS. PAINTING IS SHALL TO BE DONE AT LOCATIONS OF STEEL REPAIR AREAS AND WHERE NOTED IN THE CONSTRUCTION PLANS. ALL PAINTING AREAS IDENTIFIED SHALL BE PAINTED A MINIMUM OF 5 FEET, AND SHALL BE PAINTED 6" BEYOND LIMITS OF STEEL REPAIRS. ALL WORK SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.

STEEL REPAIR NOTES:

1. REMOVE ANY OBSTACLES THAT INTERFERE WITH STEEL REPAIRS. REMOVAL OF OBSTACLES SHALL BE CONSIDERED INCIDENTAL TO ITEM 107.97. RESETTING (IF NECESSARY) OF ANY OBSTACLES SHALL ALSO BE CONSIDERED INCIDENTAL TO ITEM 107.97.

2. UTILITIES SHALL BE PROTECTED DURING ALL CONSTRUCTION PROCEDURES. ANY DAMAGE TO THE UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

3. CLEAN THE CONTACT SURFACES OF EXISTING STEEL IN ACCORDANCE WITH SPECIAL PROVISIONS. THE CONTACT SURFACES MUST BE FREE OF PAINT, OIL, AND GREASE, AND MUST PROVIDE THE NECESSARY SLIP RESISTANCE FOR CLASS B SLIP CRITICAL CONNECTIONS.

4. ENGINEER TO INSPECT CLEANED AREA AND VERIFY REPAIR LIMITS BASED ON CONDITIONS EXPOSED BY CLEANING.

5. THE REPAIR MUST BE INSPECTED FOR DAMAGE DUE TO CONTRACTOR'S OPERATIONS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

6. IN LOCATIONS WHERE HEAVY DETERIORATION HAS OCCURRED OR AS DIRECTED BY THE ENGINEER, EPOXY REPAIR FAIRING COMPOUND SHALL BE APPLIED OVER THE PRIME COAT AS FOLLOWS:

   A. THE EPOXY REPAIR COMPOUND MUST BE APPLIED TO THE DETERIORATED AREAS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE CONTRACTOR MUST SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL OF THE METHODS, PROCEDURES, AND MATERIALS TO BE USED FOR THE WORK.

STEEL REPAIR NOTES CONT.

B. THE REPAIR COMPOUND MUST ONLY BE APPLIED TO THOSE AREAS OF THE EXISTING STEEL THAT EXHIBIT SEVERE SECTION LOSS TO COMPLETELY FILL THE IRREGULARITIES IN THE EXISTING STEEL SURFACES SUCH THAT NO VOIDS REMAIN BETWEEN THE PLIES OF THE EXISTING STEEL AND THE PROPOSED STRENGTHENING STEEL IN THE FINAL REPAIR CONDITION.

C. THE PROPOSED REPAIR STEEL SHALL BE PROPERLY POSITIONED AND BROUGHT INTO FIRM CONTACT WITHIN THE WORKING TIME LIMITS OF THE EPOXY REPAIR COMPOUND. THE REPAIR STEEL MUST BE SECURED IN PLACE USING POSITIONING BOLTS TENSIONED TO A SNUG TIGHT CONDITION AND CLAMPED OR OTHER MECHANICAL MEANS TO BRING THE PLIES OF THE EXISTING STEEL AND NEW STEEL INTO FIRM CONTACT. WELDING IS NOT ALLOWED.

D. ONCE THE PROPOSED STEEL HAS BEEN SECURED INTO POSITION WITH THE POSITIONING BOLTS, AND THE EPOXY COMPOUND HAS CURED, THE REMAINING H.S. BOLTS SHALL BE INSTALLED FOLLOWING THE PROCEDURE OUTLINED IN THE GENERAL NOTES.

E. EPOXY COMPOUND FOR STRUCTURAL STEEL REPAIRS SHALL BE A SOLVENT FREE, MOISTURE TOLERANT, EPOXY PASTE ADHESIVE SYSTEM. THE EPOXY PASTE SHALL BE DEVELOPED SPECIFICALLY FOR FILLING, SMOOTHING, SEALING, OR FAIRING APPLICATIONS ON METALS. THE PASTE SHALL BE APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S LATEST WRITTEN INSTRUCTIONS. ACCEPTABLE PRODUCTS SHALL BE ONE OF THE FOLLOWING OR AN APPROVED EQUAL: ITW PHILADELPHIA RESINS REPAIR COMPOUND MANUFACTURED BY: ITW PHILADELPHIA RESINS, SIKADUR 31, HI–MOD GEL MANUFACTURED BY: SIKA CORPORATION, DEVCON PLASTIC STEEL PUTTY (A) MANUFACTURED BY: ITW DEVCON, FX–738 METAL FILLED EPOXY MANUFACTURED BY: SIMPSON STRONG–TIE.

7. STEEL MUST CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 36 OR 50. IT MUST BE CONSIDERED A MAIN MEMBER AND CONFORM TO THE M270 ZONE T2 ASSHTO V–NOTCH REQUIREMENTS.

8. IN THE CASE THAT ANY STEEL REPAIR ANGLE INTERFERES WITH THE EXISTING ANCHOR BOLT, A LEG OF THE ANGLE CAN BE COPED TO PROVIDE CLEARANCE AROUND THE EXISTING ANCHOR BOLT.

9. CLEAN, PAINT, AND SEAL PERIMETER OF STEEL LOCATIONS AS NOTED IN THE PLANS WITH SILICONE CAULK IN STRICT ADHERENCE TO THE SPECIAL PROVISIONS.

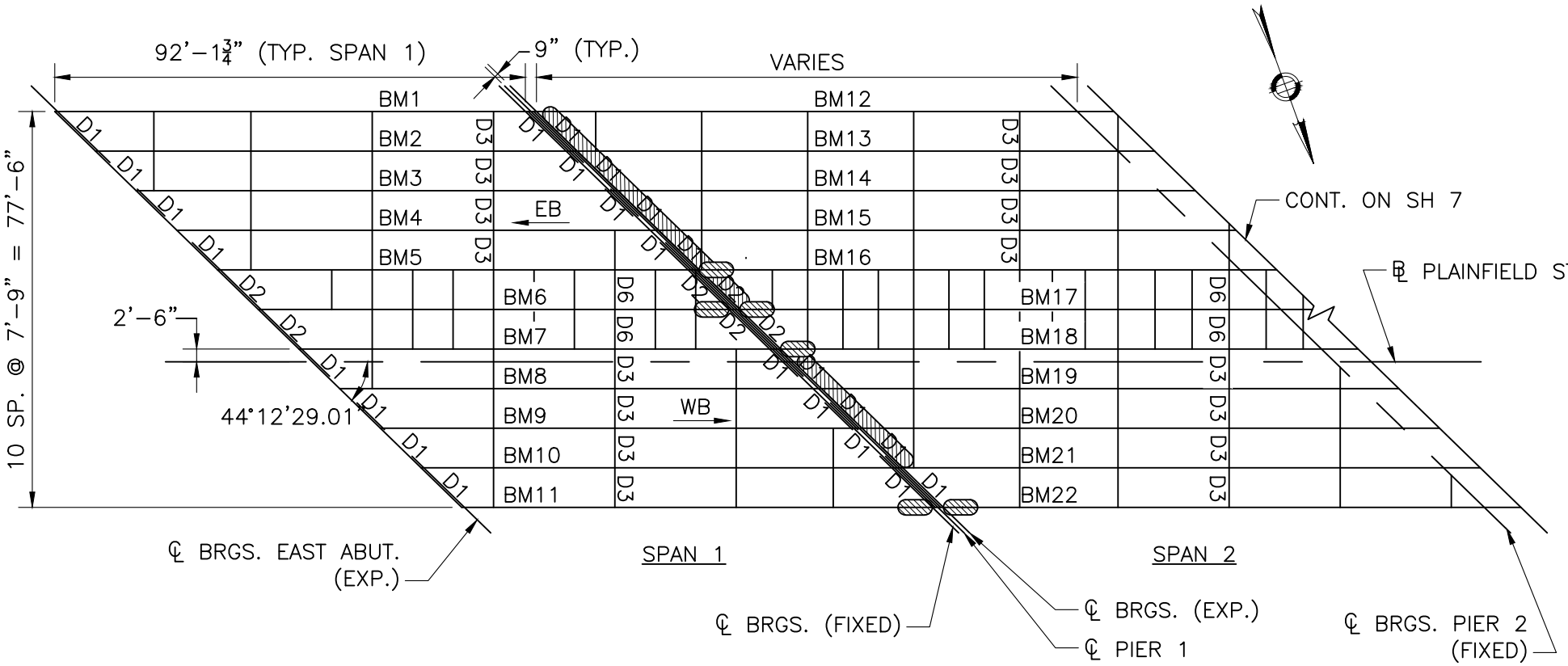
10. ALL DIMENSIONS SHOWN ON THE STEEL REPAIR DETAILS WITHIN THE CONSTRUCTION PLANS ARE SUGGESTIVE AND SHALL BE FIELD VERIFIED PRIOR TO FABRICATION.

STEEL KEEPER PLATE REPAIRS

THE CONTRACTOR SHALL REPAIR KEEPER PLATES WITH SEVERE SECTION LOSS, AS IDENTIFIED IN THE CONSTRUCTION PLANS. STEEL ANGLES SHALL BE REPLACED IN KIND. STEEL FOR REPAIR IS INCLUDED IN ITEM 107.97.

ANCHOR BOLT CORING

THE CONTRACTOR SHALL CORE AND GROUT ANCHOR BOLTS AS IDENTIFIED IN THE CONSTRUCTION PLANS. CORE AND GROUT ANCHOR BOLTS SHALL BE REPLACED AS SHOWN IN THE PLANS UNDER ITEM 913.2. SHORING TOWER FOR IDENTIFIED AREAS INCLUDED UNDER ITEM 106.88 AND 106.881.



SPAN	BEAM NO.	LENGTH
1	1–11	92'–1¾"
2 & 3	12–18	213'–6⅛"
	19	213'–0¼"
	20	212'–6 7/16"
	21	212'–0 9/16"
	22	211'–6¾"

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA

MARK	DESCRIPTION
D1	15C33.9, (3) ∠4"x4"x 5/16"
D2	15C33.9, (2) ∠4"x4"x 5/16", 4WF13
D3	(4) ∠4"x4"x 5/16"
D6	(3) ∠4"x4"x 5/16", 4WF13

NOTE:
1. BAY NUMBERS IN NUMERICAL ORDER FROM SOUTH TO NORTH, TYPICAL ALL SPANS

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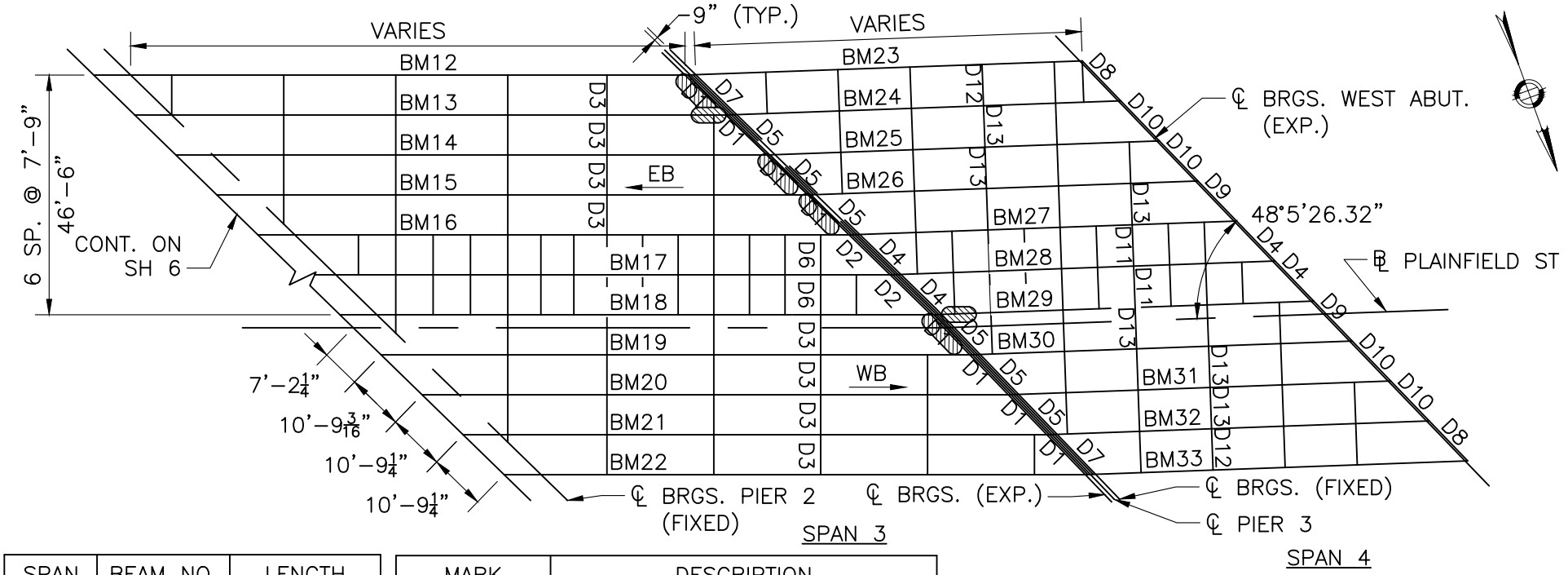
FRAMING PLAN
BRIDGE NO. S-24-087 (10M)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 6 OF 85

Proposal No. 613219-132950



SPAN	BEAM NO.	LENGTH
4	23	75'-1⅜"
	24	74'-5¾"
	25	73'-10¼"
	26	73'-2 13/16"
	27	72'-7 7/16"
	28	72'-0⅛"
	29	71'-4 15/16"
	30	71'-3⅛"
	31	71'-1⅜"
	32	70'-11 9/16"
	33	70'-9¾"

MARK	DESCRIPTION
D1	15C33.9, (3) ∠4"x4"x5/16"
D2 & D4	15C33.9, (2) ∠4"x4"x5/16", 4WF13
D3	(4) ∠4"x4"x5/16"
D6	(3) ∠4"x4"x5/16", 4WF13
D5 & D7	15C33.9, (3) ∠4"x4"x5/16"
D8 & D9	15C33.9, (2) ∠4"x4"x5/16"
D10	15C33.9
D11	18C42.7 OPPOSITE OF D13 OTHERWISE 4WF13
D12	18C42.7, ∠4"x4"x5/16"
D13	18C42.7

NOTE:
1. BAY NUMBERS IN NUMERICAL ORDER FROM SOUTH TO NORTH, TYPICAL ALL SPANS

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA

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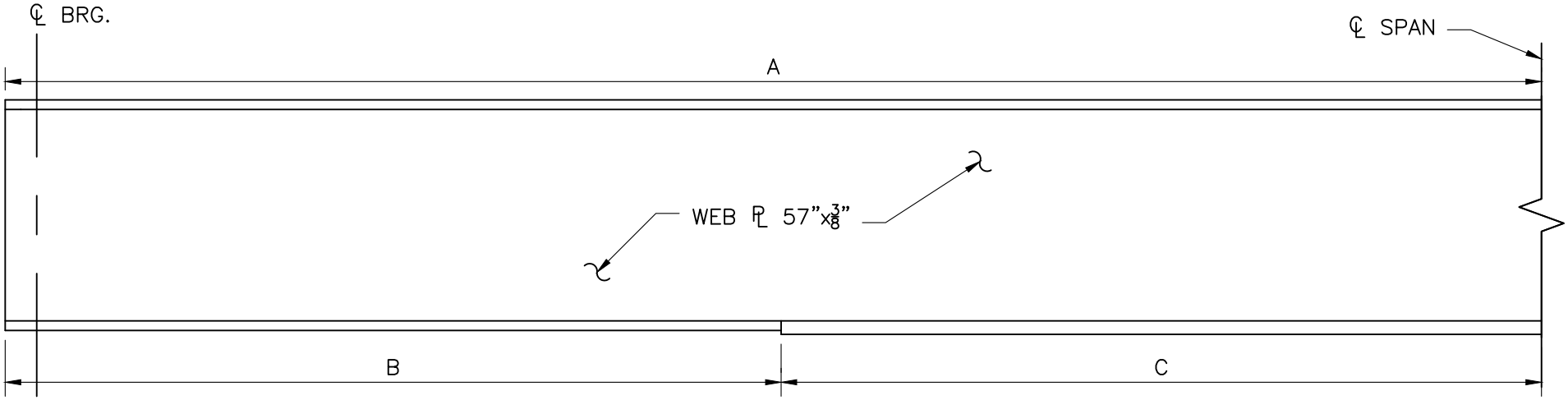

FLANGE PLATES				
SPAN	BEAM	A	B	C
1	1 & 11	12"x3/4"x92'-1 3/4"	14"x1 1/8"x24'-3 7/8"	14"x1 5/8"x43'-6"
	2-4 & 8-10	12"x7/8"x92'-1 3/4"	14"x1 1/8"x21'-9 7/8"	14"x1 5/8"x48'-6"
	5	12"x1"x92'-1 3/4"	14"x1 1/4"x23'-3 7/8"	14"x1 3/4"x45'-6"
	6	12"x1 1/4"x92'-1 3/4"	14"x1 3/8"x21'-3 7/8"	14"x2"x49'-6"
	7	12"x1 1/8"x92'-1 3/4"	14"x1 1/4"21'-3 7/8"	14"x1 7/8"x49'-6"
4	23	12"x3/4"x75'-1 3/8"	12"x7/8"x19'-3 11/16"	12"x1 1/4"x36'-6"
	33	12"x3/4"x70'-9 3/4"	12"x3/4"x21'-7 7/8"	12"x1"x27'-6"

NOTES:
1. FLANGE PLATES SYMMETRICAL ABOUT ℄ OF SPAN.
2. SPAN 1 – PLATE 4 RUNS TO END OF GIRDER.

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STEEL LEGEND (SPANS 1 & 4)
BRIDGE NO. S-24-087 (10M)
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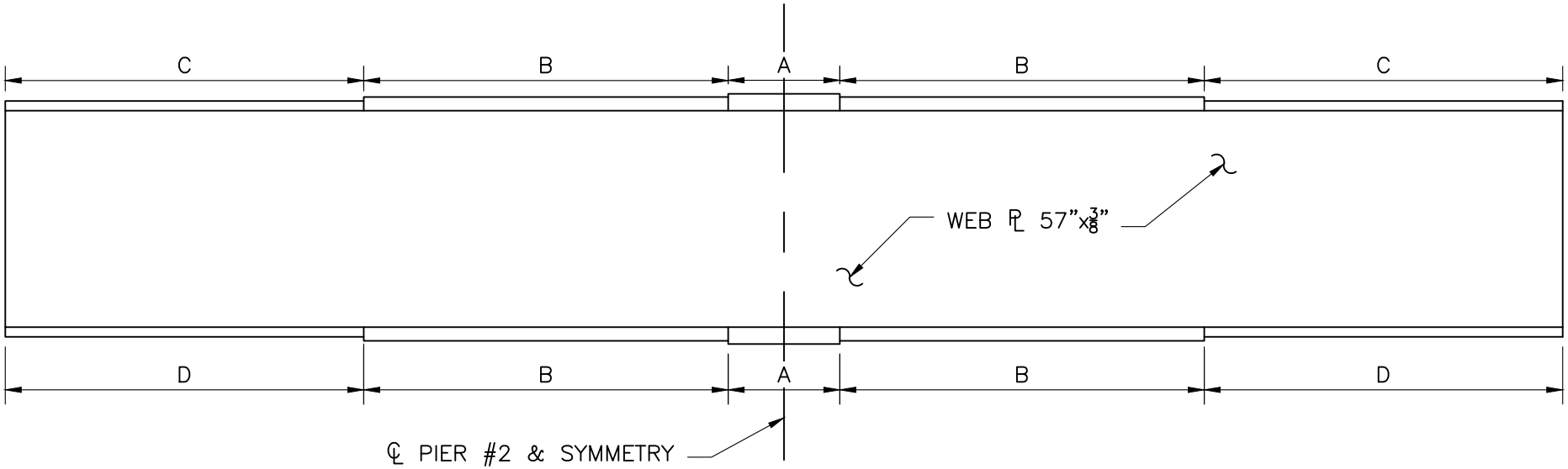

FLANGE PLATES					
SPAN	BEAM	A	B	C	D
2 & 3	12	16"x2"x14'–0"	16"x1 1/2"x10'–0"	16"x1"x89'–9 1/8"	16"x1 1/8"x89'–9 1/8"
	13–15, 16 & 18	18"x2"x14'–0"	18"x1 1/2"x10'–0"	18"x1"x89'–9 1/8"	18"x1 1/8"x89'–9 1/8"
	17	20"x2"x14'–0"	20"x1 1/2"x10'–0"	20"x1"x89'–9 1/8"	20"x1 1/8"x89'–9 1/8"
	19	18"x2"x14'–0"	18"x1 1/2"x10'–0"	18"x1"x89'–6 1/8"	18"x1 1/8"x89'–6 1/8"
	20	18"x2"x14'–0"	18"x1 1/2"x10'–0"	18"x1"x89'–3 3/16"	18"x1 1/8"x89'–3 3/16"
	21	18"x2"x14'–0"	18"x1 1/2"x10'–0"	18"x1"x89'–0 3/16"	18"x1 1/8"x89'–0 3/16"
	22	16"x2"x14'–0"	16"x1 1/2"x10'–0"	16"x1"x88'–9 5/16"	16"x1 1/8"x88'–9 5/16"

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STEEL LEGEND (SPANS 2 & 3)
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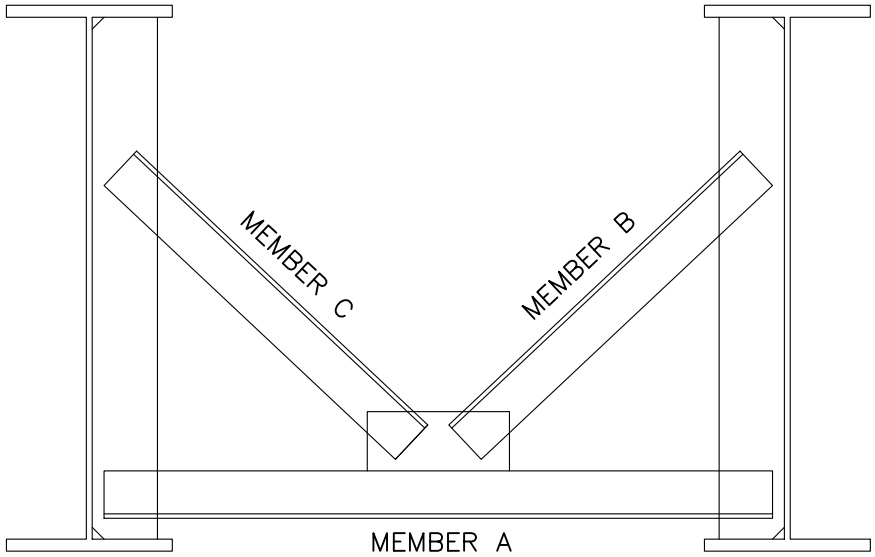
SPAN	LOCAITON	BAY	MEMBER
SPAN 2	PIER 1	BAY 1	A
SPAN 2	PIER 1	BAY 2	A
SPAN 2	PIER 1	BAY 3	A
SPAN 2	PIER 1	BAY 4	A
SPAN 2	PIER 1	BAY 5	A
SPAN 2	PIER 1	BAY 7	A & B
SPAN 2	PIER 1	BAY 8	A
SPAN 2	PIER 1	BAY 9	A
SPAN 3	PIER 3	BAY 1	B
SPAN 3	PIER 3	BAY 3	A & C
SPAN 3	PIER 3	BAY 4	A
SPAN 3	PIER 3	BAY 7	A & C



NOTE:
DIAPHRAGMS COMPOSED OF L4x4x$\frac{5}{16}$

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STEEL REPAIR DETAILS
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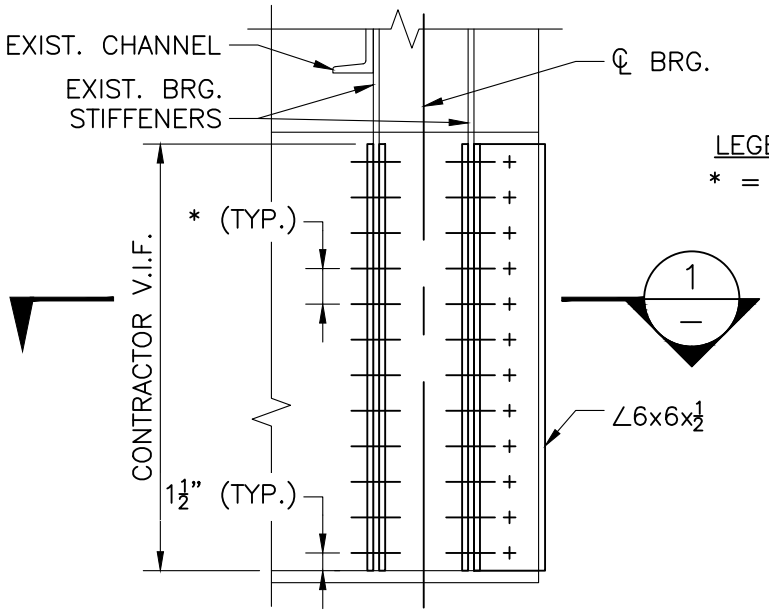
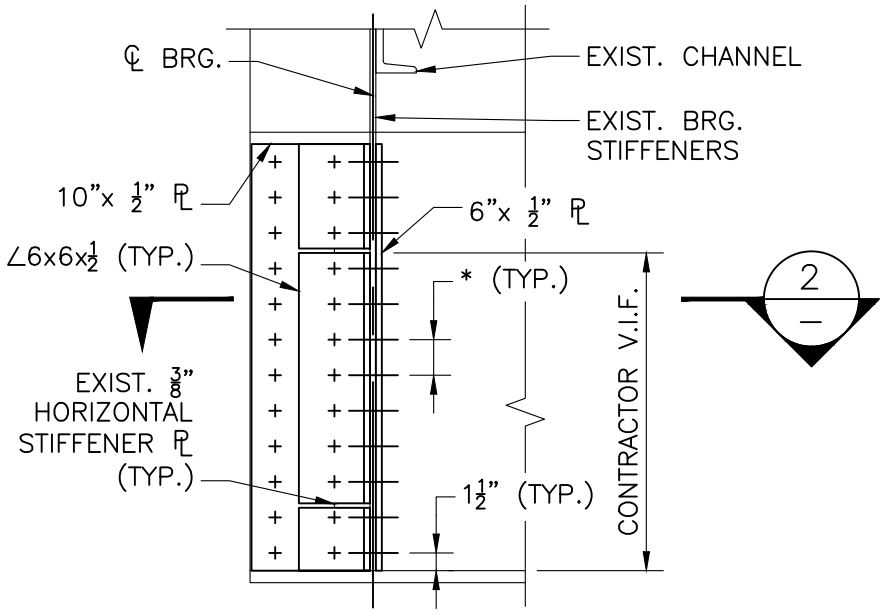
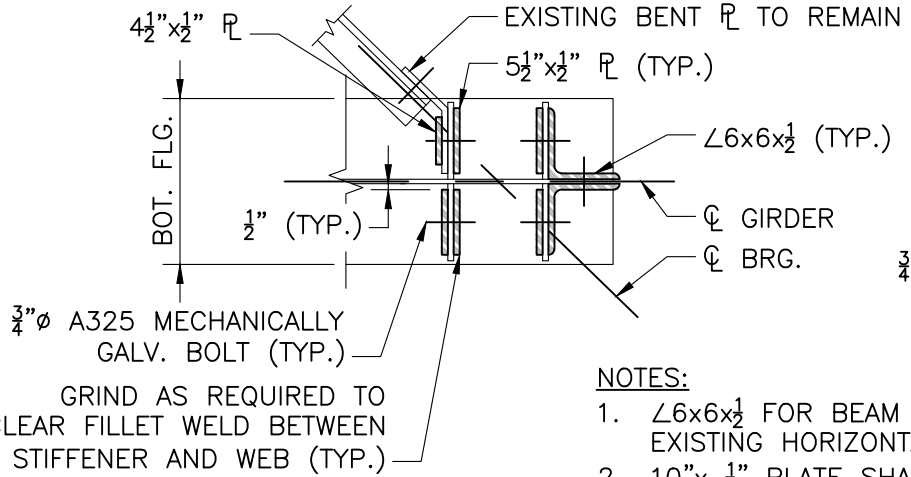


LEGEND

* = 3" MIN, 6" MAX



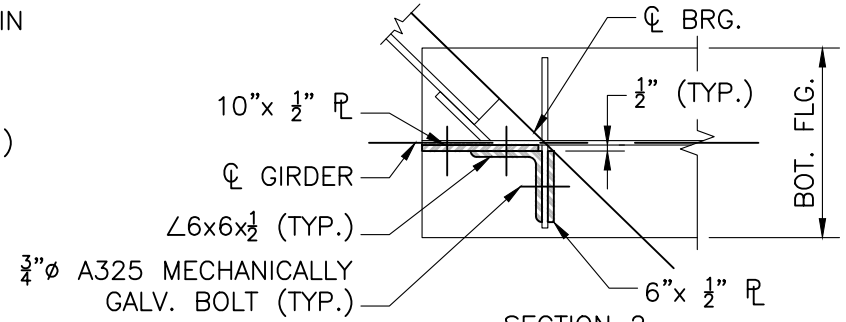
REPAIR GIRDER END



SECTION 1

BEAM 11

REPAIR GIRDER END



SECTION 2

BEAM 22

NOTES:

1. ∠6x6x½ FOR BEAM 22 REPAIR SHALL BE CUT IN FIELD FOR PLACEMENT AROUND THE EXISTING HORIZONTAL STIFFENER PLATES.
2. 10"x ½" PLATE SHALL BE NOTCHED AT THE EXISTING HORIZONTAL STIFFENER PLATE TO FIT 1 CONTINOUS PLATE ALONG WEB END FOR BEAM 22 REPAIR.
3. CONTRACTOR MAY ADJUST VERTICAL BOLT SPACING AS REQUIRED TO AVOID HORIZONTAL STIFFENER PLATE AND CONNECTION ANGLE, TYPICAL ALL BEAM END REPAIRS.
4. ALL BEAM END REPAIRS SHALL BE TAKEN AS CLOSE TO CONCRETE END DIAPHRAGM AS POSSIBLE, UNLESS OTHERWISE SPECIFIED.

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STEEL REPAIR DETAILS
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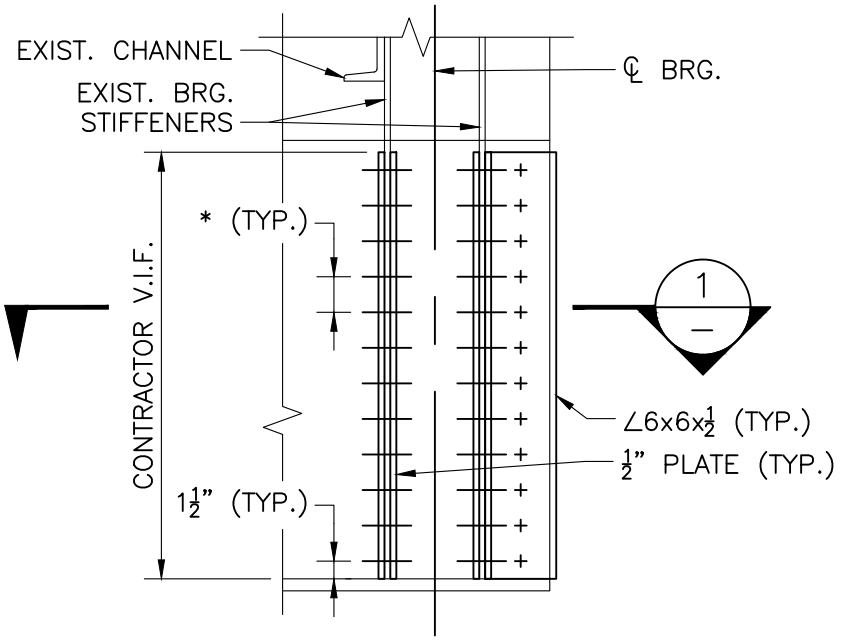
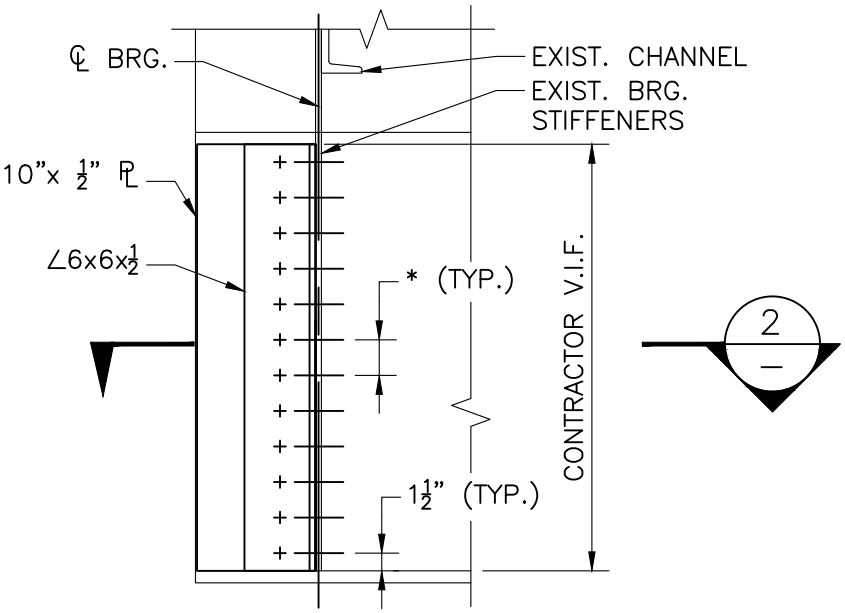
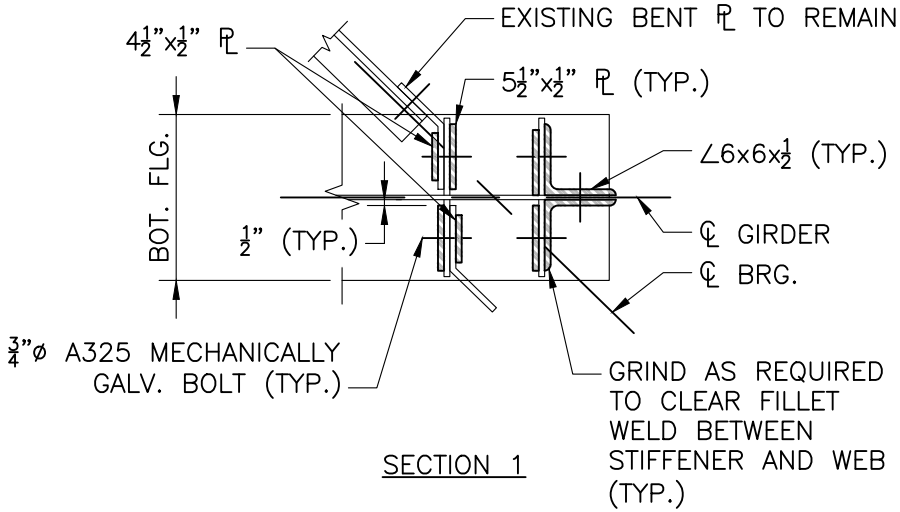


REPAIR GIRDER END

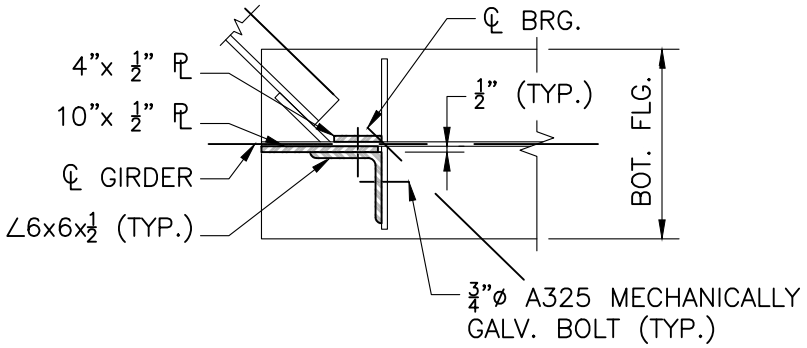


REPAIR GIRDER END



SECTION 1

BEAM 6



SECTION 2

BEAMS 13, 16, 17, & 18

LEGEND

* = 3" MIN, 6" MAX

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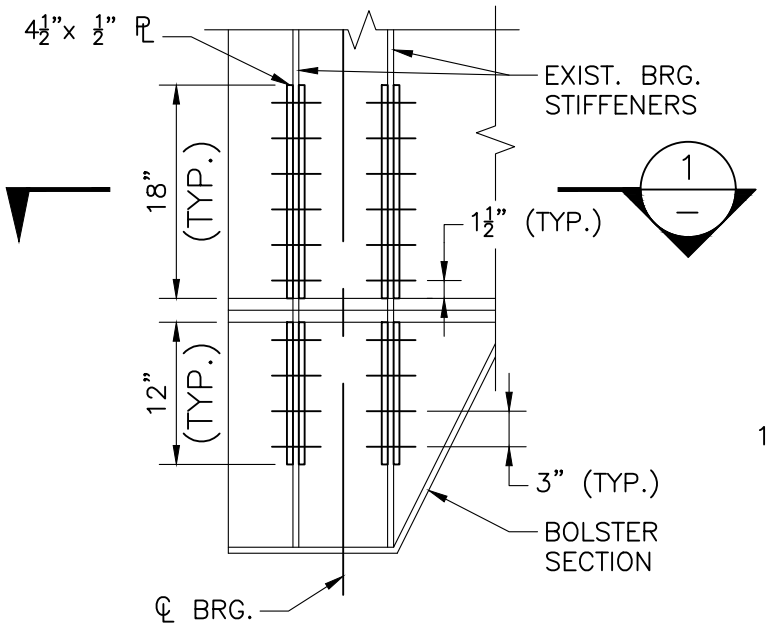
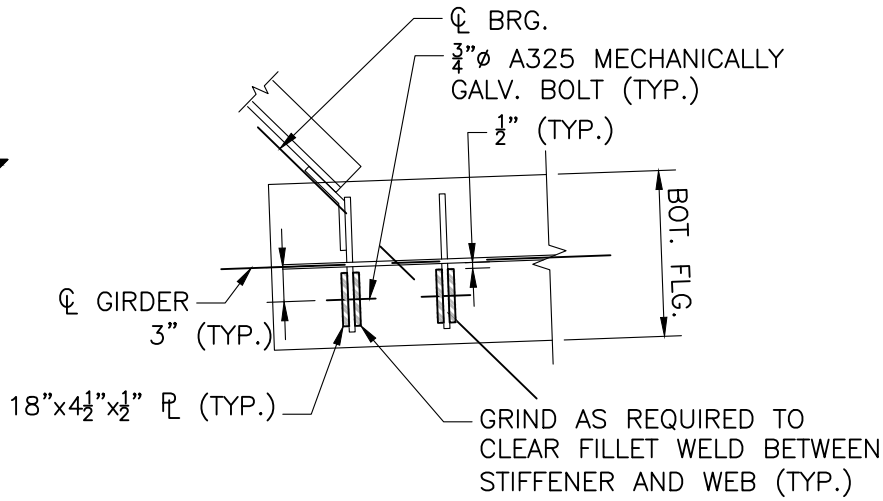


REPAIR GIRDER END



NOTE:
1. BOLSTER SECTION SIMILAR

SECTION 1

BEAM 29

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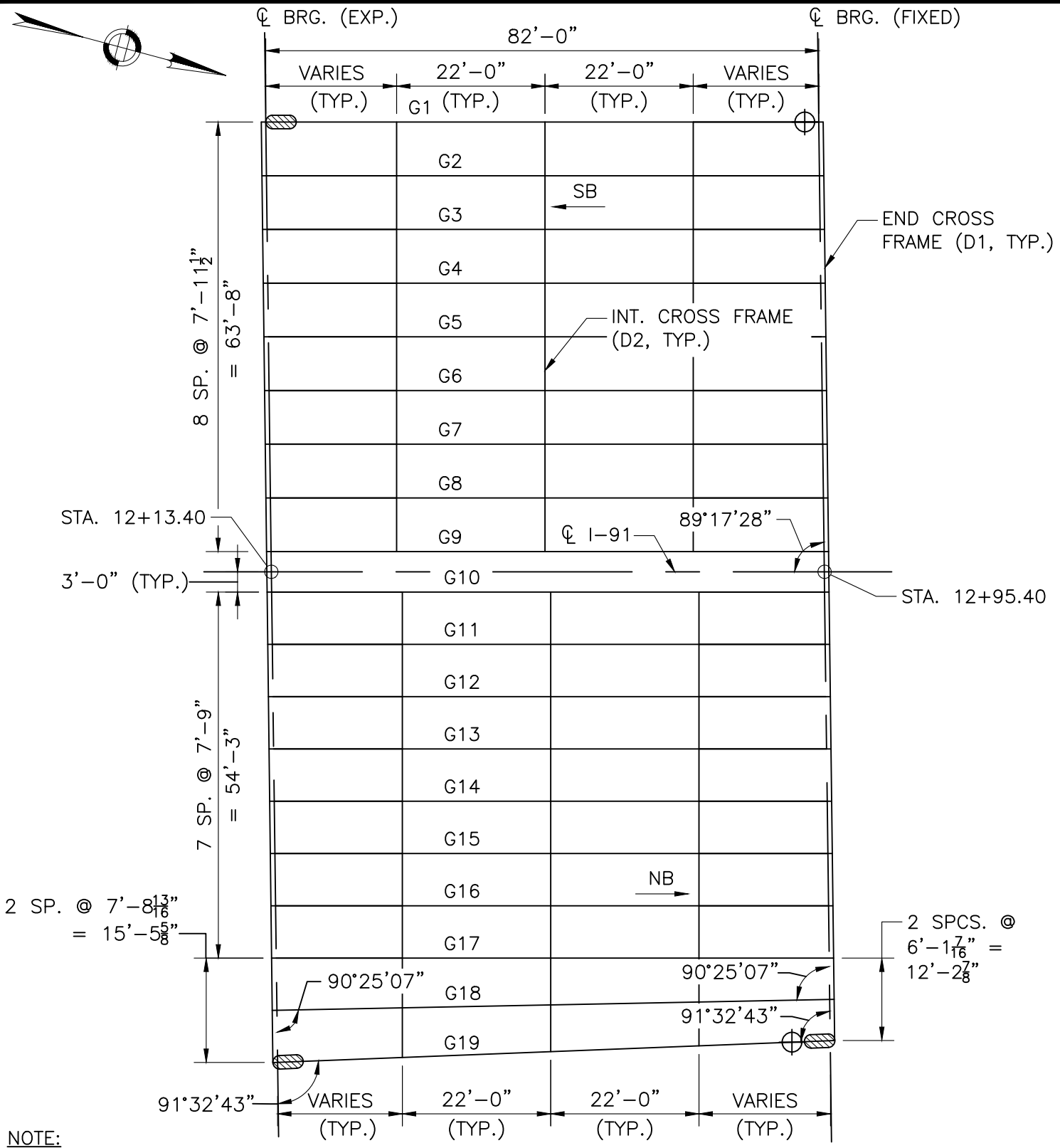

NOTE:
CONTRACTOR SHALL CLEAN AND PAINT ALL BEARINGS WHERE ALSO PERFORMING BEAM END REPAIRS. AREAS NOT IDENTIFIED ON FRAMING PLAN SHALL BE PAID FOR UNDER ITEM 961.211.

MARK	DESCRIPTION
▨	PROPOSED STEEL REPAIR AREA
⊕	PROPOSED JACKING AND SHORING (SUBSTR.)

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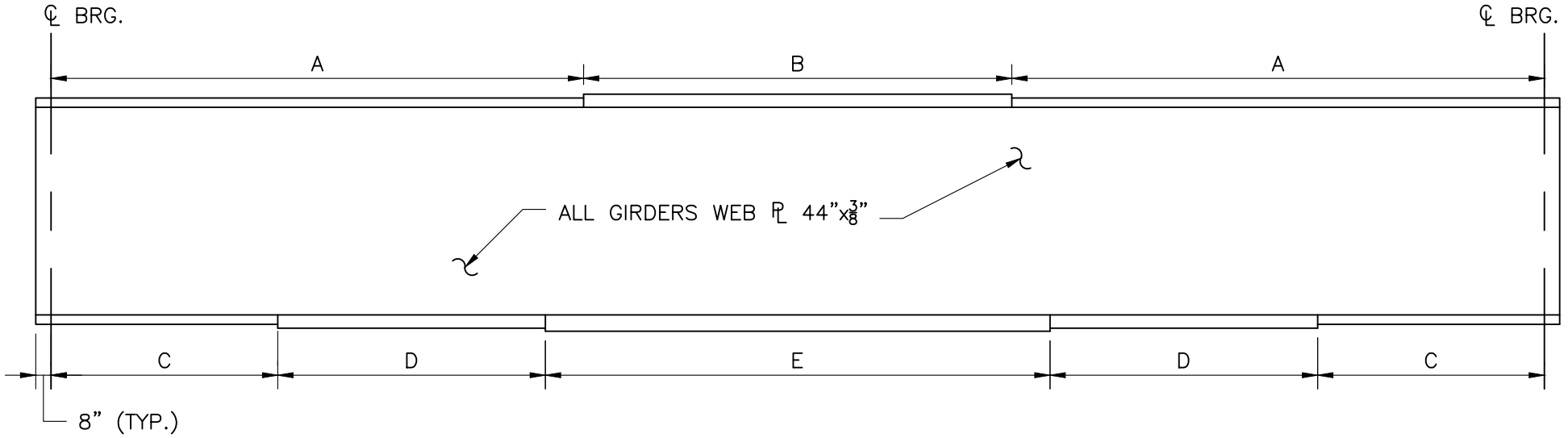

FLANGE PLATES					
GIRDER	A	B	C	D	E
1	10"x3/4"x25'-0"	10"x1 1/8"x32'-0"	14"x1"x13'-0"	14"x1 3/8"x6'-0"	14"x2"x44'-0"
2-8	10"x3/4"x23'-3"	10"x1 1/8"x35'-6"	14"x7/8"x12'-0"	14"x1 1/4"x5'-6"	14"x1 7/8"x47'-0"
9	10"x3/4"x33'-3"	10"x7/8"x15'-6"	14"x7/8"x14'-0"	14"x1 1/4"x7'-0"	14"x1 3/4"x40'-0"
10	10"x3/4"x24'-3"	10"x1"x33'-6"	14"x7/8"x12'-0"	14"x1 1/4"x6'-0"	14"x1 7/8"x46'-0"
11-17	10"x3/4"x24'-3"	10"x1"x33'-6"	14"x7/8"x12'-0"	14"x1 1/4"x6'-0"	14"x1 7/8"x46'-0"
18	10"x3/4"x25'-6"	10"x1"x31'-0"	14"x7/8"x13'-6"	14"x1 1/4"x6'-6"	14"x1 3/4"x42'-0"
19	10"x3/4"x26'-0 1/8"	10"x1"x30'-0"	14"x7/8"x12'-6 1/8"	14"x1 1/4"x6'-0"	14"x1 7/8"x45'-0"

MARK	DESCRIPTION
D1	(1) 15C33.9, (3) ∠3 1/2x3 1/2x3/8
D2	(4) ∠3 1/2x3 1/2x3/8

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STEEL LEGEND
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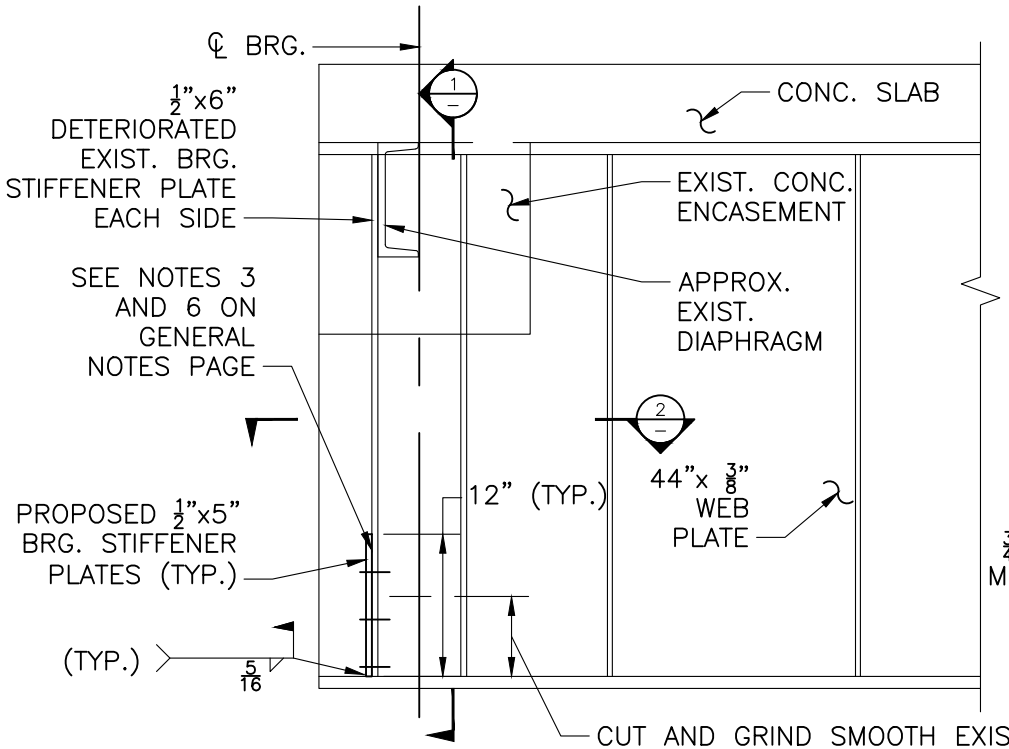
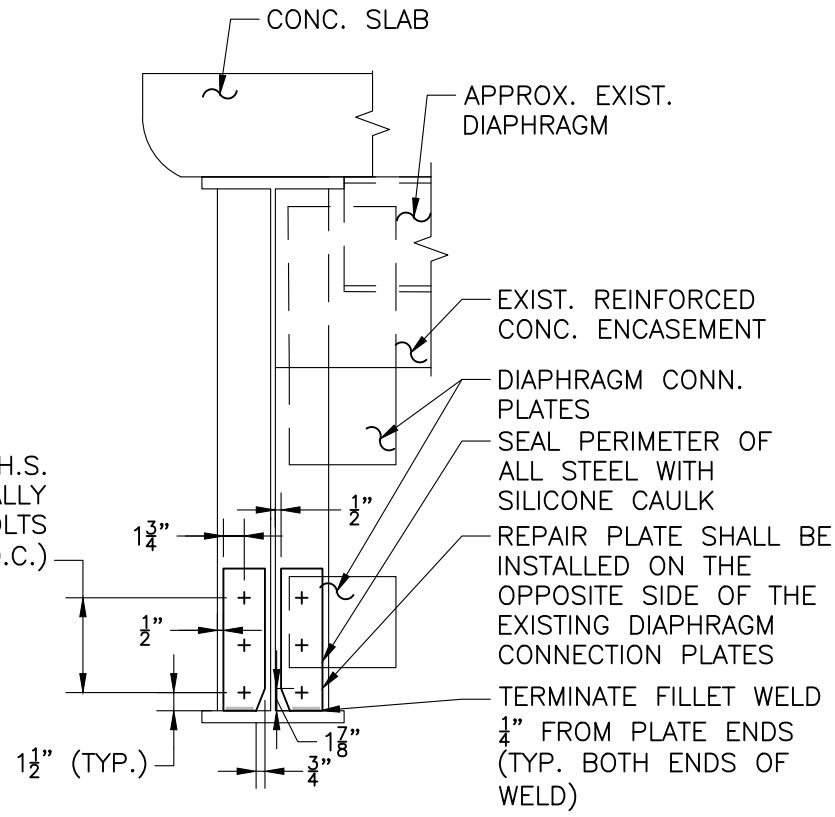
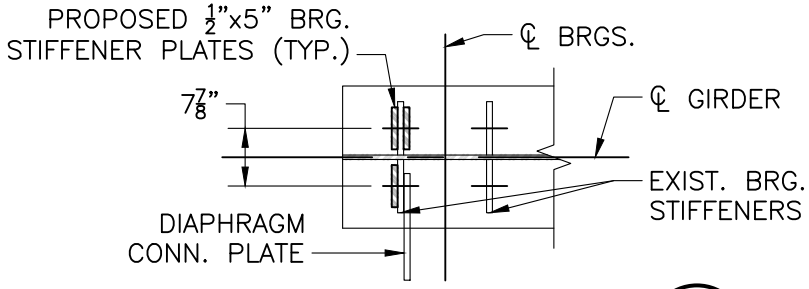


EXTERIOR GIRDER END REPAIR



GIRDER SECTION WITH PROP. STIFF. PLATE 1



LONGITUDINAL SECTION 2

NOTES:
STEEL REPAIR DETAILS ON THIS SHEET ARE IN RESPECT TO THE PROPOSED STEEL REPAIRS OF GIRDER 1.

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STEEL REPAIR DETAILS
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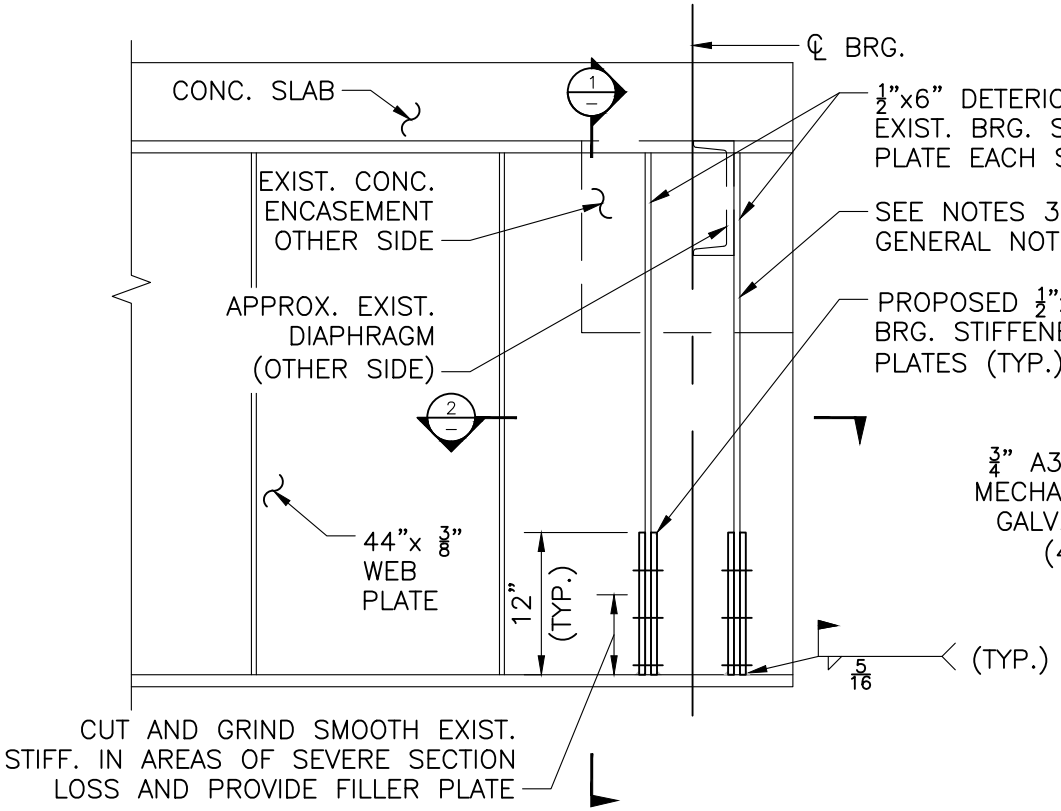
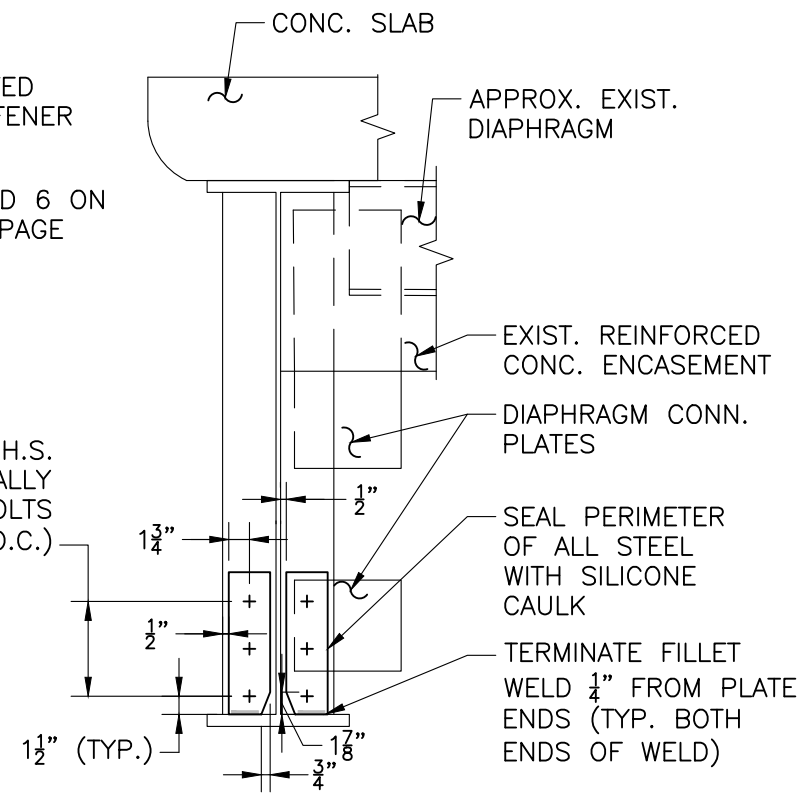
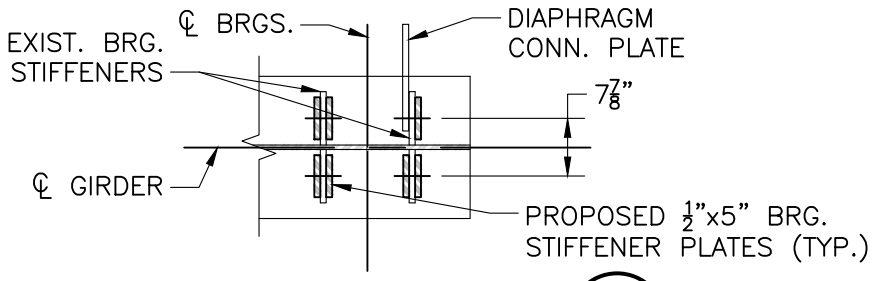


EXTERIOR GIRDER END REPAIR



GIRDER SECTION WITH PROP. STIFF. PLATE

1
–



LONGITUDINAL SECTION

2
–

NOTES:
STEEL REPAIR DETAILS ON THIS SHEET ARE IN RESPECT TO THE PROPOSED STEEL REPAIRS OF GIRDER 19 NORTH END.

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massDOT Highway Division

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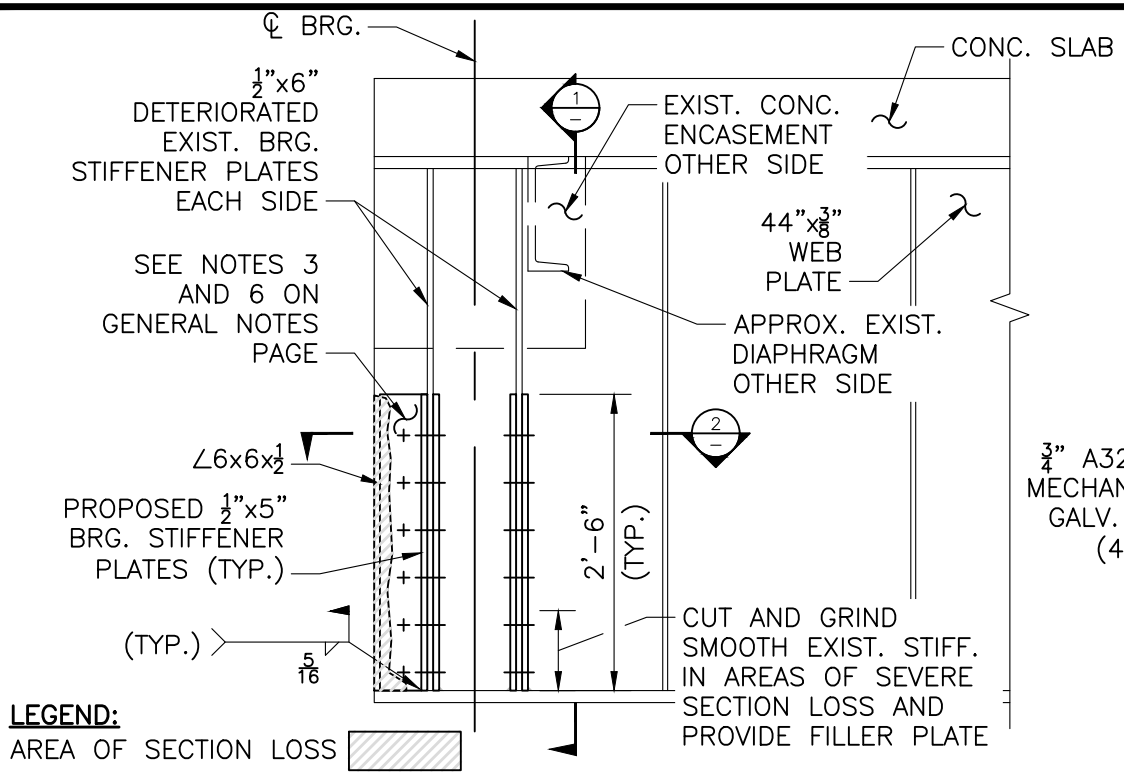
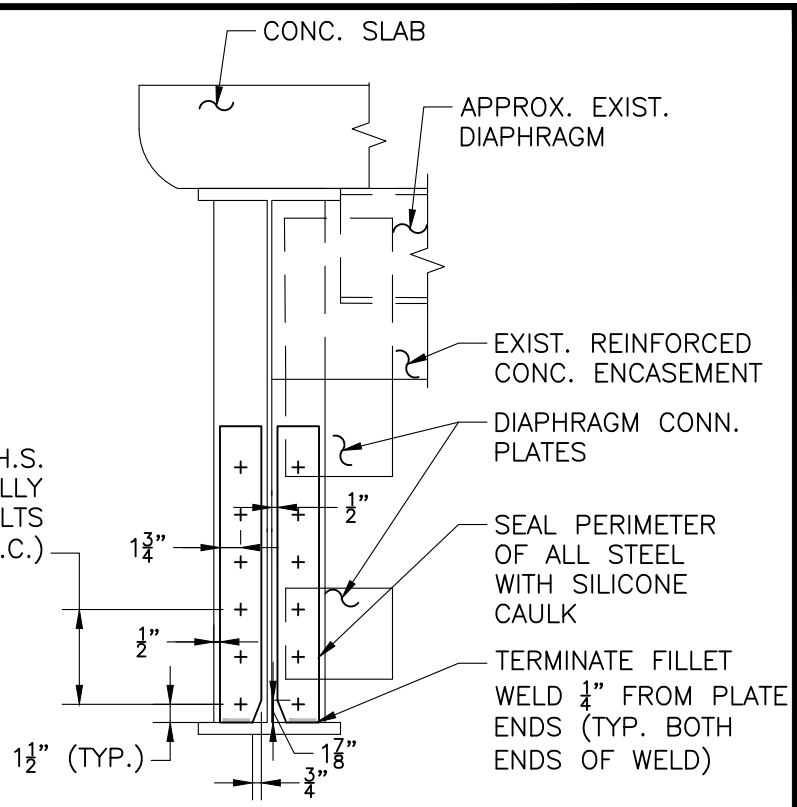
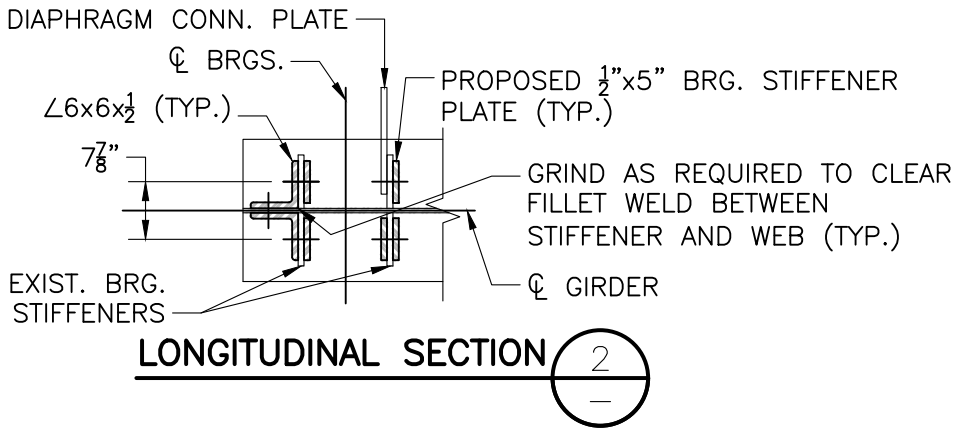


EXTERIOR GIRDER END REPAIR



GIRDER SECTION WITH PROP. STIFF. PLATE 1



LONGITUDINAL SECTION 2

NOTES:
STEEL REPAIR DETAILS ON THIS SHEET ARE IN RESPECT TO THE PROPOSED STEEL REPAIRS OF GIRDER 19 SOUTH END.

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Proposal No. 613219-132950

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
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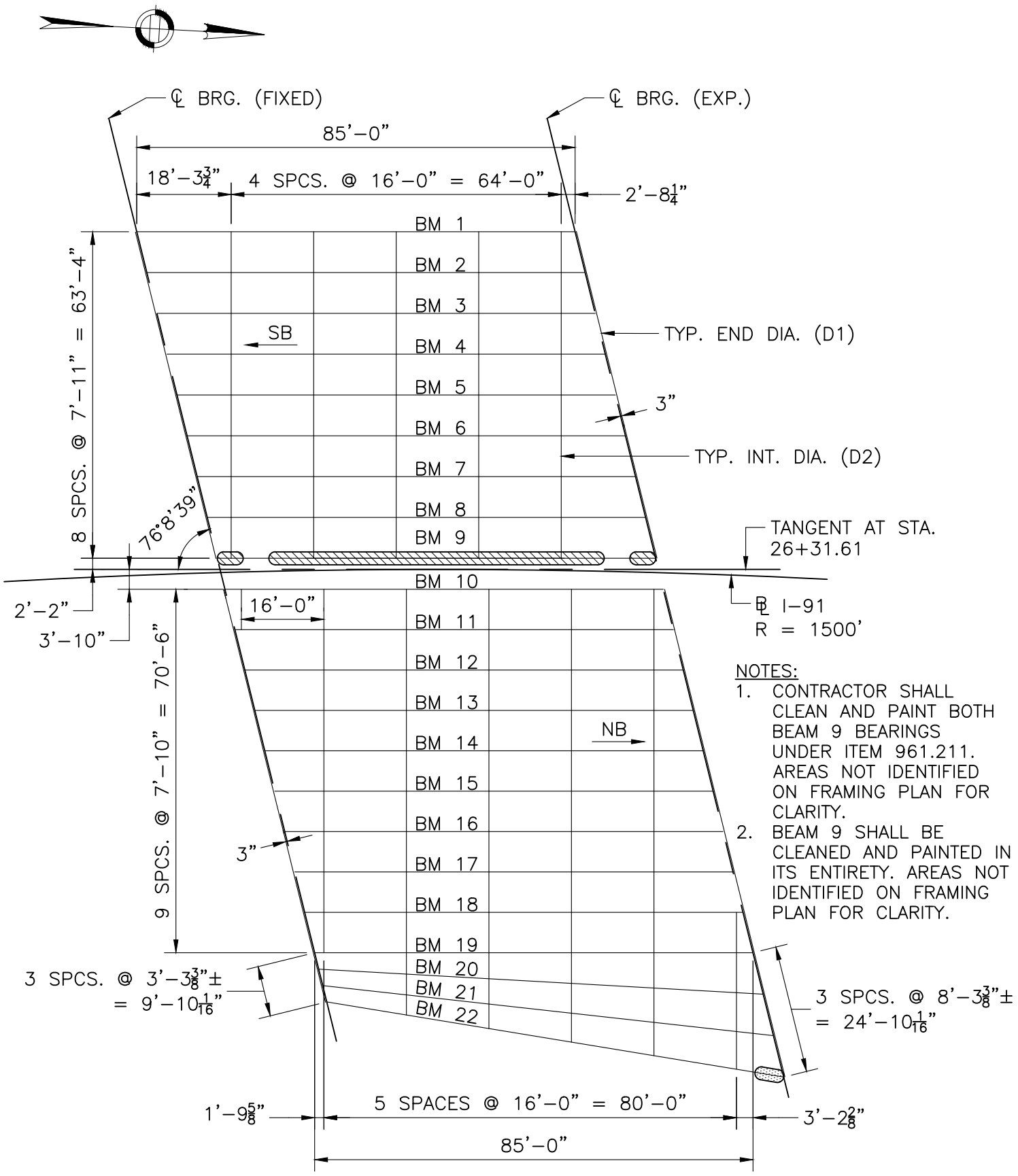
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. S-24-078 (10P)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 18 OF 85



NOTES:
1. CONTRACTOR SHALL CLEAN AND PAINT BOTH BEAM 9 BEARINGS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.
2. BEAM 9 SHALL BE CLEANED AND PAINTED IN ITS ENTIRETY. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

massDOT Highway Division

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Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. S-24-079 (10Q)
N.T.S.

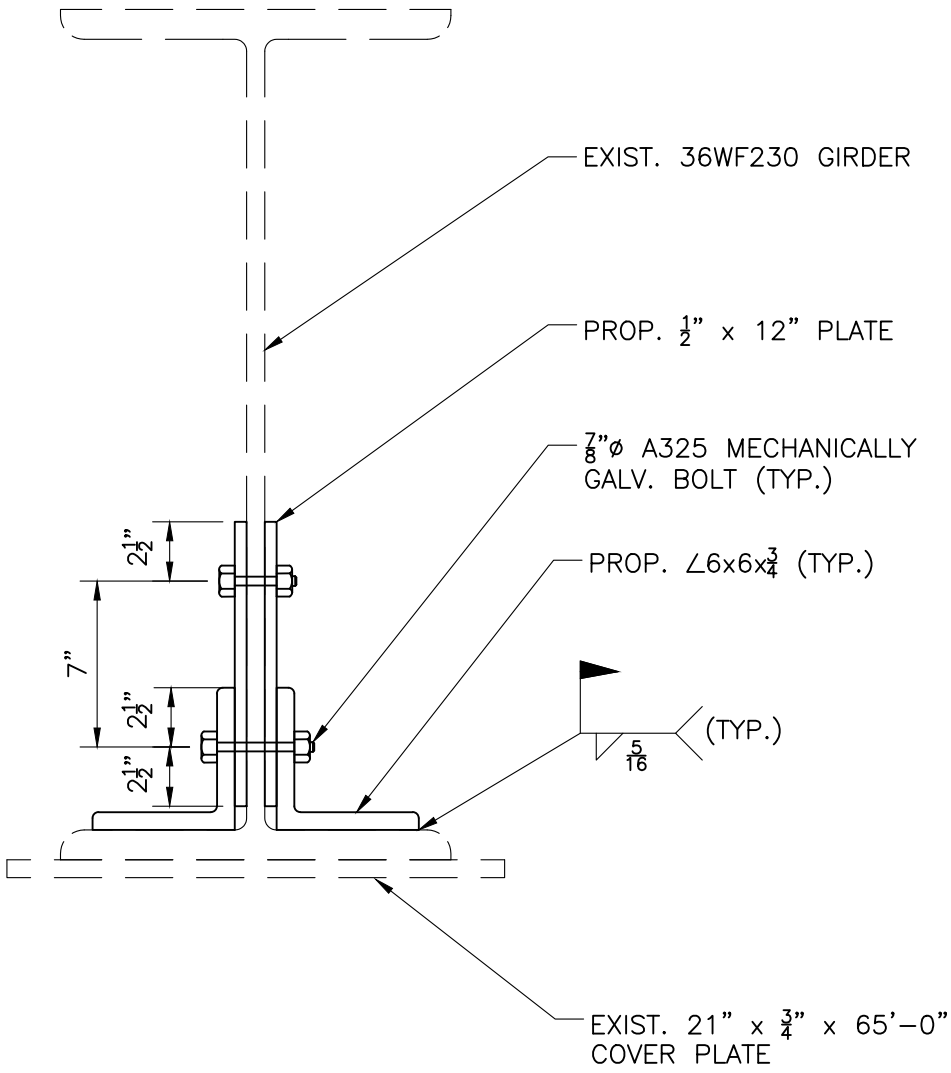
DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 19 OF 85

STEEL LEGEND	
MARK	DESCRIPTION
BM 1	36WF230 W/ 21"x$\frac{7}{8}$"x69'-6" COVER PLATE
BM 2-8	36WF230 W/ 21"x$\frac{3}{4}$"x68'-0" COVER PLATE
BM 9	36WF230 W/ 21"x$\frac{3}{4}$"x65'-0" COVER PLATE
BM 10	36WF230 W/ 21"x$\frac{5}{8}$"x63'-0" COVER PLATE
BM 11-18	36WF230 W/ 21"x$\frac{3}{4}$"x68'-0" COVER PLATE
BM 19	36WF230 W/ 21"x$\frac{3}{4}$"x65'-0" COVER PLATE
BM 20	36WF230 W/ 21"x$\frac{5}{8}$"x64'-0" COVER PLATE
BM 21	36WF230 W/ 21"x$\frac{5}{8}$"x65'-0" COVER PLATE
BM 22	36WF260 W/ 21"x$\frac{7}{8}$"x69'-0" COVER PLATE
D1	15C33.9
D2	18C42.7

REPAIR LEGEND	
MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL



NOTES:

1. REPAIR DETAIL SHALL BE 65'-0" LONG AND BE CENTERED OVER THE MIDSPAN OF THE EXISTING GIRDER.
2. WELDING SHALL ONLY OCCUR AFTER BOLTS HAVE BEEN FULLY TIGHTENED.

massDOT Highway Division

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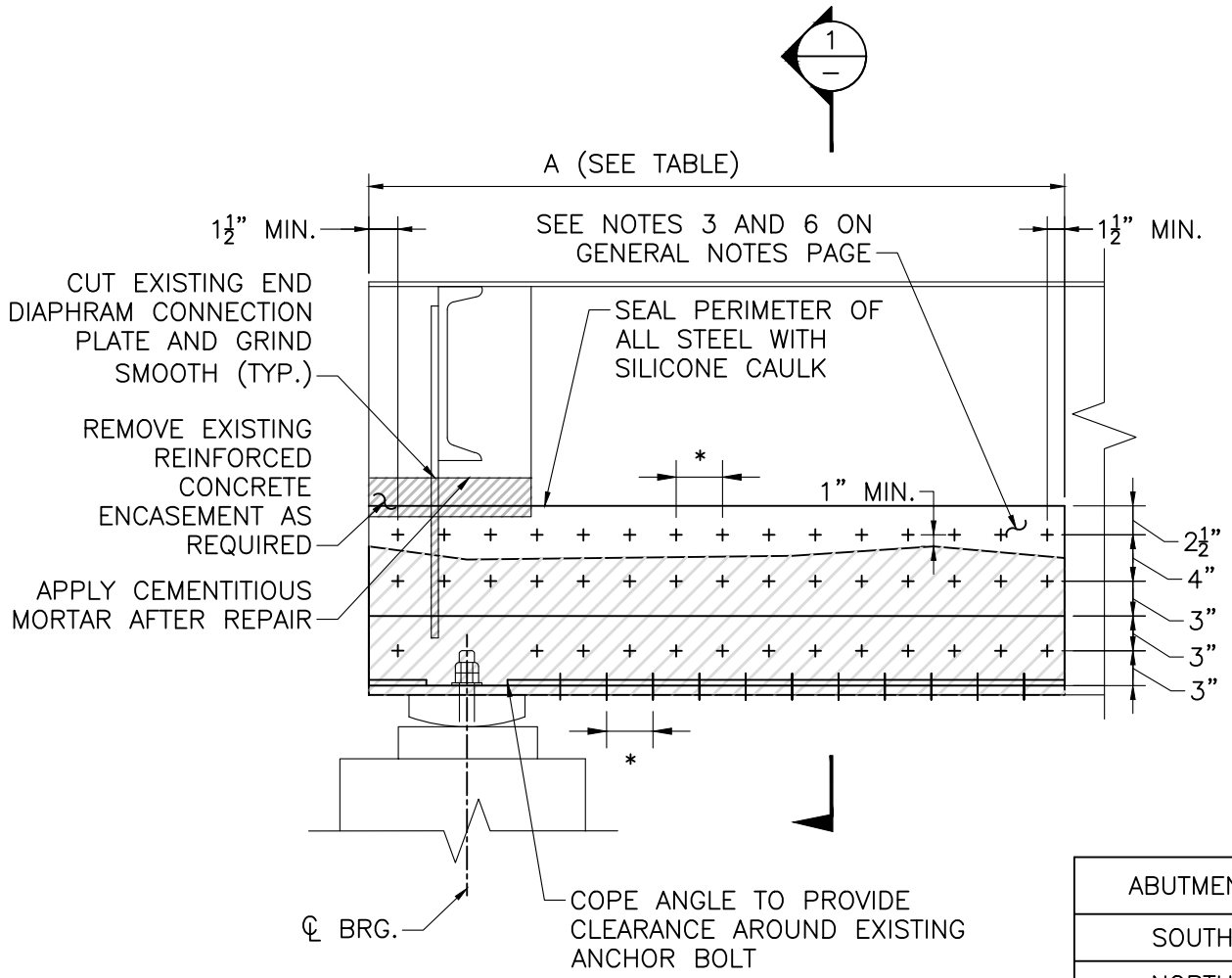
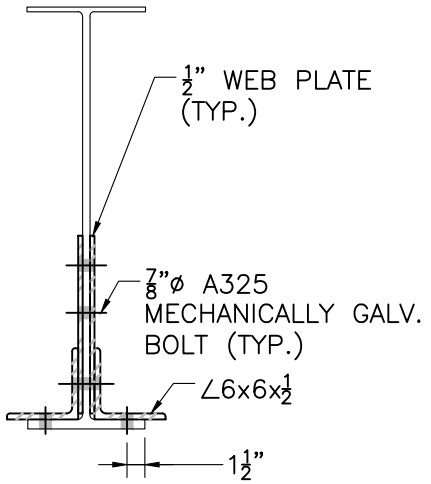
STEEL REPAIR DETAILS
BRIDGE NO. S-24-079 (10Q)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 21 OF 85





BEAM SECTION 1

ABUTMENT	MARK	A
SOUTH	BM 9	5'–0"
NORTH	BM 9	5'–0"

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

BEAM END REPAIR

massDOT Highway Division

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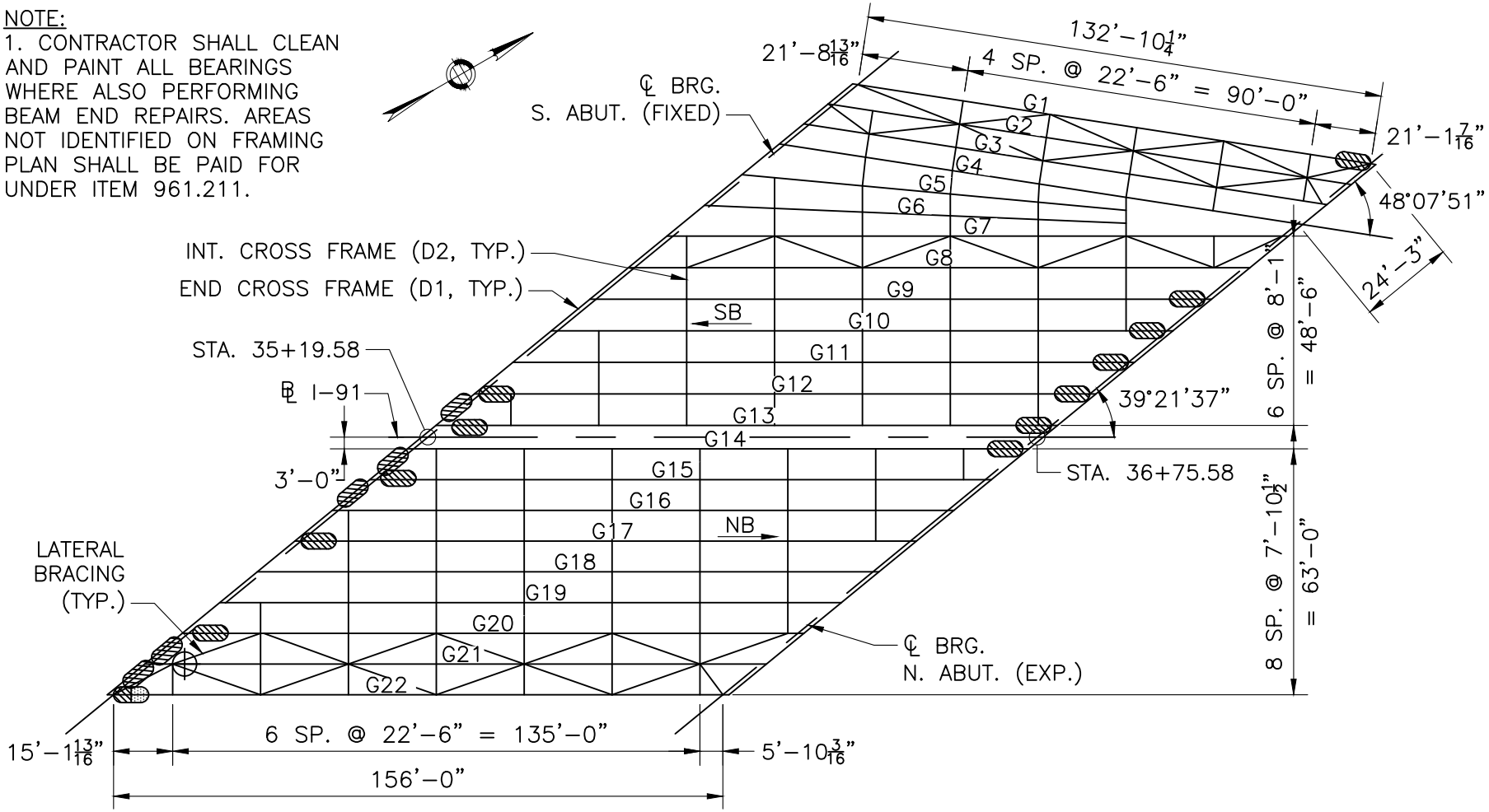
STEEL REPAIR DETAILS
BRIDGE NO. S-24-079 (10Q)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 22 OF 85

NOTE:
1. CONTRACTOR SHALL CLEAN AND PAINT ALL BEARINGS WHERE ALSO PERFORMING BEAM END REPAIRS. AREAS NOT IDENTIFIED ON FRAMING PLAN SHALL BE PAID FOR UNDER ITEM 961.211.



MARK	DESCRIPTION
D1	18C42.7, (3) ∠3 1/2x3 1/2x3/8
D2	(4) ∠3 1/2x3 1/2x3/8

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL
	PROPOSED JACKING AND SHORING (SUBSTR.)

massDOT Highway Division

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FRAMING PLAN
BRIDGE NO. S-24-080 (10R)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 23 OF 85

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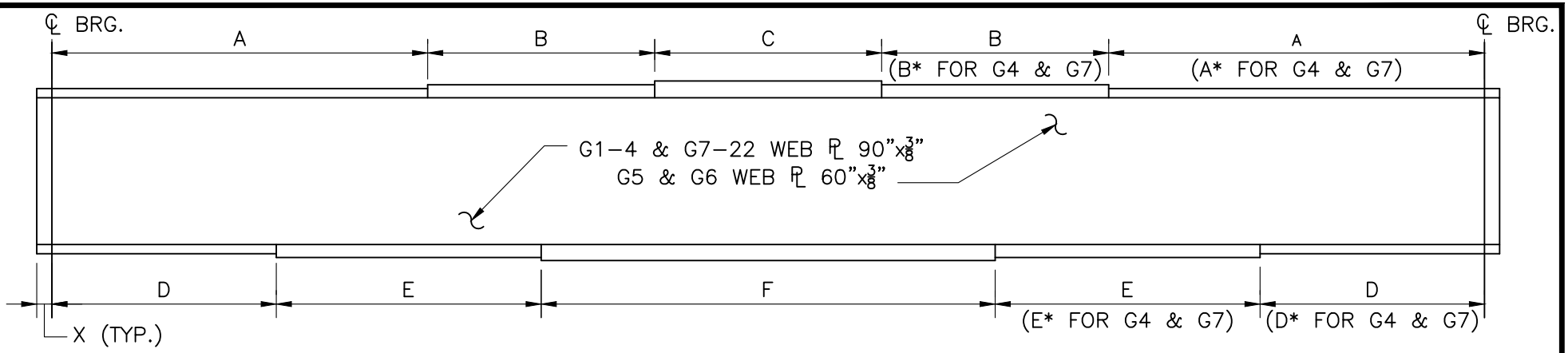
Proposal No. 613219-132950



GIRDER NO.	FLANGE PLATES						
	A	B	C	D	E	F	X
G1	10"x¾"x45'–11⅛"	N/A	10"x1"x41'–0"	16"x¾"x25'–11⅛"	16"x1⅛"x11'–6"	16"x1½"x58'–0"	16⅛"
G2, G3	10"x¾"x53'–11⅛"	N/A	10"x⅞"x25'–0"	16"x¾"x30'–11⅛"	16"x1"x10'–0"	16"x1¼"x51'–0"	16⅛"
G4	12"x¾"x34'–1¼"	12"x1"x19'–0"	12"x1⅜"x41'–6"	16"x¾"x27'–1¼"	16"x1"x9'–0"	16"x1½"x67'–6"	16⅛"
G5	10"x¾"x97'–4½"	N/A	N/A	14"x¾"x21'–5¼"	14"x1"x8'–6"	14"x1¼"x37'–6"	17⅜"
G6	10"x¾"x34'–6 7/16"	N/A	10"x1"x37'–6"	14"x¾"x18'–6 7/16"	14"x1⅛"x9'–6"	14"x1½"x50'–6"	18"
G7	16"x⅞"x45'–9"	16"x1"x10'–0"	16"x1⅜"x62'–6"	24"x¾"x33'–9"	24"x1"x11'–9"	24"x1⅜"x76'–0"	18 15/16"
G8–G12	12"x¾"x37'–9"	12"x1"x12'–0"	12"x1⅜"x56'–6"	20"x¾"x29'–0"	20"x1⅛"x15'–0"	20"x1½"x68'–0"	18 15/16"
G13	12"x¾"x50'–3"	N/A	12"x1⅛"x55'–6"	20"x⅞"x40'–3"	N/A	20"x1¼"x75'–6"	18 15/16"
G14	12"x¾"x38'–9"	12"x1"x14'–0"	12"x1¼"x50'–6"	20"x¾"x29'–9"	20"x1"x9'–6"	20"x1½"x77'–6"	18 15/16"
G15–G21	12"x¾"x37'–3"	12"x1"x12'–0"	12"x1⅜"x57'–6"	20"x¾"x28'–3"	20"x1⅛"x15'–0"	20"x1½"x69'–6"	18 15/16"
G22	14"x¾"x38'–0"	14"x1"x12'–6"	14"x1⅜"x55'–0"	24"x¾"x29'–3"	24"x1"x10'–6"	24"x1½"x76'–6"	18 15/16"

GIRDER NO.	FLANGE PLATES			
	A*	B*	D*	E*
G4	12"x¾"x28'–3"	12"x1"x10'–0"	16"x¾"x23'–3"	16"x1"x6'–0"
G7	16"x1"x37'–9"	N/A	24"x¾"x26'–9"	24"x1"x7'–9"

massDOT Highway Division

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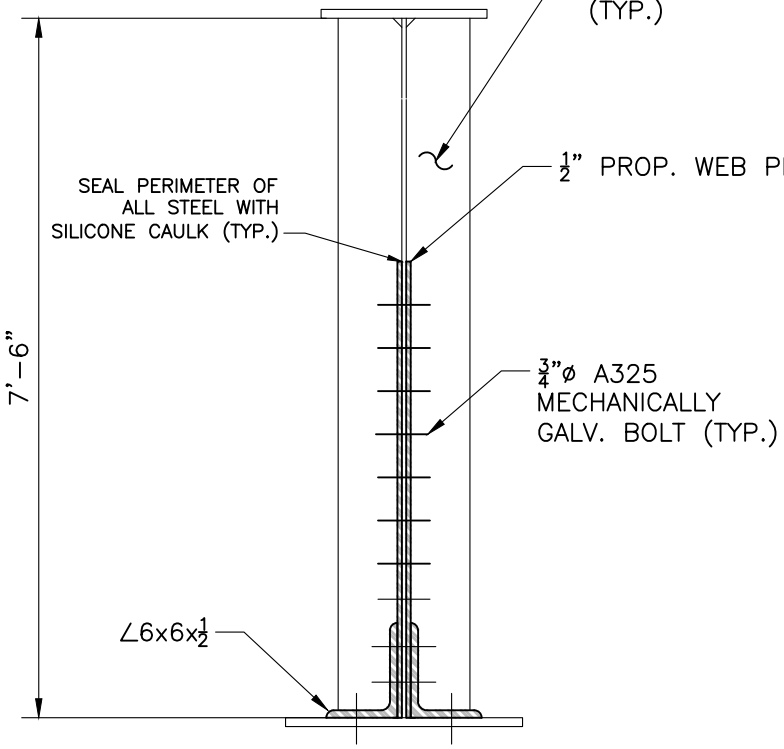
STEEL LEGEND
BRIDGE NO. S-24-080 (10R)
N.T.S.

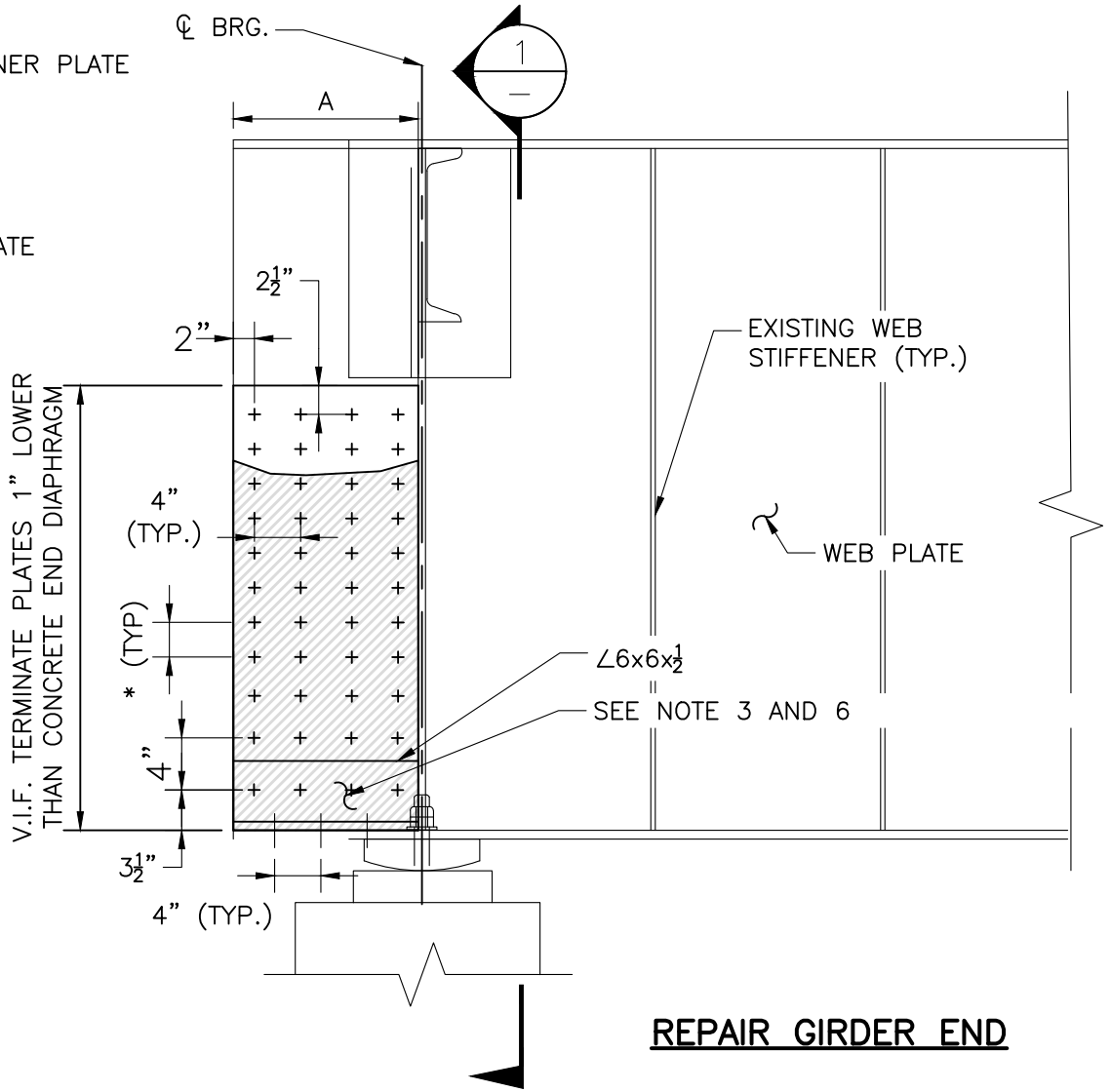
DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 24 OF 85



GIRDER SECTION 1



REPAIR GIRDER END

ABUTMENT	GIRDER	A
SOUTH	G12	1'–4"
SOUTH	G20	1'–4"

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

massDOT Highway Division

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STEEL REPAIR DETAILS
BRIDGE NO. S-24-080 (10R)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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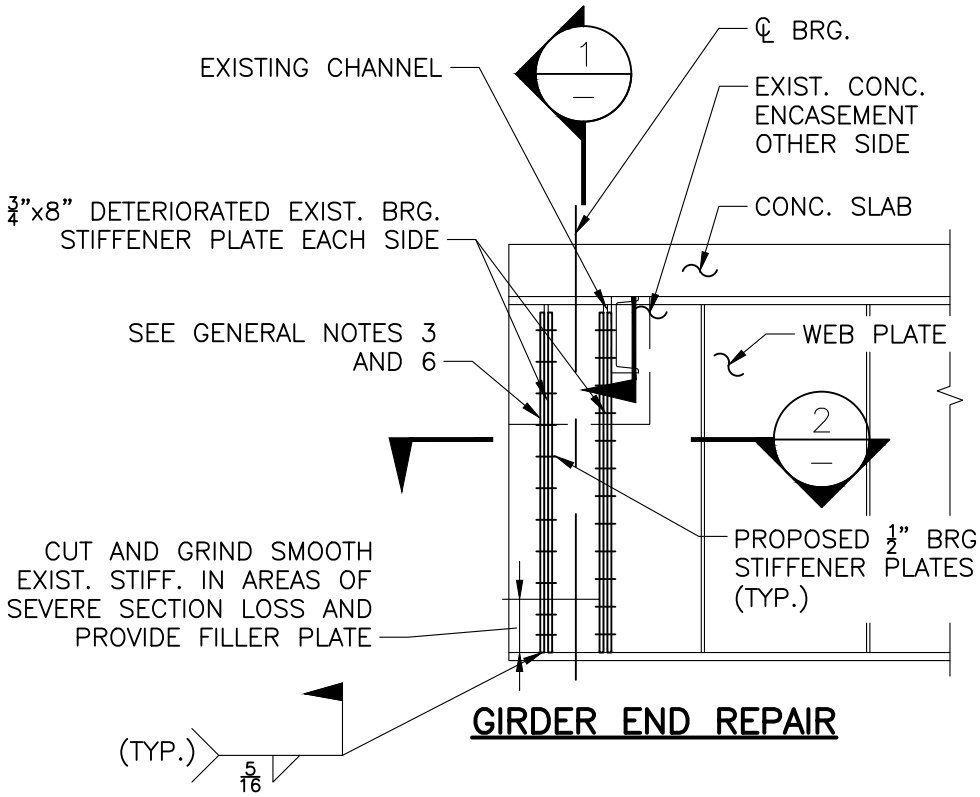
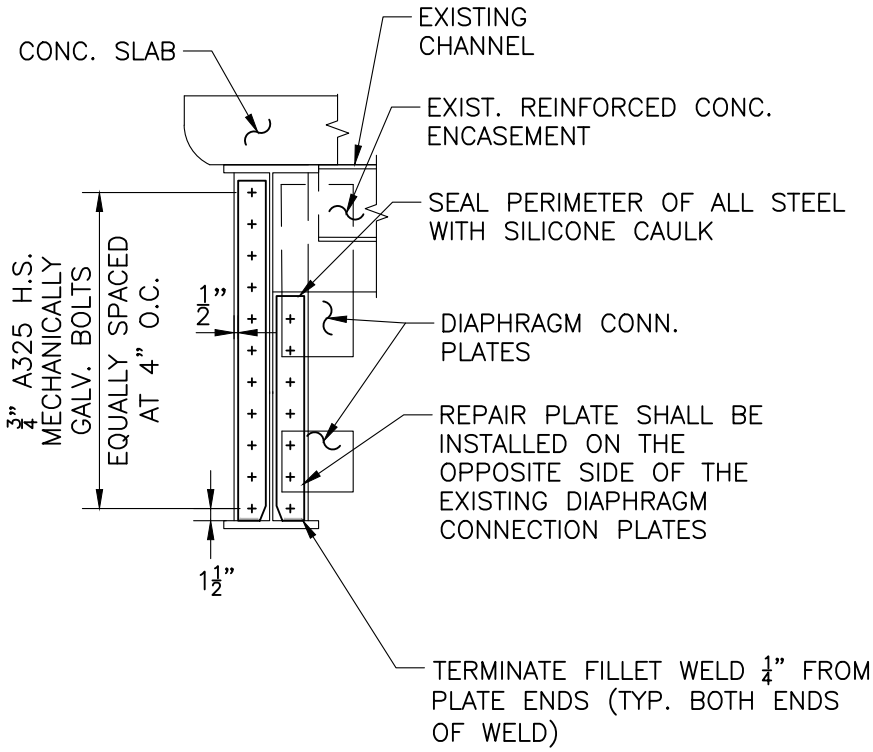
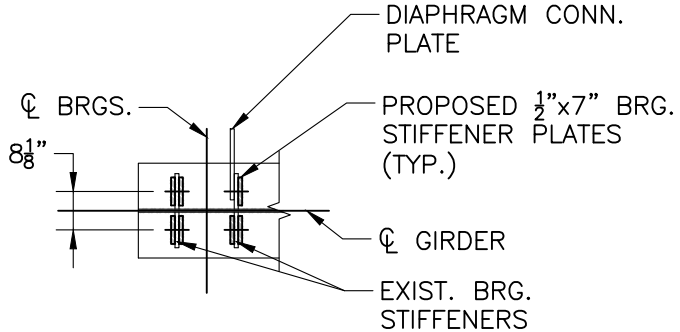
Proposal No. 613219-132950



GIRDER END REPAIR



GIRDER SECTION 1



LONGITUDINAL SECTION 2

NOTE:
ALL FOUR BEARING STIFFENERS PER GIRDER END ARE SHOWN IN THIS DETAIL FOR SIMPLICITY. ONLY THE BEARINGS STIFFENERS LISTED ON THE NEXT SHEET REQUIRE REPLACEMENT.

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massDOT Highway Division

TEC The Engineering Corp
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STEEL REPAIR DETAILS
BRIDGE NO. S-24-080 (10R)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 26 OF 85

ABUTMENT	GIRDER	QUANTITY ON WEST FACE	QUANTITY ON EAST FACE
NORTH	G1	0	2
NORTH	G9	0	1
NORTH	G10	0	2
NORTH	G11	0	2
NORTH	G12	0	1
NORTH	G13	0	2
NORTH	G14	0	1
SOUTH	G13	1	0
SOUTH	G15	1	0
SOUTH	G17	2	0
SOUTH	G22	2	0

BEARING STIFFENER REPLACEMENT LOCATIONS

Proposal No. 613219-132950

massDOT Highway Division
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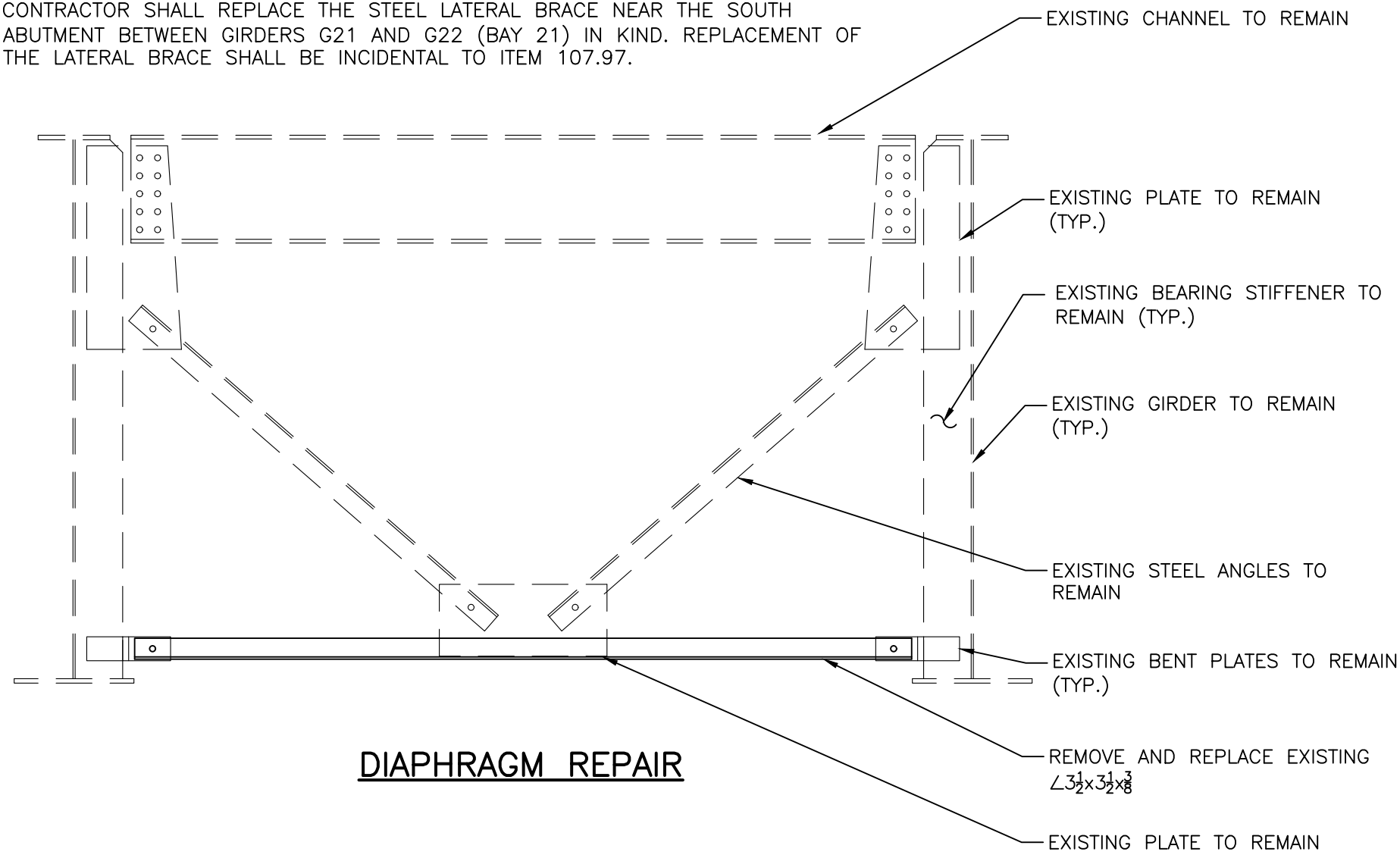
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. S-24-080 (10R)
N.T.S.

DATE: 10/8/2025
PROJECT NO.: 613219
SHEET: 27 OF 85

NOTE:
IN ADDITION TO THE DIAPHRAGM REPAIR LOCATIONS NOTED ON THE PLAN, THE CONTRACTOR SHALL REPLACE THE STEEL LATERAL BRACE NEAR THE SOUTH ABUTMENT BETWEEN GIRDERS G21 AND G22 (BAY 21) IN KIND. REPLACEMENT OF THE LATERAL BRACE SHALL BE INCIDENTAL TO ITEM 107.97.



DIAPHRAGM REPAIR

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
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Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. S-24-080 (10R)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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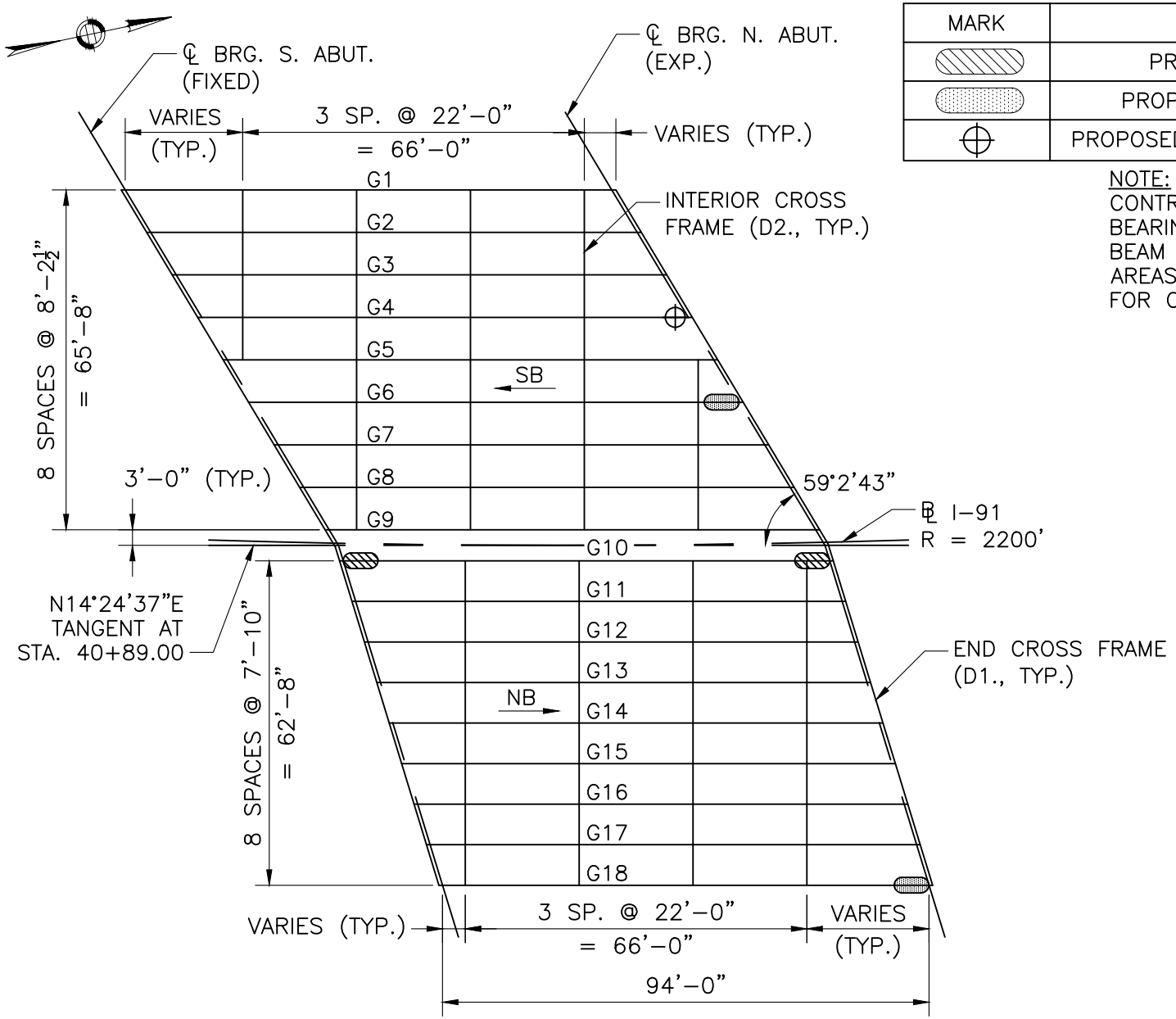
Proposal No. 613219-132950



MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL
⊕	PROPOSED JACKING AND SHORING (SUBSTR.)

NOTE:
CONTRACTOR SHALL CLEAN AND PAINT ALL BEARINGS WHERE CLEANING AND PAINTING BEAM END REPAIRS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

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Proposal No. 613219-132950

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
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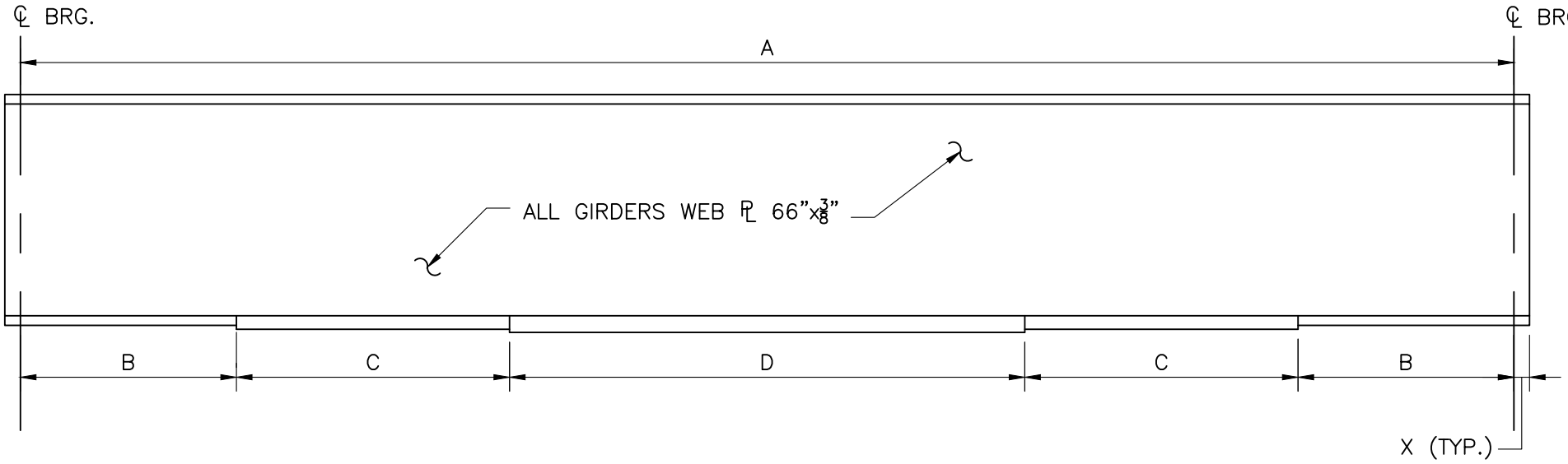
Worcester, MA

FRAMING PLAN
BRIDGE NO. S-24-085 (10T)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 29 OF 85



FLANGE PLATES					
GIRDER	A	B	C	D	X
G1	10"x3/4"x94'–0"	16"x7/8"x24'–9"	N/A	16"x1 1/4"x44'–6"	10 5/8"
G2–G8	10"x3/4"x94'–0"	16"x3/4"x19'–3"	16"x1"x7'–0"	16"x1 3/8"x41'–6"	10 5/8"
G9	10"x3/4"x94'–0"	16"x7/8"x24'–6"	N/A	16"x1 1/4"x45'–0"	10 5/8"
G10	10"x3/4"x94'–0"	16"x7/8"x33'–6"	N/A	16"x1 1/8"x27'–0"	8 3/4"
G11–G17	10"x3/4"x94'–0"	16"x7/8"x24'–0"	N/A	16"x1 1/4"x46'–0"	8 3/4"
G18	10"x3/4"x94'–0"	16"x7/8"x24'–9"	N/A	16"x1 1/4"x44'–6"	8 3/4"

MARK	DESCRIPTION
D1	15C33.9, (3) ∠3 1/2x3 1/2x3/8
D2	(4) ∠3 1/2x3 1/2x3/8

Proposal No. 613219-132950

massDOT Massachusetts Department of Transportation Highway Division
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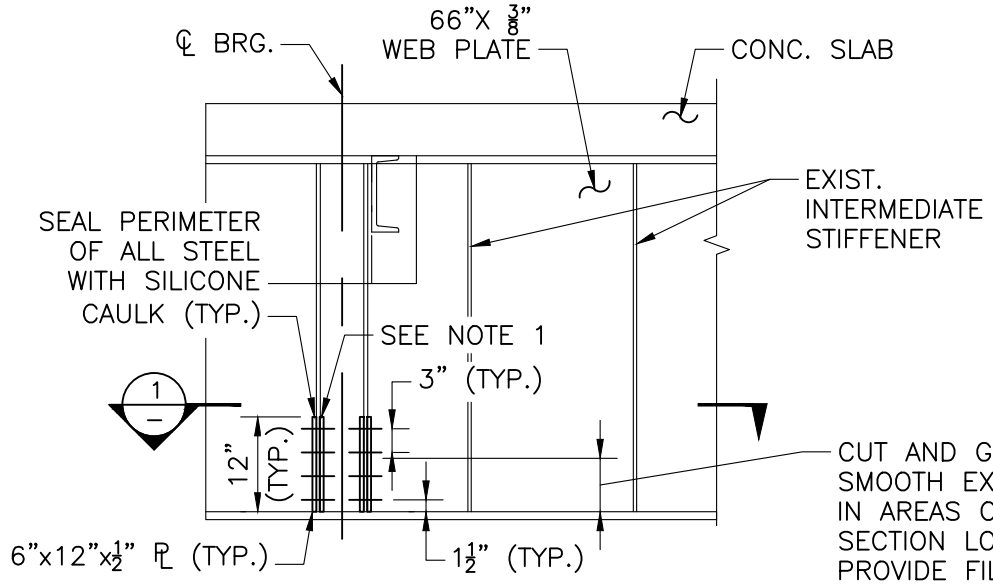
STEEL LEGEND
BRIDGE NO. S-24-085 (10T)
N.T.S.

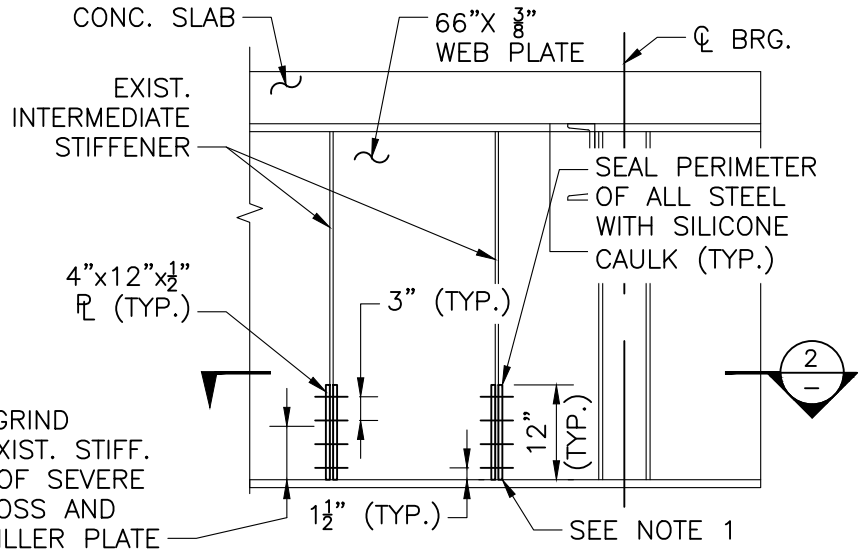
DATE: 10/8/2025

PROJECT NO.: 613219

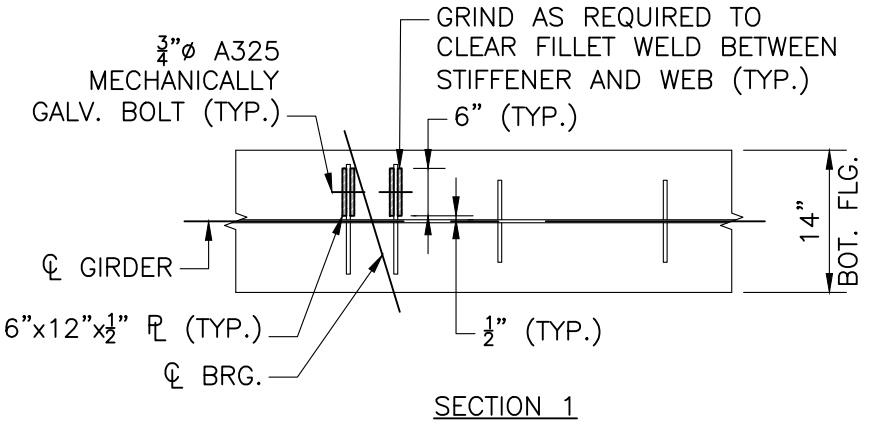
SHEET: 30 OF 85



REPAIR GIRDER END

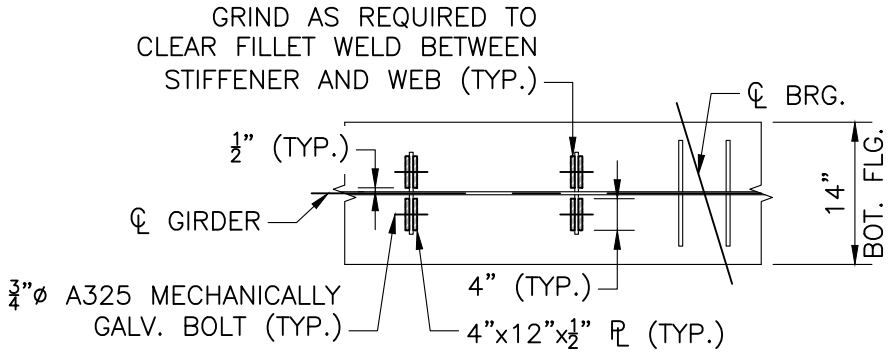


REPAIR GIRDER END



SECTION 1

GIRDER 10 SOUTH



SECTION 2

GIRDER 10 NORTH

NOTE:
1. SEE NOTES 3 AND 6 ON GENERAL NOTES PAGE.

massDOT Highway Division

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STEEL REPAIR DETAILS
BRIDGE NO. S-24-085 (10T)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 31 OF 85

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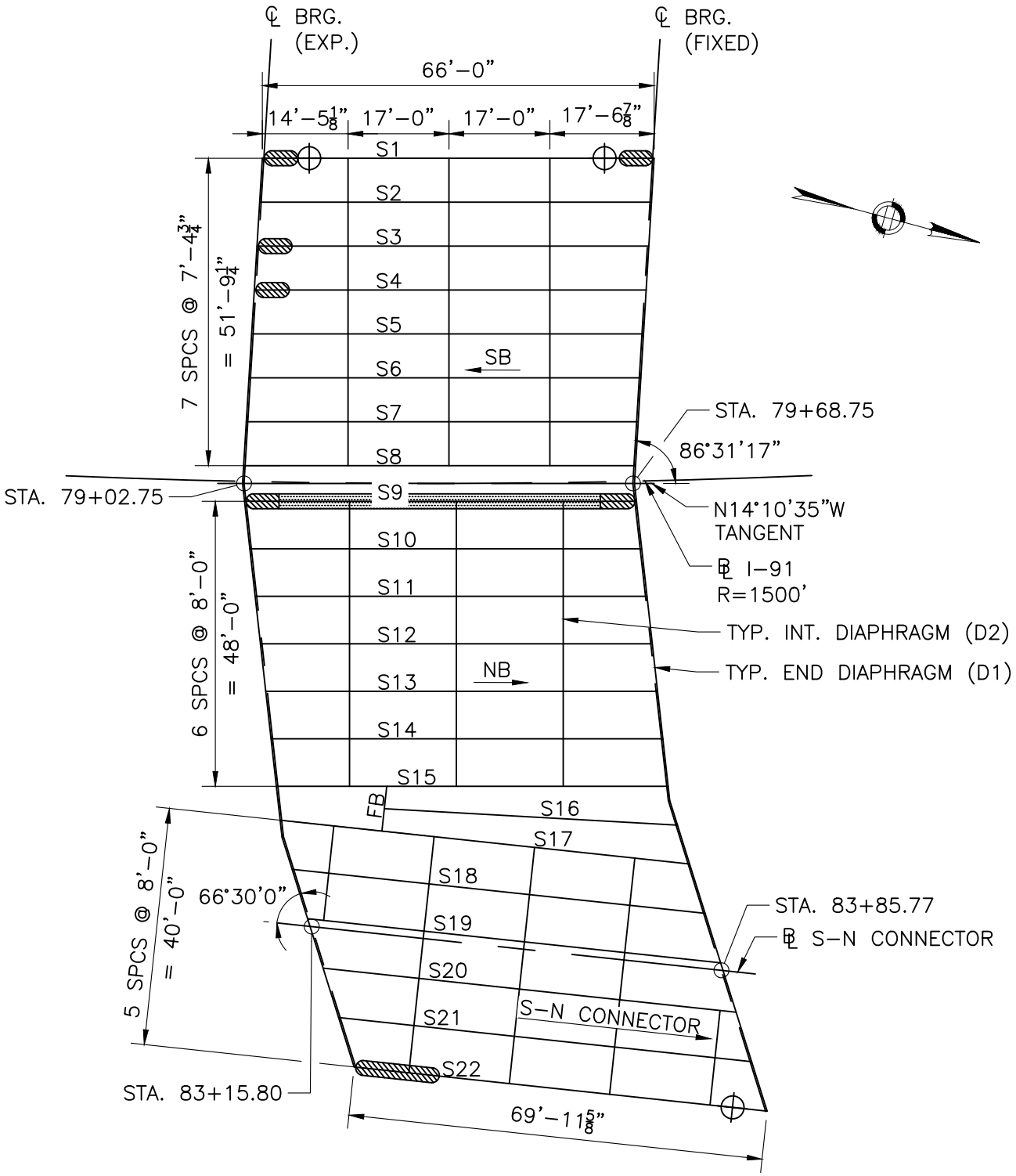
Proposal No. 613219-132950



MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL
⊕	PROPOSED JACKING AND SHORING (SUBSTR.)

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. C-13-037 (0X2)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 32 OF 85

MARK	DESCRIPTION	FLANGE PL
S1	36WF135	16"x¾"x55'–0"
S2–S7	36WF135	16"x⅝"x54'–6"
S8	36WF135	16"x¾"x53'–0"
S9	36WF135	16"x⅝"x52'–6"
S10–S14	36WF135	16"x¾"x55'–6"
S15	36WF135	14"x¾"x55'–0"
S16	36WF135	N/A
S17	36WF135	14"x⅞"x60'–0"
S18–S21	36WF135	16"x1"x60'–6"
S22	36WF135	16"x1"x61'–0"
FB	36WF135	N/A
D1	15C33.9	N/A
D2	18C42.7	N/A

Proposal No. 613219-132950

massDOT Massachusetts Department of Transportation Highway Division
TEC The Engineering Corp
Lawrence, MA
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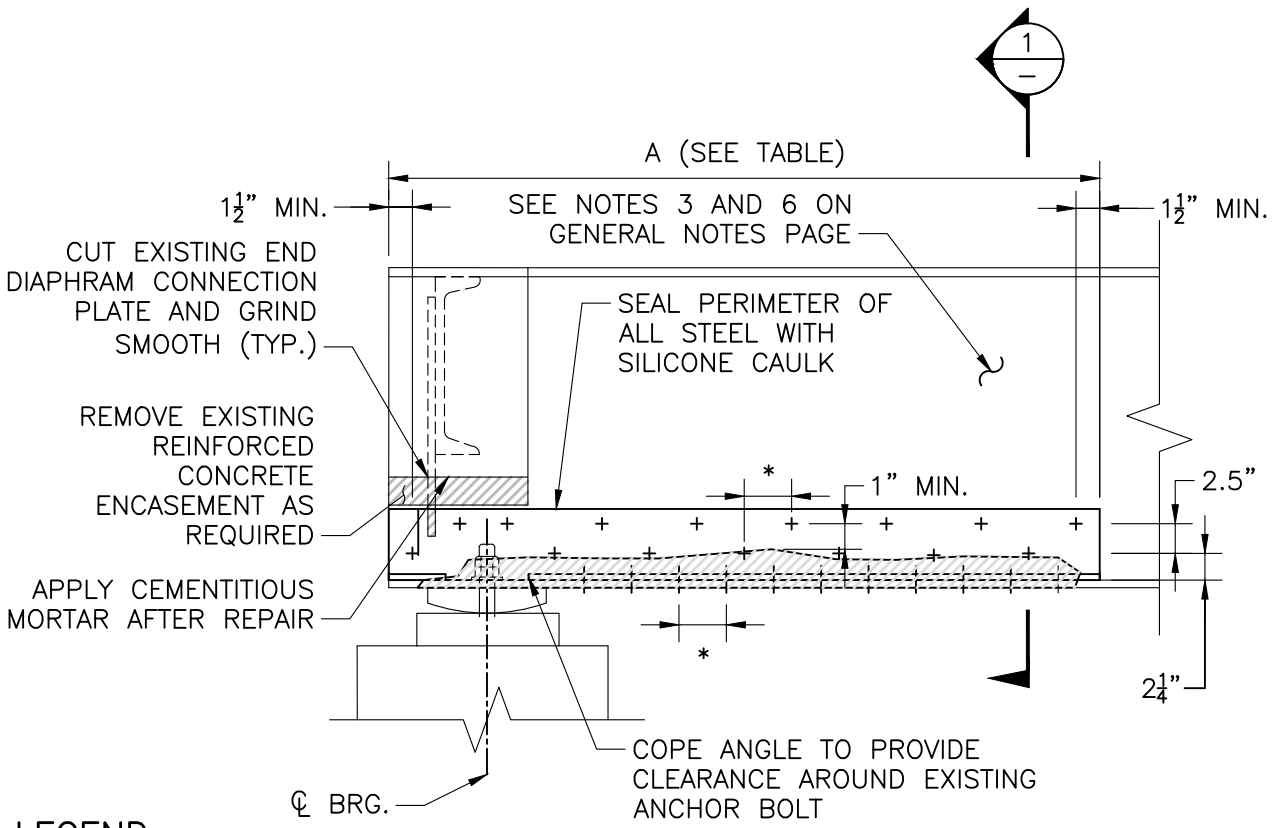
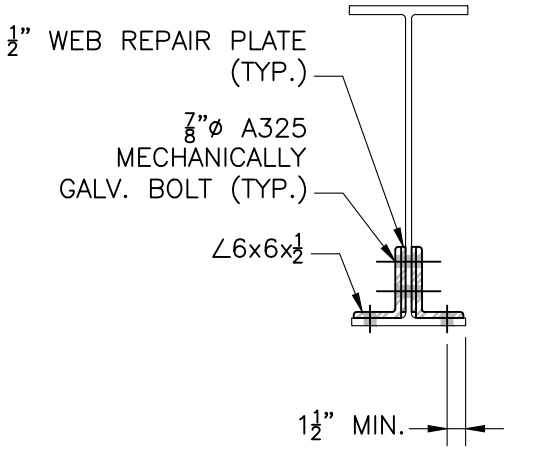
Worcester, MA

STEEL LEGEND
BRIDGE NO. C-13-037 (0X2)
N.T.S.

DATE: 10/8/2025
PROJECT NO.: 613219
SHEET: 33 OF 85





BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 4" MAX

BEAM END REPAIR

ABUTMENT	MARK	A
NORTH	S1	2'–0"
SOUTH	S1	5'–6"
SOUTH	S3	5'–0"
SOUTH	S22	20'–2"

massDOT Highway Division

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Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. C-13-037 (0X2)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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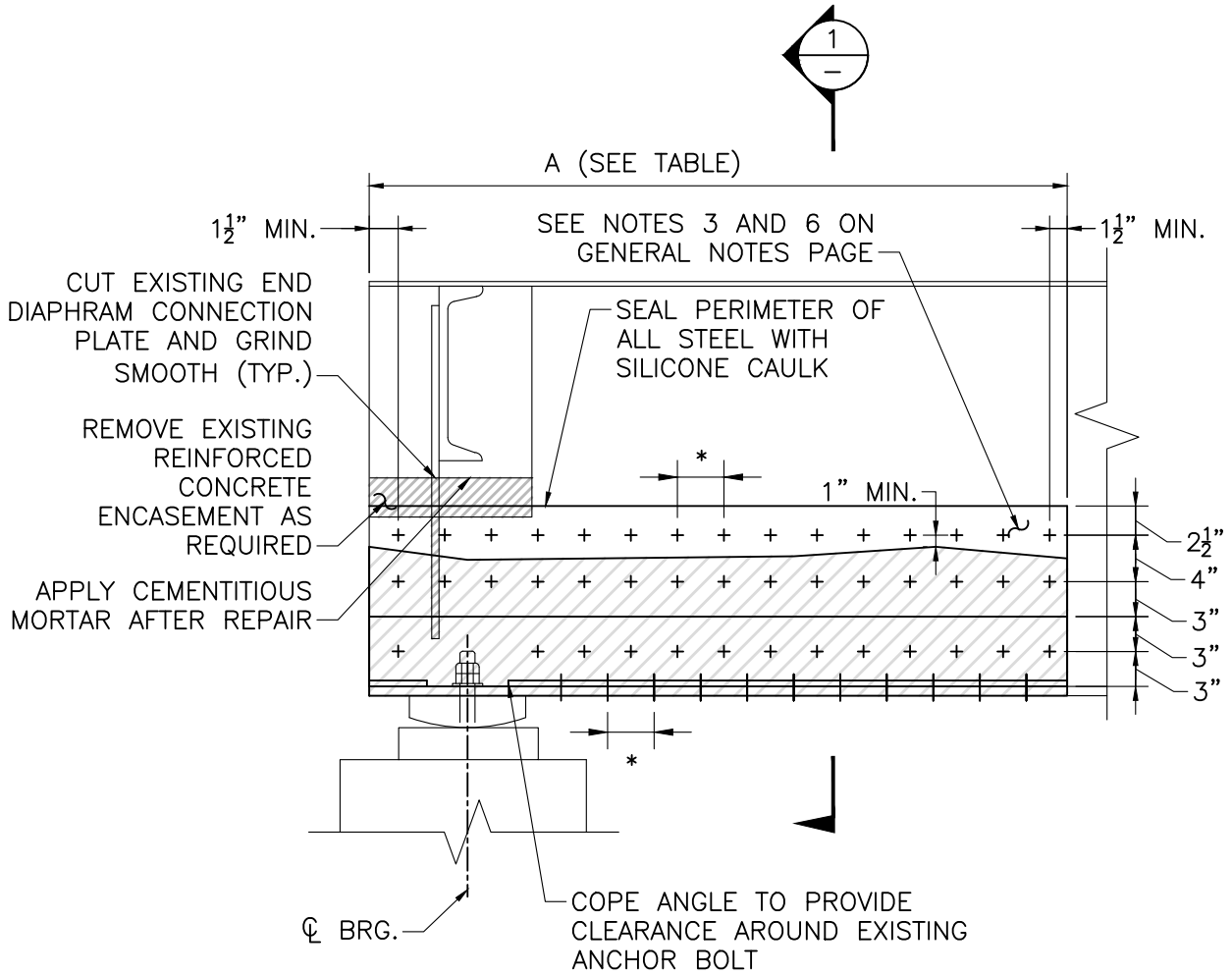
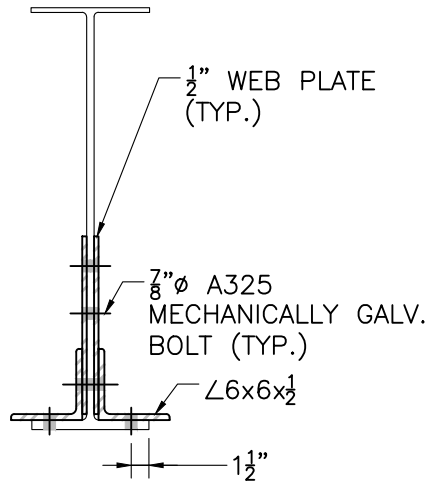
Proposal No. 613219-132950





BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

BEAM END REPAIR

ABUTMENT	MARK	A
SOUTH	S4	3–6"
SOUTH	S9	5'–0"
NORTH	S9	5'–0"

massDOT Highway Division

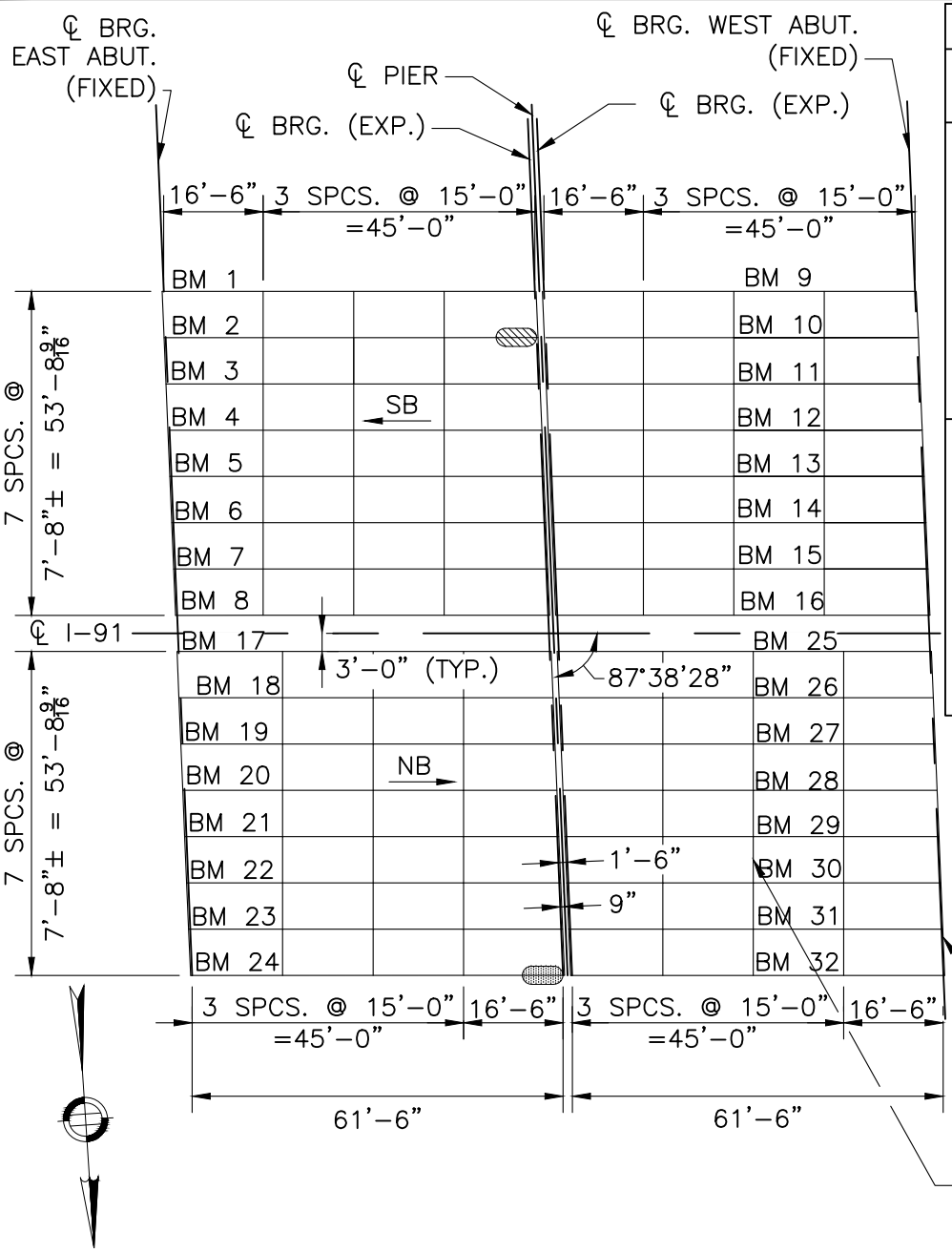
TEC The Engineering Corp — Lawrence, MA; Hampton, NH; Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. C-13-037 (0X2)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 35 OF 85



EXISTING BEAM				
	BEAM NO.	SIZE	LENGTH ℄–℄ BRGS.	BOTTOM COVER PLATE
SPAN 1	BM 1	36WF135	61'–6"	10"x11/16"x46'–6"
	BM 2 – BM 7	36WF135	61'–6"	10"x7/8"x47'–9"
	BM 8	36WF135	61'–6"	10"x5/8"x46'–3"
	BM 17	36WF135	61'–6"	10"x3/4"x47'–3"
	BM 18 – BM 23	36WF135	61'–6"	10"x7/8"x47'–6"
	BM 24	36WF135	61'–6"	10"x11/16"x46'–6"
SPAN 2	BM 9	36WF135	61'–6"	10"x11/16"x46'–6"
	BM 10 – BM15	36WF135	61'–6"	10"x7/8"x47'–9"
	BM 16	36WF135	61'–6"	10"x5/8"x46'–3"
	BM 25	36WF135	61'–6"	10"x3/4"x47'–3"
	BM 26 – BM 31	36WF135	61'–6"	10"x7/8"x47'–6"
	BM 32	36WF135	61'–6"	10"x11/16"x46'–6"

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL
D1	12C25.0
D2	18C42.7

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Proposal No. 613219-132950

massDOT Highway Division

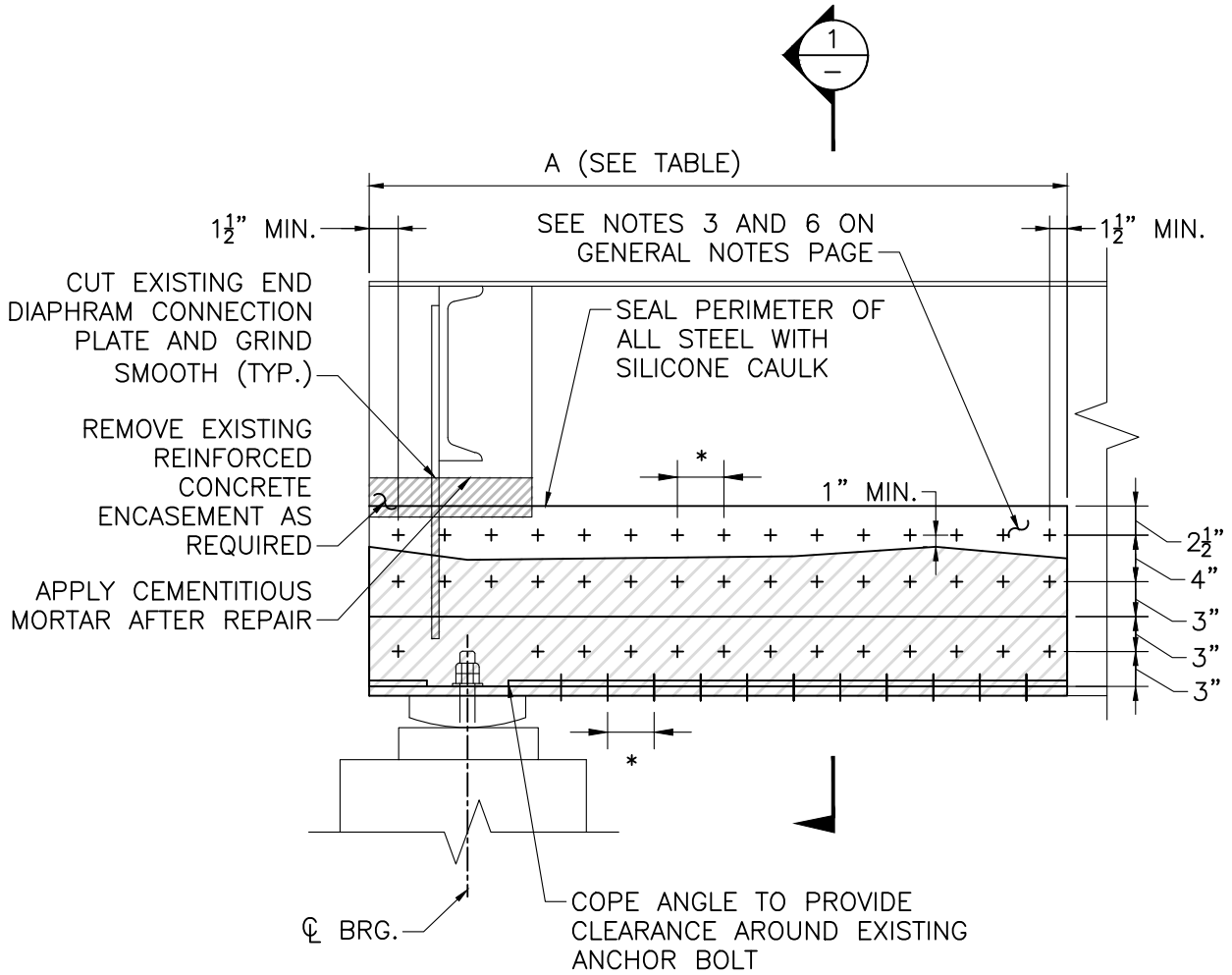
TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

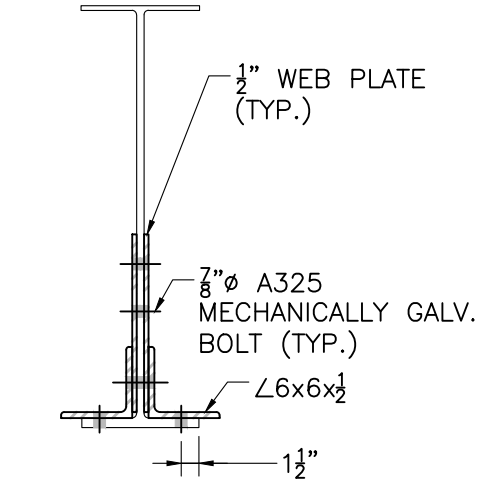
FRAMING PLAN
BRIDGE NO. W-21-047 (10W)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 36 OF 85





BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

BEAM END REPAIR

LOCATION	MARK	A
PIER	BM 2	3'–0"

massDOT Highway Division

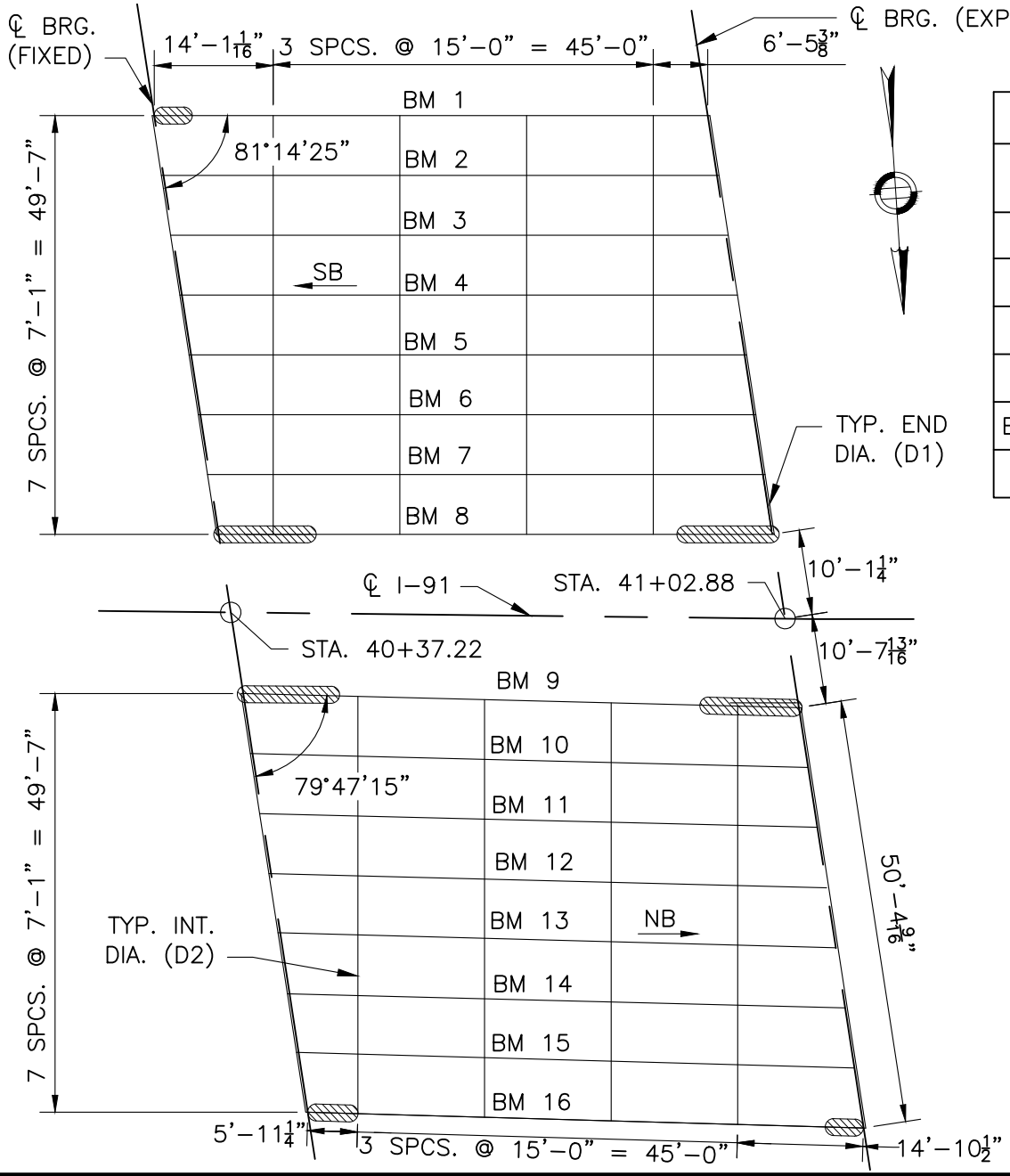
TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. W-21-047 (10W)
N.T.S

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 37 OF 85



EXISTING BEAMS			
BEAM NO.	SIZE	LENGTH ℄–℄ BRG	BOTTOM COVER PLATE
BM 1	36WF135	65'-6 1/2"	10"x 7/8"x50'-9"
BM 2 – BM 7	36WF135	65'-6 1/2"	10"x1"x51'-9"
BM 8	36WF135	65'-6 1/2"	10"x 7/8"x50'-9"
BM 9	36WF135	65'-9 1/2"	10"x 7/8"x50'-9"
BM 10 – BM15	36WF135	65'-9 1/2"	10"x1"x51'-9"
BM 16	36WF135	65'-9 1/2"	10"x 7/8"x50'-9"

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
D1	12C25
D2	18C42.7

NOTES:

1. BM15 HAS BACKED OFF NUT ON MASONRY PLATE ANCHOR BOLT AT THE EXPANSION BEARING. CONTRACTOR TO TIGHTEN THE NUT, WHICH SHALL BE CONSIDERED INCIDENTAL TO ITEM 107.97 AT THIS LOCATION.
2. CONTRACTOR SHALL CLEAN AND PAINT ALL FIXED AND EXPANSION BEARINGS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

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Proposal No. 613219-132950

massDOT Highway Division

TEC The Engineering Corp
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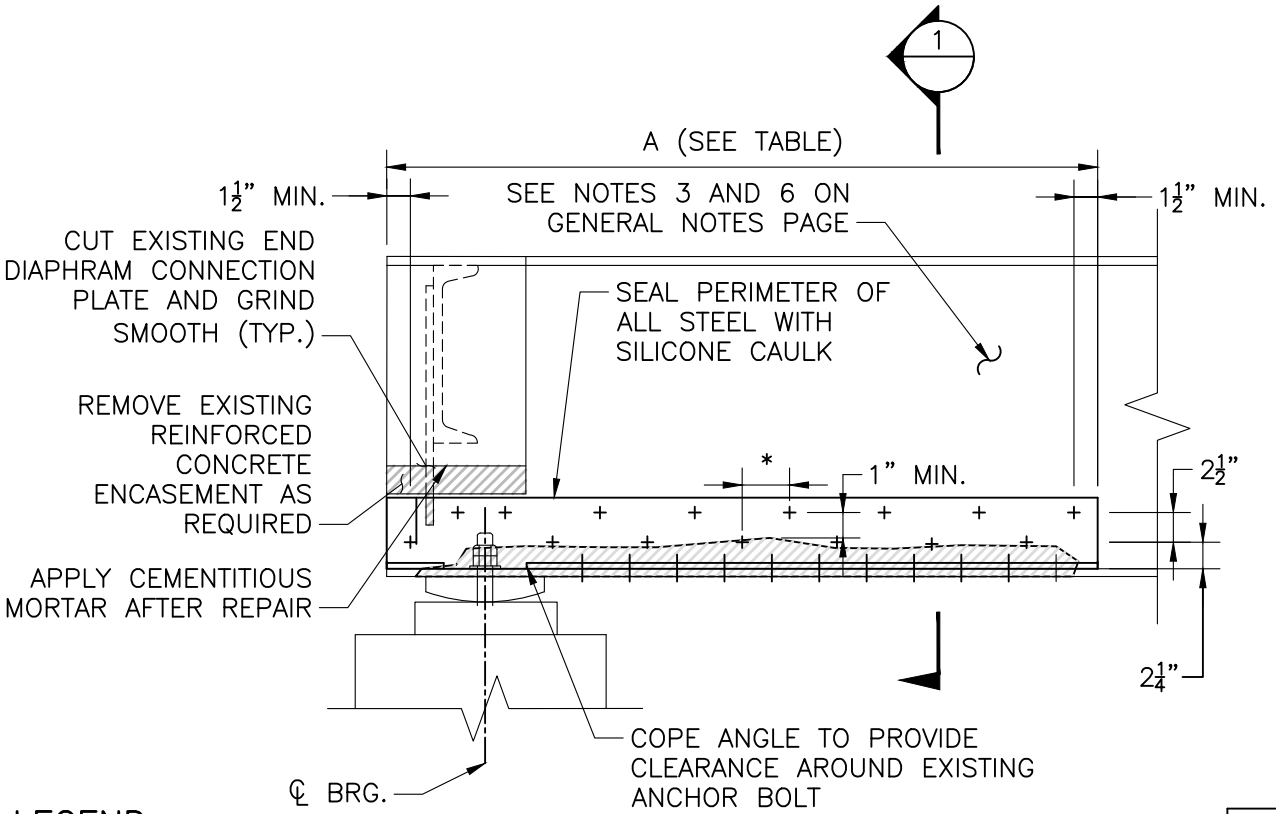
Worcester, MA

FRAMING PLAN
BRIDGE NO. W-21-046 (10X)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 38 OF 85

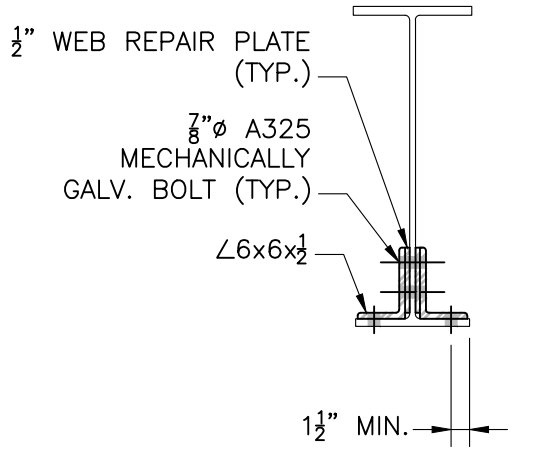


LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 4" MAX

BEAM END REPAIR



BEAM SECTION 1

ABUTMENT	MARK	A
EAST	BM 16	2'–6"
WEST	BM 16	2'–6"

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Proposal No. 613219-132950

massDOT Highway Division

TEC The Engineering Corp — Lawrence, MA; Hampton, NH; Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. W-21-046 (10X)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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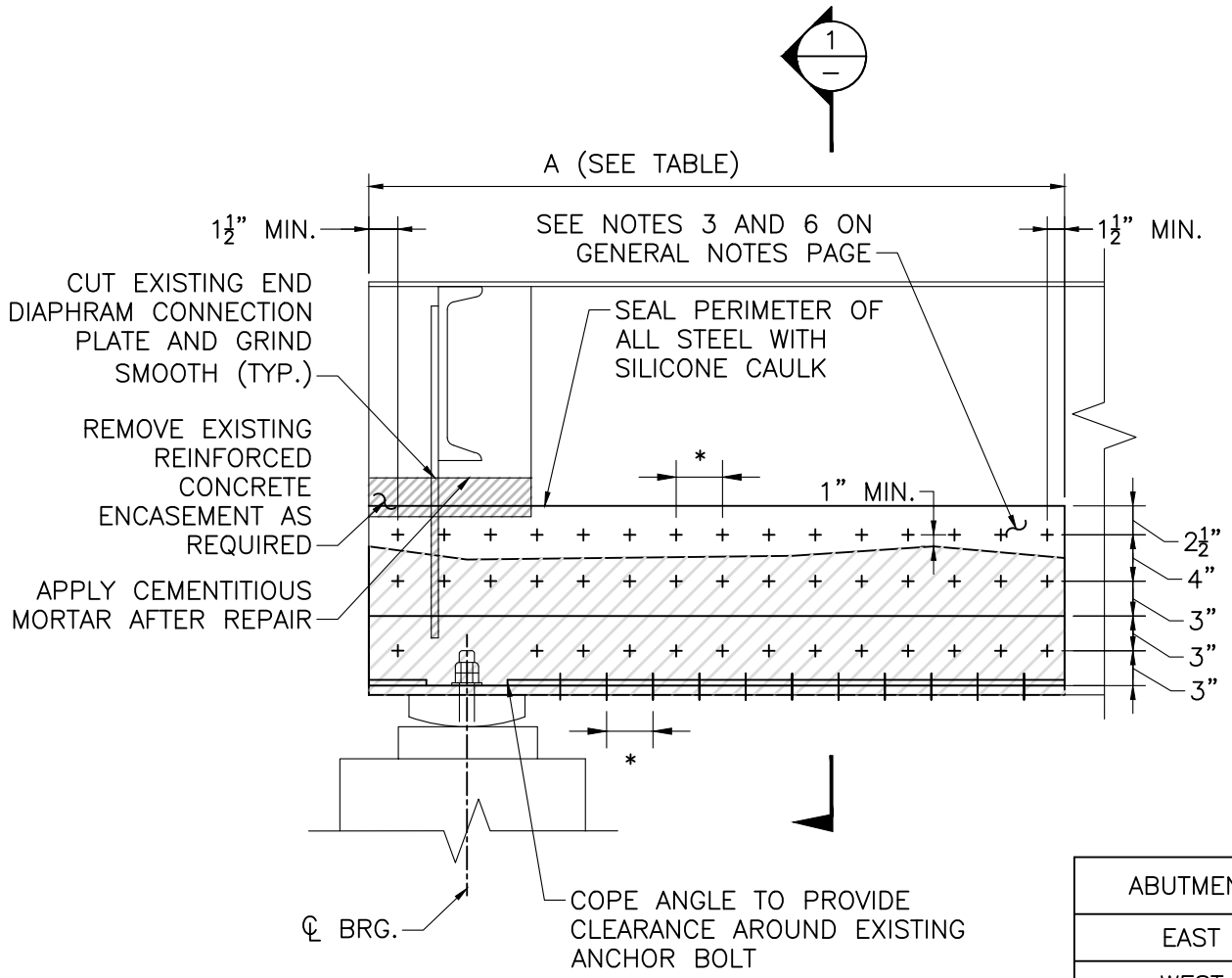

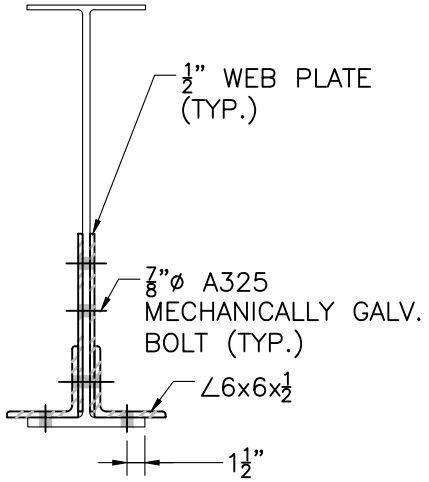

BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

BEAM END REPAIR

ABUTMENT	MARK	A
EAST	BM 1	3'–6"
WEST	BM 8	7'–9"
EAST	BM 8	7'–9"
WEST	BM 9	7'–9"
EAST	BM 9	7'–9"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
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Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. W-21-046 (10X)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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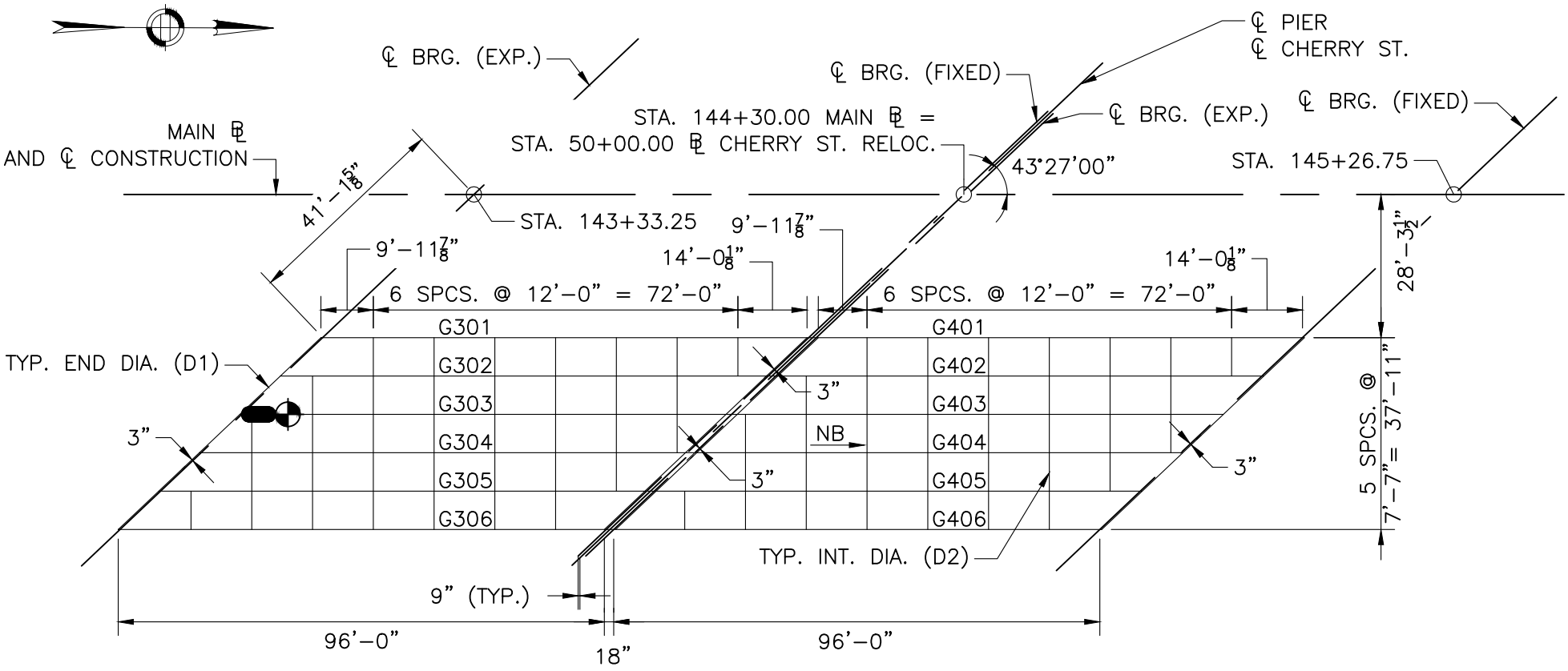

MARK	DESCRIPTION
⊕	PROPOSED JACKING AND SHORING (SUPERSTR.)
▬	PROPOSED BEARING REPAIR
D1	15C33.9, (3) L4"x3 1/2"x 3/8"
D2	(4) L4"x3 1/2"x 3/8"

massDOT Highway Division

TEC The Engineering Corp
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Worcester, MA

FRAMING PLAN
BRIDGE NO. H-21-049 (0YD)
N.T.S.

DATE: 10/8/2025

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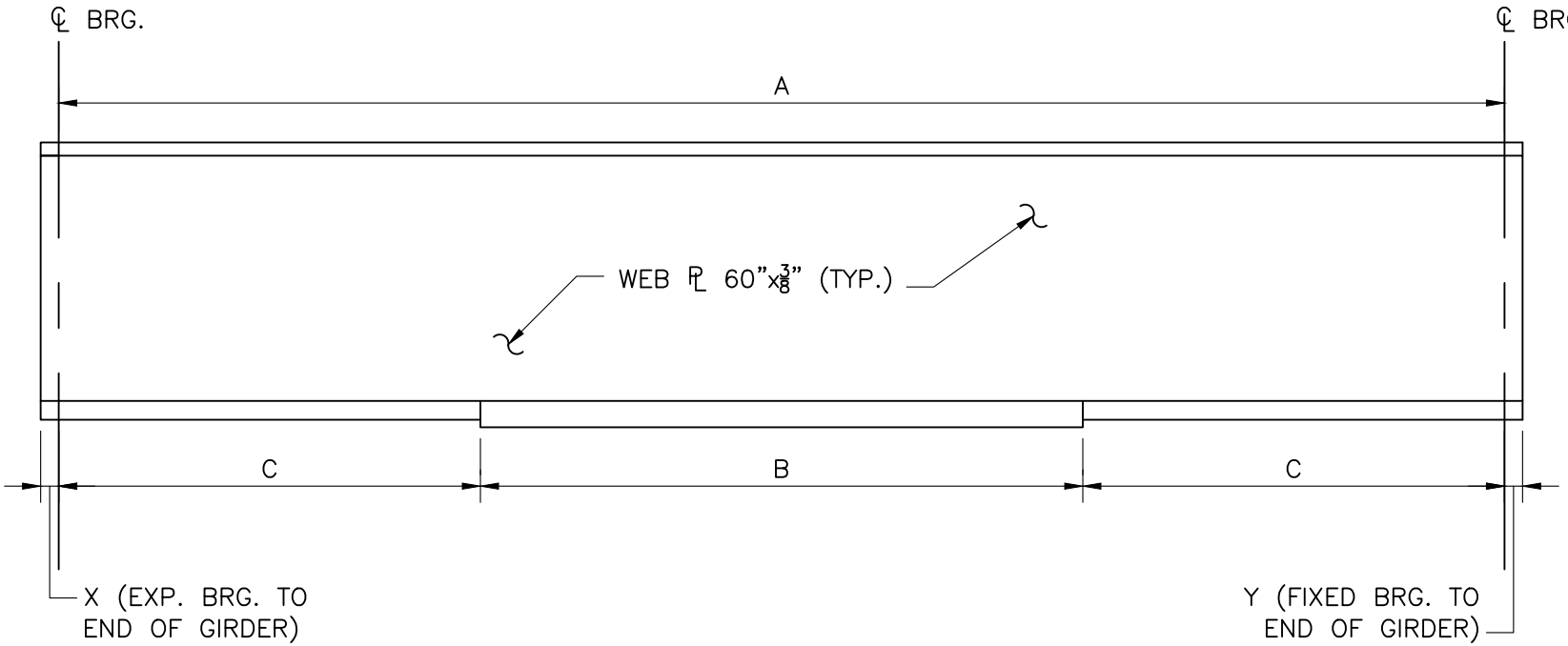

FLANGE PLATES					
GIRDER NO.	A	B	C	X	Y
G–301 & G–306	14"x⅞"x96'–0"	14"x1¾"x40'–0"	14"x1¼"x28'–0"	17½"	6½"
G–401 & G–406	14"x⅞"x96'–0"	14"x1¾"x40'–0"	14"x1¼"x28'–0"	6½"	17½"
G–302 – G–305	14"x¾"x96'–0"	14"x1¾"x50'–0"	14"x1¼"x23'–0"	17½"	6½"
G–402 – G–405	14"x¾"x96'–0"	14"x1¾"x50'–0"	14"x1¼"x23'–0"	6½"	17½"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
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Worcester, MA

STEEL LEGEND
BRIDGE NO. H-21-049 (0YD)
N.T.S.

DATE: 10/8/2025

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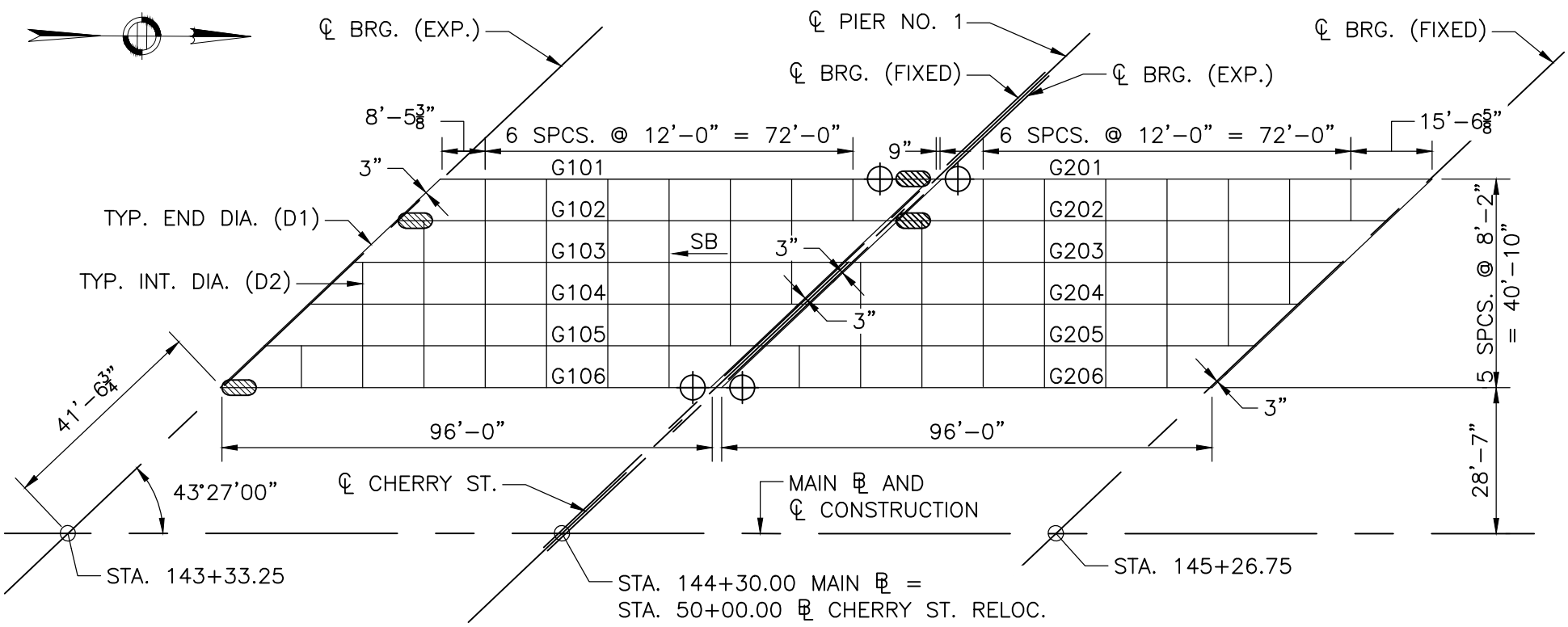

MARK	DESCRIPTION
▨	PROPOSED STEEL REPAIR AREA
⊕	PROPOSED JACKING AND SHORING (SUBSTR.)
D1	15C33.9, (3) L4"x3 1/2"x 3/8"
D2	(4) L4"x3 1/2"x 3/8"

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massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
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Worcester, MA

FRAMING PLAN
BRIDGE NO. H-21-049 (0YE)
N.T.S.

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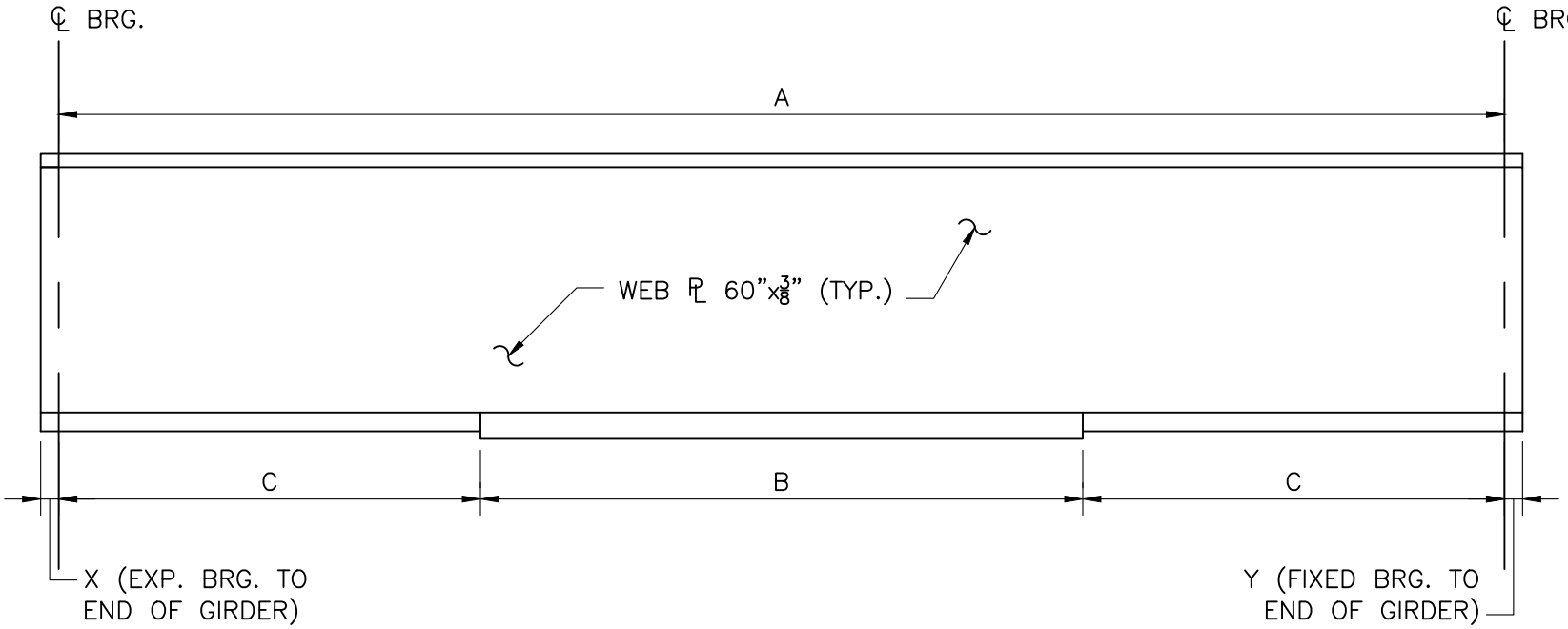

FLANGE PLATES					
GIRDER NO.	A	B	C	X	Y
G–101, G–106	14"x⅞"x96'–0"	14"x1⅞"x40'–0"	14"x1¼"x28'–0"	17½"	6½"
G–201, G–206	14"x⅞"x96'–0"	14"x1⅞"x40'–0"	14"x1¼"x28'–0"	6½"	17½"
G–102 – G–105	14"x¾"x96'–0"	14"x1⅞"x50'–0"	14"x1¼"x23'–0"	17½"	6½"
G–202 – G–205	14"x¾"x96'–0"	14"x1⅞"x50'–0"	14"x1¼"x23'–0"	6½"	17½"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL LEGEND
BRIDGE NO. H-21-049 (0YE)
N.T.S.

DATE: 10/8/2025

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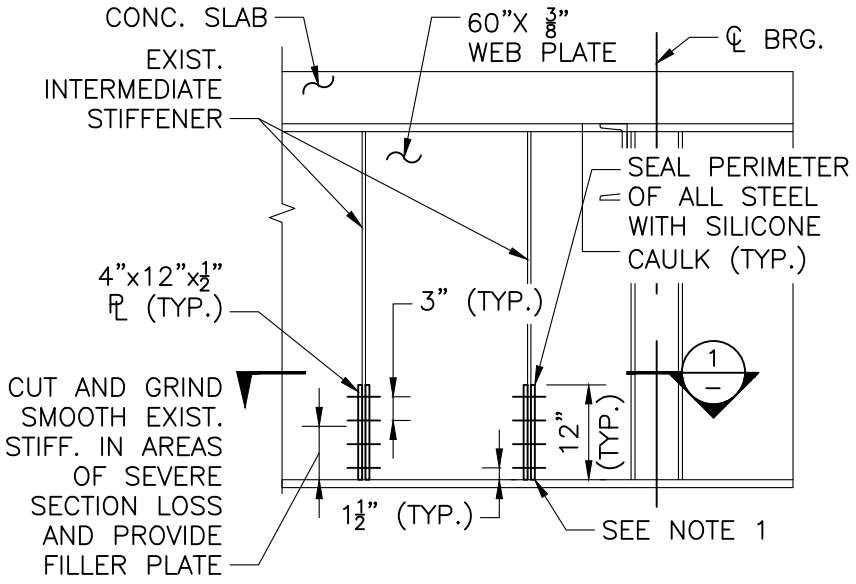
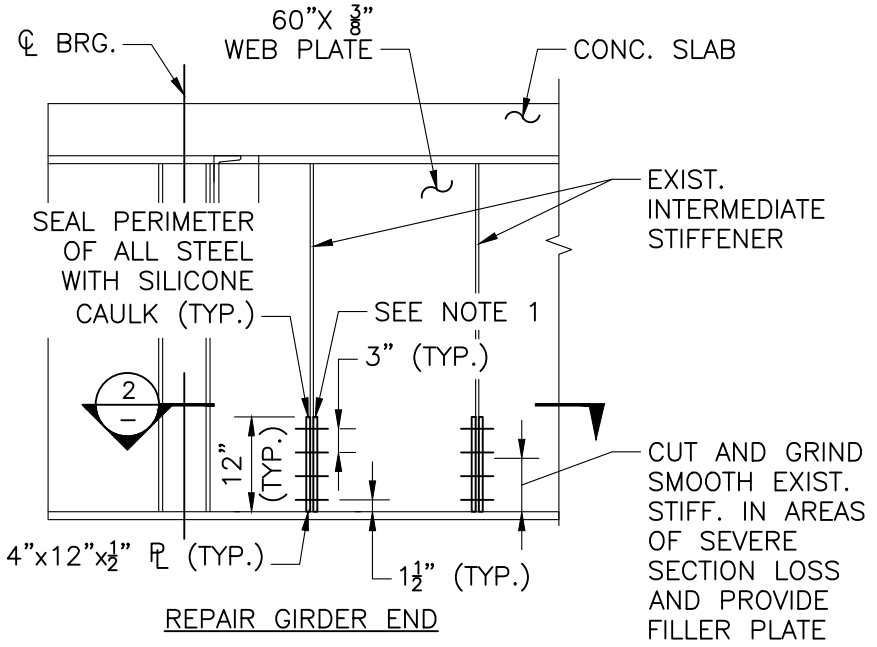
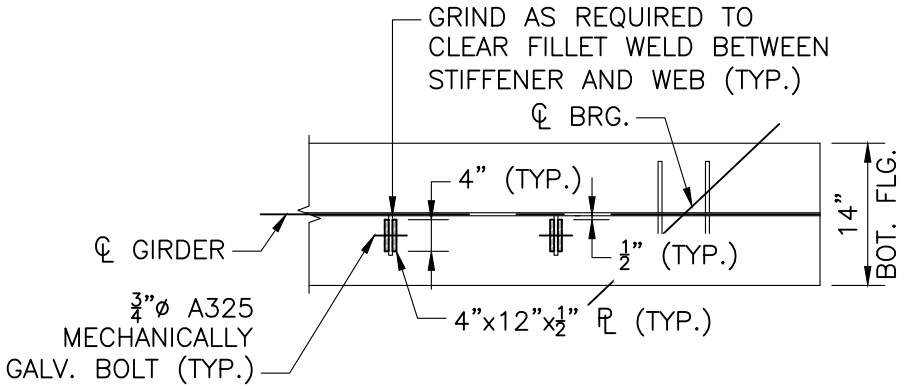


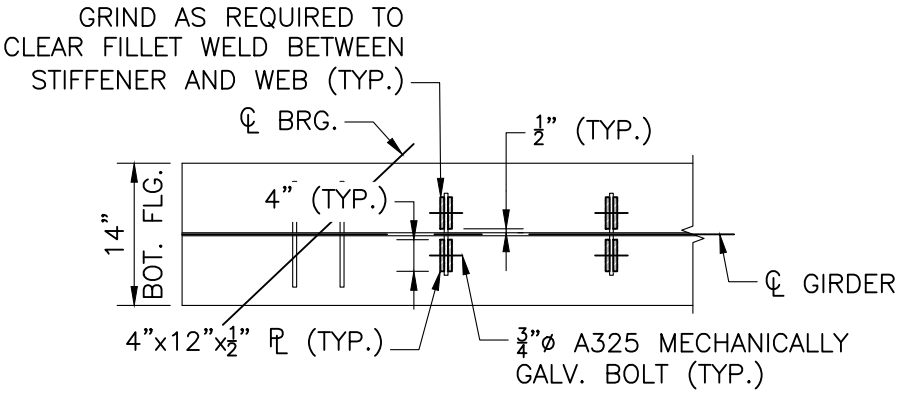
REPAIR GIRDER END



REPAIR GIRDER END



SECTION 1



SECTION 2

GIRDER 101

GIRDER 102

NOTE:
1. SEE NOTES 3 AND 6 ON GENERAL NOTES PAGE.

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. H-21-049 (0YE)
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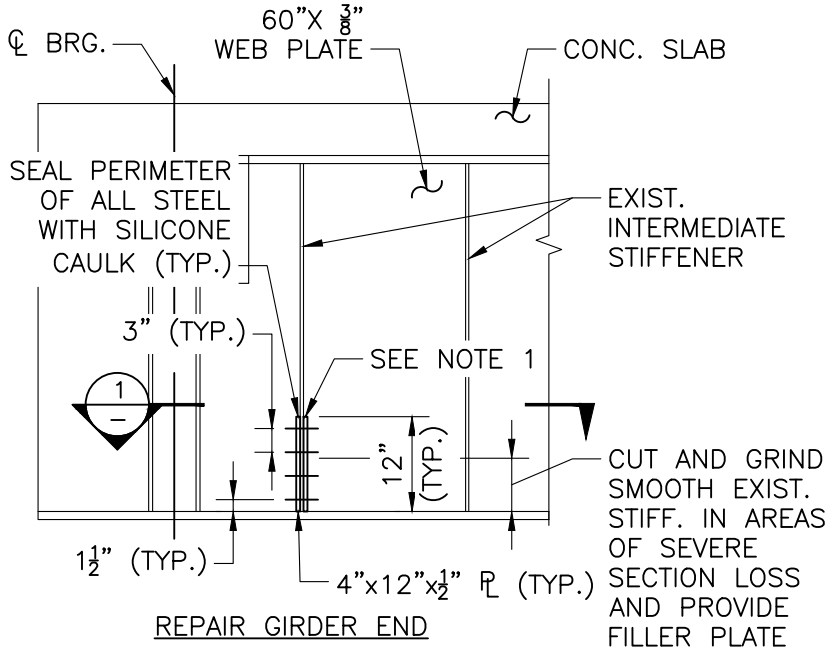
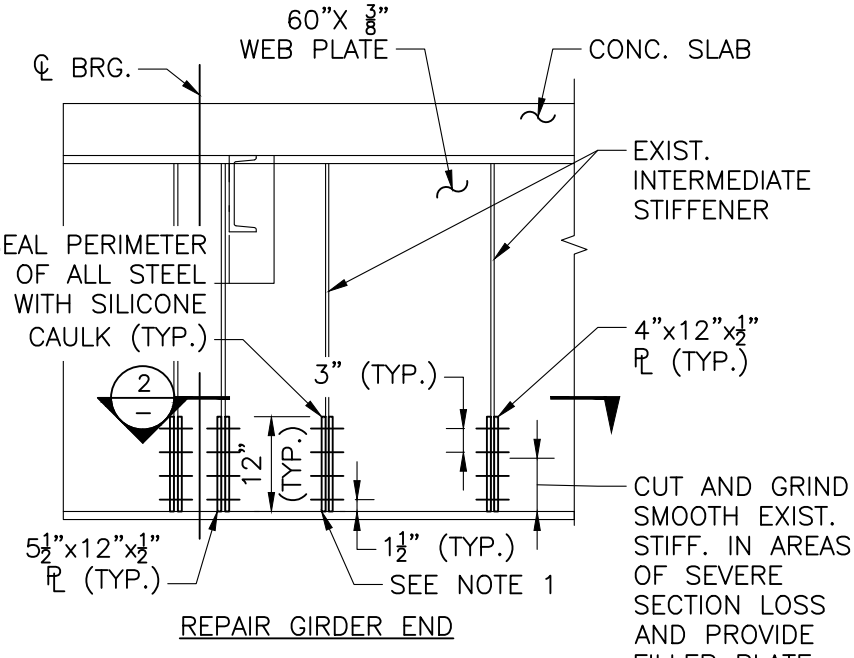
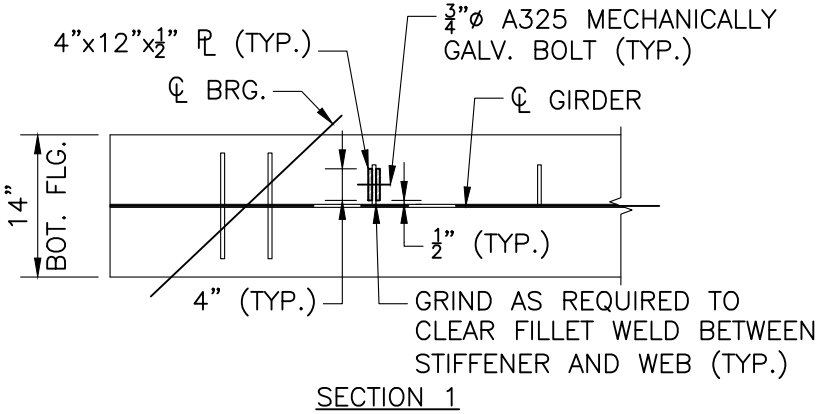


REPAIR GIRDER END

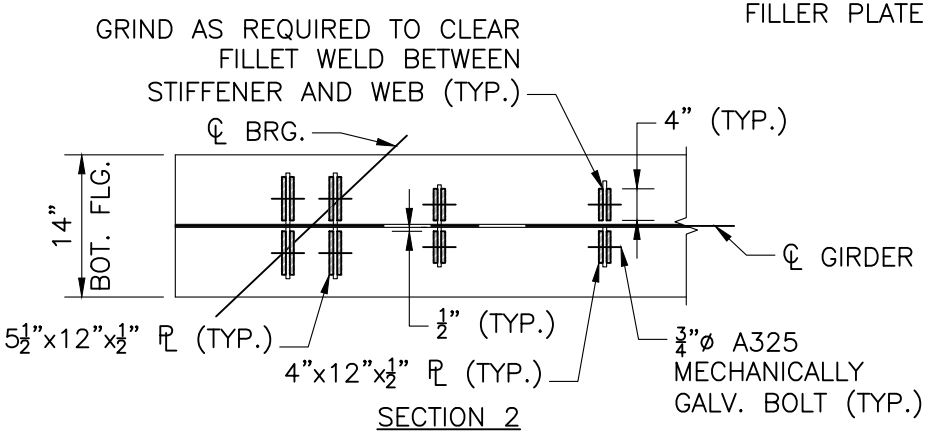


REPAIR GIRDER END



SECTION 1

GIRDER 106



SECTION 2

GIRDER 202

NOTE:
1. SEE NOTES 3 AND 6 ON GENERAL NOTES PAGE.

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. H-21-049 (0YE)
N.T.S.

DATE: 10/8/2025

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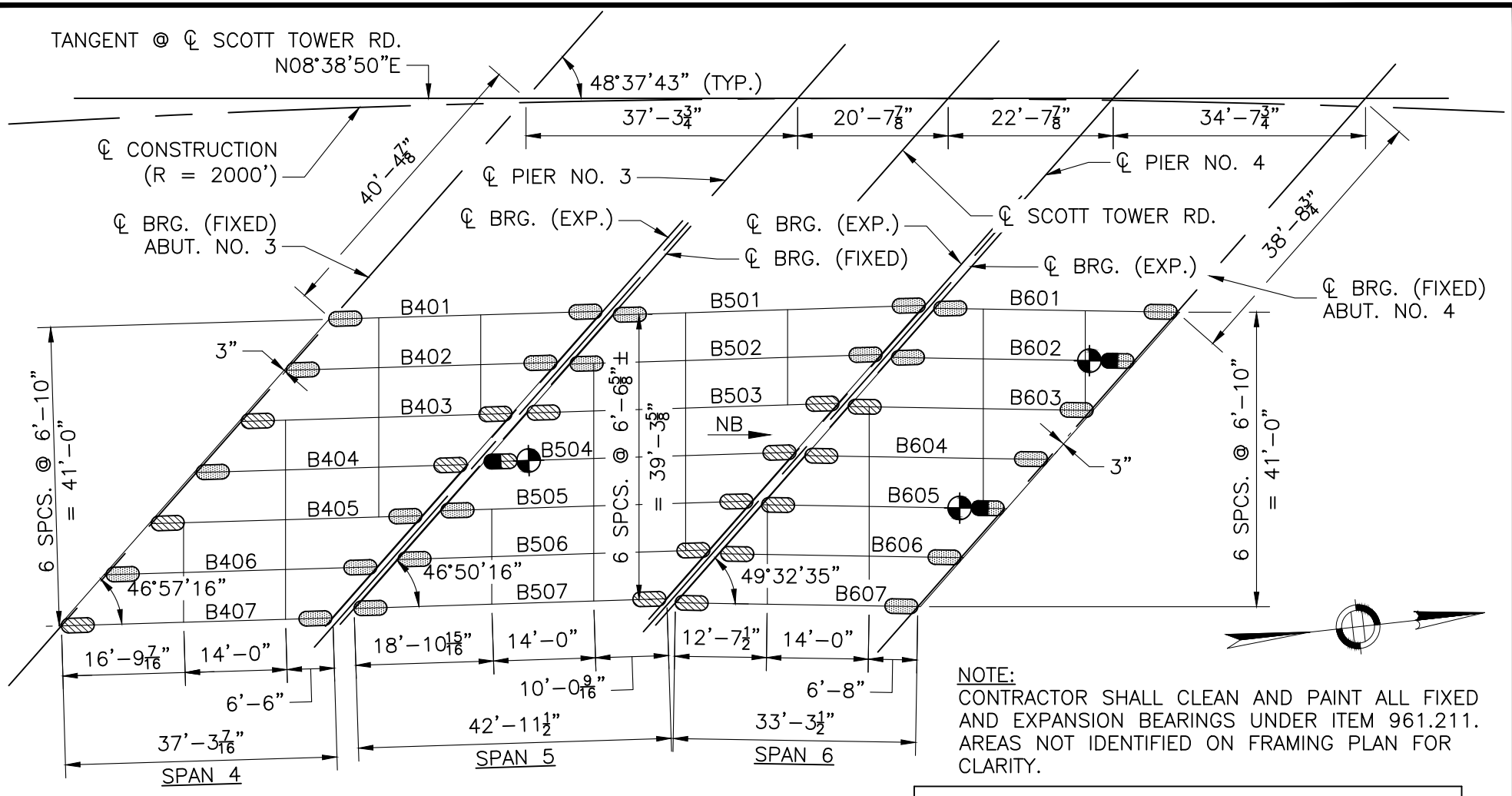

NOTE:
CONTRACTOR SHALL CLEAN AND PAINT ALL FIXED AND EXPANSION BEARINGS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED BEARING REPAIR
	PROPOSED CLEAN AND PAINT STEEL
	PROPOSED JACKING AND SHORING (SUPERSTR.)

BEAM DIMENSION TABLE	
MARK	DESCRIPTION
401, 407, 601, 607	33WF118
402 – 406	30WF116
501 – 507	33WF130
602 – 606	30WF108

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. H-21-051 (0YF)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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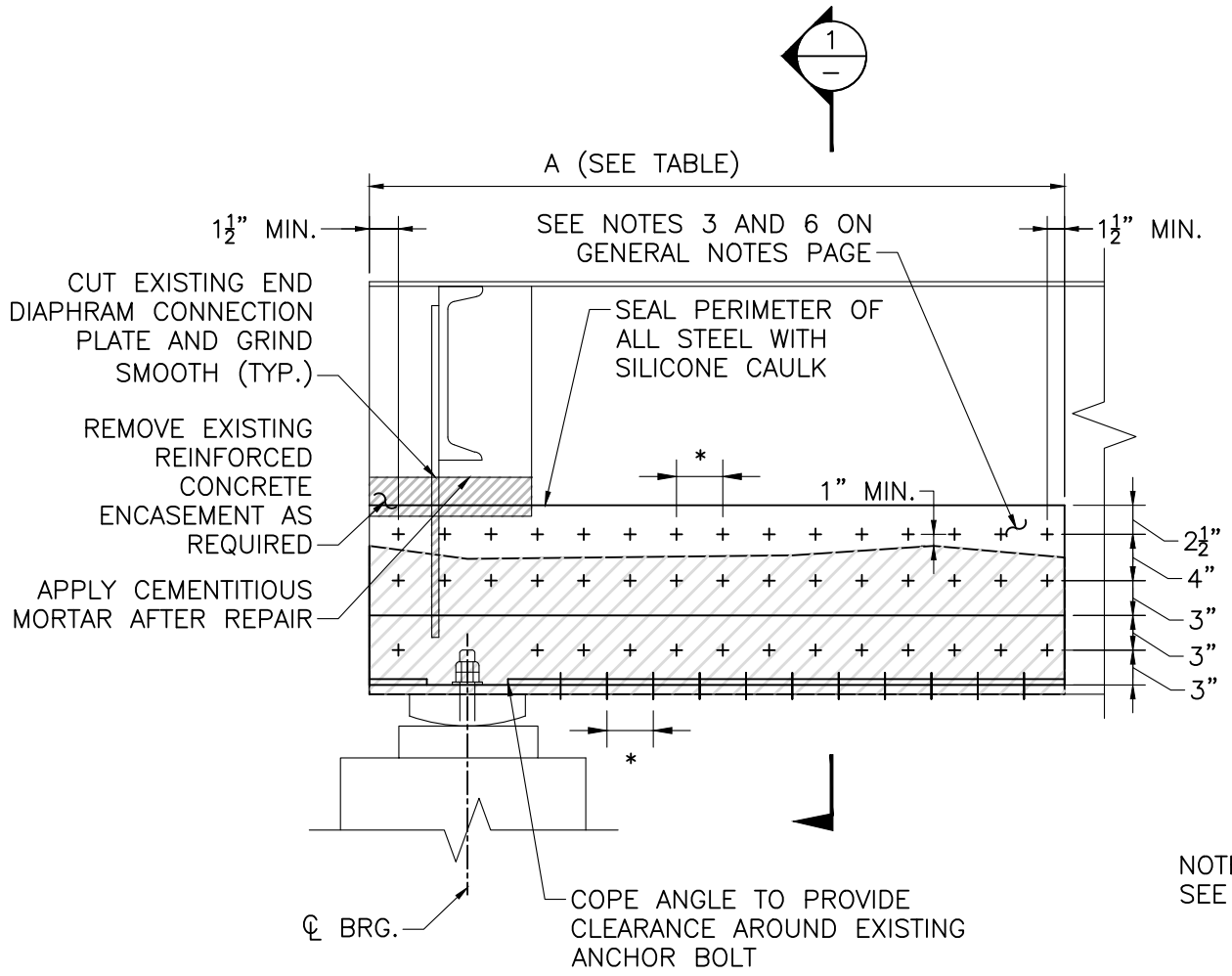
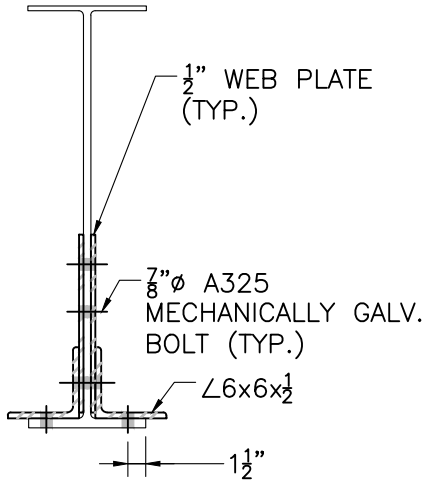
Proposal No. 613219-132950





BEAM SECTION 1

NOTES:
SEE SHEET 49 FOR DIMENSIONS TABLE.

LEGEND:
AREA OF SECTION LOSS
* = 3" MIN, 6" MAX

BEAM END REPAIR

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Proposal No. 613219-132950

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. H-21-051 (0YF)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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ABUTMENT/PIER	MARK	A
ABUT. 3	B403	6'–6"
ABUT. 3	B405	8'–6"
ABUT. 3	B407	5'–6"
PIER 3	B403	5'–6"
PIER 3	B404	5'–6"
PIER 3	B503	5'–6"
PIER 3	B504	5'–6"
PIER 4	B503	8'–6"
PIER 4	B504	11'–6"
PIER 4	B505	11'–6"
PIER 4	B506	9'–6"
PIER 4	B507	6'–0"
PIER 4	B603	9'–6"
PIER 4	B604	9'–6"
PIER 4	B605	8'–6"
PIER 4	B606	9'–6"
PIER 4	B607	4'–6"

massDOT Massachusetts Department of Transportation Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. H-21-051 (0YF)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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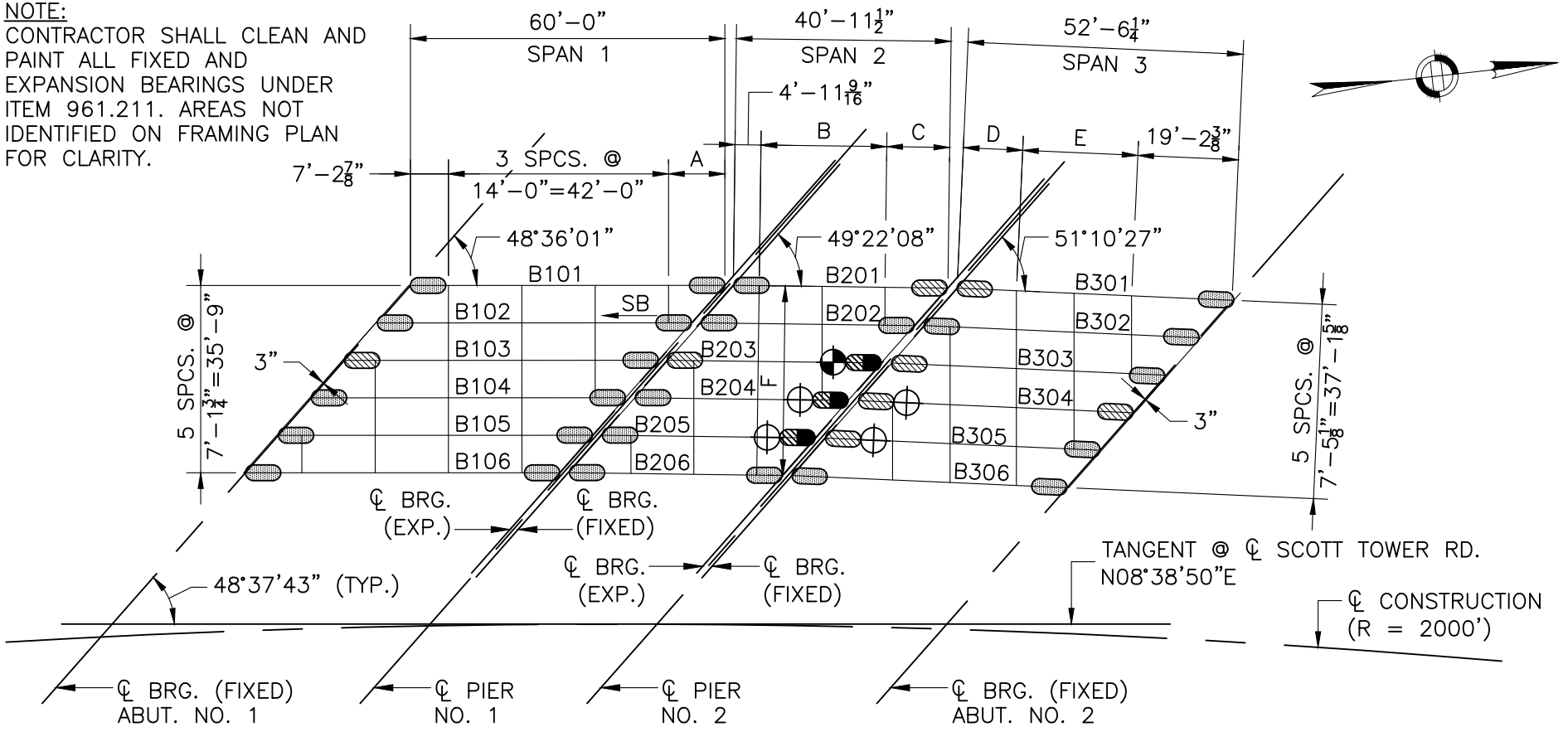
NOTE:
CONTRACTOR SHALL CLEAN AND PAINT ALL FIXED AND EXPANSION BEARINGS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.



MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED BEARING REPAIR
	PROPOSED CLEAN AND PAINT STEEL
⊕	PROPOSED JACKING AND SHORING (SUPERSTR.)
⊕	PROPOSED JACKING AND SHORING (SUBSTR.)

BEAM DIMENSION TABLE	
MARK	DESCRIPTION
101 – 106	33WF118 W/ 14"x¾"x50'–0" COVER PLATE
201 – 206	33WF130
301 & 306	33WF118 W/ 14"x½"x42'–0' COVER PLATE
302 – 305	30WF108 W/ 14"x⅝"x42'–0" COVER PLATE

DESCRIPTION TABLE	
MARK	DESCRIPTION
A	10'–9"
B	2 SPCS. @ 12'–0" = 24'–0"
C	11'–11 15/16"
D	11'–3 7/8"
E	2 SPCS. @ 11'–0" = 22'–0"
F	5 SPCS. @ 7'–2¾" = 36'–2"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. H-21-051 (0YG)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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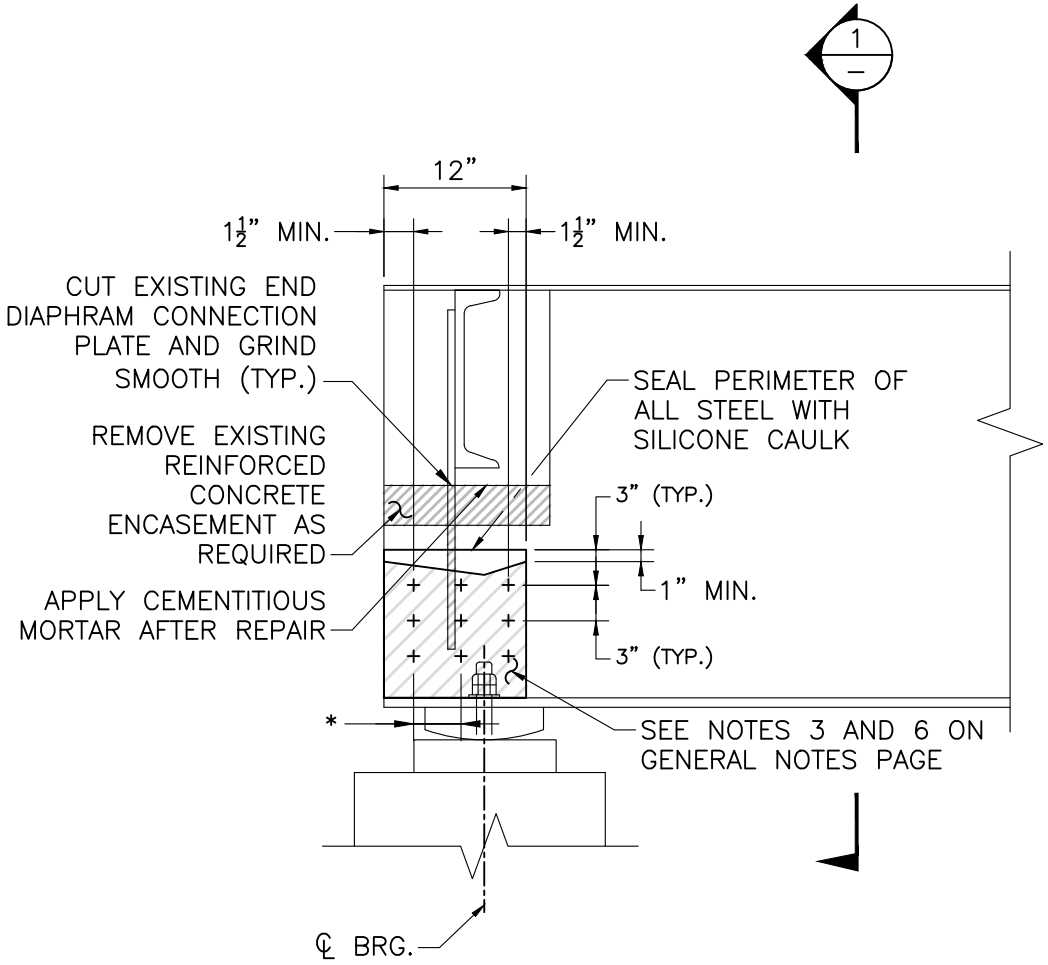

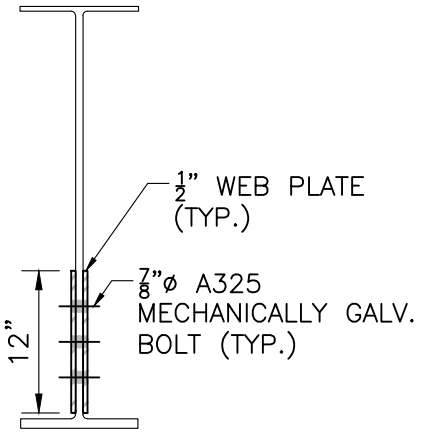

BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 2" MIN, 6" MAX

BEAM END REPAIR

ABUTMENT/PIER	MARK
SOUTH	B103

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. H-21-051 (0YG)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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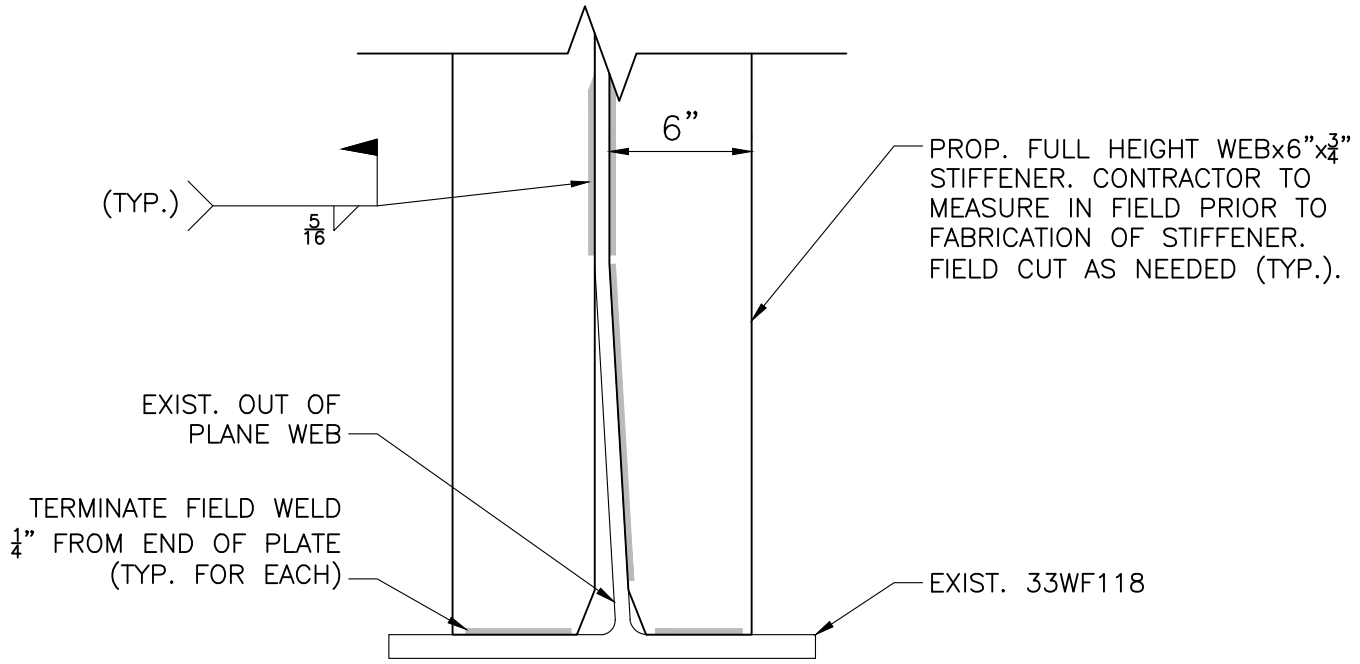
Proposal No. 613219-132950



BEAM SECTION

ABUTMENT/PIER	MARK
PIER 2	B301

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. H-21-051 (0YG)
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DATE: 10/8/2025

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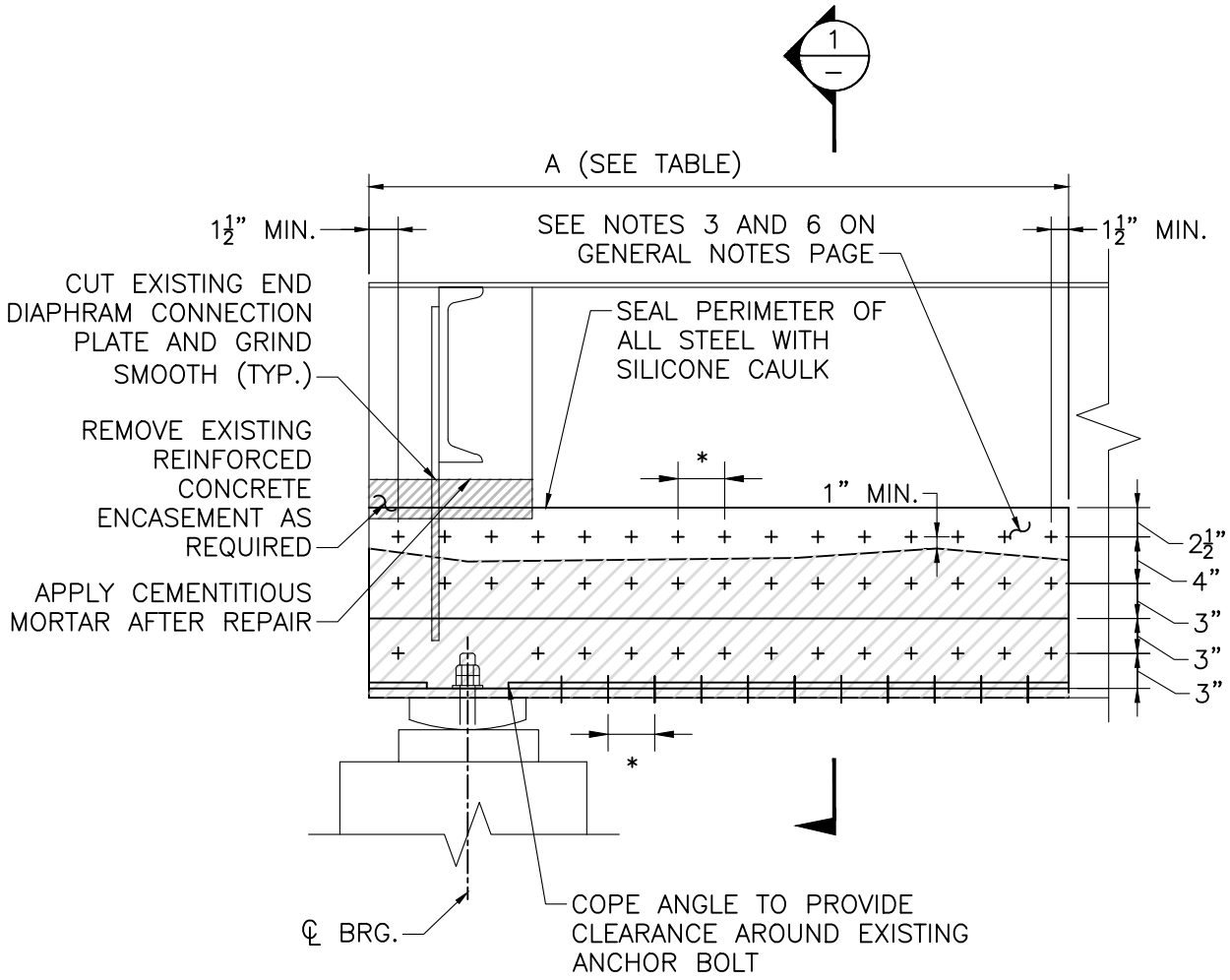

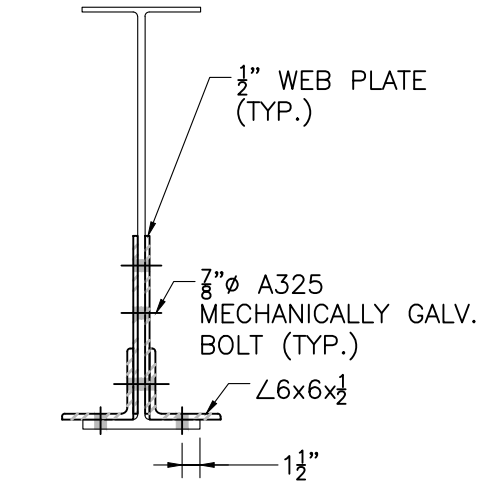

BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

BEAM END REPAIR

NOTE:
SEE SHEET 54 FOR REPAIR LEGEND.

Proposal No. 613219-132950

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. H-21-051 (0YG)
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ABUTMENT/PIER	MARK	A
PIER 1	B203	6'–6"
PIER 2	B201	7'–0"
PIER 2	B203	8'–0"
PIER 2	B204	4'–6"
PIER 2	B205	5'–6"
PIER 2	B303	6'–6"
PIER 2	B304	3'–0"
PIER 2	B305	7'–6"
ABUT. 2	B304	2'–6"

Proposal No. 613219-132950

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. H-21-051 (0YG)
N.T.S.

DATE: 10/8/2025

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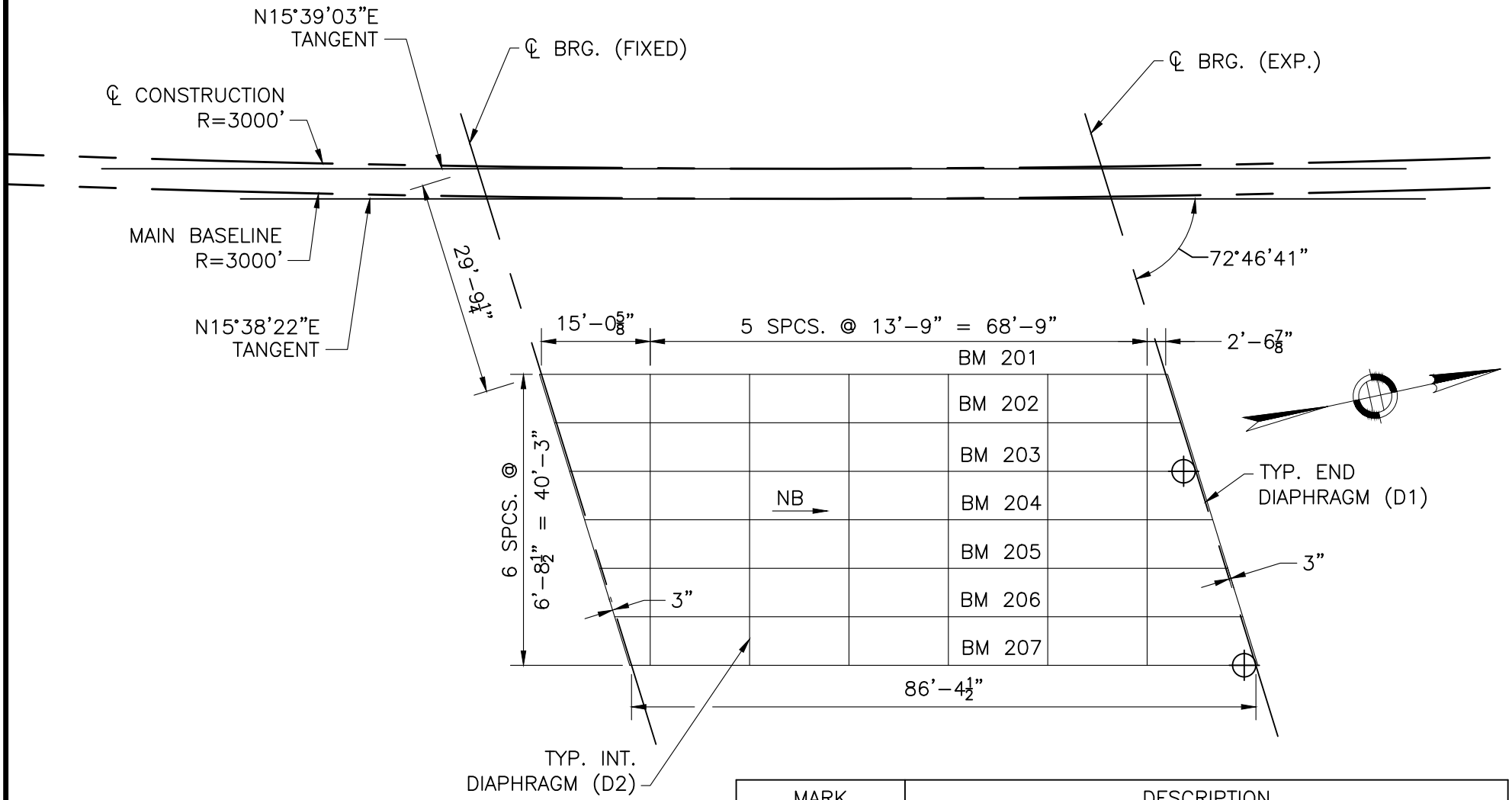
SHEET: 54 OF 85



MARK	DESCRIPTION
BM 201, 207	36WF230 W/ 15"x⅞"x63'-0" COVER PLATE
BM 202-206	36WF194 W/ 14"x1⅛"x66'-6" COVER PLATE
D1	12C25
D2	18C42.7

MARK	DESCRIPTION
⊕	PROPOSED JACKING AND SHORING (SUBSTR.)

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. H-21-053 (0YL)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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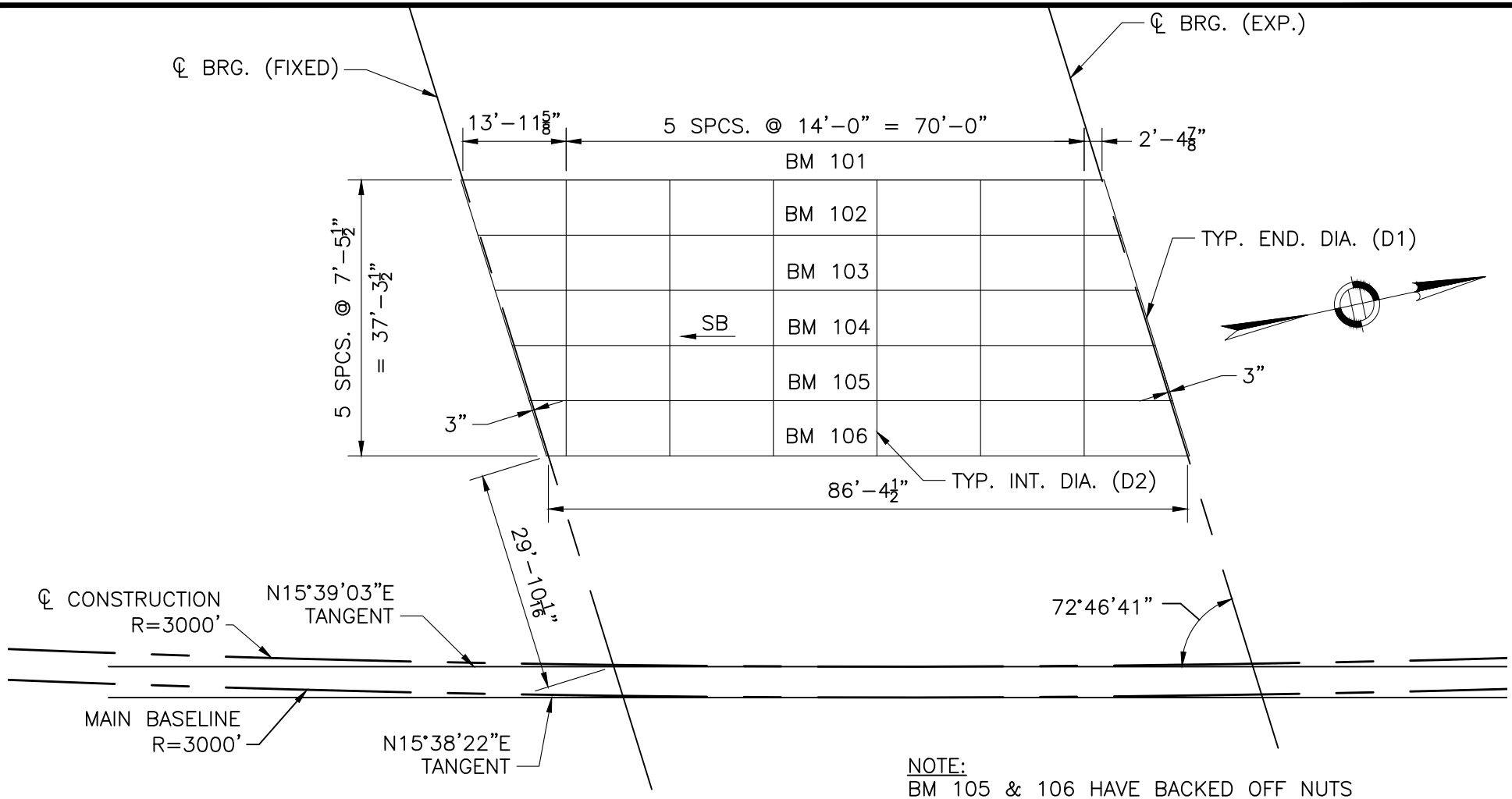

NOTE:
BM 105 & 106 HAVE BACKED OFF NUTS ON MASONRY PLATE ANCHOR BOLTS AT THE EXPANSION BEARING. CONTRACTOR TO TIGHTEN THE NUTS, WHICH SHALL BE CONSIDERED INCIDENTAL TO ITEM 905. AT THIS LOCATION

MARK	DESCRIPTION
BM 101, 106	36WF230 W/ 15"x1⅛"x64'–6" COVER PLATE
BM 102–105	36WF230 W/ 15"x1"x63'–6" COVER PLATE
D1	12C30
D2	18C42.7

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. H-21-053 (0YM)
N.T.S.

DATE: 10/8/2025

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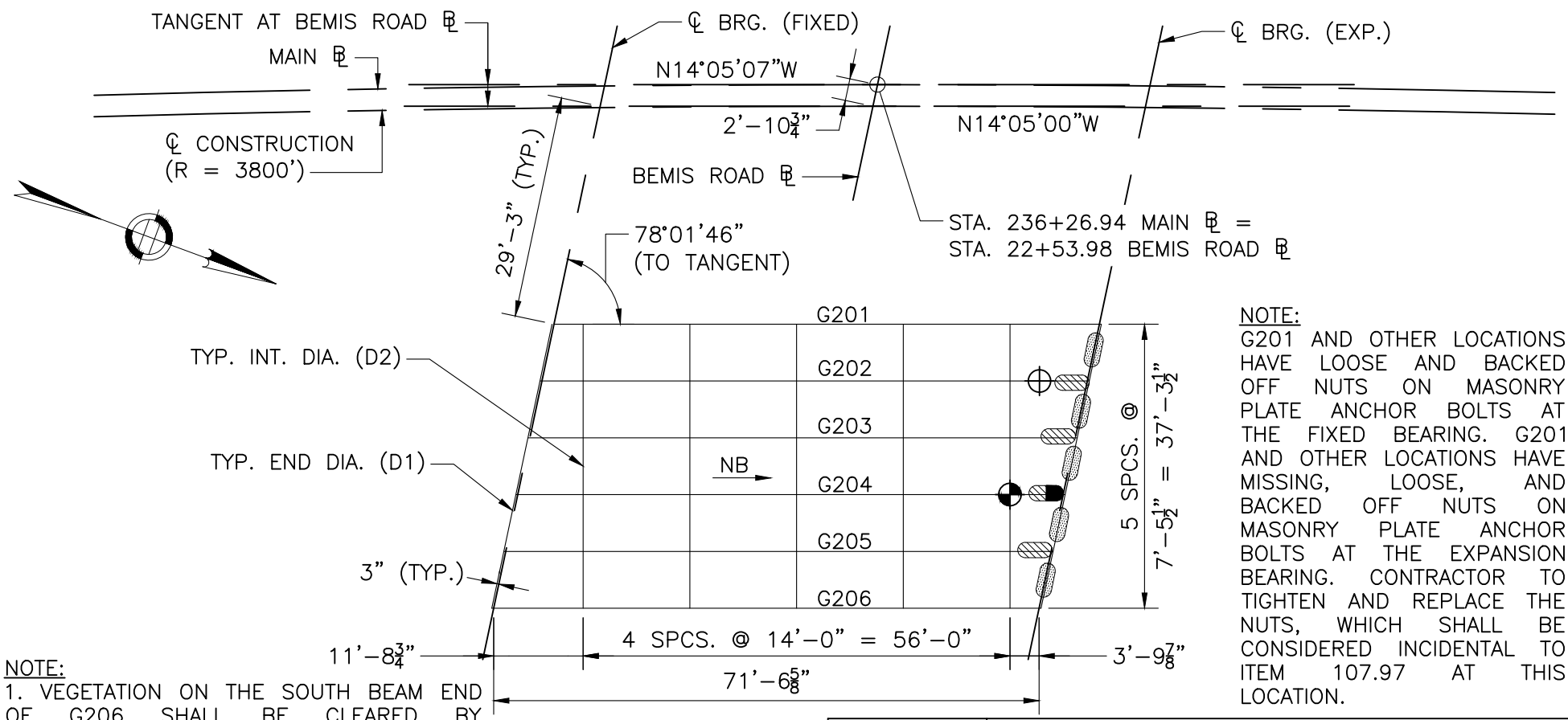

NOTE:
1. VEGETATION ON THE SOUTH BEAM END OF G206 SHALL BE CLEARED BY CONTRACTOR WHILE ONSITE. WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 107.97 AT THIS LOCATION.

2. CONTRACTOR SHALL CLEAN AND PAINT ALL FIXED AND EXPANSION BEARINGS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

MARK	WEB PLATE	TOP FLANGE	BOTTOM FLANGE
G201–G206	48"x⅜"	12"x¾"	14"x1¼"

NOTE:
G201 AND OTHER LOCATIONS HAVE LOOSE AND BACKED OFF NUTS ON MASONRY PLATE ANCHOR BOLTS AT THE FIXED BEARING. G201 AND OTHER LOCATIONS HAVE MISSING, LOOSE, AND BACKED OFF NUTS ON MASONRY PLATE ANCHOR BOLTS AT THE EXPANSION BEARING. CONTRACTOR TO TIGHTEN AND REPLACE THE NUTS, WHICH SHALL BE CONSIDERED INCIDENTAL TO ITEM 107.97 AT THIS LOCATION.

MARK	DESCRIPTION
D1	(1) 15C33.9 & (3) L4"x3½"x⅜"
D2	(4) L4"x3½"x⅜"
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL
	PROPOSED JACKING AND SHORING (SUPERSTR.)
	PROPOSED BEARING REPAIR
	PROPOSED JACKING AND SHORING (SUBSTR.)

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. H-21-054 (0YN)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 57 OF 85

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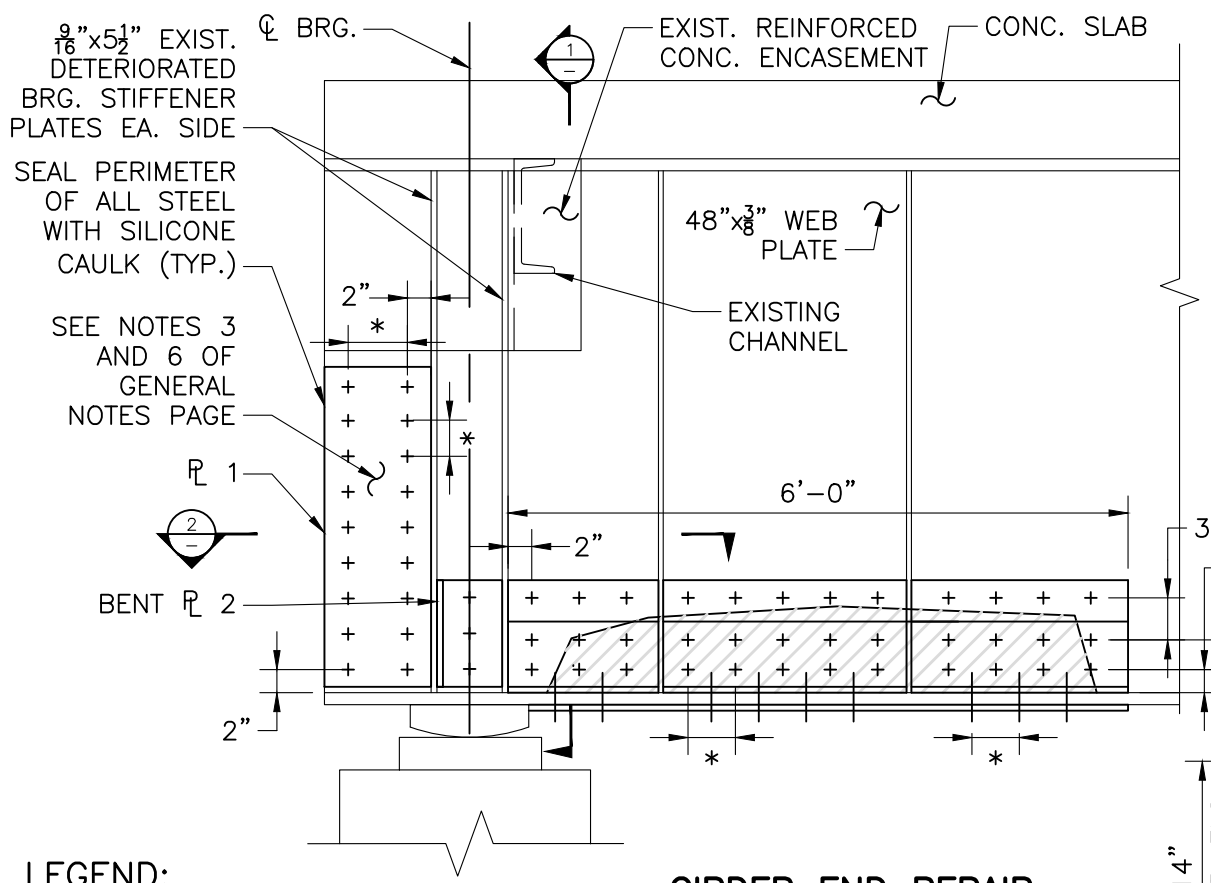
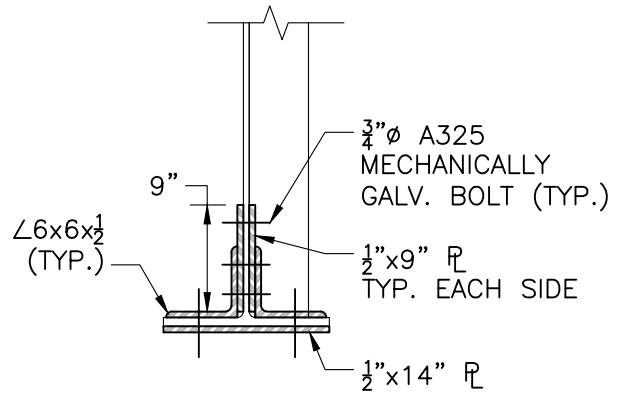
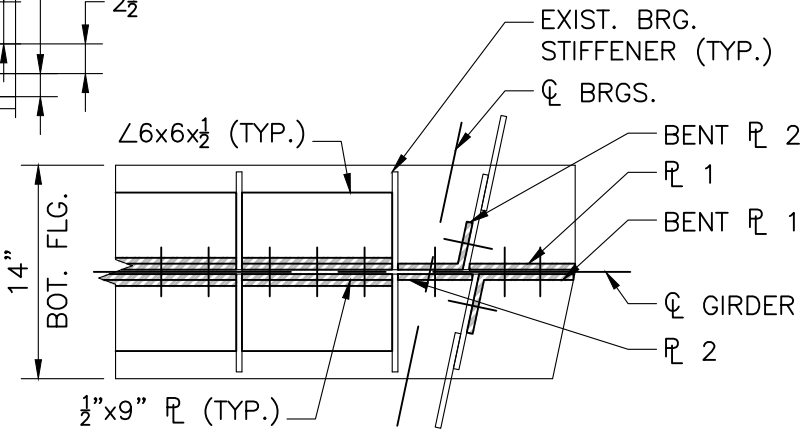
Proposal No. 613219-132950





SECTION 1



LONGITUDINAL SECTION 2

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

PL MARK	LENGTH	HEIGHT
PL 1	9"	27"
BENT PL 1	15"	27"
PL 2	5"	9"
BENT PL 2	12"	9"

GIRDER END REPAIR

NOTES:

1. GRIND AS REQ. TO CLR. FILLET WELD BTWN. STIFFENER AND WEB.
2. ALL PLATES ARE 1/2" THICK.
3. REPAIRS APPLY TO GIRDERS 203, 204, AND 205.
4. REPAIR SHALL ALSO BE USED AT GIRDER 202, HOWEVER OMITTING THE WEB PLATES AND ANGLES BEYOND THE 2ND BEARING STIFFENER.

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Proposal No. 613219-132950

massDOT Highway Division

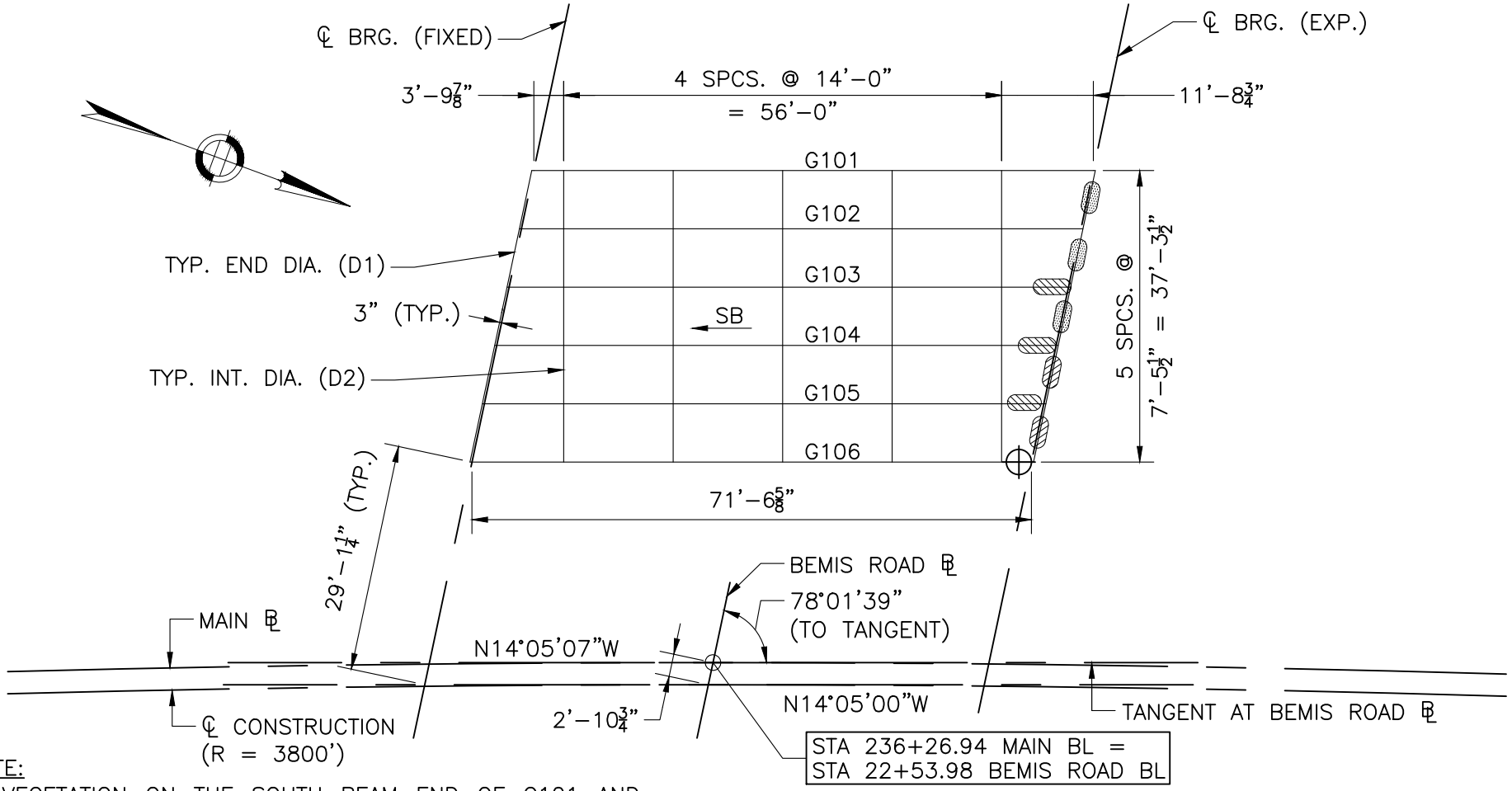
TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. H-21-054 (0YN)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 58 OF 85



NOTE:

1) VEGETATION ON THE SOUTH BEAM END OF G101 AND NORTH END OF G106 SHALL BE CLEARED BY CONTRACTOR WHILE ONSITE. WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 107.97 AT THIS LOCATION.

2) CONTRACTOR SHALL CLEAN AND PAINT ALL FIXED AND EXPANSION BEARINGS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

MARK	WEB PLATE	TOP FLANGE	BOTTOM FLANGE
G101–G106	48"X⅜"	12"X¾"	14"X1¼"

MARK	DESCRIPTION
D1	(1) 15C33.9 & (3) ∠4"x3½"x⅜"
D2	(4) ∠4"x3½"x⅜"
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL
⊕	PROPOSED JACKING AND SHORING (SUBSTR.)

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. H-21-054 (0YP)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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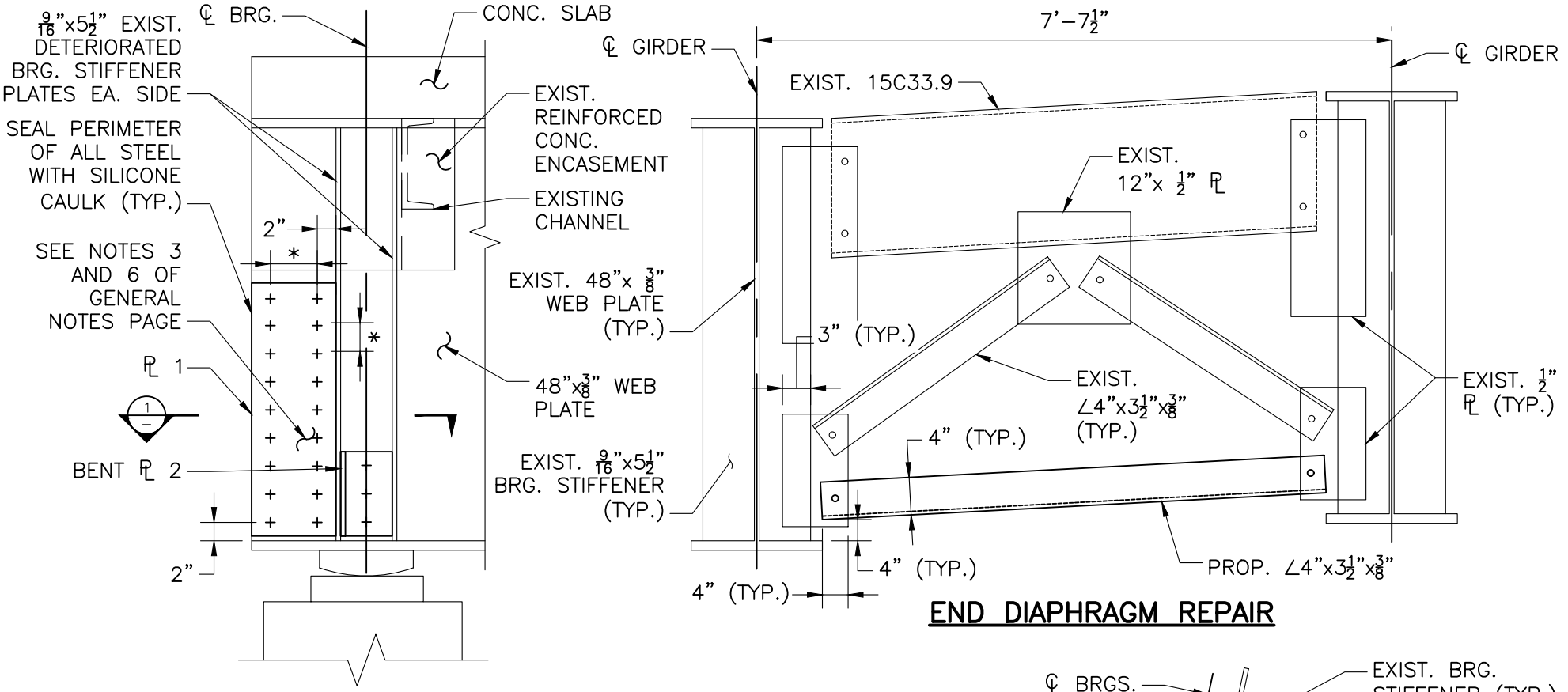
Proposal No. 613219-132950



GIRDER END REPAIR

END DIAPHRAGM REPAIR

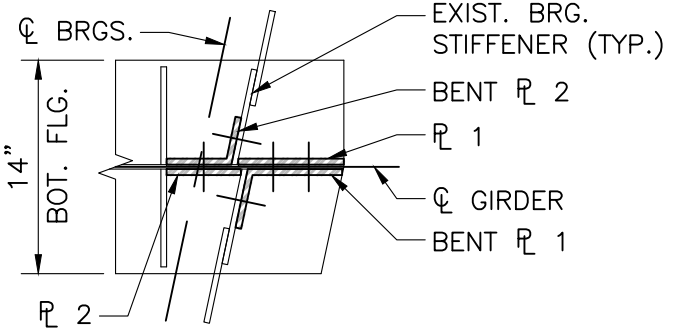
LEGEND:

* = 3" MIN, 6" MAX

PL MARK	LENGTH	HEIGHT
PL 1	9"	27"
BENT PL 1	15"	27"
PL 2	5"	9"
BENT PL 2	12"	9"

NOTES:
1. GRIND AS REQ. TO CLR. FILLET WELD BTWN. STIFFENER AND WEB.
2. ALL PLATES ARE 1/2" THICK.

ABUTMENT	MARK
NORTH	G103
NORTH	G104
NORTH	G105



LONGITUDINAL SECTION 1

STEEL REPAIR DETAILS
BRIDGE NO. H-21-054 (0YP)
N.T.S.

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

DATE: 10/8/2025
PROJECT NO.: 613219
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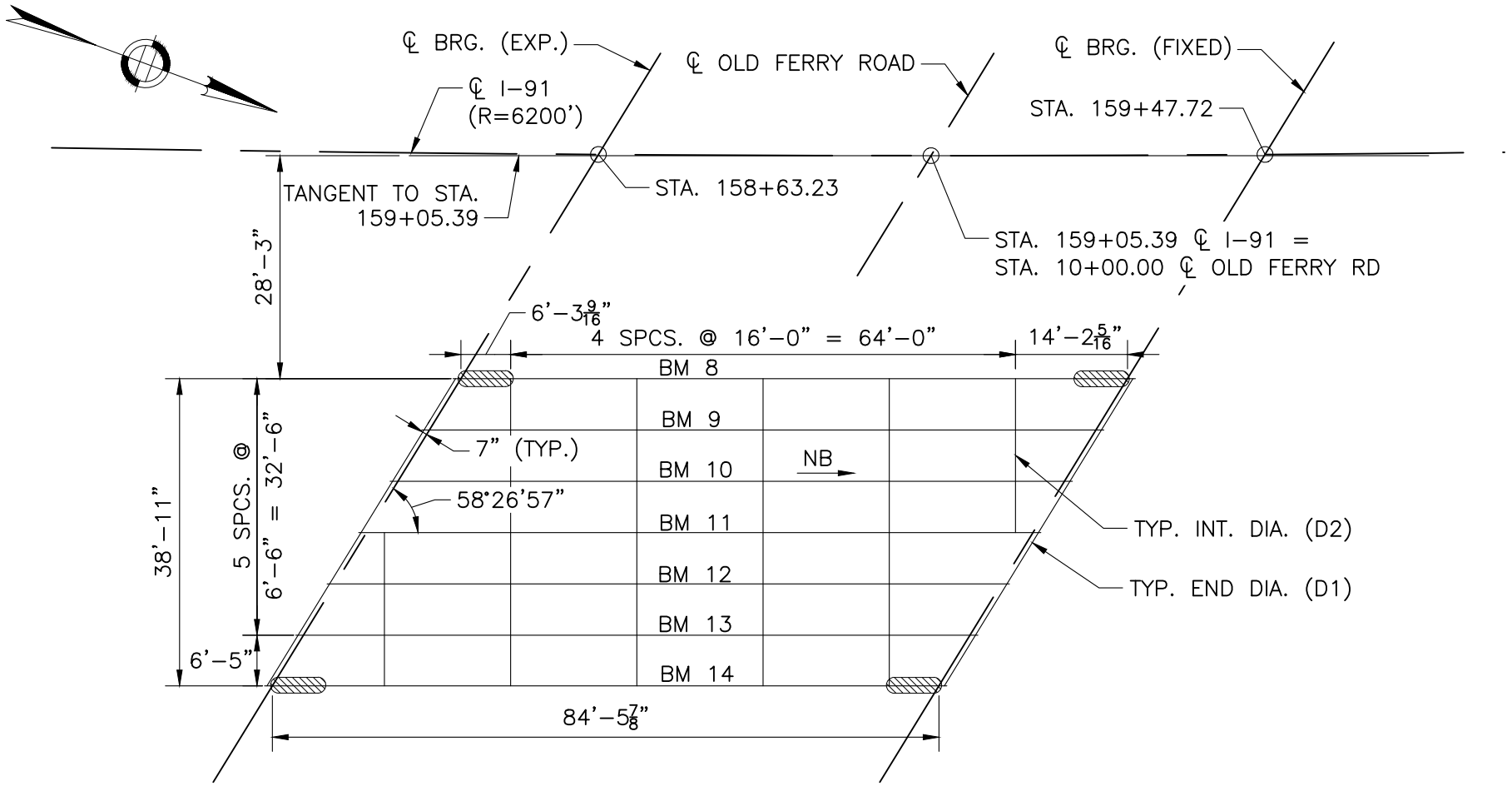
Proposal No. 6132219-132950



NOTE:
CONTRACTOR SHALL CLEAN AND PAINT ALL FIXED AND EXPANSION BEARINGS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

MARK	DESCRIPTION	COVER PLATE
BM 8–14	36WF182	16"x1"x67'–0" LONG
D1	15C33.9	N/A
D2	18C42.7	N/A

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA

MassDOT Highway Division
TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. N-19-061 (104)
N.T.S.

DATE: 10/8/2025
PROJECT NO.: 613219
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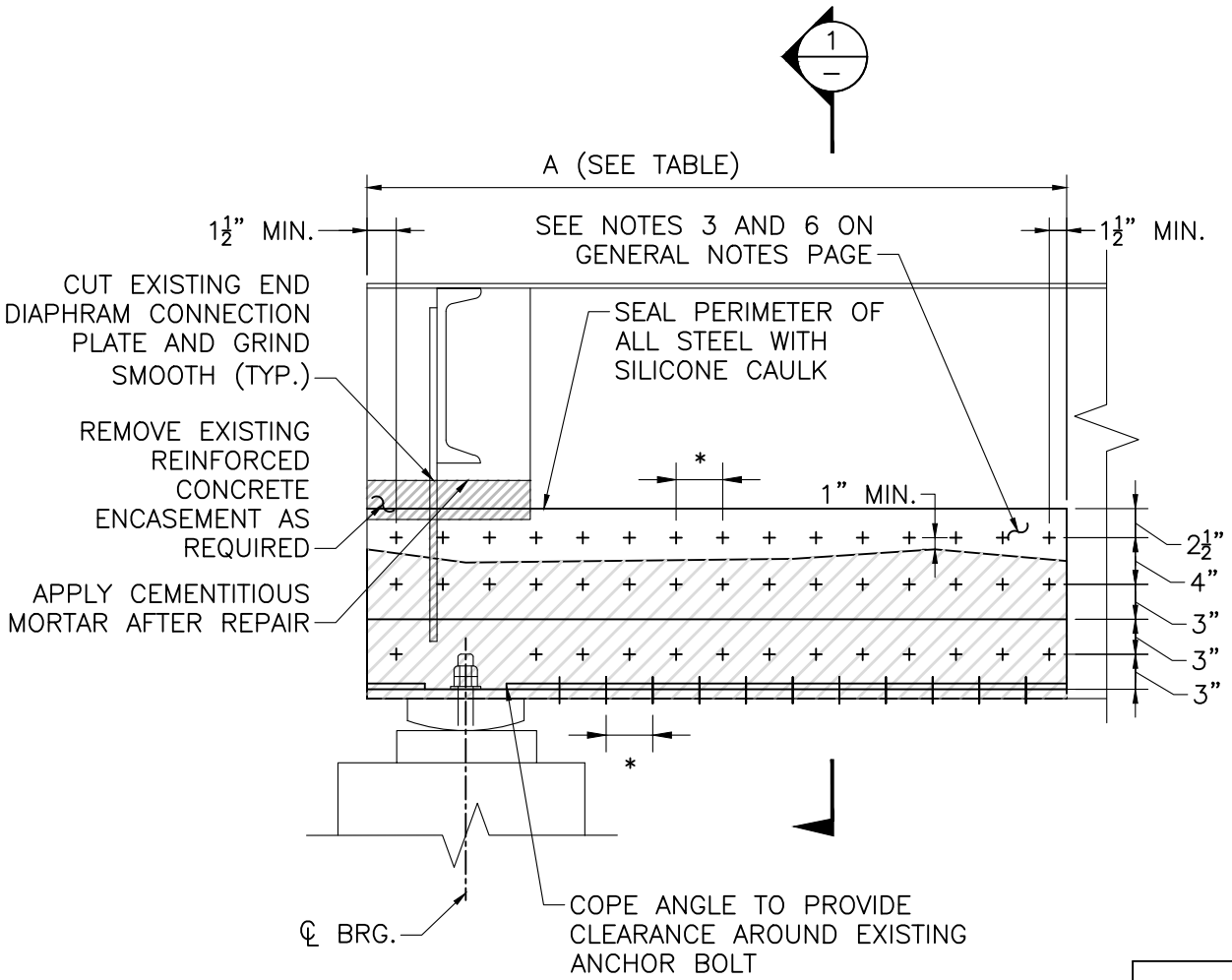

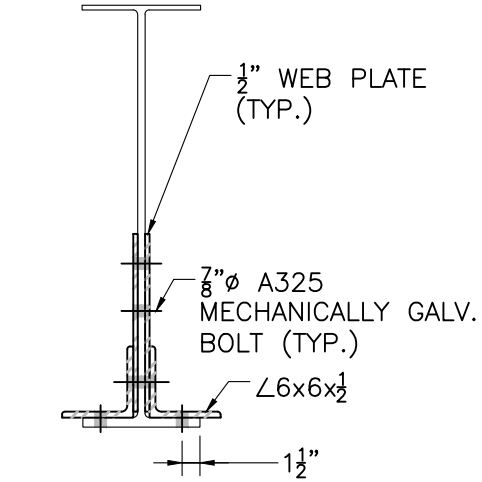

BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

BEAM END REPAIR

ABUTMENT	MARK	A
NORTH	BM 8	6'–6"
NORTH	BM 14	5'–6"
SOUTH	BM 8	8'–6"
SOUTH	BM 14	6'–0"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. N-19-061 (104)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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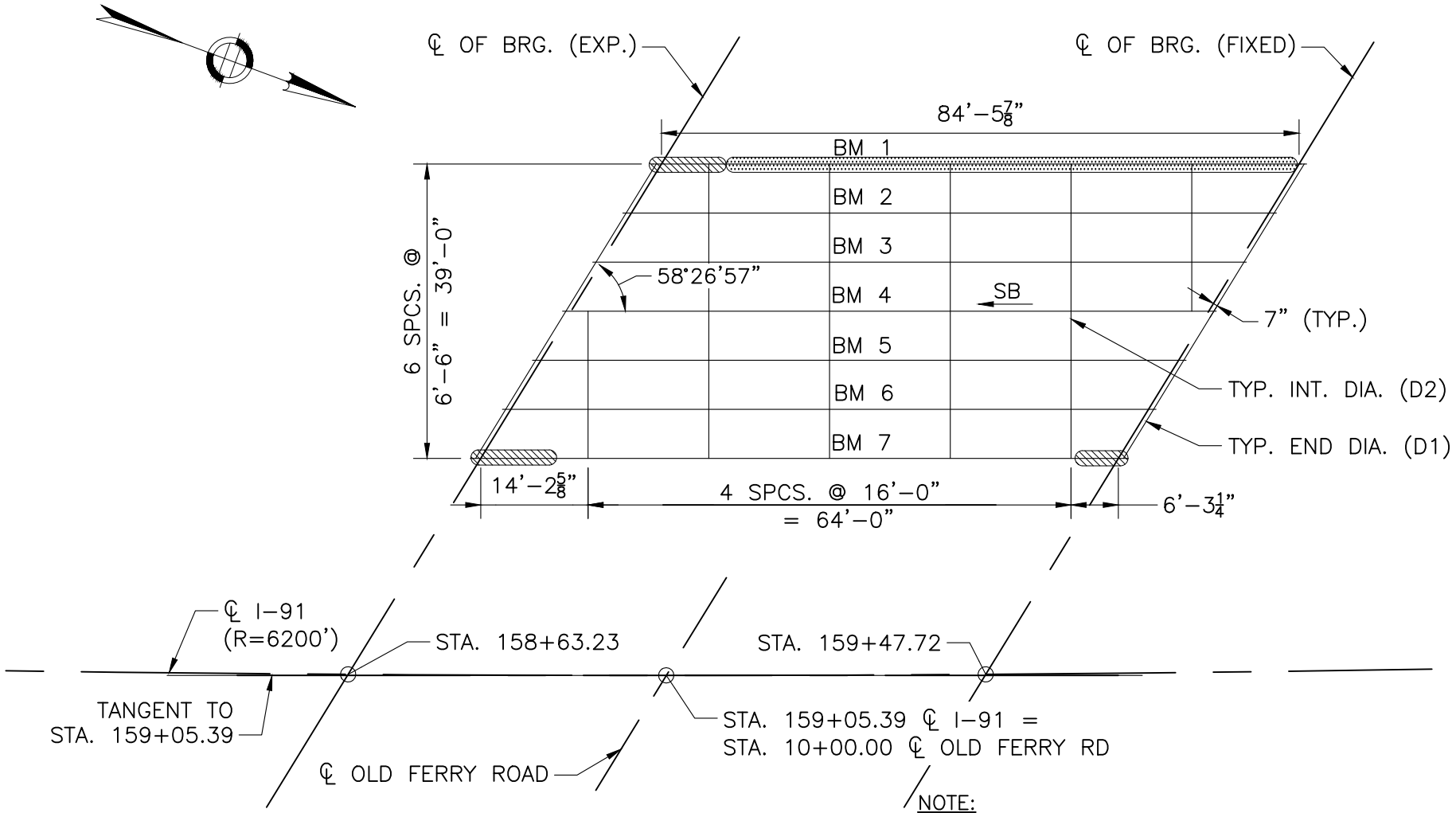
Proposal No. 613219-132950



NOTE:
CONTRACTOR SHALL CLEAN AND PAINT ALL FIXED AND EXPANSION BEARINGS UNDER 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

MARK	DESCRIPTION	COVER PLATE
BM 1–7	36WF182	16"x1"x67'–0" LONG
D1	15C33.9	N/A
D2	18C42.7	N/A

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. N-19-061 (105)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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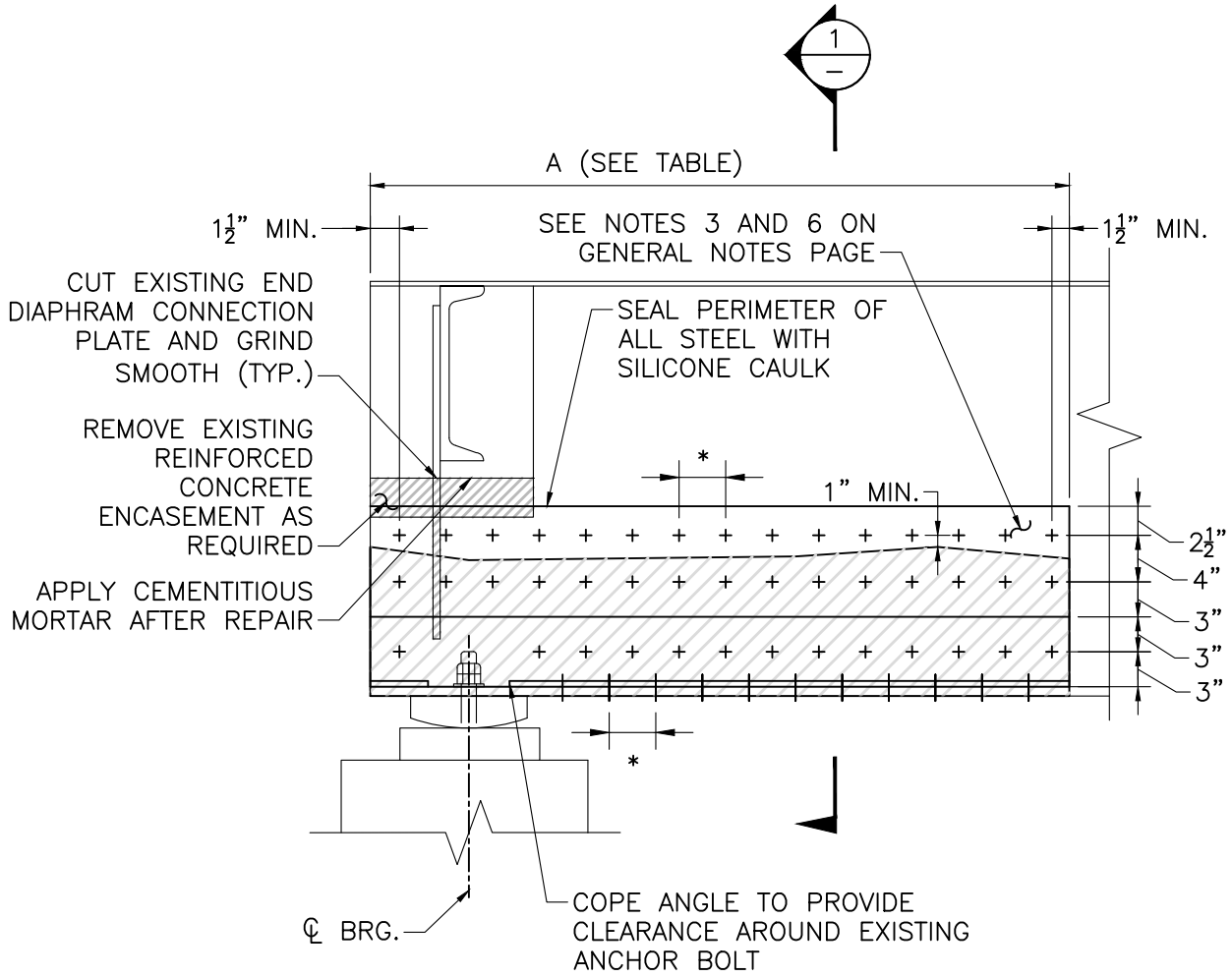

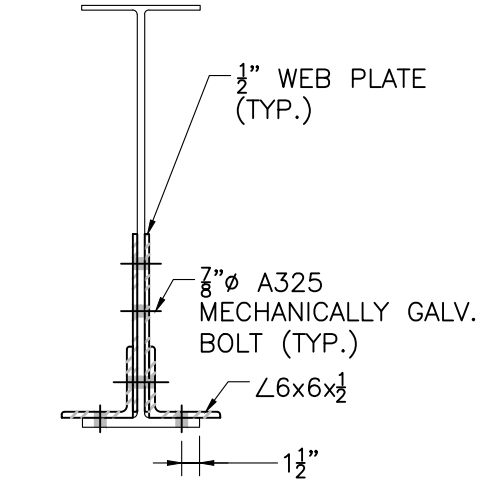

BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

BEAM END REPAIR

ABUTMENT	MARK	A
NORTH	BM 7	5'–6"
SOUTH	BM 1	9'–6"
SOUTH	BM 7	9'–6"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. N-19-061 (105)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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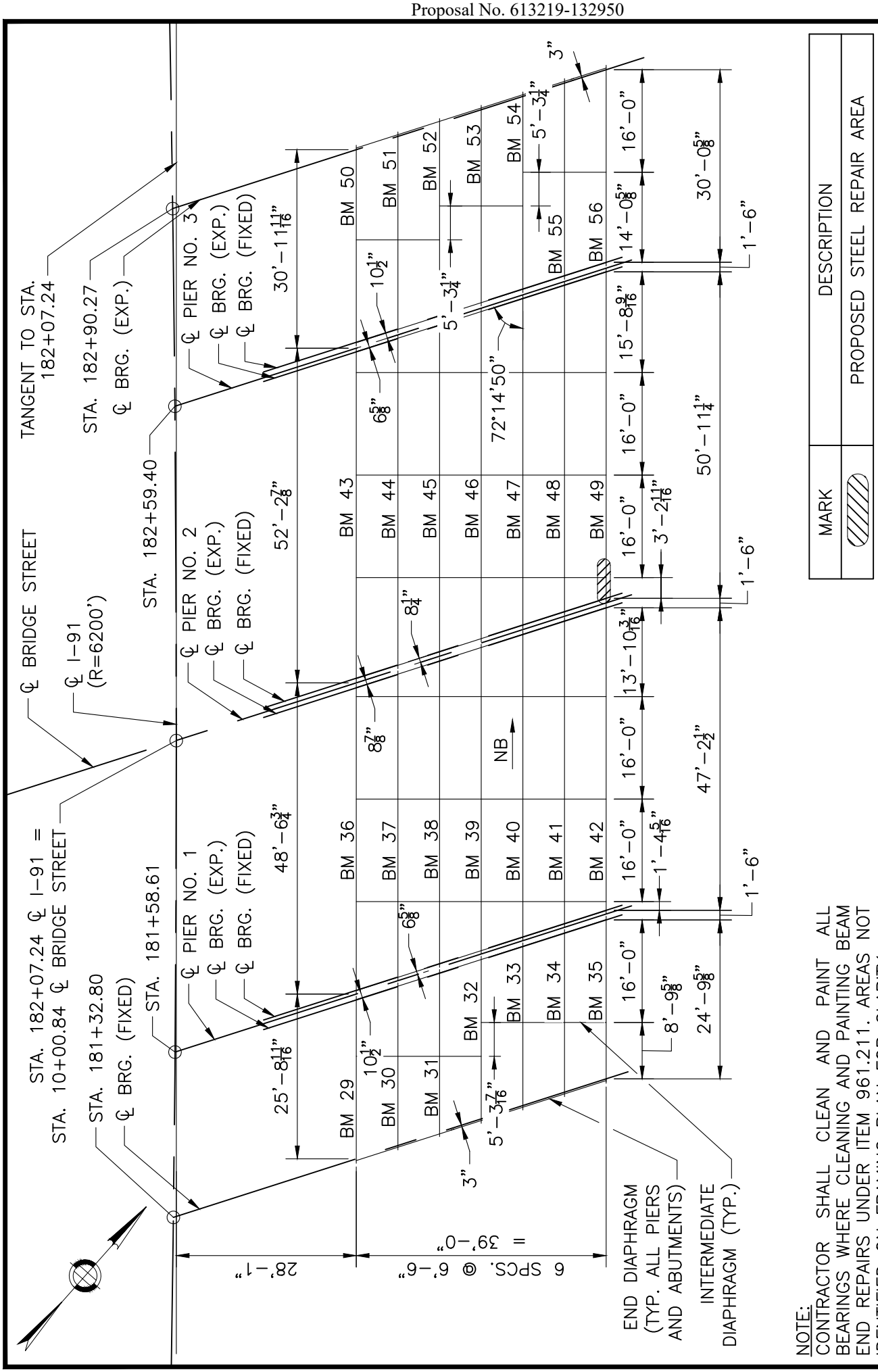
Proposal No. 613219-132950



MARK	DESCRIPTION
▨	PROPOSED STEEL REPAIR AREA

NOTE:
CONTRACTOR SHALL CLEAN AND PAINT ALL BEARINGS WHERE CLEANING AND PAINTING BEAM END REPAIRS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

FRAMING PLAN
BRIDGE NO. N-19-062 (106)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 65 OF 85

MassDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

MARK	DESCRIPTION	COVER PLATE
BM 29, 35, 50, & 56	30WF99	N/A
BM 30–34	24WF76	N/A
BM 36–42	30WF99	9"x$\frac{1}{2}$"x37'–0" LONG
BM 43–49	30WF99	9"x$\frac{3}{4}$"x41'–0" LONG
BM 51–55	27WF94	N/A
INTERMEDIATE DIAPHRAGM – SPAN 1	15C33.9	N/A
INTERMEDIATE DIAPHRAGM – SPAN 2–4	18C42.7	N/A
END DIAPHRAGM	12C30	N/A

Proposal No. 613219-132950

massDOT Massachusetts Department of Transportation Highway Division
TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL LEGEND
BRIDGE NO. N-19-062 (106)
N.T.S.

DATE: 10/8/2025

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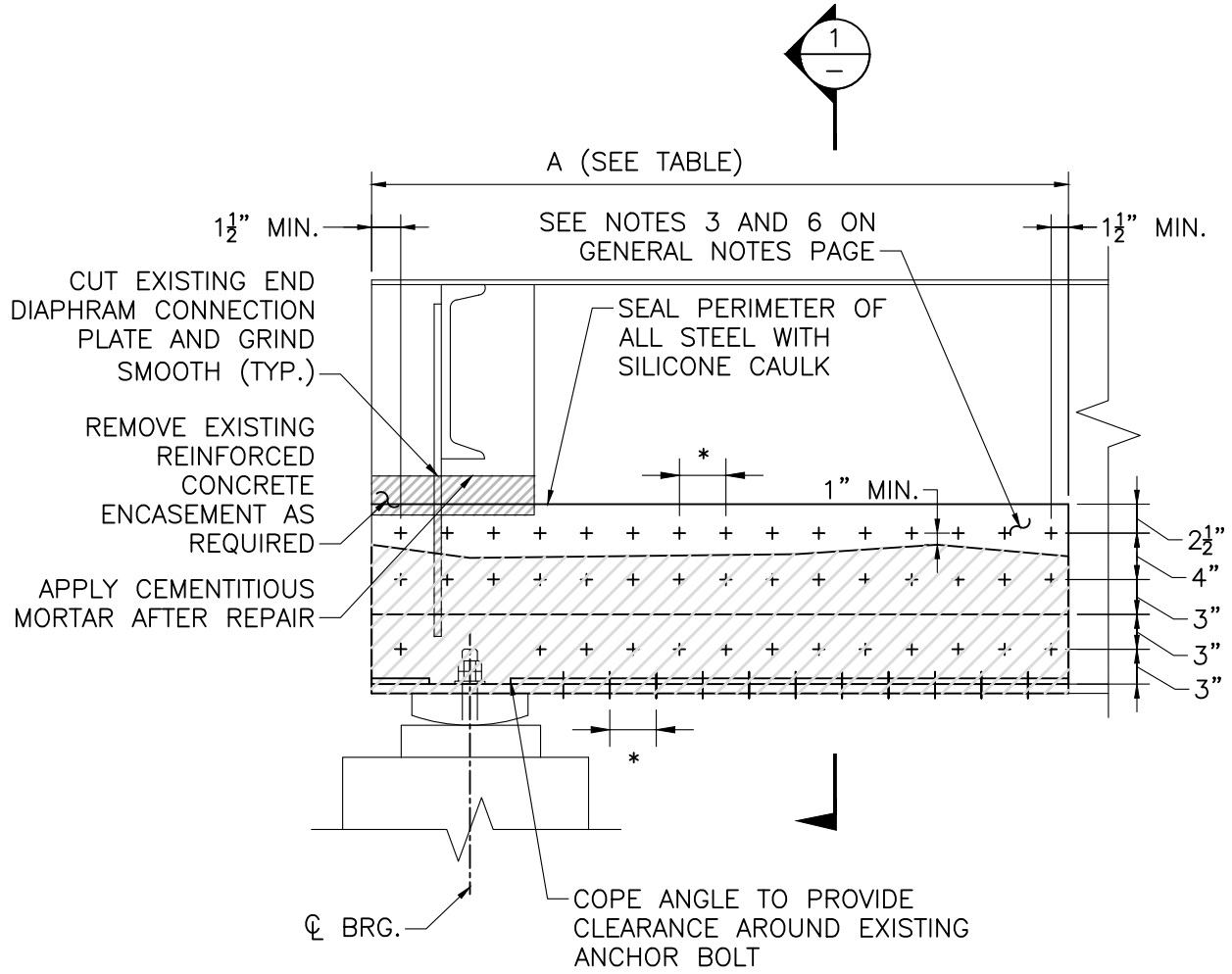

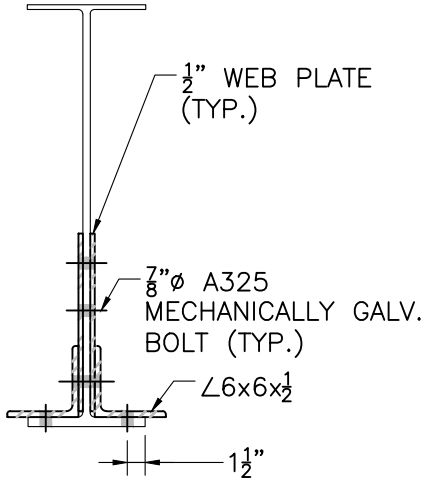

BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

BEAM END REPAIR

LOCATION	BEAM	A
PIER 2	BEAM 49	5'–0"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. N-19-062 (106)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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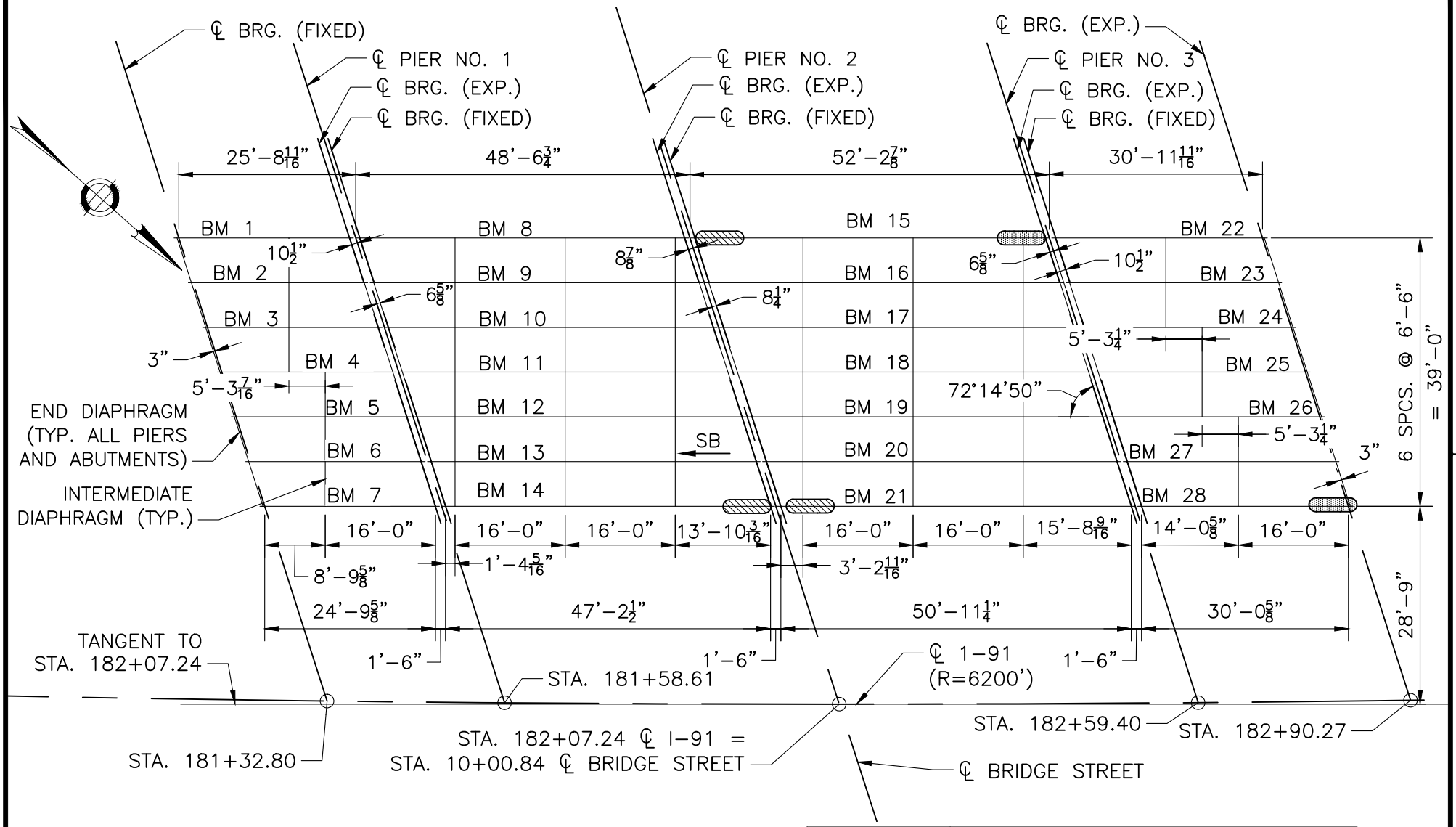
Proposal No. 613219-132950



NOTE:
CONTRACTOR SHALL CLEAN AND PAINT ALL BEARINGS WHERE CLEANING AND PAINTING BEAM END REPAIRS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL

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Proposal No. 613219-132950

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. N-19-062 (107)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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MARK	DESCRIPTION	COVER PLATE
BM 1, 7, 22, & 28	30WF99	N/A
BM 2–6	24WF76	N/A
BM 8–14	30WF99	9"x$\frac{1}{2}$"x37'–0" LONG
BM 15–24	30WF99	9"x$\frac{3}{4}$"x41'–0" LONG
BM 23–27	27WF94	N/A
INTERMEDIATE DIAPHRAGM – SPAN 1	15C33.9	N/A
INTERMEDIATE DIAPHRAGM – SPAN 2–4	18C42.7	N/A
END DIAPHRAGM	12C30	N/A

massDOT Highway Division

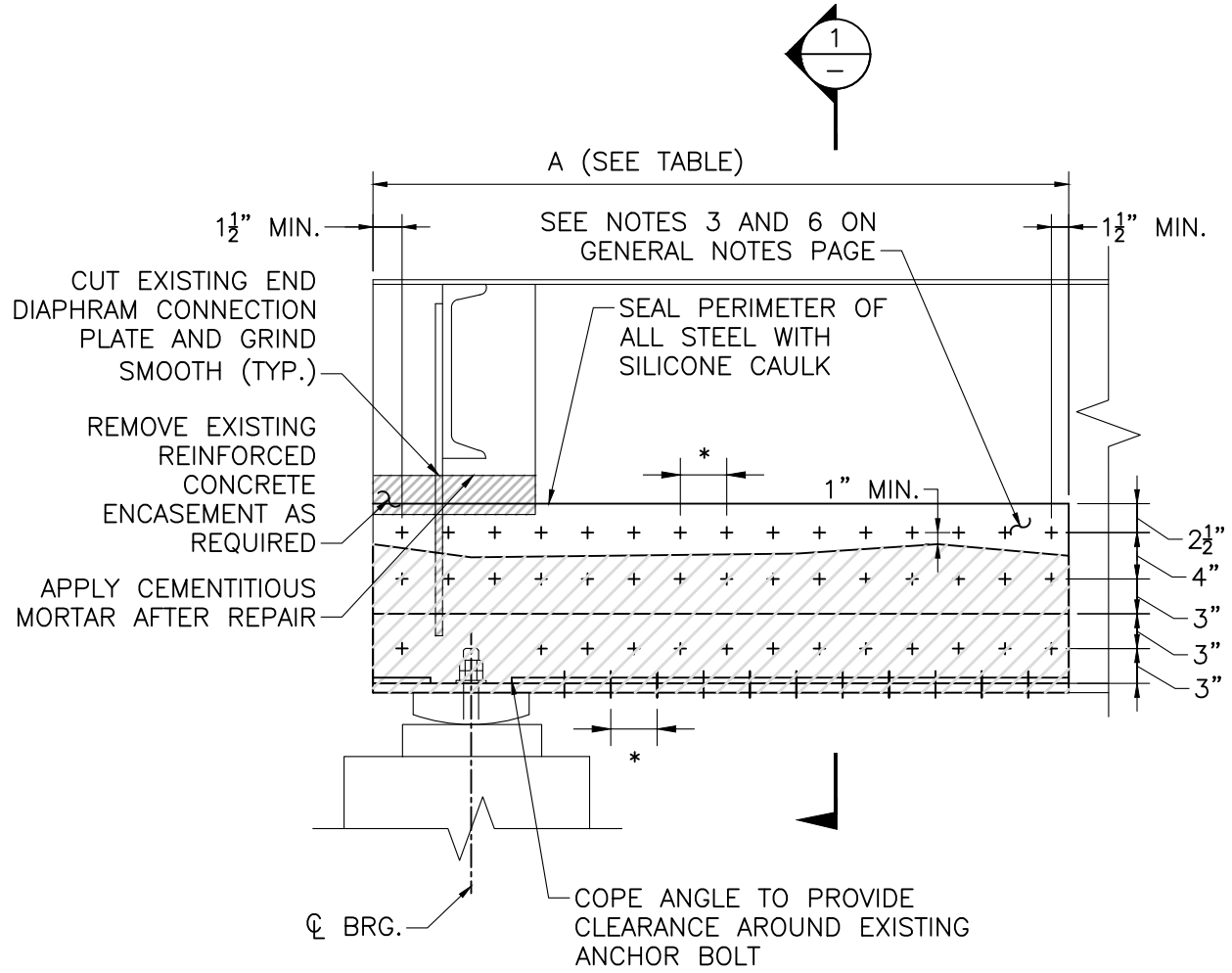
TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

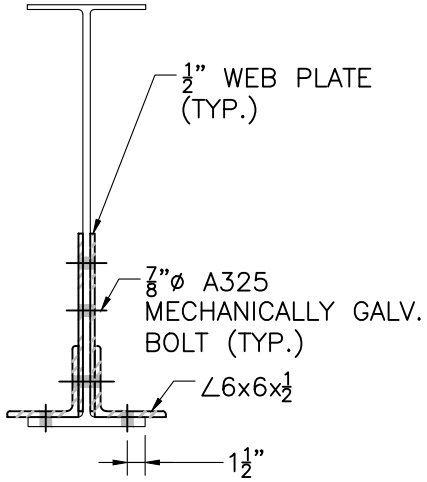
STEEL LEGEND
BRIDGE NO. N-19-062 (107)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 69 OF 85





BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 6" MAX

BEAM END REPAIR

LOCATION	BEAM	A
PIER 2	BEAM 14	5'–0"
PIER 2	BEAM 15	5'–0"
PIER 2	BEAM 21	5'–0"

massDOT Highway Division

TEC The Engineering Corp — Lawrence, MA; Hampton, NH; Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. N-19-062 (107)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 70 OF 85

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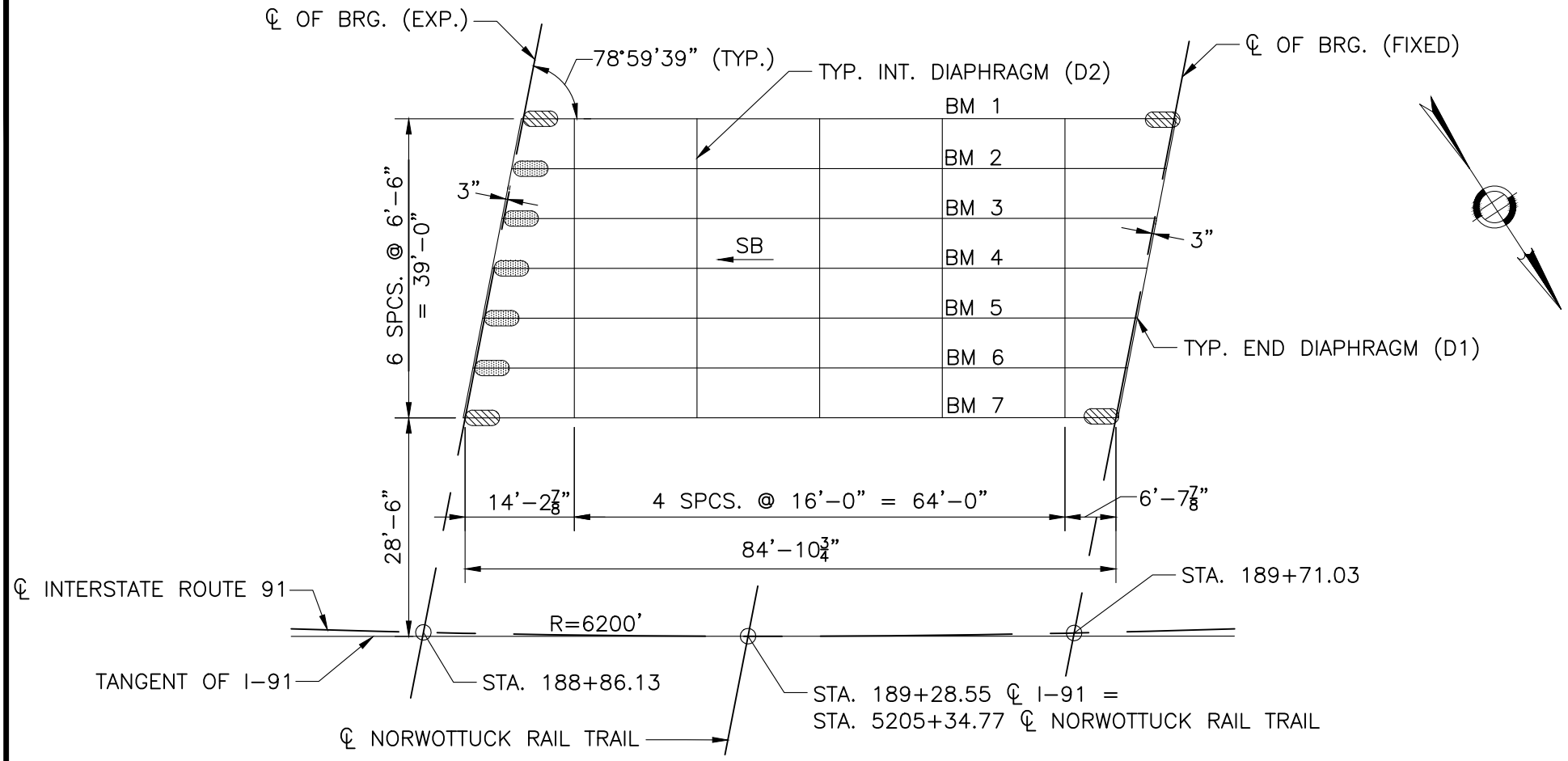
Proposal No. 613219-132950



MARK	DESCRIPTION
BM 1-7	36WF194 w/ 14"x1 1/8"x67'-0" COVER PLATE
D1	12C20.7
D2	18C42.7
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL

NOTE:
CONTRACTOR SHALL CLEAN AND PAINT ALL FIXED AND EXPANSION BEARINGS UNDER ITEM 961.211. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY.

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. N-19-063 (109)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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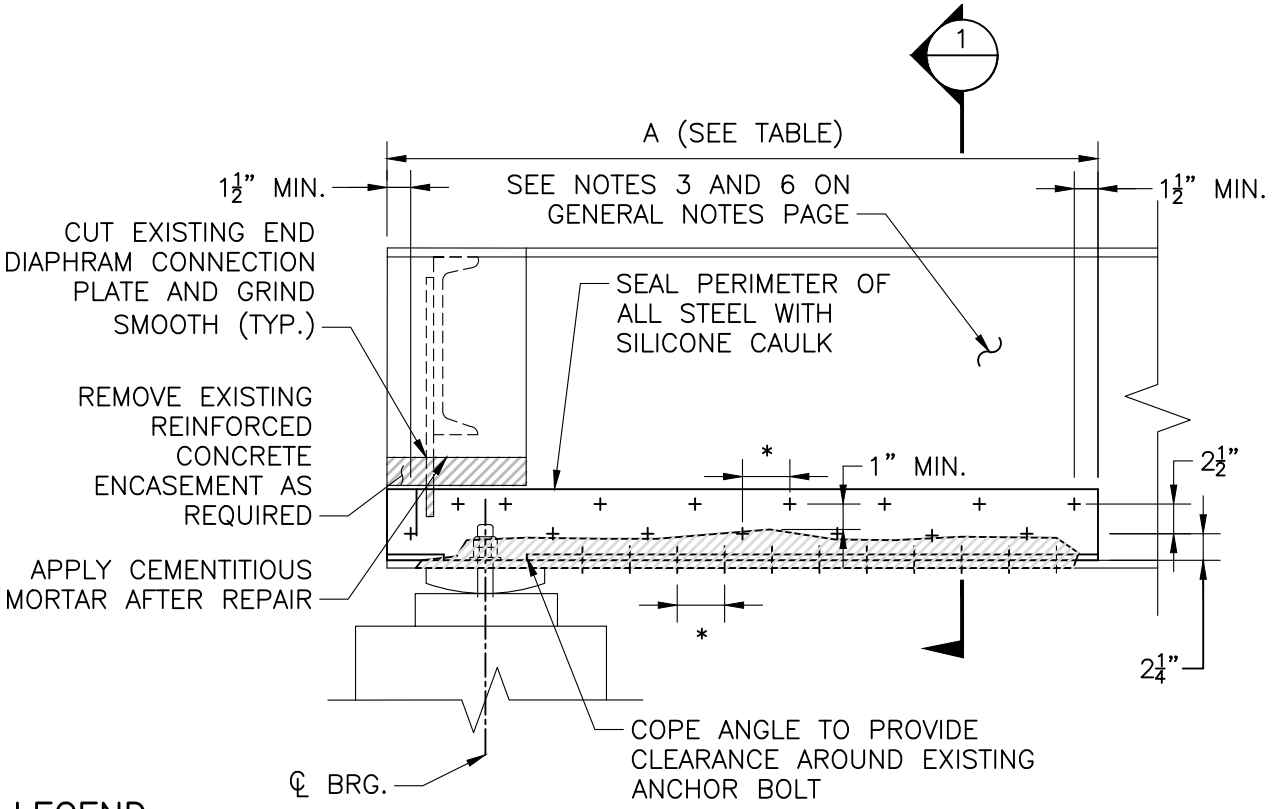

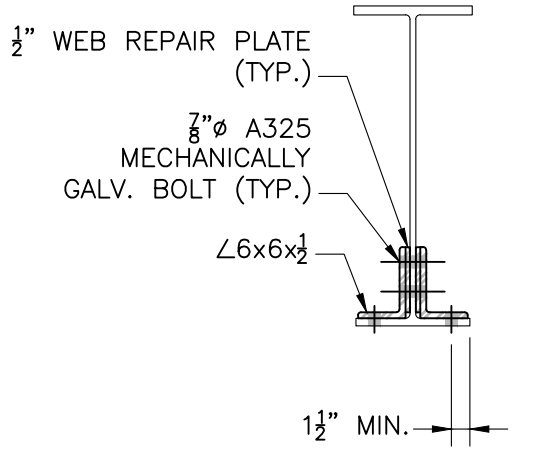

BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 4" MAX

BEAM END REPAIR

ABUTMENT	BEAM	A
SOUTH	BEAM 1	4'–0"
NORTH	BEAM 1	4'–0"
SOUTH	BEAM 7	4'–0"
NORTH	BEAM 7	4'–0"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. N-19-063 (109)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 72 OF 85

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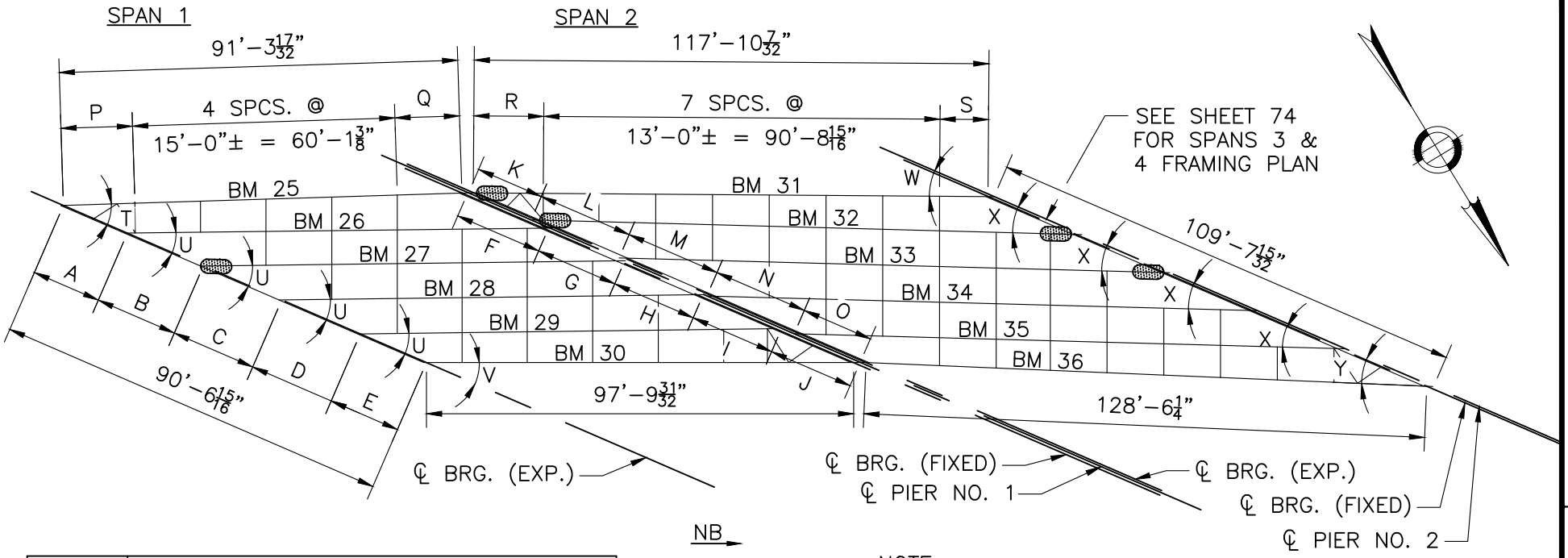
Proposal No. 613219-132950



MARK	DESCRIPTION
	PROPOSED CLEAN AND PAINT STEEL

DIMENSION SCHEDULE					
DIM.	VALUE	DIM.	VALUE	DIM.	VALUE
A	15'–11 1/2"	H	19'–6 7/8"	O	16'–5 1/2"
B	18'–11 1/2"	I	19'–6 7/8"	P	16'–4 3/4"
C	19'–6 7/8"	J	19'–6 7/8"	Q	14'–9 1/2"
D	19'–6 7/8"	K	15'–7 1/2"	R	16'–0 1/8"
E	16'–6"	L	21'–11 1/8"	S	11'–0 1/8"
F	20'–2 1/8"	M	21'–11 1/8"		
G	18'–11 1/2"	N	21'–9 3/8"		

NOTE:
1. SEVERAL OF THE ANCHOR BOLT NUTS ON THE FIXED AND EXPANSION BEARINGS ARE LOOSE. CONTRACTOR TO TIGHTEN THE NUTS, WHICH SHALL BE CONSIDERED INCIDENTAL TO ITEM 107.97 AT THIS LOCATION.
2. CONTRACTOR TO CORRECT CRACKED WELDS AT END DIAPHRAGM CONNECTION PLATES UNDER ITEM 100.004.

ANGLE SCHEDULE	
ANGLE	VALUE
T	25°11'20"
U	24°07'25"
V	23°24'03"
W	22°59'08"
X	21°52'12"
Y	20°58'56"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN (SPANS 1 & 2)
BRIDGE NO. N-19-065 (10A)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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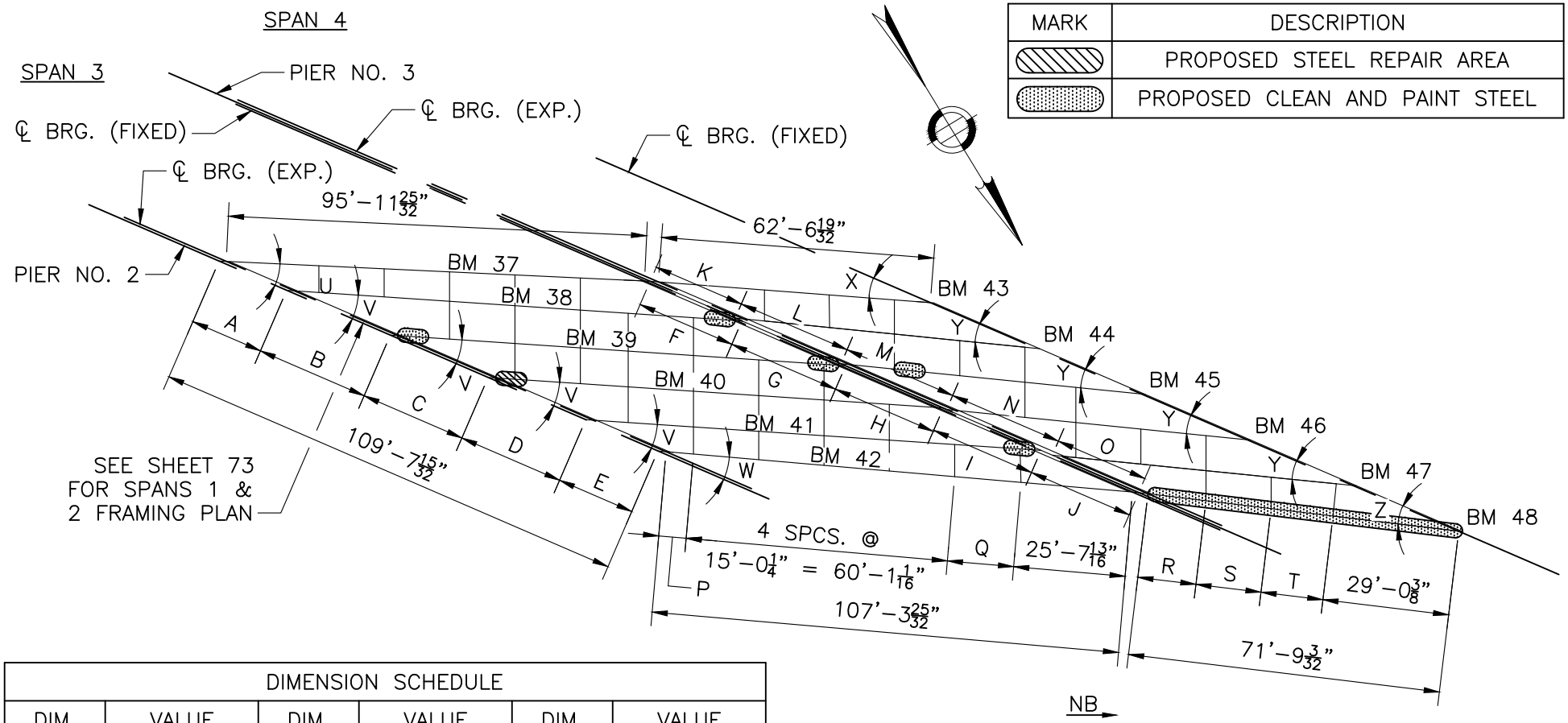
Proposal No. 613219-132950



MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL

DIMENSION SCHEDULE					
DIM.	VALUE	DIM.	VALUE	DIM.	VALUE
A	16'–10 5/8"	H	24'–4 7/8"	O	21'–7"
B	25'–10 3/4"	I	24'–4 7/8"	P	6'–3 7/8"
C	24'–4 7/8"	J	24'–4 7/8"	Q	15'–3"
D	24'–4 7/8"	K	21'–3"	R	13'–5"
E	18'–0 3/8"	L	26'–4 3/4"	S	15'–0 3/8"
F	22'–10 7/8"	M	26'–4 3/4"	T	14'–3 1/2"
G	25'–10 3/4"	N	26'–4 3/4"		

ANGLE SCHEDULE	
ANGLE	VALUE
U	20°43'08"
V	19°33'06"
W	18°26'49"
X	19°01'50"
Y	17°38'38"
Z	16°30'46"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN (SPANS 3 & 4)
BRIDGE NO. N-19-065 (10A)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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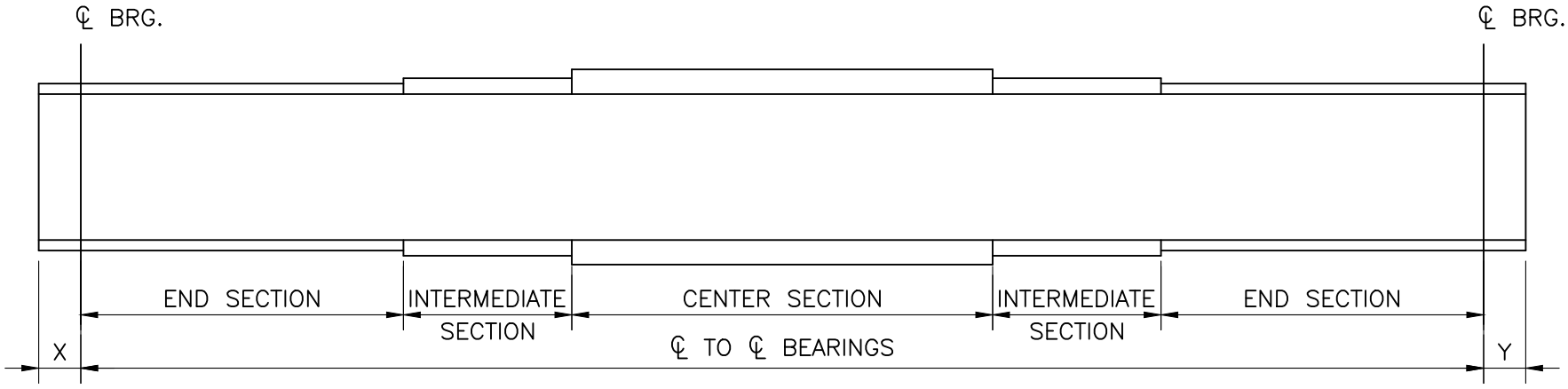
Proposal No. 613219-132950



STRINGER													
BEAM NO.	℄ TO ℄ BEARINGS	X	Y	WEB PL	END SECTION			INTERMEDIATE SECTION			CENTER SECTION		
					TOP PL	BOT. PL	LENGTH	TOP PL	BOT. PL	LENGTH	TOP PL	BOT. PL	LENGTH
25	91'–3½"	3'–0"	11"	64"x⅜"	14"x¾"	14"x¾"	22'–0"	–	–	–	14"x¾"	14"x1¼"	47'–3½"
26–29	95'–0¾"	3'–0"	6"	64"x⅜"	14"x¾"	14"x¾"	16'–6"	14"x¾"	14"x1⅜"	12'–6"	14"x¾"	14"x1¾"	37'–0¾"
30	97'–10"	3'–0"	11"	64"x⅜"	14"x¾"	14"x¾"	19'–6"	–	–	–	14"x¾"	14"x1½"	58'–10"
31	117'–10¼"	11"	11"	78"x½"	16"x¾"	16"x¾"	27'–6"	–	–	–	16"x¾"	16"x1⅜"	62'–10¼"
32–35	123'–6¼"	5"	6"	78"x½"	16"x¾"	16"x¾"	20'–0"	16"x¾"	16"x1⅜"	11'–6"	16"x1⅛"	16"x2"	60'–6½"
36	128'–6¼"	11"	11"	78"x½"	16"x¾"	16"x¾"	24'–0"	16"x¾"	16"x1⅜"	15'–0"	16"x⅞"	16"x1¾"	50'–6¼"
37	95'–11¾"	10"	1'–1"	64"x⅜"	14"x¾"	14"x¾"	20'–0"	–	–	–	14"x¾"	14"x1⅜"	55'–11¾"
38–41	101'–5⅝"	5"	6"	64"x⅜"	14"x¾"	14"x¾"	15'–0"	14"x¾"	14"x1⅜"	10'–0"	14"x1"	14"x2"	51'–5⅞"
42	107'–3¾"	10"	1'–1"	64"x⅜"	14"x¾"	14"x¾"	17'–6"	14"x¾"	14"x1⅜"	13'–0"	14"x⅞"	14"x1¾"	46'–3¾"
43	62'–6⅝"	1'–0"	3'–0"	64"x⅜"	14"x¾"	14"x¾"	62'–6⅝"	–	–	–	–	–	–
44–47	67'–3½"	5"	3'–0"	64"x⅜"	14"x¾"	14"x¾"	22'–6"	–	–	–	14"x⅞"	14"x⅞"	22'–3½"
48	71'–9⅛"	1'–0"	3'–0"	64"x⅜"	14"x¾"	14"x¾"	23'–10"	–	–	–	14"x⅞"	14"x⅞"	24'–1⅛"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL LEGEND
BRIDGE NO. N-19-065 (10A)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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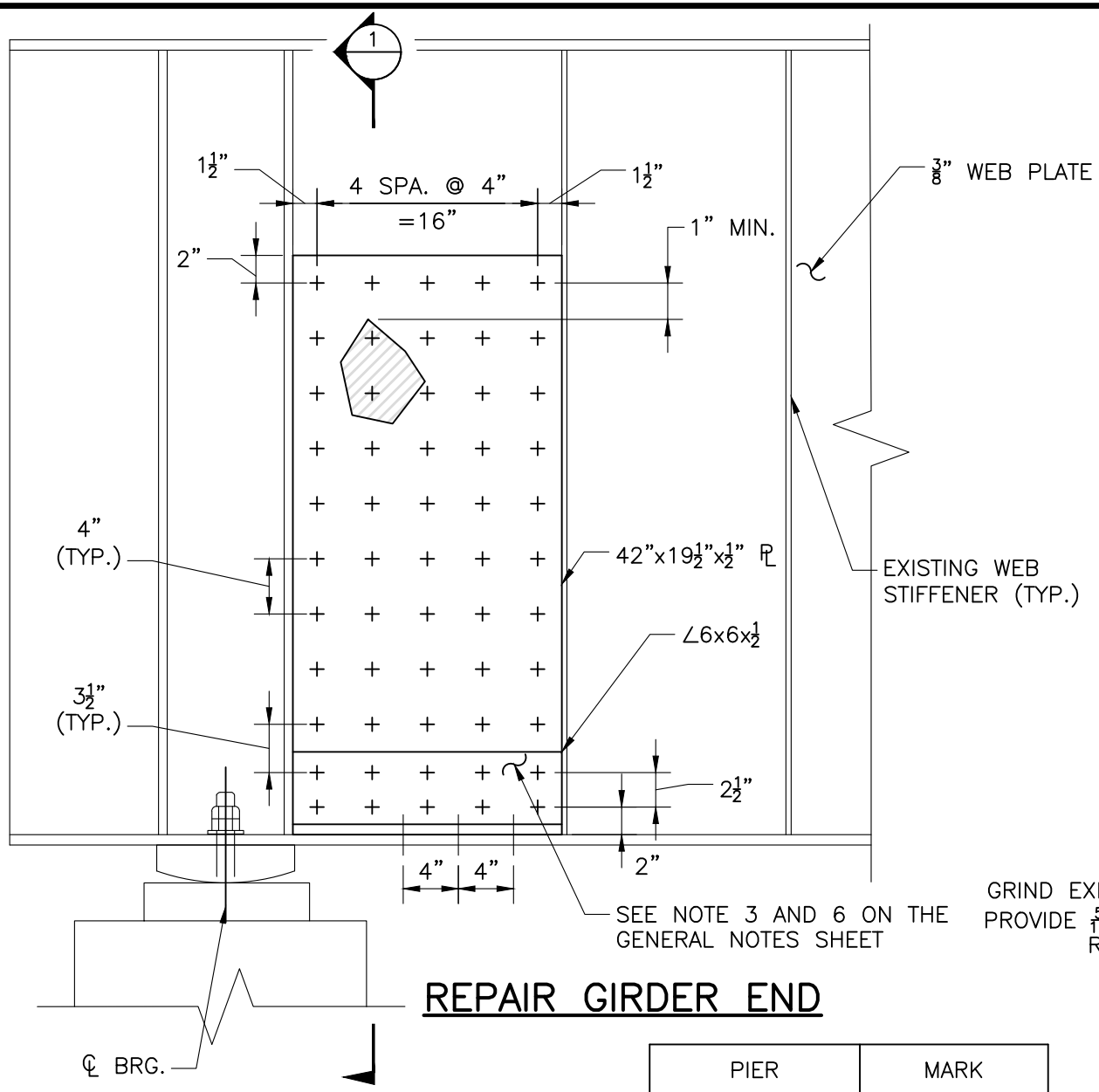
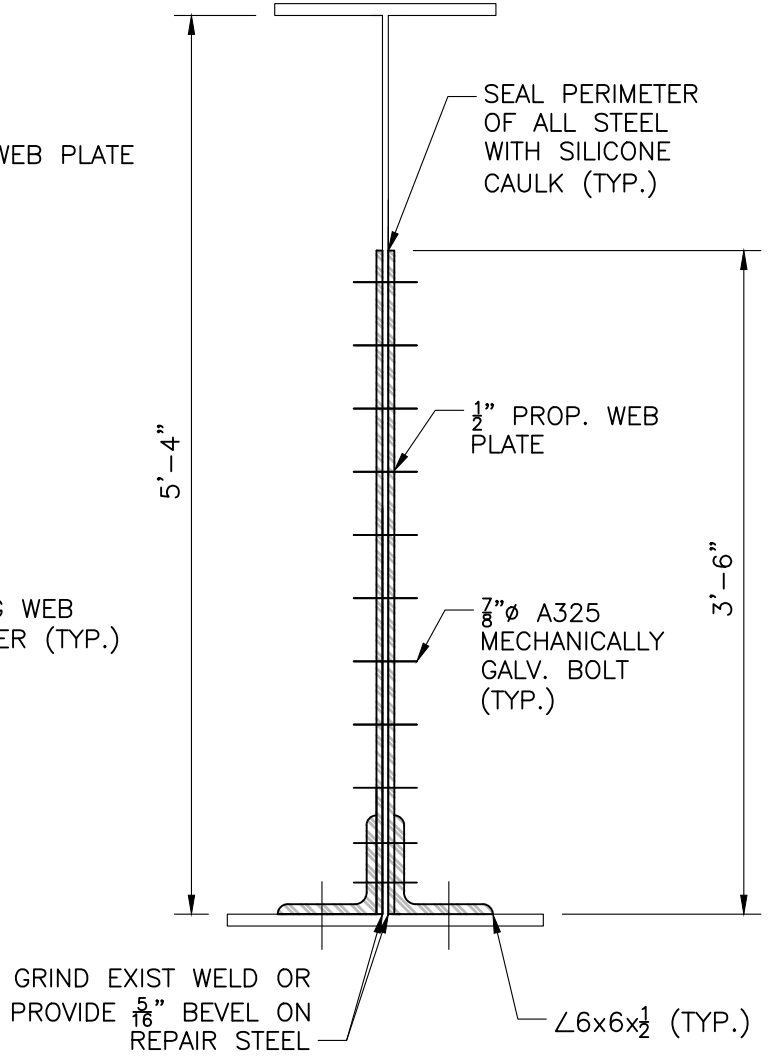
Proposal No. 613219-132950



REPAIR GIRDER END

PIER	MARK
NO. 2	BM 40



GIRDER SECTION 1

STEEL REPAIR DETAILS
BRIDGE NO. N-19-065 (10A)
N.T.S.

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

DATE: 10/8/2025

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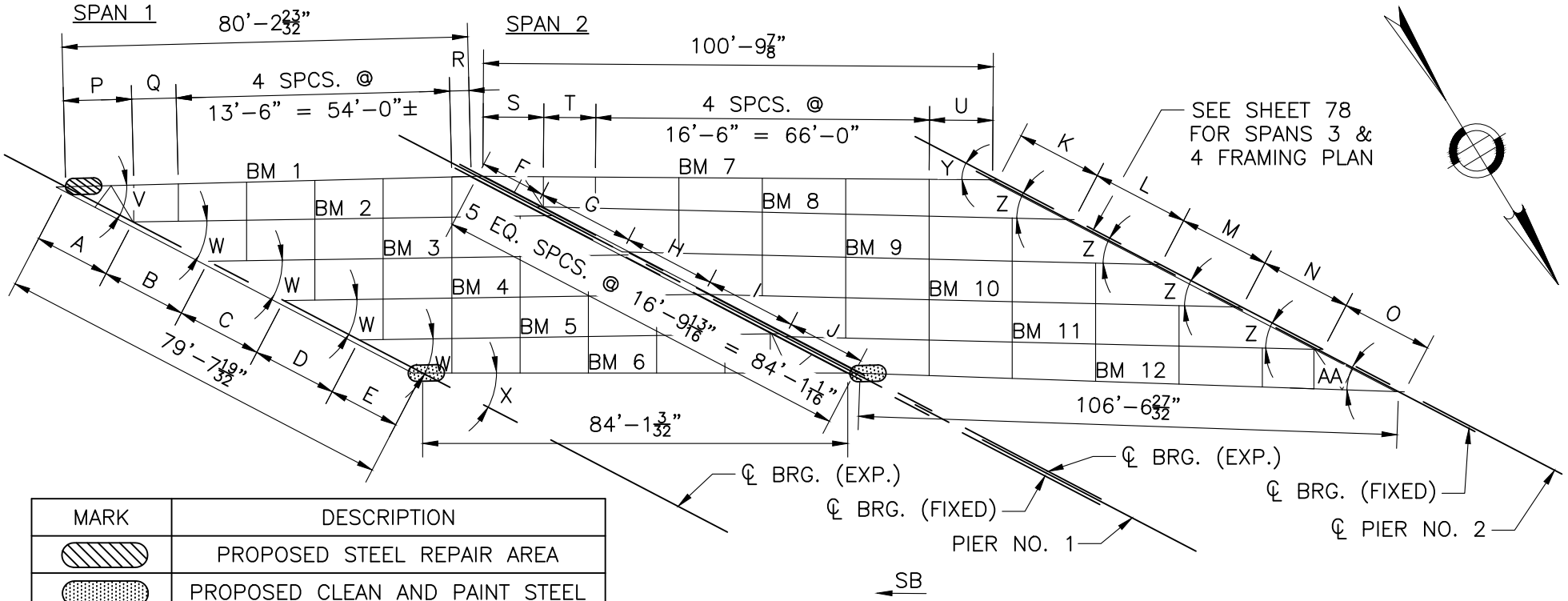
Proposal No. 613219-132950



MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED CLEAN AND PAINT STEEL

DIMENSION SCHEDULE					
DIM.	VALUE	DIM.	VALUE	DIM.	VALUE
A	15'–0 3/8"	H	18'–1 7/8"	O	18'–1 1/2"
B	16'–9 3/4"	I	18'–1 1/2"	P	13'–5 5/8"
C	16'–9 3/4"	J	15'–6 3/8"	Q	8'–9 7/8"
D	16'–9 3/4"	K	17'–0"	R	3'–10"
E	14'–1 3/4"	L	19'–3 1/8"	S	11'–11 3/4"
F	13'–0 3/8"	M	18'–1 1/2"	T	10'–3 5/8"
G	19'–3 1/8"	N	18'–1 1/2"	U	12'–6 1/2"

ANGLE SCHEDULE	
ANGLE	VALUE
V	29°00'05"
W	28°24'13"
X	27°33'03"
Y	27°09'32"
Z	26°11'09"
AA	25°35'02"

NOTES:
1. SEVERAL OF THE ANCHOR BOLT NUTS ON THE EAST ABUTMENT, PIER 1, PIER 3, AND WEST ABUTMENT BEARINGS ARE LOOSE. CONTRACTOR TO TIGHTEN THE NUTS, WHICH SHALL BE CONSIDERED INCIDENTAL TO ITEM 107.97 AT THIS LOCATION.
2. THE MISSING DIAPHRAGM CONNECTION BOLT IN SPAN 2, BAY 4, AT BEAM 10 OVER PIER 2 SHALL BE REPLACED BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO ITEM 107.97.
3. CONTRACTOR TO CORRECT CRACKED WELDS AT CRACKED WELDS AT END DIAPHRAGM CONNECTION PLATES UNDER ITEM 100.004.

Proposal No. 613219-132950

massDOT Highway Division
TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN (SPANS 1 & 2)
BRIDGE NO. N-19-065 (10B)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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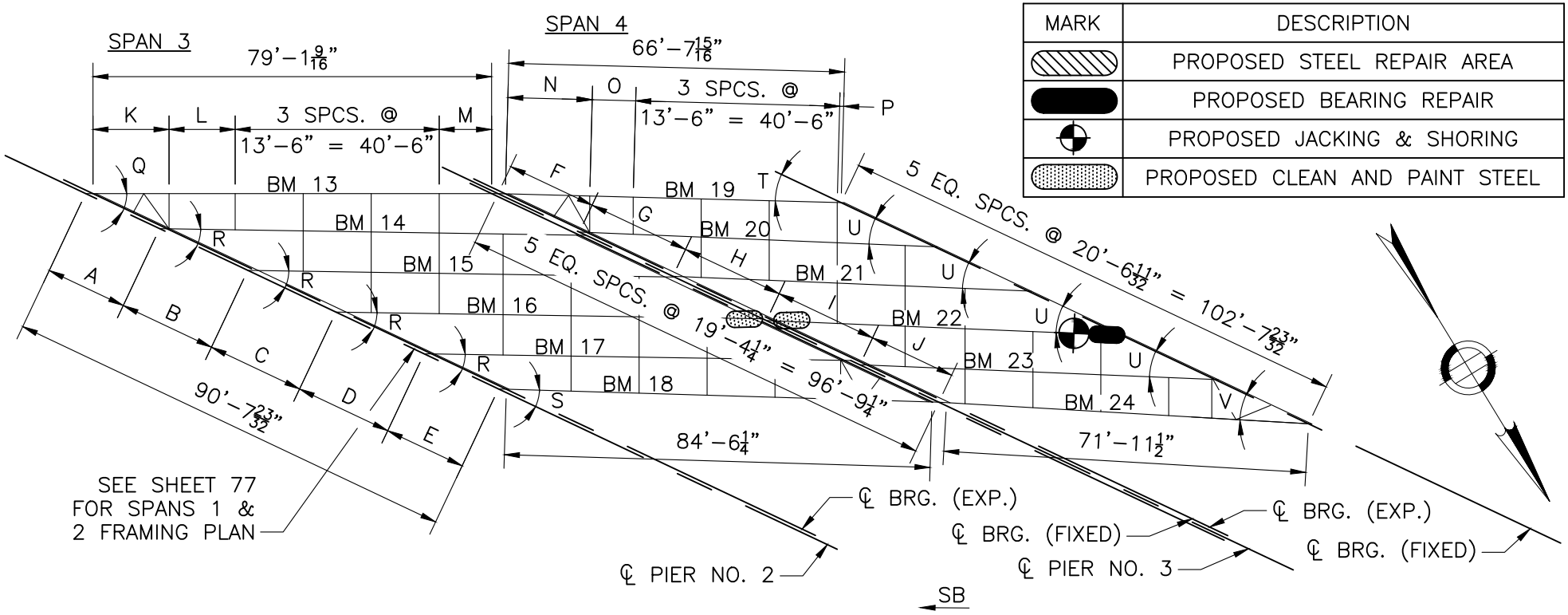

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED BEARING REPAIR
	PROPOSED JACKING & SHORING
	PROPOSED CLEAN AND PAINT STEEL

DIMENSION SCHEDULE					
DIM.	VALUE	DIM.	VALUE	DIM.	VALUE
A	16'-3 1/8"	H	20'-6 3/8"	O	8'-7 3/4"
B	19'-4 1/4"	I	20'-6 3/8"	P	0'-9 3/8"
C	19'-4 1/4"	J	17'-4"		
D	19'-4 1/4"	K	15'-1 1/4"		
E	16'-3 7/8"	L	13'-1 3/8"		
F	17'-10 1/4"	M	10'-5"		
G	20'-6 3/8"	N	16'-9 1/8"		

ANGLE SCHEDULE	
ANGLE	VALUE
Q	25°18'44"
R	24°24'56"
S	23°35'46"
T	23°48'51"
U	22°56'12"
V	21°57'58"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN (SPANS 3 & 4)
BRIDGE NO. N-19-065 (10B)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

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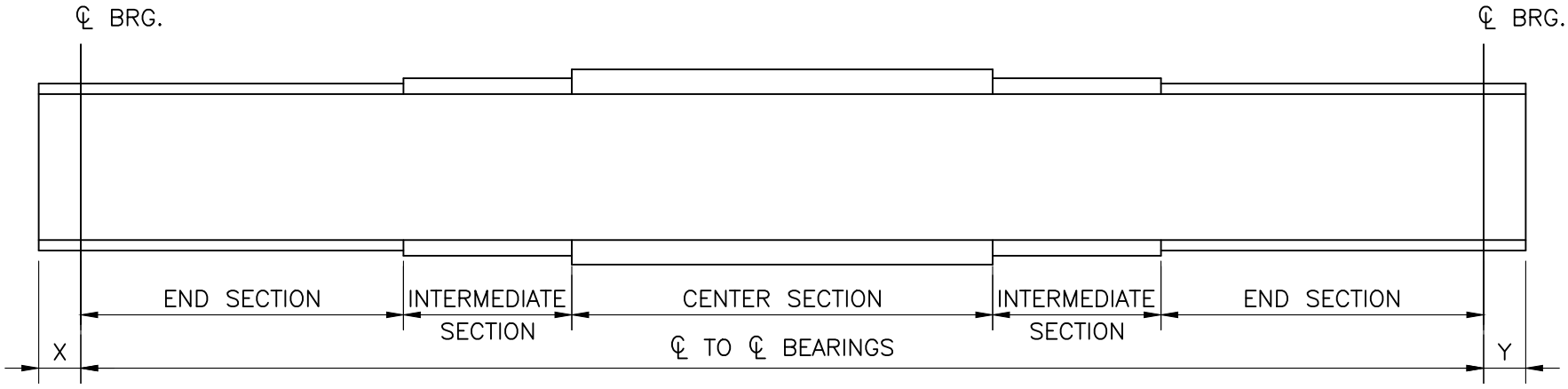
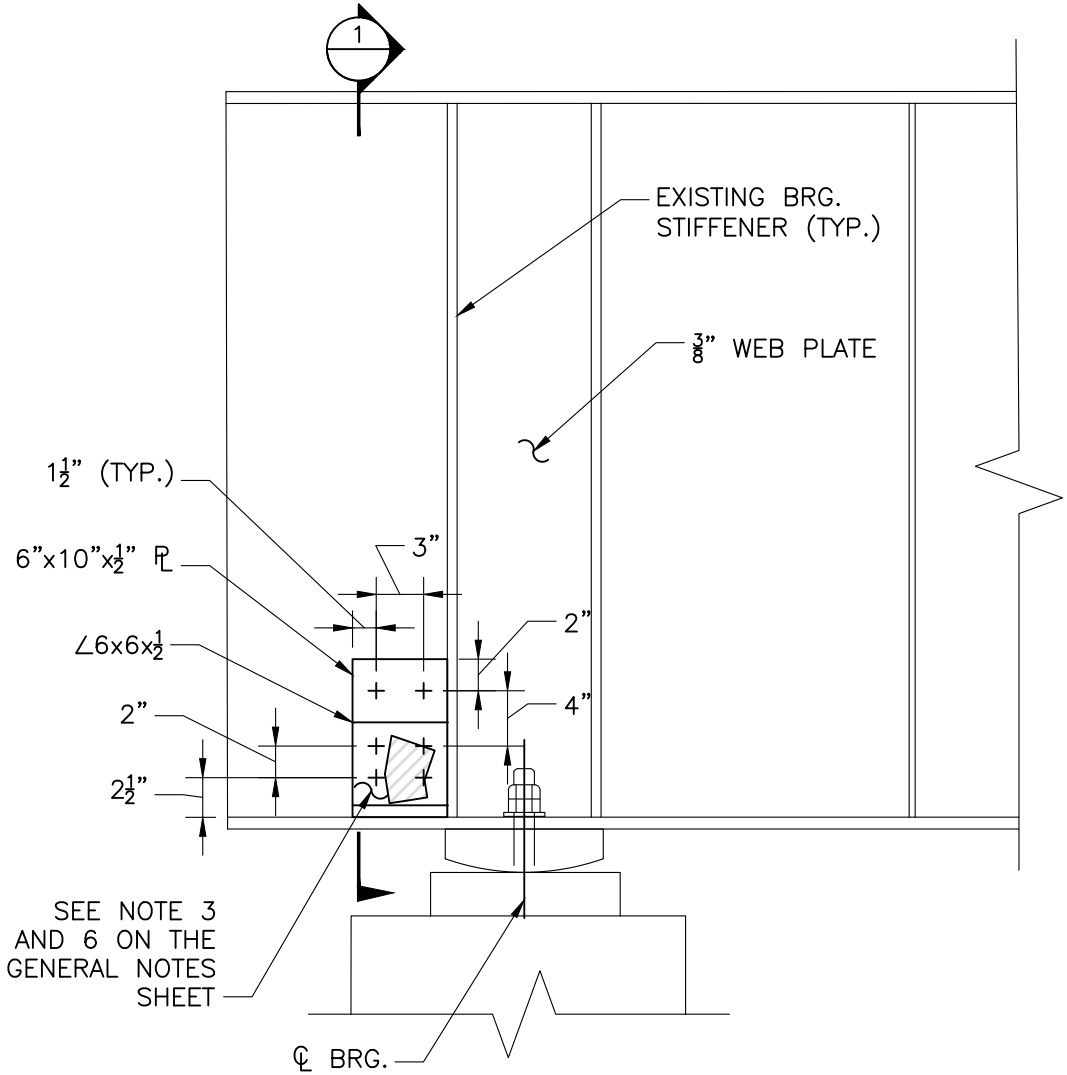
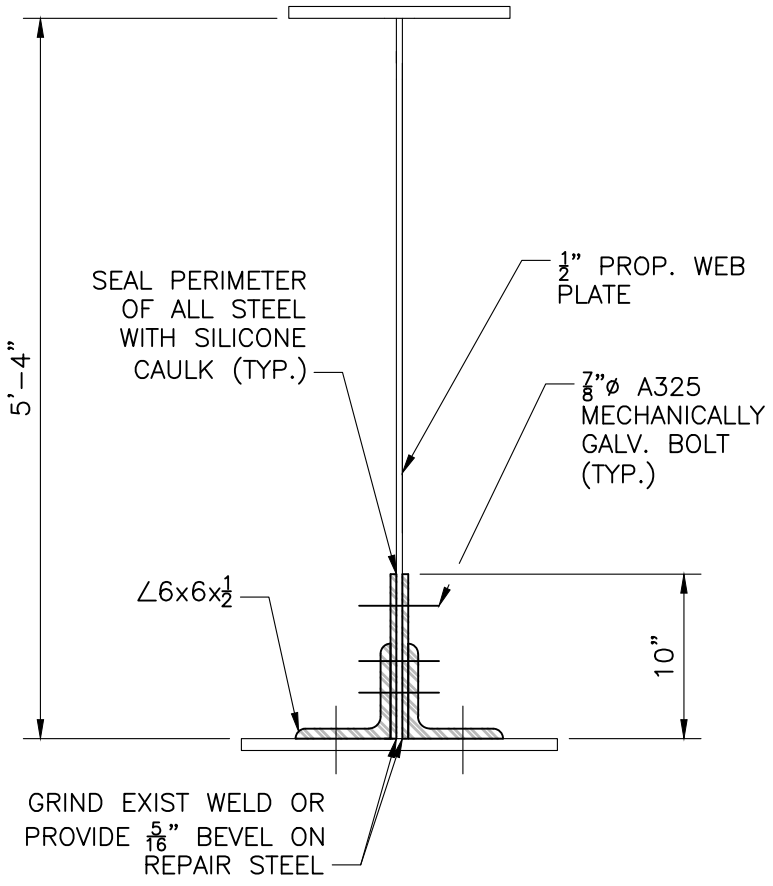
Proposal No. 613219-132950



STRINGER													
BEAM NO.	℄ TO ℄ BEARINGS	X	Y	WEB PL	END SECTION			INTERMEDIATE SECTION			CENTER SECTION		
					TOP PL	BOT. PL	LENGTH	TOP PL	BOT. PL	LENGTH	TOP PL	BOT. PL	LENGTH
1	80'–2¾"	2'–8"	9"	54"x⅜"	14"x1"	14"x1"	18'–6"	–	–	–	14"x1½"	14"x1½"	43'–2¾"
2–5	81'–9¼"	2'–8"	6"	54"x⅜"	14"x1"	14"x1"	15'–10"	–	–	–	14"x1¾"	14"x1¾"	50'–1¼"
6	84'–1⅛"	2'–8"	9"	54"x⅜"	14"x1"	14"x1"	17'–6"	–	–	–	14"x1⅝"	14"x1⅝"	49'–1⅛"
7	100'–9⅞"	9"	10"	66"x7/16"	14"x¾"	14"x¾"	22'–0"	14"x¾"	14"x1⅛"	7'–6"	14"x¾"	14"x1½"	41'–9⅞"
8–11	104'–3½"	5"	6"	66"x7/16"	14"x¾"	14"x¾"	16'–0"	14"x¾"	14"x1⅜"	10'–6"	14"x1"	14"x2"	51'–3½"
12	106'–6⅞"	9"	10"	66"x7/16"	14"x¾"	14"x¾"	19'–6"	14"x¾"	14"x1⅜"	13'–0"	14"x¾"	14"x1¾"	41'–6⅞"
13	79'–1½"	10"	10"	54"x⅜"	14"x1"	14"x1"	18'–0"	–	–	–	14"x1½"	14"x1½"	43'–1⅝"
14–17	81'–10¼"	5"	6"	54"x⅜"	14"x1"	14"x1"	15'–10"	–	–	–	14"x1¾"	14"x1¾"	50'–2¼"
18	84'–6¼"	10"	10"	54"x⅜"	14"x1"	14"x1"	17'–9"	–	–	–	14"x1⅝"	14"x1⅝"	49'–0¼"
19	66'–8"	10"	2'–4"	54"x⅜"	14"x¾"	14"x¾"	14'–0"	–	–	–	14"x1⅛"	14"x1⅛"	38'–8"
20–23	69'–0⅞"	5"	2'–4"	54"x⅜"	14"x¾"	14"x¾"	14'–6"	–	–	–	14"x1¼"	14"x1¼"	40'–0⅞"
24	71'–11½"	10"	2'–4"	54"x⅜"	14"x¾"	14"x¾"	16'–8"	–	–	–	14"x1⅛"	14"x1⅛"	38'–7½"



REPAIR GIRDER END



GIRDER SECTION 1

ABUTMENT	MARK
EAST	BM 1

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. N-19-065 (10B)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 80 OF 85

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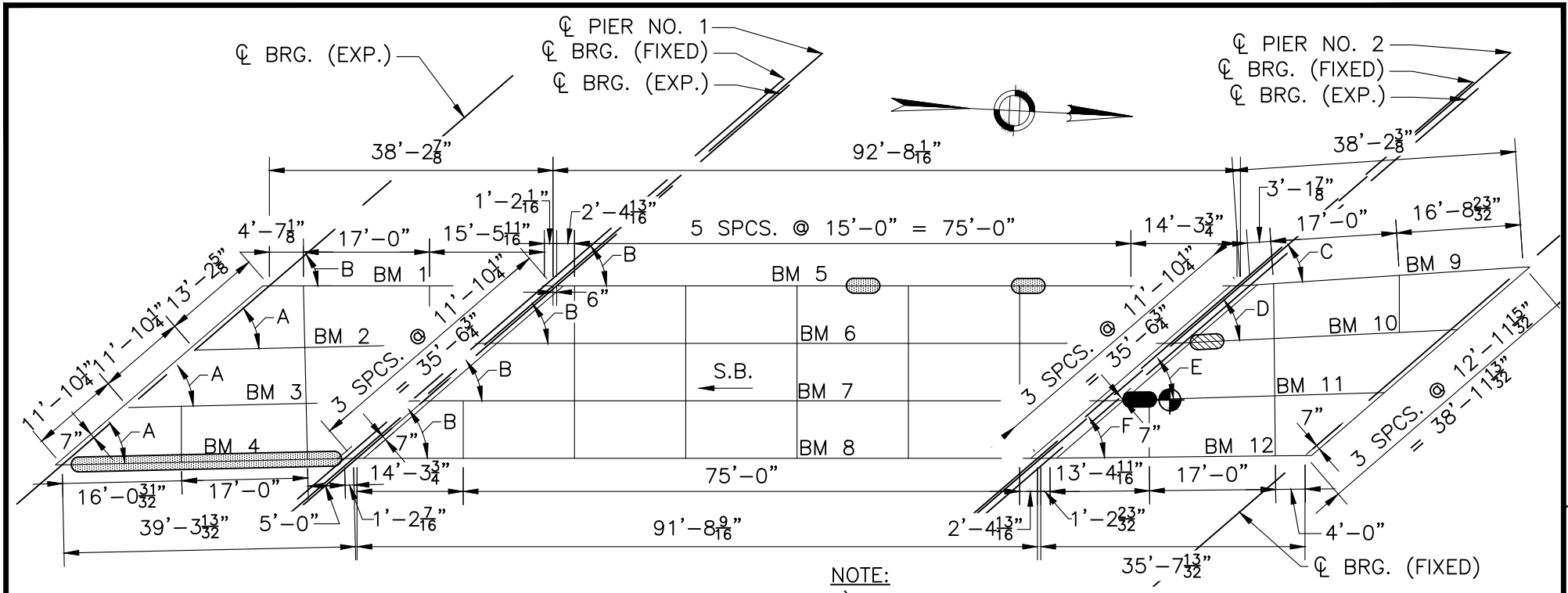
Proposal No. 613219-132950



NOTE:

1) BEAM 1 AT THE SOUTH ABUTMENT & BEAM 10 AT THE NORTH ABUTMENT HAVE BACKED OFF NUTS. BEAMS 1, 2 & 3 ARE MISSING ANCHOR BOLT NUTS AT PIER 1. CONTRACTOR SHALL TIGHTEN THE BACKED OFF NUTS, AND MISSING ANCHOR BOLT NUTS SHALL BE ADDED TO BEARINGS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 107.97 AT THIS LOCATION.

2) CONTRACTOR SHALL CLEAN AND PAINT ALL BEARINGS WHERE ALSO PERFORMING BEAM END REPAIRS. AREAS NOT IDENTIFIED ON FRAMING PLAN FOR CLARITY AND SHALL BE PAID FOR UNDER ITEM 961.211.

BEAM NO.	BEAM SIZE
1, 4, 9, 12	36WF135
2, 3	33WF118
5, 8	36WF245 & PL 19" x 1" x 66'–0"
6, 7	36WF260 & PL 19" x 1" x 67'–6"
10, 11	30WF116

BEAM NO.	℄ BRG. TO ℄ BRG. OF BEAMS
1	37'–0 13/16"
2 TO 4	38'–0 31/32"
5 TO 8	91'–8 9/16"
9	36'–10 19/32"
10	36'–0 7/16"
11	35'–2 1/2"
12	34'–5 11/16"

ANGLE SCHEDULE	
ANGLE	VALUE
A	39°31'27"
B	40°49'27"
C	37°01'36"
D	38°02'28"
E	39°06'24"
F	40°13'27"

MARK	DESCRIPTION
	PROPOSED STEEL REPAIR AREA
	PROPOSED BEARING REPAIR
	PROPOSED CLEAN AND PAINT STEEL
	PROPOSED JACKING & SHORING

massDOT Massachusetts Department of Transportation Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

FRAMING PLAN
BRIDGE NO. N-19-066 (10E)
N.T.S.

DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 81 OF 85

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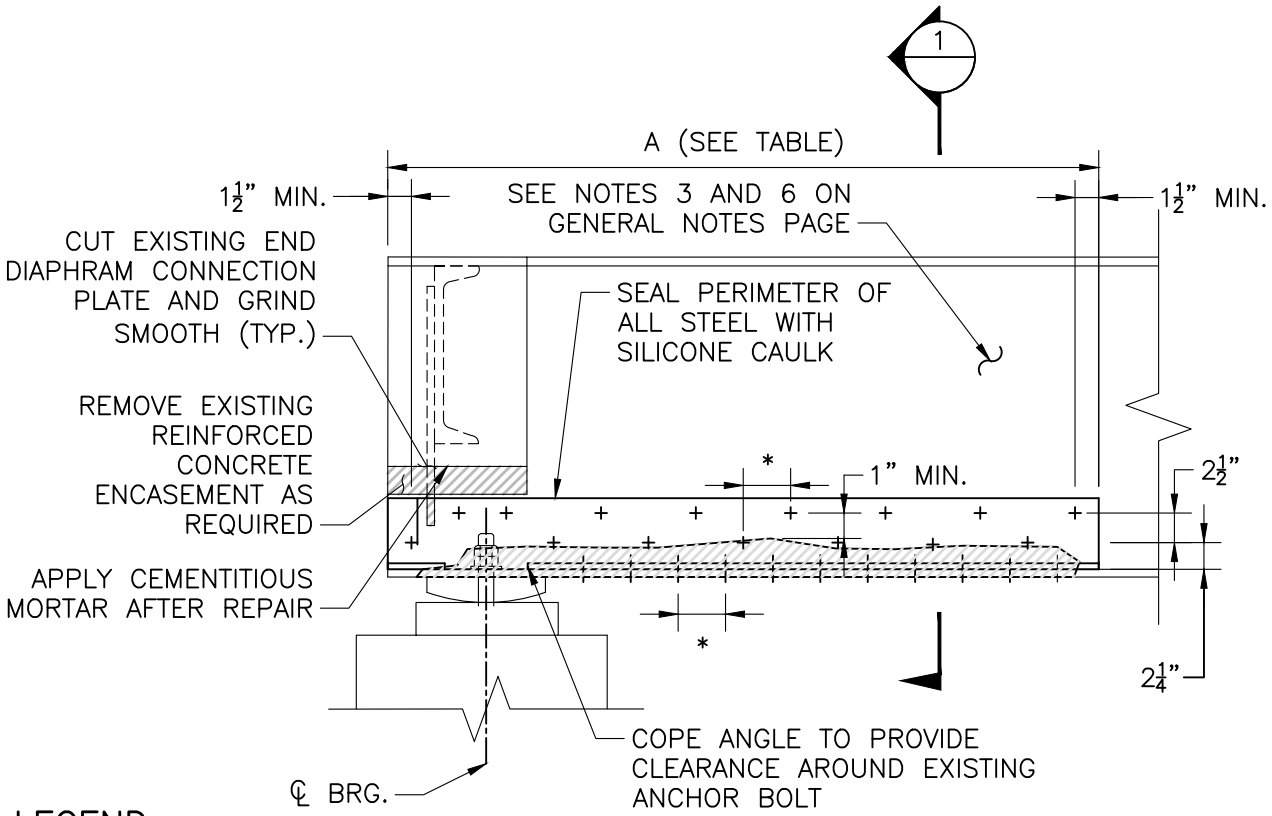
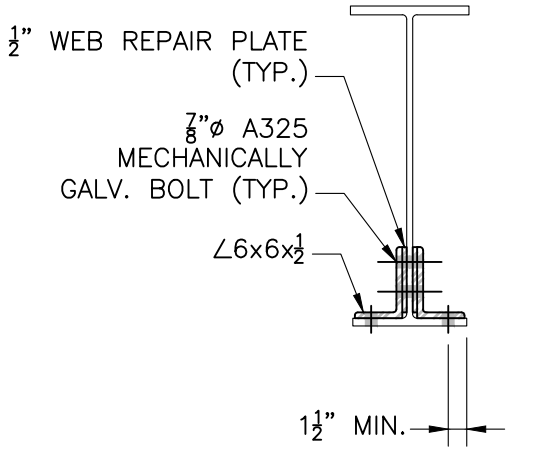
Proposal No. 613219-132950





BEAM SECTION 1

LEGEND:

AREA OF SECTION LOSS

* = 3" MIN, 4" MAX

BEAM END REPAIR

LOCATION	BEAM	A
PIER 2	BEAM 10	5'–0"

massDOT Highway Division

TEC The Engineering Corp
Lawrence, MA
Hampton, NH
Worcester, MA

STEEL REPAIR DETAILS
BRIDGE NO. N-19-066 (10E)
N.T.S.

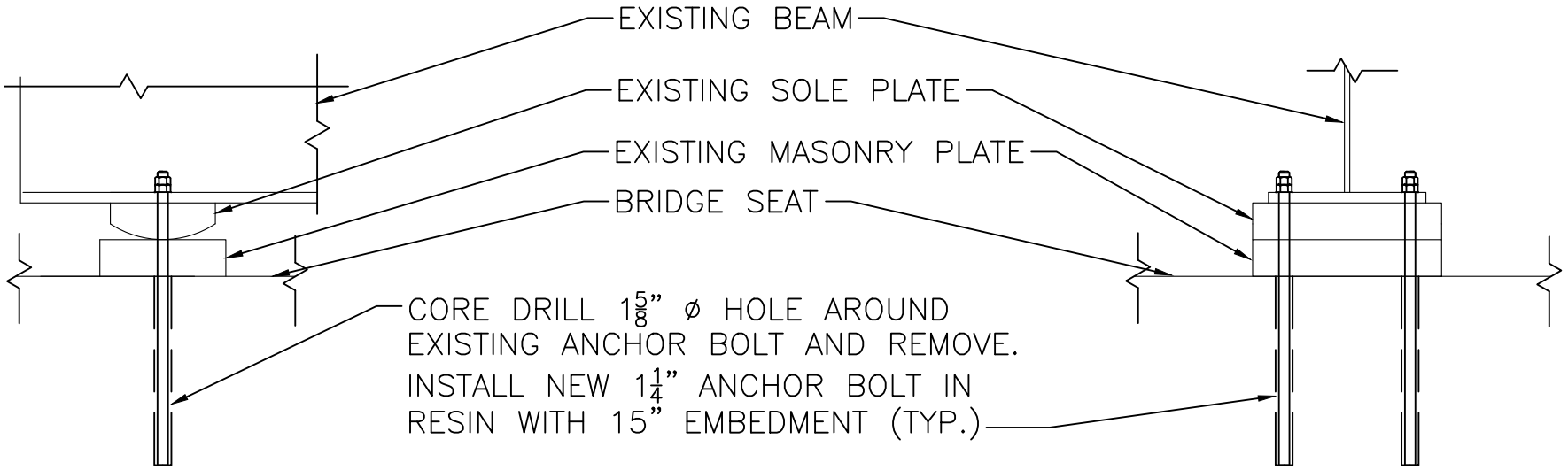
DATE: 10/8/2025

PROJECT NO.: 613219

SHEET: 82 OF 85

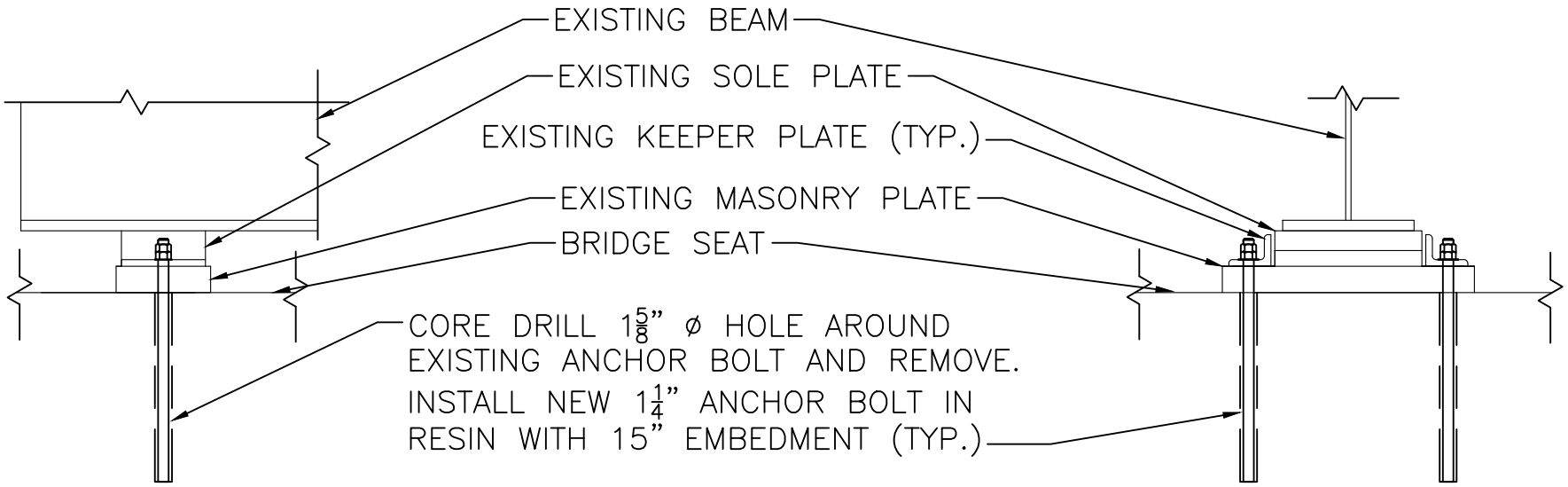
A00804 - 84

Proposal No. 613219-132950



FIXED END BEARING ANCHOR BOLT REPAIR

BRIDGE	BEAM	LOCATION	NO. OF ANCHORS
H-21-051 (0YF)	504	PIER 3	1
H-21-051 (0YF)	602	ABUTMENT 4	1
H-21-051 (0YF)	605	ABUTMENT 4	1
N-19-065 (10B)	22	WEST ABUTMENT	1



EXPANSION BEARING ANCHOR BOLT REPAIR

BRIDGE	BEAM	LOCATION	NO. OF ANCHORS
H-21-049 (0YD)	303	SOUTH ABUTMENT	1
H-21-051 (0YG)	203	PIER 2	1
H-21-051 (0YG)	204	PIER 2	2
H-21-051 (0YG)	205	PIER 2	1
H-21-054 (0YN)	204	NORTH ABUTMENT	1
N-19-066 (10E)	11	PIER 2	1

Proposal No. 613219-132950

massDOT Highway Division
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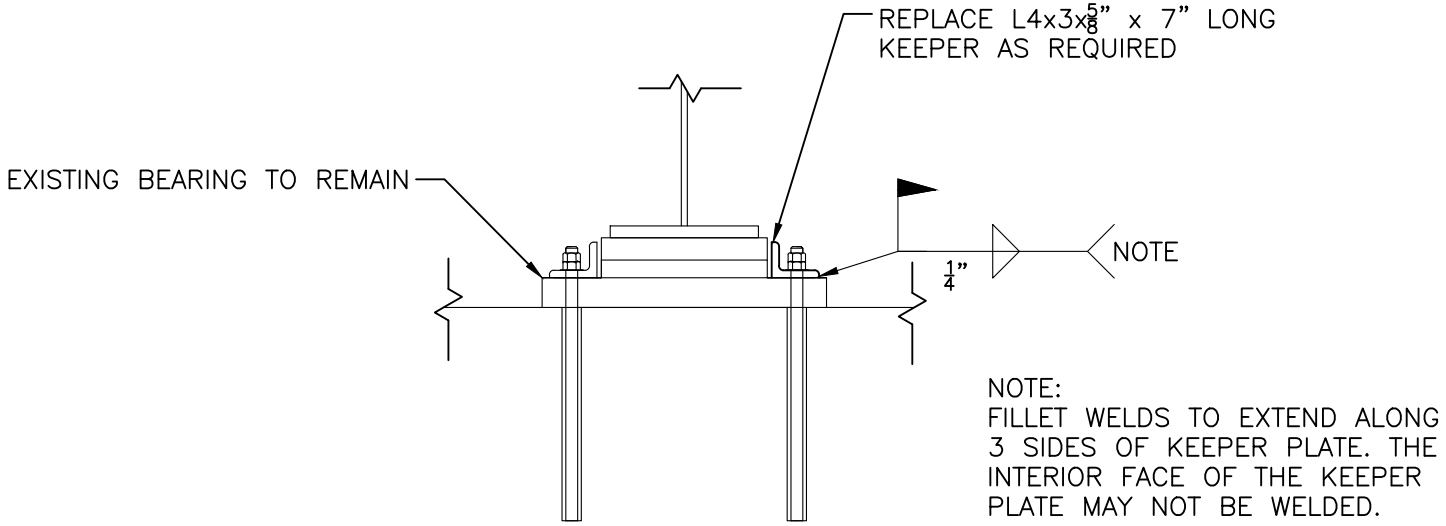
Hampton, NH
Worcester, MA

ANCHOR BOLT DETAILING (2 OF 2)
TYPICAL DETAILS
N.T.S.

DATE: 10/8/2025
PROJECT NO.: 613219
SHEET: 84 OF 85



STEEL KEEPER PLATE REPAIR

BRIDGE	BEAM	LOCATION	NO. OF KEEPER PLATES
C-13-037 (0X2)	9	SOUTH ABUTMENT	1
H-21-049 (0YD)	406	PIER	1
H-21-049 (0YD)	302	SOUTH ABUTMENT	1
H-21-049 (0YD)	401	PIER	1
H-21-049 (0YE)	106	SOUTH ABUTMENT	1
H-21-051 (0YG)	304	PIER 2	1
H-21-051 (0YG)	305	PIER 2	1

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DOCUMENT A00805

TRAFFIC MANAGEMENT PLANS

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BRIDGE	ROADWAY	CASE	TIMING	DETAIL
ALL	ALL	CONES AND DRUMS	–	851.1.1
H–21–054	I–91 NB & SB OVER Bemis RD	ALTERNATING ONE–WAY (TRAFFIC OFFICER)	NIGHT 7P–5A	852.4.4
N–19–065	I–91 SB OFF RAMP OVER US 5 & ST. RT. 10 NORTH KING ST.			
S–24–078	1–91 OVER HUNTINGTON ST.			
S–24–080	1–91 OVER ST RT. 116 & MAIN ST.			
S–24–085	I–91 OVER NOBEL ST			
W–21–047	I–91 OVER US 5 RIVERDALE ST	TWO LANE ROAD CENTER ROAD CLOSURE	NIGHT 7P–5A	852.5.1
N–16–064	I–91 OVER DAMON RD.	TWO LANE ROAD HALF ROAD CLOSURE	NIGHT 7P–5A	852.5.4
N–19–062	I–91 NB & SB OVER ST. RT. 9 & BRIDGE ST.	MULTI–LANE ROAD RIGHT LANES CLOSURE	NIGHT 7P–5A	852.6.1
S–24–087	US 20 PLAINFIELD ST. OVER I–91			
S–24–087	US 20 PLAINFIELD ST. OVER I–91	MULTI–LANE ROAD LEFT LANES CLOSURE	NIGHT 7P–5A	852.6.3
H–21–049	I–91 NB & SB OVER US 202 CHERRY ST	MULTI–LANE ROAD INTERIOR LANES CLOSURE	NIGHT 7P–5A	852.6.5
W–21–047	I–91 OVER US 5 RIVERDALE ST			
H–21–049	I–91 NB & SB OVER US 202 CHERRY ST	DIVIDED HIGHWAY RIGHT SHOULDER CLOSURE (SHORT TERM)	NIGHT 7P–5A	852.7.1
W–21–047	I–91 OVER US 5 RIVERDALE ST			
S–24–087	US 20 PLAINFIELD ST. OVER I–91	DIVIDED HIGHWAY RIGHT TWO LANES CLOSURE (SHORT TERM)	NIGHT 7P–5A	852.7.8
S–24–087	US 20 PLAINFIELD ST. OVER I–91	DIVIDED HIGHWAY LEFT TWO LANES CLOSURE (SHORT TERM)	NIGHT 7P–5A	852.7.9
C–13–037	WN RAMP UNDER I–91 NB (EXIT 9)	RAMP PHASE I SHORT TERM PLAN	NIGHT 7P–5A	SHEET 3
C–13–037	WN RAMP UNDER I–91 NB (EXIT 9)	RAMP PHASE II SHORT TERM PLAN	NIGHT 7P–5A	SHEET 4
H–21–049	I–91 NB & SB OVER US 202 CHERRY ST	PHASE I SHORT TERM RIGHT SHOULDER CLOSURE PLAN	NIGHT 7P–5A	SHEET 5
H–21–049	I–91 NB & SB OVER US 202 CHERRY ST	PHASE II SHORT TERM INTERIOR LANES CLOSURE PLAN	NIGHT 7P–5A	SHEET 6

MassDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

TEMPORARY TRAFFIC CONTROL PLAN SUMMARY

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 1 OF 20

BRIDGE	ROADWAY	CASE	TIMING	DETAIL
H-21-049	I-91 NB & SB OVER US 202 CHERRY ST	PHASE III SHORT TERM RIGHT SHOULDER CLOSURE PLAN	NIGHT 7P-5A	SHEET 7
H-21-053	I-91 NB & SB OVER ST 141 WB.	PHASE I SHORT TERM LANE CLOSURE PLAN	NIGHT 7P-5A	SHEET 8
H-21-053	I-91 NB & SB OVER ST 141 WB.	PHASE II SHORT TERM LANE CLOSURE PLAN	NIGHT 7P-5A	SHEET 9
S-24-080	I-91 OVER ST. RT. 116 & MAIN ST.	PHASE I SHORT TERM ALTERNATING ONE-WAY PLAN	NIGHT 9P-6A	SHEET 10
S-24-080	I-91 OVER ST. RT. 116 & MAIN ST.	PHASE II SHORT TERM ALTERNATING ONE-WAY PLAN	NIGHT 9P-6A	SHEET 11
S-24-087	US 20 PLAINFIELD ST. OVER I-91	PHASE I SHORT TERM LANE CLOSURE PLAN	NIGHT 7P-5A	SHEET 12
S-24-087	US 20 PLAINFIELD ST. OVER I-91	PHASE II SHORT TERM LANE CLOSURE PLAN	NIGHT 7P-5A	SHEET 13
S-24-087	US 20 PLAINFIELD ST. OVER I-91	DIVIDED HIGHWAY LEFT LANE CLOSURE (SHORT TERM)	NIGHT 7P-5A	852.7.4
S-24-087	US 20 PLAINFIELD ST. OVER I-91	DIVIDED HIGHWAY RIGHT LANE CLOSURE (SHORT TERM) EXIT RAMP LEFT SIDE OF RAMP CLOSURE	NIGHT 7P-5A	852.7.3 852.8.2
S-24-087	US 20 PLAINFIELD ST. OVER I-91	EXIT RAMP RIGHT SIDE OF RAMP CLOSURE	NIGHT 7P-5A	852.8.1
W-21-046	I-91 RAMP WEST LOOP (EXIT 10B)	PHASE I SHORT TERM PLAN	NIGHT 7P-5A	SHEET 14
W-21-046	I-91 RAMP WEST LOOP (EXIT 10B)	PHASE II SHORT TERM PLAN	NIGHT 7P-5A	SHEET 15
W-21-047	I-91 OVER US 5 RIVERDALE ST	PHASE I SHORT TERM LANE CLOSURE PLAN	NIGHT 7P-5A	SHEET 16
W-21-047	I-91 OVER US 5 RIVERDALE ST	PHASE II SHORT TERM LANE CLOSURE PLAN	NIGHT 7P-5A	SHEET 17
W-21-047	I-91 OVER US 5 RIVERDALE ST	PHASE III SHORT TERM LANE CLOSURE PLAN	NIGHT 7P-5A	SHEET 18
ALL	–	TRAFFIC SIGN SUMMARY	–	SHEET 19
ALL	–	TRAFFIC SIGN SUMMARY CONTINUTED	–	SHEET 20

BRIDGE PREFIX	CITY/TOWN
C-13-###	CHICOPEE
H-21-###	HOLYOKE
N-19-###	NORTHAMPTON
S-24-###	SPRINGFIELD
W-21-###	WEST SPRINGFIELD

massDOT Massachusetts Department of Transportation Highway Division

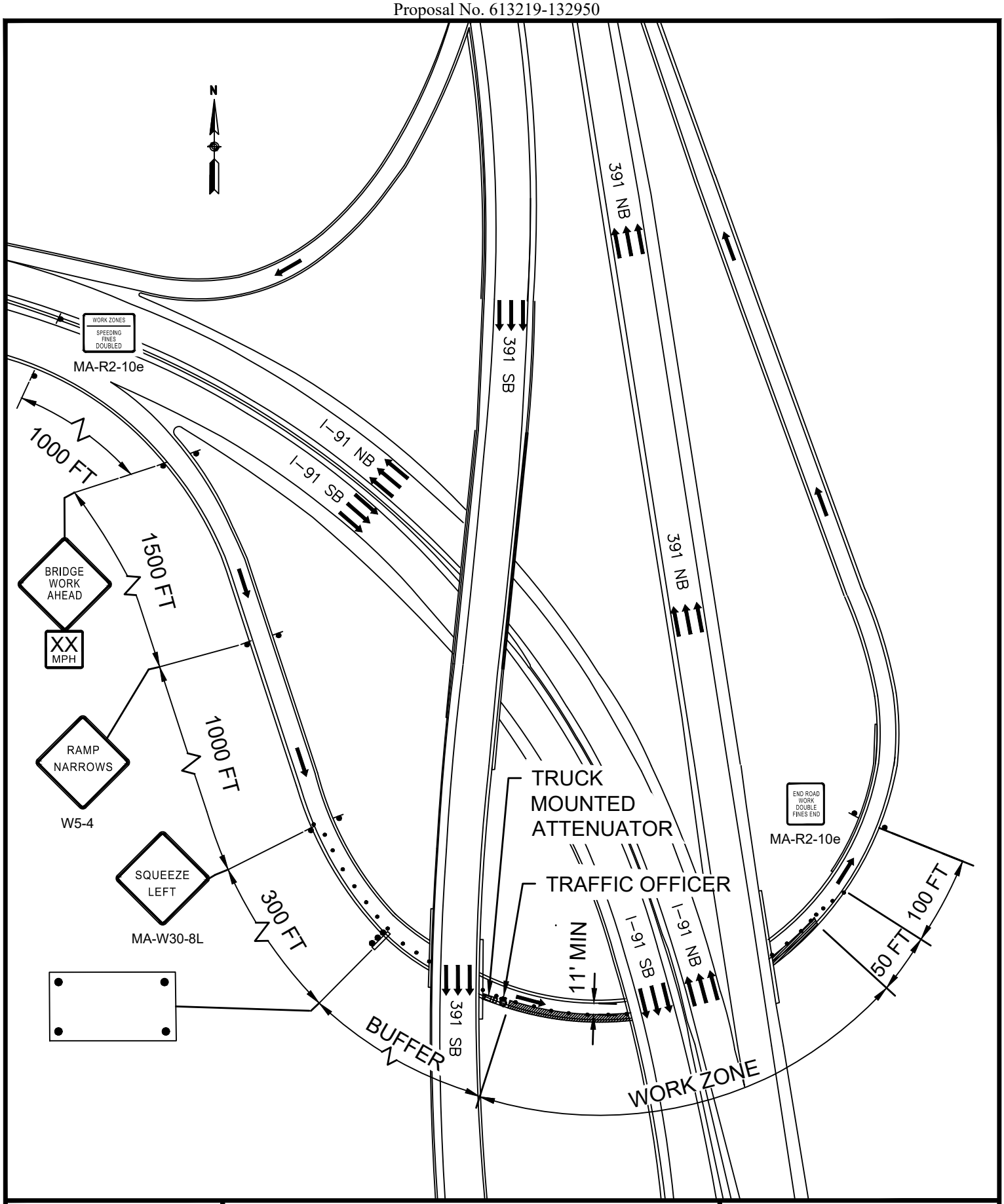
DISTRICT 2
BRIDGE SECTION

TEMPORARY TRAFFIC CONTROL PLAN SUMMARY
CONTINUED

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 2 OF 20



massDOT Massachusetts Department of Transportation Highway Division

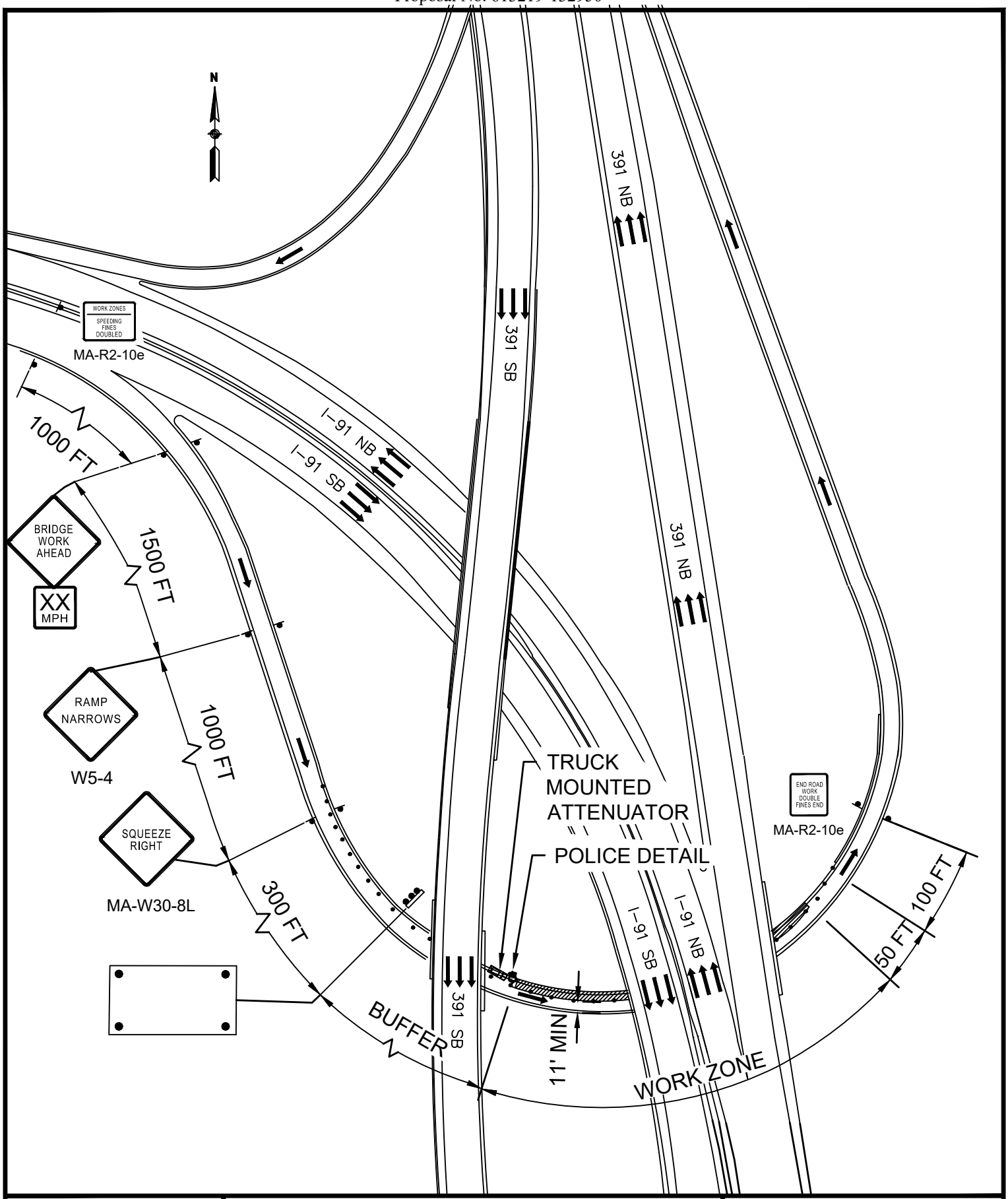
DISTRICT 2
BRIDGE SECTION

C-13-037 (CHICOPEE EXIT 9)
RAMP PHASE I
SHORT TERM

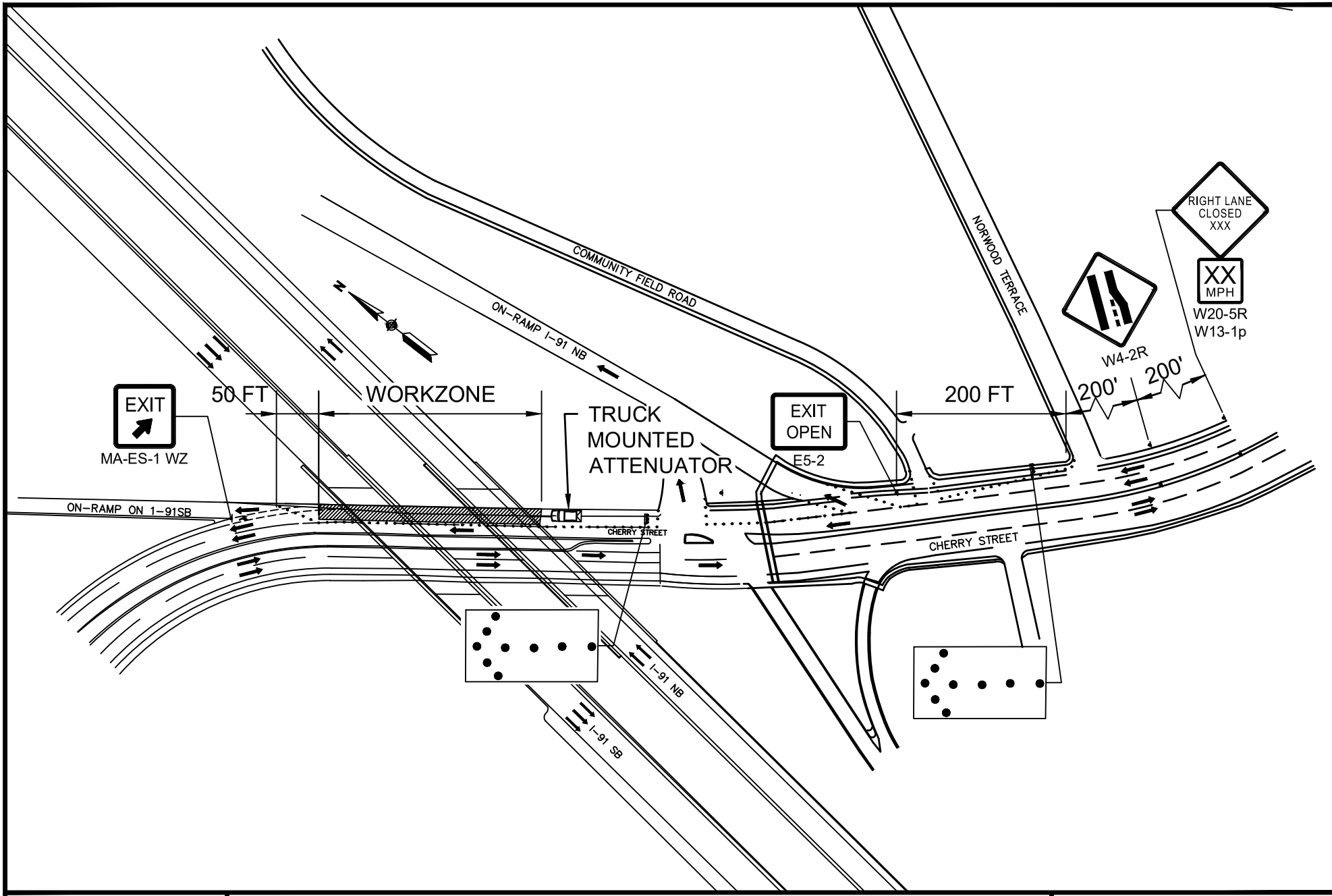
DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 3 OF 20



massDOT Highway Division DISTRICT 2 BRIDGE SECTION	**C-13-037 (CHICOPEE EXIT 9)** **RAMP PHASE II** **SHORT TERM**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 4 OF 20



massDOT Massachusetts Department of Transportation Highway Division

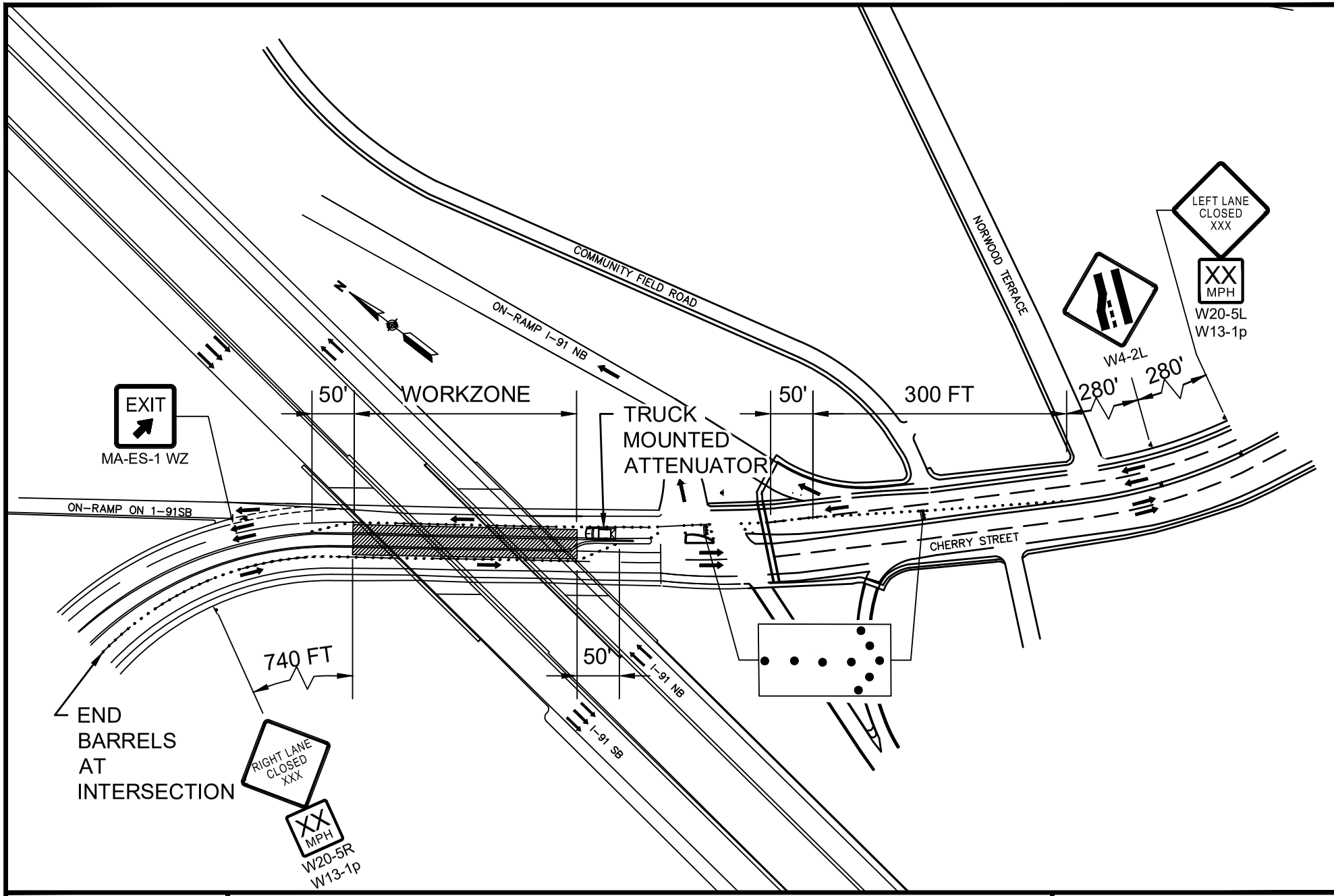
DISTRICT 2
BRIDGE SECTION

H-21-049
PHASE I
SHORT TERM

DATE: 10/22/2025

PROJECT NO.613219

SHEET: 5 OF 20



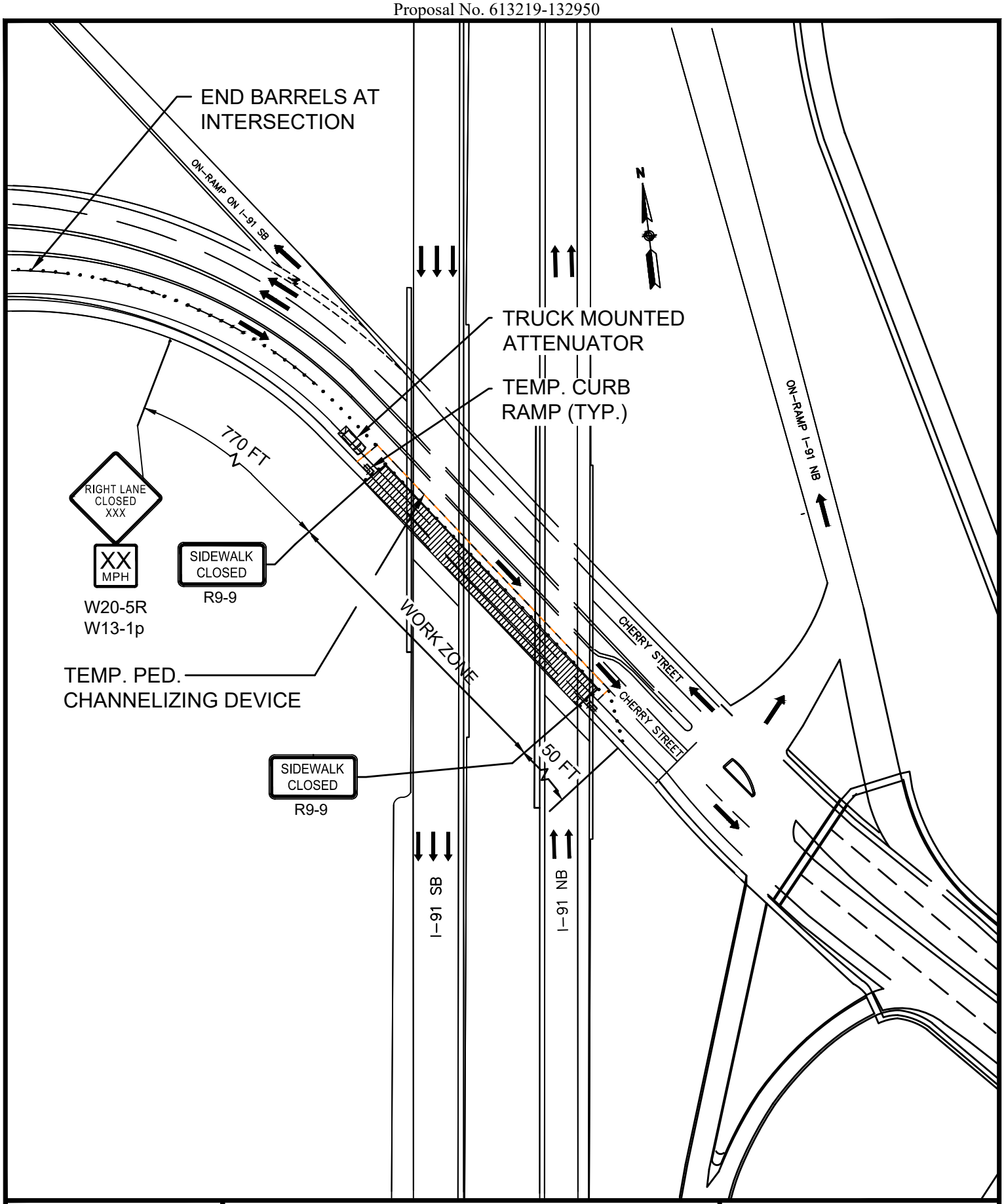
DISTRICT 2
BRIDGE SECTION

H-21-049
PHASE II
SHORT TERM

DATE: 10/22/2025
PROJECT NO.613219
SHEET: 6 OF 20

A00805 - 8

Proposal No. 6132l9-132950



massDOT Massachusetts Department of Transportation Highway Division

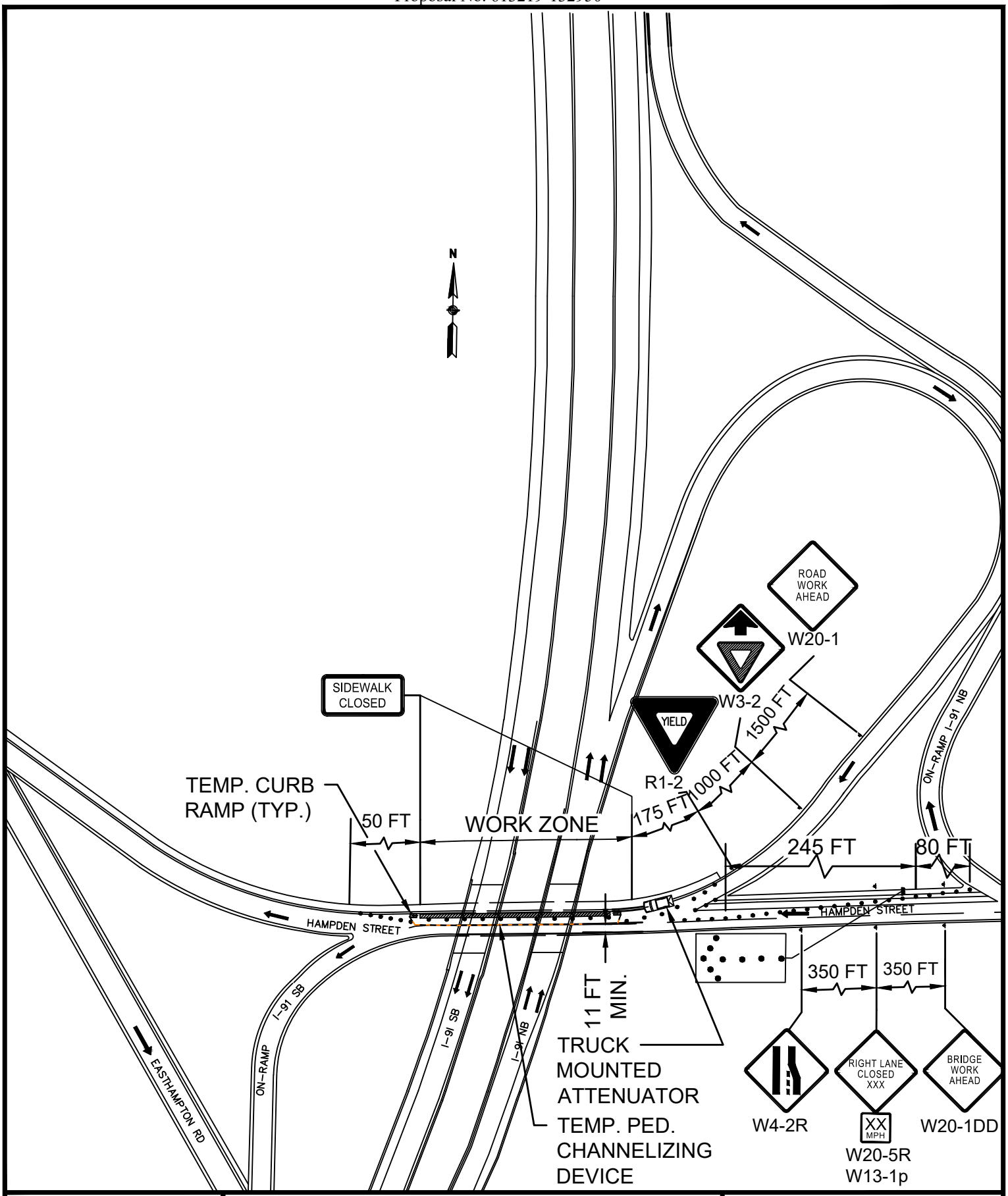
DISTRICT 2
BRIDGE SECTION

H-21-049
PHASE III
SHORT TERM

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 7 OF 20



massDOT Massachusetts Department of Transportation Highway Division

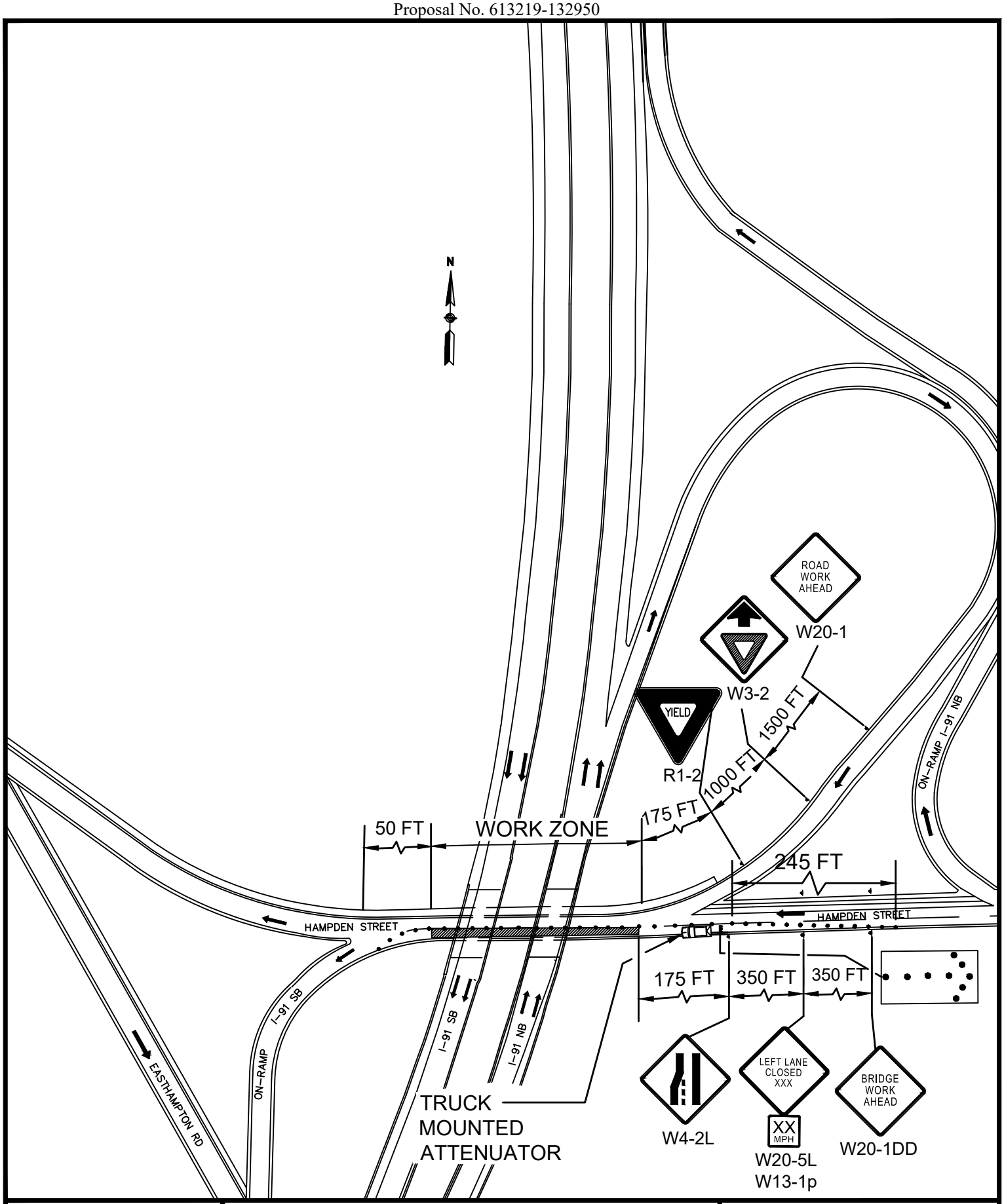
DISTRICT 2
BRIDGE SECTION

H-21-053
PHASE I
SHORT TERM

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 8 OF 20



massDOT Massachusetts Department of Transportation Highway Division

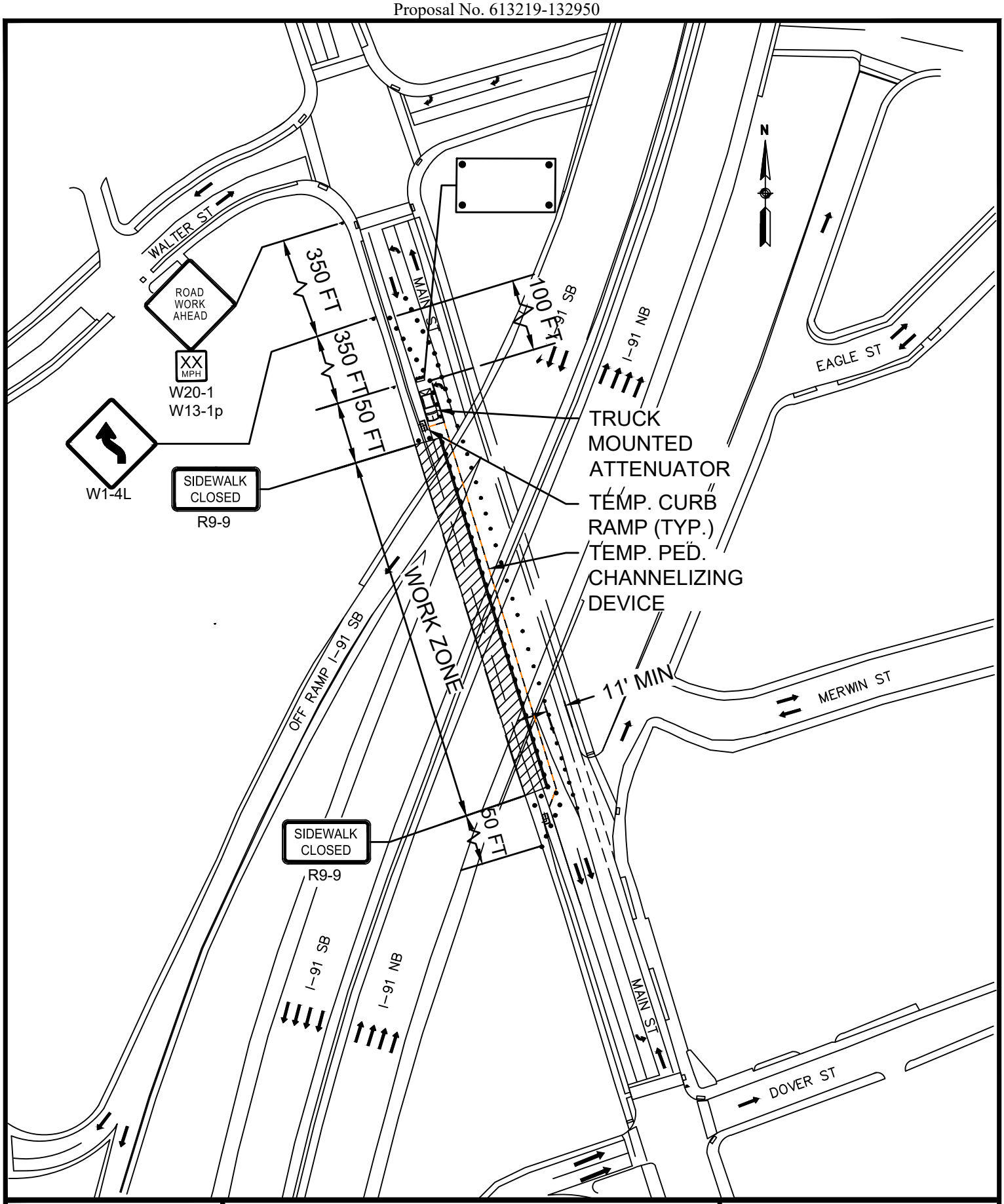
DISTRICT 2
BRIDGE SECTION

H-21-053
PHASE II
SHORT TERM

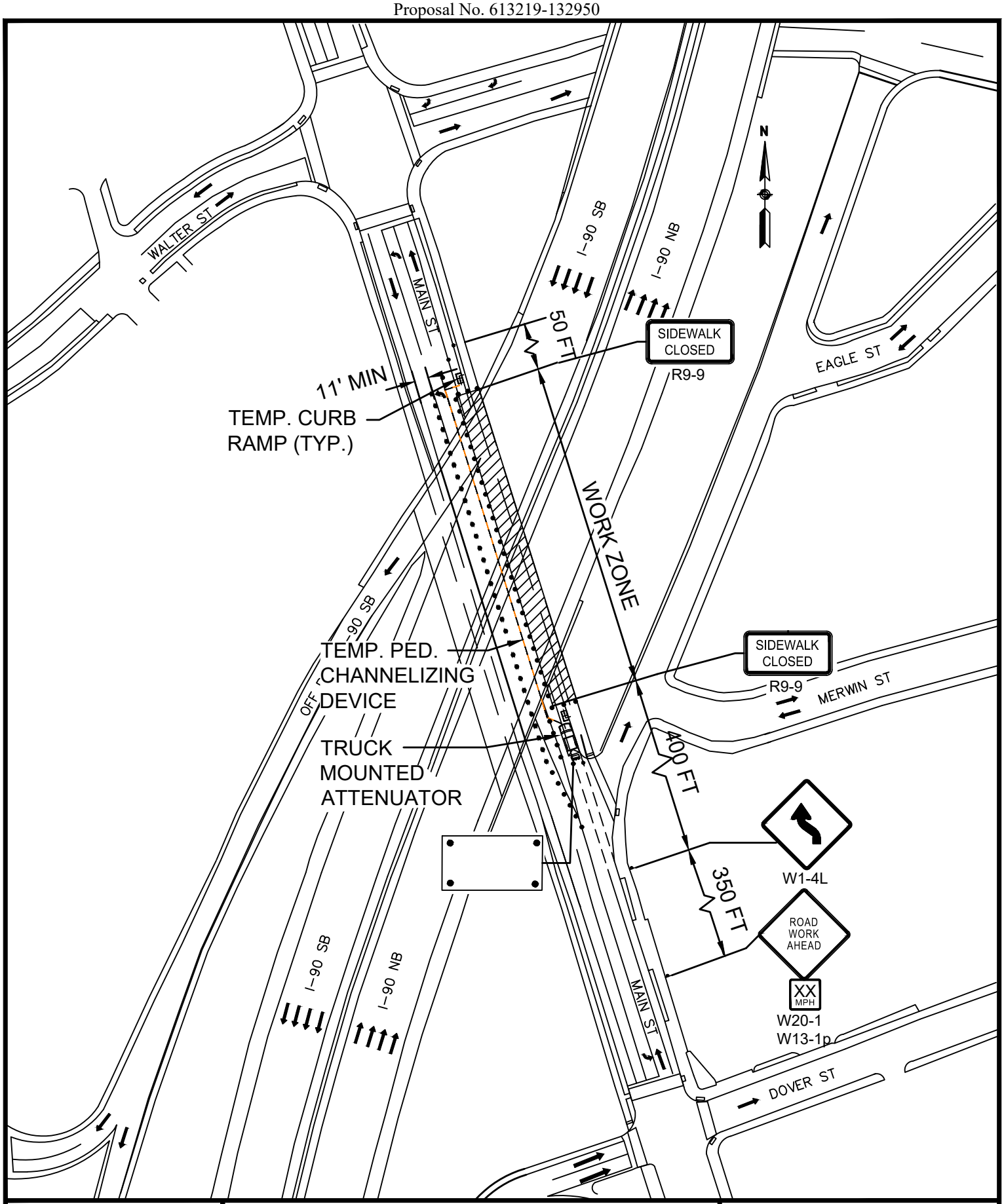
DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 9 OF 20



massDOT Massachusetts Department of Transportation Highway Division DISTRICT 2 BRIDGE SECTION	**S-24-080** **PHASE I** **SHORT TERM**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 10 OF 20



massDOT Massachusetts Department of Transportation Highway Division

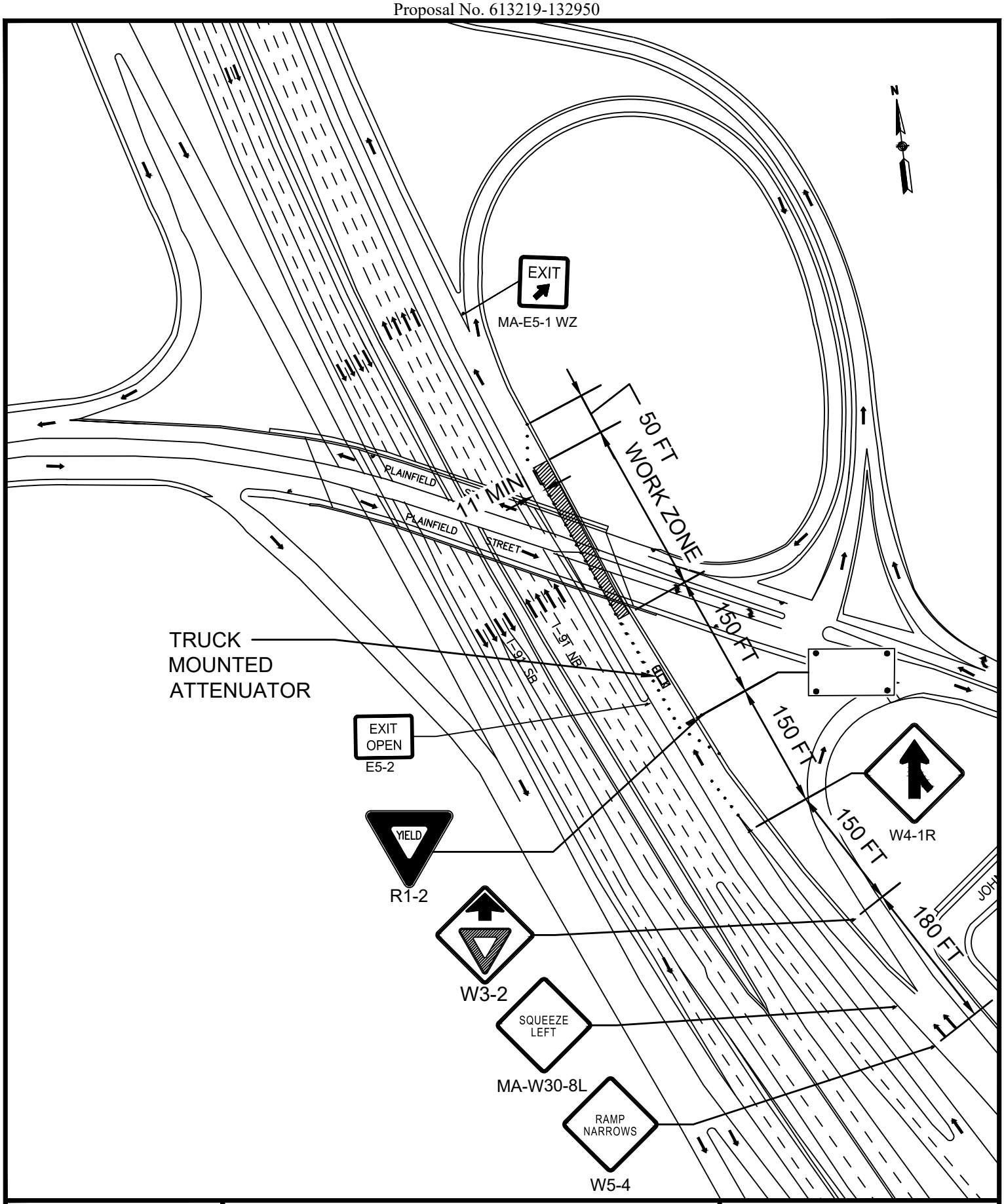
DISTRICT 2
BRIDGE SECTION

S-24-080
PHASE II
SHORT TERM

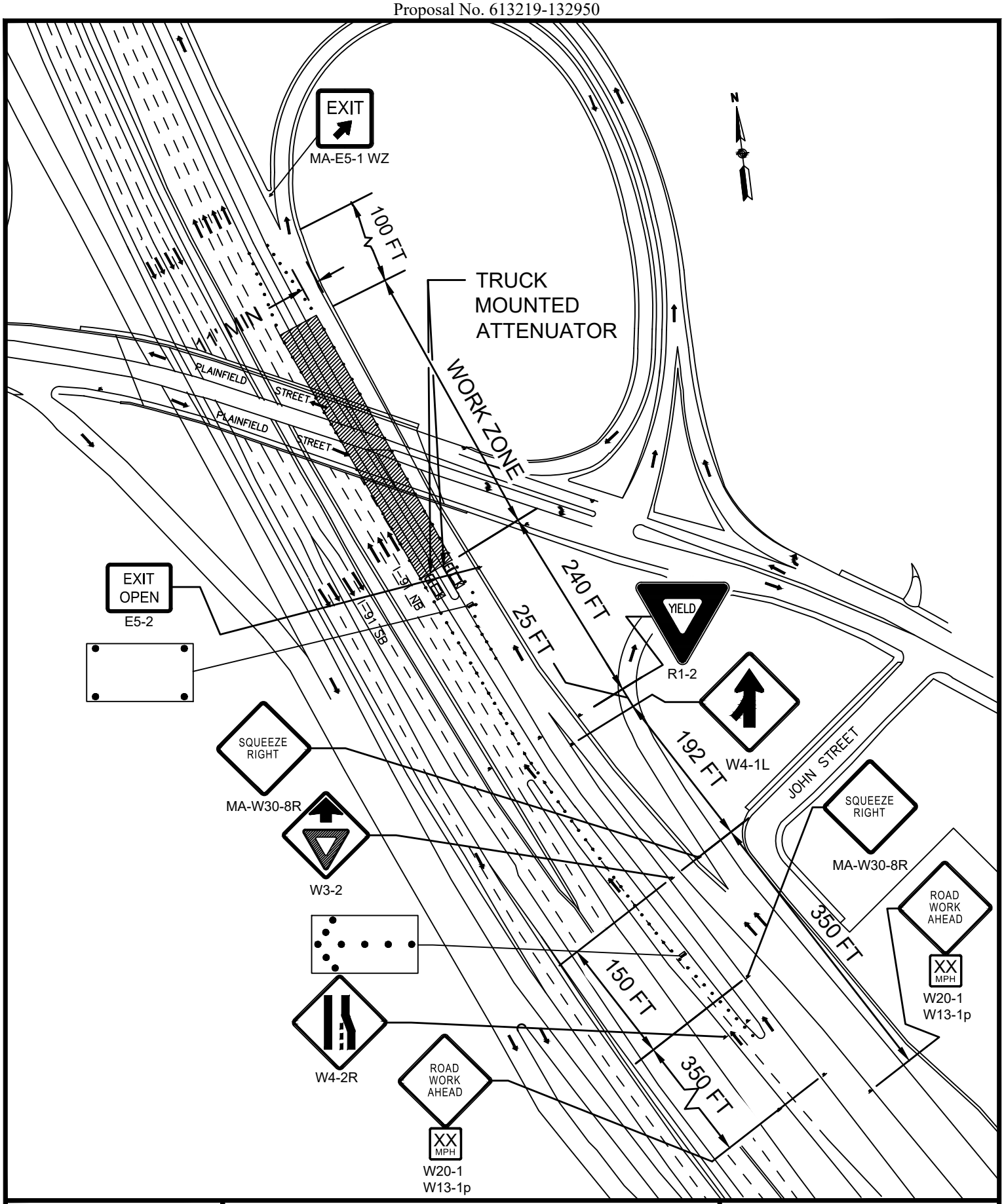
DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 11 OF 20



MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 2 BRIDGE SECTION	**S-24-087** **PHASE I** **SHORT TERM**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 12 OF 20



massDOT Massachusetts Department of Transportation Highway Division

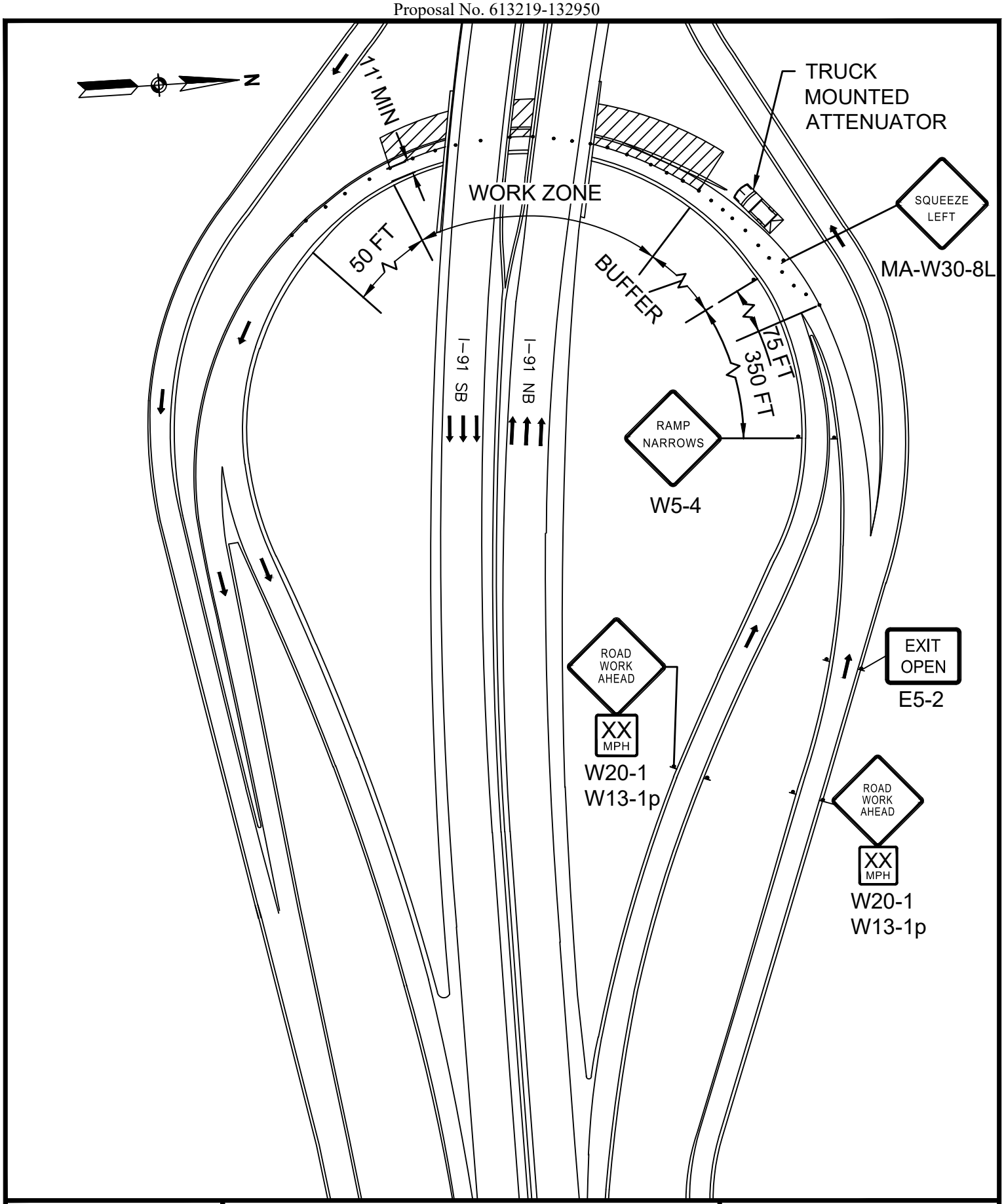
DISTRICT 2
BRIDGE SECTION

S-24-087
PHASE II
SHORT TERM

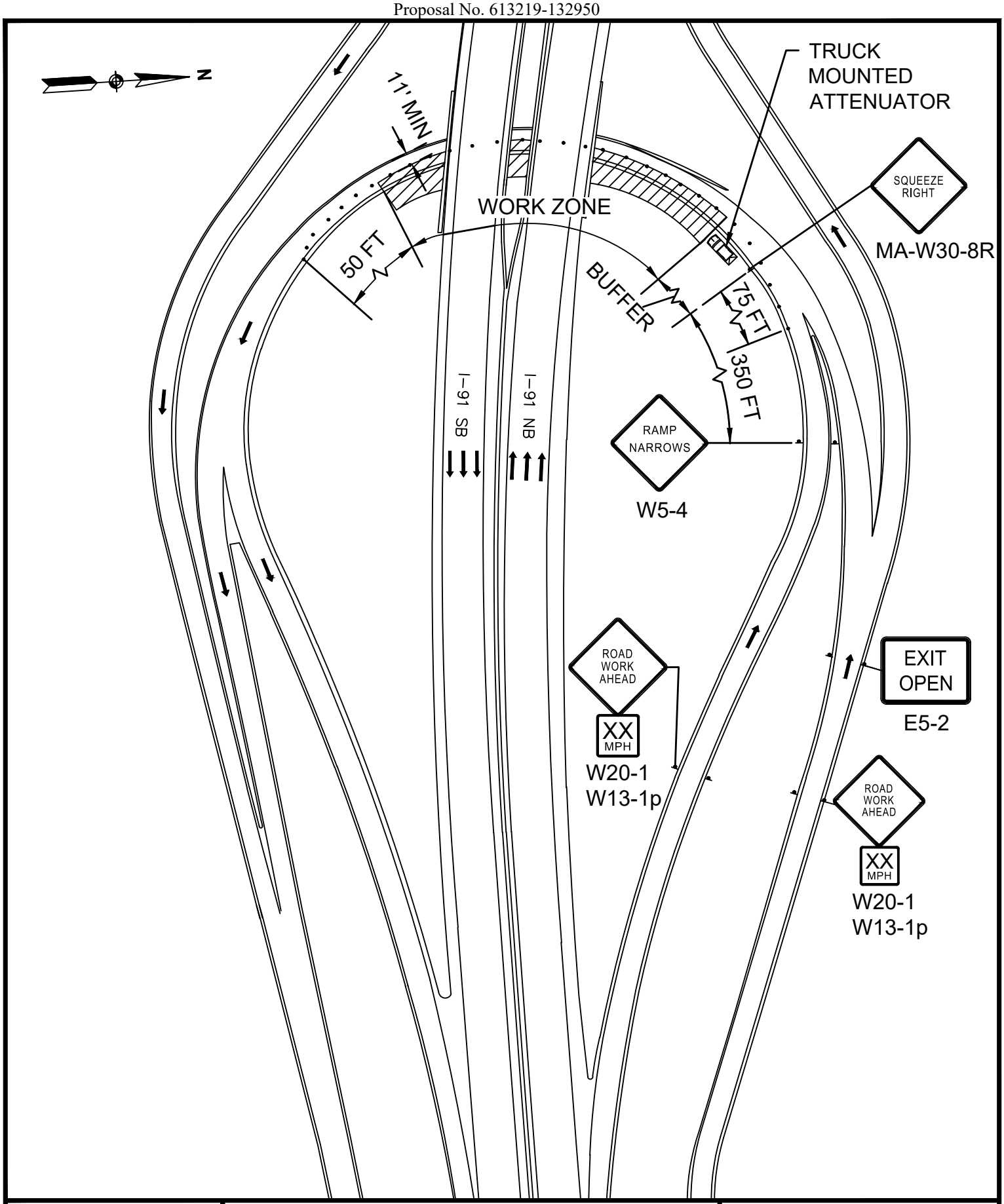
DATE: 10/22/2025

PROJECT NO.: 613219

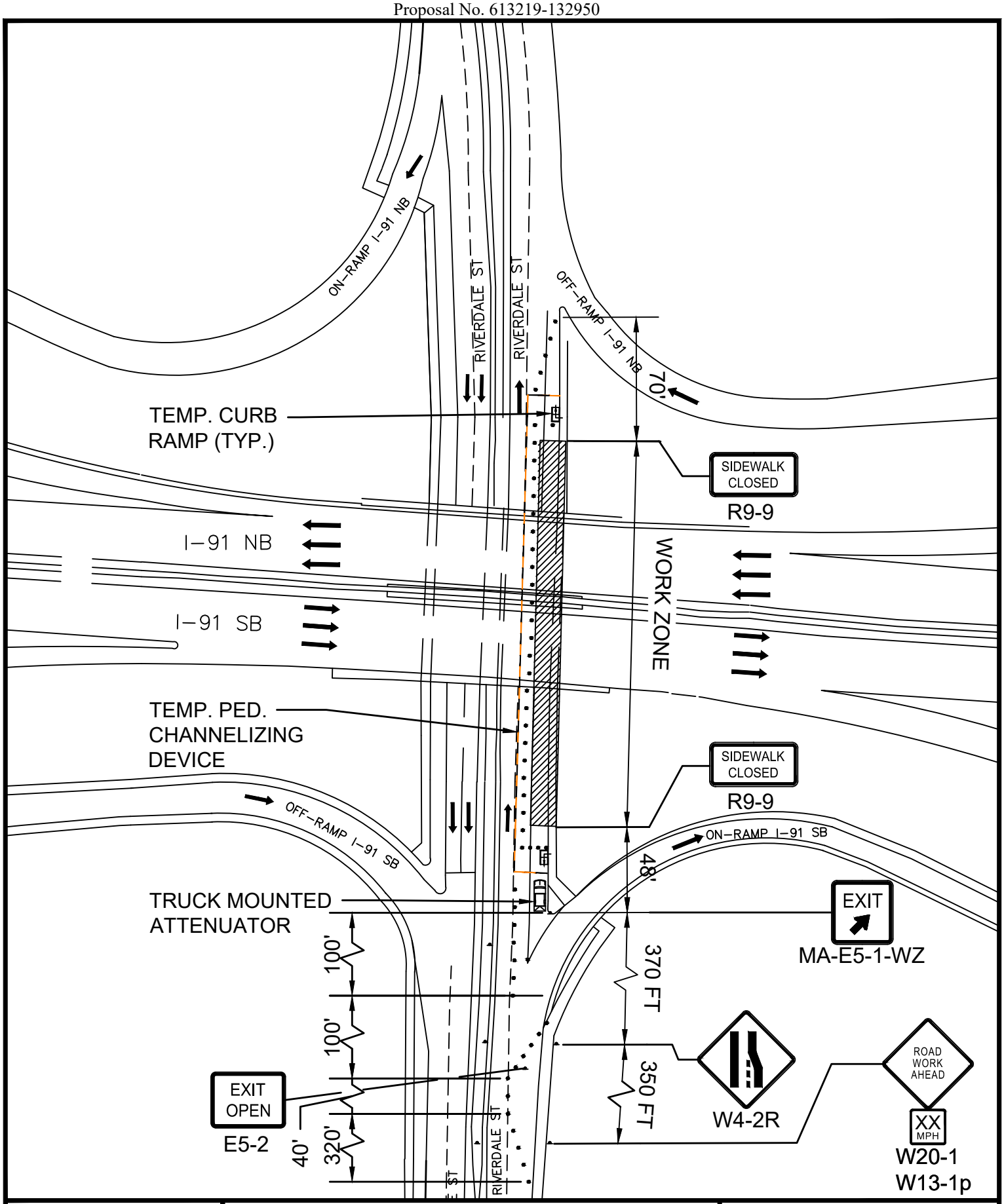
SHEET: 13 OF 20



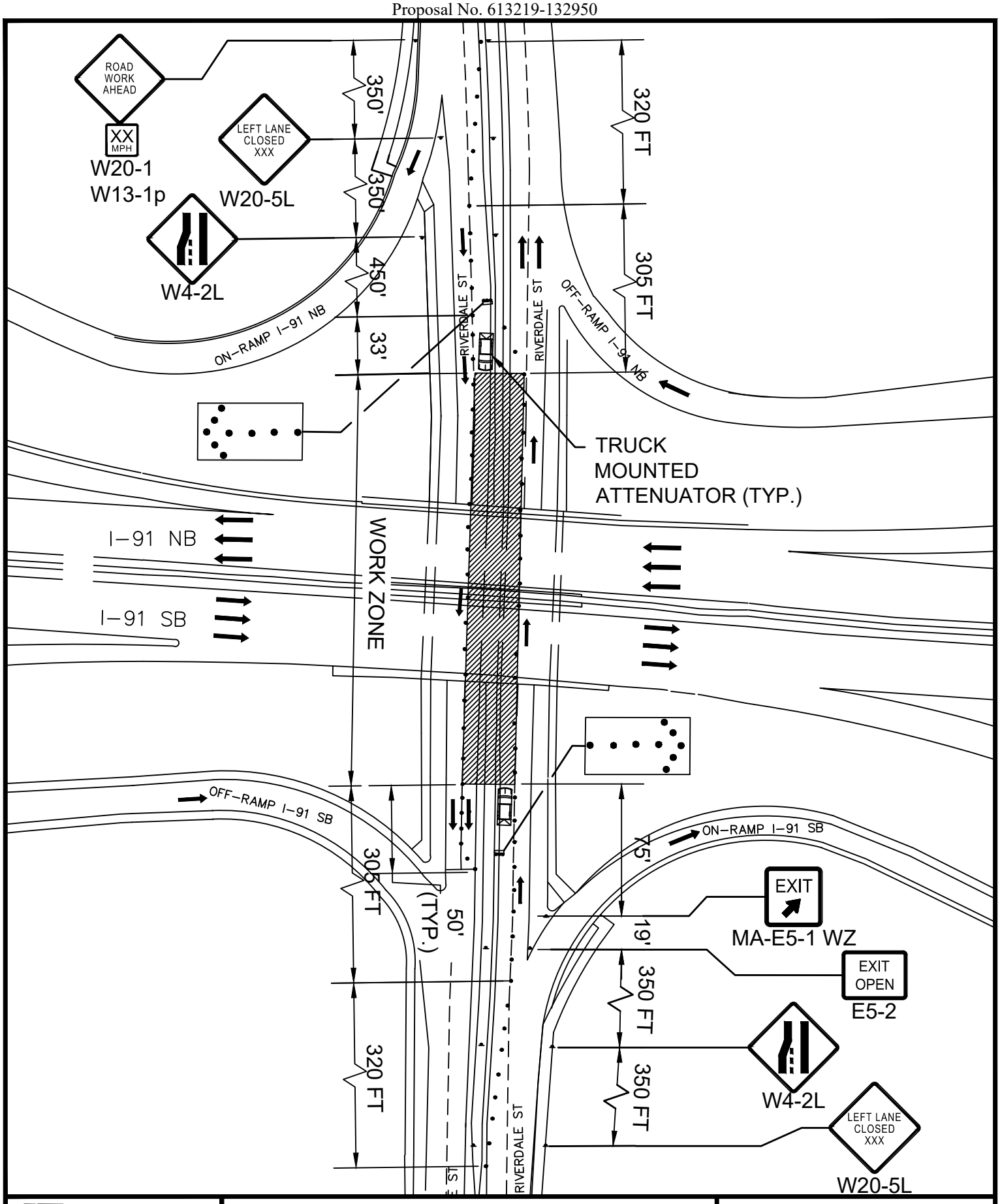
MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 2 BRIDGE SECTION	**W-21-046 (W SPRINGFIELD EXIT 10B)** **PHASE I** **SHORT TERM**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 14 OF 20



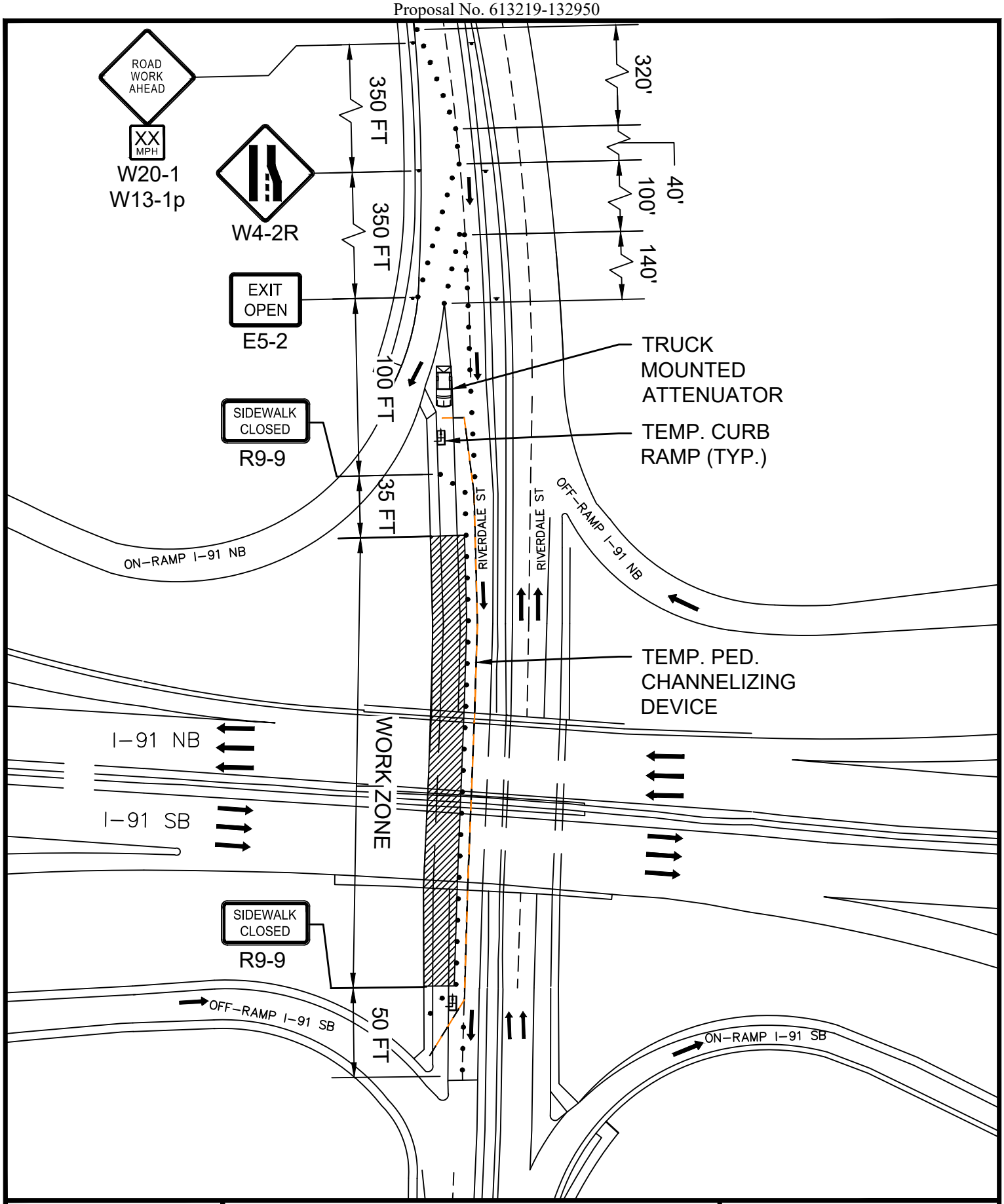
massDOT Highway Division DISTRICT 2 BRIDGE SECTION	**W-21-046 (W SPRINGFIELD EXIT 10B)** **PHASE II** **SHORT TERM**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 15 OF 20



massDOT Highway Division DISTRICT 2 BRIDGE SECTION	**W-21-047** **PHASE I** **SHORT TERM**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 16 OF 20



MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 2 BRIDGE SECTION	**W-21-047** **PHASE II** **SHORT TERM**	DATE: 10/22/2025 PROJECT NO.: 613219 SHEET: 17 OF 20



massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

W-21-047
PHASE III
SHORT TERM

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 18 OF 20

IDENTIFICATION NUMBER	SIZE OF SIGNS (INCHES)		TEXT	TEXT DIMENSIONS (INCHES)		NUMBER OF SIGNS REQ'D	COLOR			(POST SIZE) AND NUMBER REQUIRED	UNIT AREA (S.F)	TOTAL AREA (S.F)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACKGROUND	LEGEND	BORDER			
W13-1P	24	24	XX MPH	SEE 2009 MUTCD STANDARDS		17	Fluoresent (Orange Retro-reflective)	Black	Black	17	4.0	68.0
W1-4L	36	36				5	Fluoresent (Orange Retro-reflective)	Black	Black	5	9.0	45.0
W1-4R	36	36				3	Fluoresent (Orange Retro-reflective)	Black	Black	3	9.0	27.0
W20-4	36	36	ONE LANE ROAD AHEAD			10	Fluoresent (Orange Retro-reflective)	Black	Black	10	9.0	90.0
W4-2L	48	48				17	Fluoresent (Orange Retro-reflective)	Black	Black	17	16.0	272.0
W20-5L	48	48	LEFT LANE CLOSED XXX			22	Fluoresent (Orange Retro-reflective)	Black	Black	22	16.0	352.0
W20-5R	48	48	RIGHT LANE CLOSED XXX			5	Fluoresent (Orange Retro-reflective)	Black	Black	5	16.0	80.0
W5-1	36	36	ROAD NARROWS			2	Fluoresent (Orange Retro-reflective)	Black	Black	2	9.0	18.0
W4-2R	48	48				13	Fluoresent (Orange Retro-reflective)	Black	Black	13	16.0	208.0
R4-7	24	30				2	White	Black	Black	2	5.0	10.0
E5-2	48	36	EXIT OPEN			7	Orange (Retro-reflective)	Black	Black on Orange	7	12.0	84.0
W5-4	36	36	RAMP NARROWS			8	Fluoresent (Orange Retro-reflective)	Black	Black	8	9.0	72.0
R9-9	30	18	SIDEWALK CLOSED			11	White (Retro-reflective)	Black	Black	11	3.8	41.3
R9-11L	48	24	SIDEWALK CLOSED AHEAD ← CROSS HERE			1	White (Retro-reflective)	Black	Black	1	8.0	8.0
R9-11R	48	24	SIDEWALK CLOSED AHEAD → CROSS HERE			2	White (Retro-reflective)	Black	Black	2	8.0	16.0

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

TRAFFIC SIGN SUMMARY

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 19 OF 20

IDENTIFICATION NUMBER	SIZE OF SIGNS (INCHES)		TEXT	TEXT DIMENSIONS (INCHES)		NUMBER OF SIGNS REQ'D	COLOR			(POST SIZE) AND NUMBER REQUIRED	UNIT AREA (S.F)	TOTAL AREA (S.F)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACKGROUND	LEGEND	BORDER			
W21-5aR	48	48	RIGHT SHOULDER CLOSED	SEE 2009 MUTCD STANDARDS		2	Fluoresent (Orange Retro-reflective)	Black	Black	2	16.0	32.0
W21-5bR	48	48	RIGHT SHOULDER CLOSED XXX			2	Fluoresent (Orange Retro-reflective)	Black	Black	2	16.0	32.0
R1-2	48	48	YIELD			3	White (Retro-reflective)	Red	Red	3	16.0	48.0
W3-2	36	36				1	Fluoresent (Orange Retro-reflective)	Black	Black	1	9.0	9.0
W20-1	36	36	ROAD WORK XXX			12	Fluoresent (Orange Retro-reflective)	Red	Black	12	9.0	108.0
MA-E5-1WZ	48	48	EXIT	SEE MASSDOT STANDARDS		2	Orange (Retro-reflective)	Black	Black on Orange	2	16.0	32.0
MA-W20-7b	36	36	POLICE OFFICER AHEAD			1	Fluoresent (Orange Retro-reflective)	Black	Black	1	9.0	9.0
MA-W30-8R	36	36	SQUEEZE RIGHT			8	Fluoresent (Orange Retro-reflective)	Black	Black	8	9.0	72.0
MA-W20-7b	36	36	SQUEEZE LEFT			16	Fluoresent (Orange Retro-reflective)	Black	Black	16	9.0	144.0
MA-W20-5bR	48	48	RIGHT TWO LANES CLOSED XXX			2	Fluoresent (Orange Retro-reflective)	Black	Black	2	16.0	32.0
MA-W20-5bL	48	48	LEFT TWO LANES CLOSED XXX			2	Fluoresent (Orange Retro-reflective)	Black	Black	2	16.0	32.0
MA-W28-1	48	48	RUMBLE STRIPS AHEAD			4	Fluoresent (Orange Retro-reflective)	Black	Black	4	16.0	64.0
W20-1DD	36	36	BRIDGE WORK AHEAD			3	Fluoresent (Orange Retro-reflective)	Black	Black	3	9.0	27.0
MA-R2-10a	60	48	WORK ZONES / SPEEDING FINES DOUBLED			2	Fluoresent (Orange Retro-reflective)	Black	Black	2	20.0	40.0
MA-R2-10e	48	60	END ROAD WORK DOUBLE FINES END			2	Fluoresent (Orange Retro-reflective)	Black	Black	2	20.0	40.0
											SUM:	2112

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 2
BRIDGE SECTION

TRAFFIC SIGN SUMMARY
CONTINUED

DATE: 10/22/2025

PROJECT NO.: 613219

SHEET: 20 OF 20

DOCUMENT A00806

CITY OF CHICOPEE BRIDGES –

INSPECTION REPORTS

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 34

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	0X2	C-13-037

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
CHICOPEE	C13037-0X2-DOT-NBI	013.196	A:OPEN	AUG 21, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91		1967	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
HWY WN RAMP	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	S. R. Finck

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Clear	21°C	T. P. PENNA

ITEM 58 — DECK — 5

		DEF
1.Wearing Surface	6	M-P
2.Deck Condition	5	M-P
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	7	-
6.Sidewalks	N	-
7.Parapets	5	M-P
8.Railing	5	M-P
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	4	S-A
13.Deck Joints	5	M-P
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	200	240

APPROACHES

		DEF
a. Appr. pavement condition	6	M-P
b. Appr. Roadway Settlement	6	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 5

		DEF
1.Stringers	N	-
2.Floorbeams	7	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	5	M-P
9.Bearing Devices	6	M-P
10.Diaphragms/Cross-Frames	6	M-P
11.Rivets & Bolts	6	-
12.Welds	6	M-P
13.Member Alignment	7	-
14.Paint/Coating	4	S-P
15.	N	-

Year Painted: 1993

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 5

	Dive	Cur		DEF
1. Abutments			5	
a. Pedestals	N	N		-
b. Bridge Seats	N	5		S-P
c. Backwalls	N	6		M-P
d. Breastwalls	N	5		S-P
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	5		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
CHICOPEE	0X2	C-13-037	C13037-0X2-DOT-NBI	AUG 21, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — TRAFFIC SAFETY

	36	COND	DEF
A. Bridge Railing	0	5	M-P
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not Actual Field Measurement ☐

Posted Clearance

	E ft	E in	W ft	W in	meter
	14	6	14	3	4.34
		0	13	7	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	NR	Y	NR	Y
		8 8		8 8

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	P	Y
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
BIGLIFTTRUCK	P	N

TOTAL HOURS 36

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 07/01/1987

Inspection data at time of existing rating

I 58: **6** I 59: **7** I 60: **7** Date : 02/04/1985

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
CHICOPEE	**0X2**	**C-13-037**	**C13037-0X2-DOT-NBI**	**AUG 21, 2023**

REMARKS

BRIDGE ORIENTATION

Bridge carries nine lanes of traffic which includes I-91 Southbound, I-91 Northbound and the I-391 Northbound Exit Ramp (I-91 Northbound Exit Ramp connecting to I-391 Northbound).
Roadway beneath this bridge is a I-91 Southbound Ramp connecting to I-391 Northbound.

Per the plans the abutments are labeled north and south. The 22 Beams and 21 Bays are numbered from west to east. **See Sketches 1 - 4.**

GENERAL REMARKS

Access Notes:

A 42' bucket truck is required to access the entirety of the underside of the bridge.

Vertical Posting Signs:

Bridge has two Vertical Clearance Posting Signs (stating 13' 7") that are located, as follows, first sign is on I-91 Southbound, just before the Off Ramp with a tab, stating "RAMP", then the second sign is just before Bridge C-13-035 (0WG), on the approach ramp.

ITEM 58 - DECK

Item 58.1 - Wearing Surface

Hot mix asphalt (HMA) Wearing Surface has aggregate segregation, scaling, pavement joint separation, and minor wheel rutting.

Specific deficiencies follow:

- I-91 Northbound & Southbound Lanes have newer pavement.
- I-391 Northbound On Ramp, Middle Lane has a x HMA patch, 3' wide full length of the bridge. To the left of this HMA patch, the pavement is becoming unraveled with numerous small potholes, approximately 3" to 4" deep. **See Photo 1.**
- I-391 Northbound Ramp, at North Deck Joint has a saw and seal joint with minor breakup, scaling and patchwork along the joint, mainly in the chevron.

Item 58.2 - Deck Condition

Deck Underside generally has a few minor spalls (some have been patched), scattered transverse hairline cracks and isolated map cracking.

Specific deficiencies beyond typical follow:

- Bay 1, Between South Backwall and Diaphragm 2 has several repaired areas.
- Bay 2, near Midspan:
  - There is timber form work left in place from full-depth deck repairs, that is over 40' long.
  - Previous Inspection stated "There is a 4' diameter concrete patch, at the left shoulder". This patch was not located durning this inspection.
- Bay 3, Between Diaphragms 2 & 3, there is a full depth patch. **See Photo 2.**
- Bay 4, at South Backwall: There is a cover spall, 8" wide x 4" long x 2" deep.
- **Bay 8**, 1.5' East of Beam 8, there is a full length, longitudinal construction joint
  - There are numerous transverse cracks with rust and efflorescence that are up to full-width.
  - There are a few scattered cover spalls. **See Photo 3.**
  - There are several areas of delaminations. **See Photo 4.**
- Bay 9, 5' from the North Backwall, Beam 8's Haunch is spalled, 14" long x 3" wide x up to 2.5" deep.
- Bay 12, South Abutment, a spall 1' diameter x 1" deep.
- Bay 13, cover spall and form work from a previous repair.
- Bay 21, timber form work left in place, from small deck repairs.

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CHICOPEE	**0X2**	**C-13-037**	**C13037-0X2-DOT-NBI**	**AUG 21, 2023**

REMARKS

Item 58.4 - Curbs
Granite Curbs along both parapets have random scrapes, rust staining and cracked or missing grout.

Approach parapet curbing has minor vegetation growth between the curbing with misaligned sections.

Item 58.5 - Median
Under the median steel Thrie barriers and on the topside of the concrete surface, at both ends of the bridge, there is minor vegetation growth.

Item 58.7 - Parapets
Concrete Parapet, Interior faces have several random horizontal and vertical cracks, up to 0.1" wide with rust staining and random mapcracking.

West Parapet, exterior and interior over the travel lane has cracking with rust staining. **See Photos 5 & 6.**

Item 58.8 - Railing
Railing consists of AL-1 Rail mounted on 30" high concrete parapets with steel Thrie-beam guardrail retrofit with timber offset blocks bolted through the concrete parapet walls.

Concrete median has steel Thrie-beam guardrail on steel H-posts with plastic offset blocks.

AL-1 railing has minor random scrapes along the tops of the concrete parapet walls. Concrete railbases have random areas of moderate to severe scaling. there is moderate vegetation behind the Thrie-beam railing. **See Photo 6.**

Along the west fascia, the bolts through the parapet and base plates of the railing have scattered washers with moderate rust.

Item 58.12 - Utilities
Bridge has a conduit bolted to fascia Beam 22. Metal conduits are mounted in Bays 1 & 21, and run along the bottom flanges of the beams near the North Abutment. There is minor rust on all parts of the connections and scattered sections of the steel conduits.

All conduits through the backwalls in Bays 1 & 21 (all four total locations) have large rust holes and exposed wires. **See Photo 7.**

Connection clip to Beam 9 west side of the bottom flange near the North Abutment is loose.

Item 58.13 - Deck Joints
South Joint consists of a seam seal between two wavy concrete headers.

I-91 Southbound, South Joint:
- At the skip lines between the middle and right lane, the concrete headers have been repaired since the previous inspection. **See Photo 8.**
- Underside of Deck:
  - Bays 1 through 5: Joint has leaks.
  - Bay 8: Joint has leaks with hanging joint material.

I-91 Northbound & I-391 On Ramp (S-N), South Joint:
- I-391 On Ramp, Center Lane:
  - Concrete headers are breaking-up, with a HMA patching. **See Photos 9 & 10.**

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CHICOPEE	**0X2**	**C-13-037**	**C13037-0X2-DOT-NBI**	**AUG 21, 2023**

REMARKS

- Right of the pothole, South Header has longitudinal cracking next to the joint gland.
- Along the right side of the middle lane of the ramp, the joint material has failed over a 1' length.
- Underside of Deck:
  - At the South Abutment, joint material has failed**.**
  - Bays 9 & 10: Joint has leaks with hanging joint material.
  - Bays 11 through 13: Joint has leaks.

I-391 On Ramp (S-N), North Joint:
Unsealed pavement crack with minor scaling (particularly in the chevron area) with minor HMA patches in the middle and left lanes. **See Photo 11.**

APPROACHES

Approaches a - Appr. pavement condition
South Approach Roadway:

- I-91 Northbound & Southbound have newer pavement.
- I-391 On Ramp, Center Lane, the concrete headers are breaking up with a HMA patching. South Approach Roadway at the patching in the concrete header, has a 1' diameter pothole. **See Photos 9 & 10.**
- I-391 Northbound On Ramp (N-S), South of Deck Joint has patched potholes with an uneven surfaces.

North Approach Roadways:

- I-91 Northbound & Southbound Roadways have newer pavement.
- There is chevron separating I-91 Northbound and I-391 On Ramp (N-S) with extensive minor transverse cracking.
- I-391 North Approach Roadway has multi HMA patching with several minor potholes. **See Photo 12.**

Approaches b - Appr. Roadway Settlement
I-391 On Ramp has HMA patching on both Approach Roadways with several potholes, causing minor settlement.

ITEM 59 - SUPERSTRUCTURE

Item 59.2 - Floorbeams
Item refers to the short transverse beam that supports the south end of Beam 16. Lower east corner of web has a short vertical saw cut. **See Photo 13.**

Floorbeam has minor paint peeling along the bottom flange. No cracks were found in the web at the lower outer corners or near the connection of Beam 16.

Item 59.4 - Girders or Beams
All Beams have random locations of peeling paint with light to moderate surface rust. On most Beams there are birds resting under the diaphragm and the bottom flanges have moderate pigeon debris below the diaphragm connections.

Beam 1:

- North end, minor section loss. **See Sketch 5.**
- South end, up to moderate section loss. **See Photo 14.**
- Top of bottom flange has moderate rust delamination. **See Sketch 6.**

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CHICOPEE	**0X2**	**C-13-037**	**C13037-0X2-DOT-NBI**	**AUG 21, 2023**

REMARKS

Beam 3, south end, has minor to moderate section loss. **See Sketch 7.**

Beam 4, south end, has minor section loss. **See Sketch 8.**

Beam 9, West Face, throughout the upper & lower web sections and bottom flange has severe rust delamination. Several of these severe delamination sections are directly over active roadway. **See Sketch 9 and Photos 15, 16, & 17.**

Beam 16, south end is bolted to a short floorbeam, no cracks were found at the connection with the Floorbeam.

Beam 22, southern half, lower web up to moderate section loss. **See Sketch 10 and Photo 18.**

Item 59.7 - Conn Plt's, Gussets & Angles
Many of the connection angles have minor paint peeling and light rust to areas where the paint has failed.

Item 59.8 - Cover Plates
Bridge has bottom flange cover plates along all of the beams.

Cover plates on **Beams 1 & 22** have minor to moderate peeling paint with light to moderate surface rust.

Cover plate on **Beam 9** has severe surface rust with pack rust between both ends of the cover plate and the bottom flange up to 0.1" thick. **See Photo 17.**

Item 59.9 - Bearing Devices
South Abutment Bearings (Expansion):

- Bearings 1 - 6 & 22 have moderate to severe surface rust. **See Photo 19.**
- There are areas of peeling paint with minor to moderate rust on the sole plates.
- Beam 9 the keepers are to 0.4" section remaining.

North Abutment Bearings (Fixed):

- Bearing 1 has severe surface rust with areas of moderate to severe laminated rust.
- For all other bearings, there are a few areas of peeling paint with minor to moderate surface rust.

Item 59.10 - Diaphragms/Cross-Frames
Interior Steel Diaphragms have minor surface rust with no section loss.

North Abutment (Concrete Encased End Diaphragms):
North Abutment Concrete End Diaphragms are generally in good condition with scattered hairline cracks with some rust staining.

South Abutment (Concrete Encased End Diaphragms):

- Concrete encased end diaphragms have random vertical and transverse hairline cracks and rust staining.
- Bay 2, Concrete Encased End Diaphragm, bottom surface has an area of delamination and a spall with exposed rusted rebar, 8" wide x 10" long x 2" deep.
- Bay 3, Concrete Encased End Diaphragm, bottom surface has a spall with exposed rusted rebars, 3.5' wide x 15" long x 2.5" deep. **See Photo 20.**
- Bay 5, Concrete Encased End Diaphragm has a spall along the lower back edge, 1' wide x 6" long x 2" deep.

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REMARKS

Item 59.11 - Rivets & Bolts
Interior Steel Diaphragm connection bolts have minor surface rust.

Item 59.12 - Welds
Beams have longitudinal welds along the bottom flange cover plates. Welds along the cover plates have minor surface corrosion and no cracks were noted during this inspection. Refer to Item 59.4 - Girders or Beams for specific deficiencies.

Item 59.14 - Paint/Coating
Along the west face of Beam 9, the south portion of the beams, and the outsides of the fascia beams the paint systems has failed paint. **See Photos 14 - 19.**

SuperStructure Load Vibration Notes
Bridge has minor load vibration under Interstate 91 and Ramp S-N traffic.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North & South Bridge Seats have minor to moderate sand and pigeon debris at random locations. Integral drainage troughs along the lower edge of the backwalls are filled with sand and have isolated transverse hairline cracks. There is vegetation growing on the East end of the South & North Bridge Seats.

South Bridge Seat:
- At the interface with the top of the Breastwall, below Beam 1 and Bay 1 is scaled, 5' 6" wide x 7" high x up to 9" deep. **See Photo 21.**
- Behind Beam 2, the back edge of the Bridge Seat is delaminated and scaled, 1.5' wide x 3" long x up to 3" deep.

North Bridge Seat, at the interface with the top of the Breastwall, below Beam 1 and Bay 1 is scaled with totally exposed rusted rebars, 10' wide x up to 3' high x up to 6" deep. **See Photo 22.**

Item 60.1.c - Backwalls
North & South Backwalls have random vertical hairline cracks, evidence of minor deck joint leakage, and Backwalls are losing minimal amounts of fill from the utility openings in Bays 1 & 21.

South Backwall:
- Bay 5, has one vertical crack with delamination along a vertical construction joint.
- Bay 8, has areas of mapcracking with rust staining.
- Bay 16, has a 1' diameter of delamination.
- Bays 20 & 21, have an area of delamination, 8' wide x 1' high.

North Backwall:
- West end, the last 6' has moderate cracking with efflorescence staining.
- Behind Beam 1, has a piece of plywood that was still in place. **See Photo 7.**
- Bay 8, lower edge is spalled with an exposed rebar, 3" wide x 8" high x 2" deep. East of the vertical construction joint, backwall has signs active joint leakage. **See Photo 23.**
- East end, last 8' has mapcracking, with and without efflorescence staining.

Item 60.1.d - Breastwalls
South Breastwall:

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CHICOPEE	**0X2**	**C-13-037**	**C13037-0X2-DOT-NBI**	**AUG 21, 2023**

REMARKS

- At the interface with the top of the Bridge Seat, below Beam 1 and Bay 1 is scaled, 5' 6" wide x 7" wide & high x up to 9" deep.
- Below Bay 1, 2' below the Bridge Seat, there is an area of minor spalling and delamination, 2" wide x 12" high x 1" deep.
- At the top, back corner is scaled, 1' wide x 3" high x 2" deep.
- Southwest corner of Breastwall, vertical face has mapcracking with heavy leaching efflorescence and areas of delamination. **See Photo 24.**
- Below Bay 3, top of wall has a 3' long horizontal crack.
- Below Bay 5, top of wall, has hairline mapcracking with water and rust staining.
- Below Bay 8, there is a 1" wide, full height vertical construction joint:
  - 16" below Bridge Seat, east side has a spall wall, 1" wide x 15" high x 5" deep.
  - 4' below Bridge Seat, east side has a spall wall, 1" wide x 9" high x 5" deep.
  - This was remeasured in the field. **See Photo 25.**
- Below Bay 11, there is a 3' long horizontal crack with rust staining.
- Below Bay 18, there is a 3' long horizontal crack.
- Below Bay 21, there is area of rust staining.

North Breastwall:

- Northwest Corner of Breastwall:
  - Vertical Face has mapcracking with heavy leaching efflorescence and areas of delamination.
  - Lower Back Corner, is scaled with exposed rebars, up to 12" wide x 4.5' high x 3" deep.
- Below Beam 1 & Bay 1, there is a large spall with several totally exposed rusted rebars, 8' 6"' long x up to 2' 6" high x up to 2.5" deep **(**This was remeasured in the field). **See Photo 22.**
- Below Bay 9, at interface of Bridge Seat, is delaminated, 18" wide x 5" high x 5" long (on bridge Seat). **See Photo 26.**
- Below Bay 16:
  - At interface of Bridge Seat, is delaminated, 19" wide x 6" high x 6" long (on bridge Seat).
  - Top of wall has vertical hairline cracking with efflorescence & rust staining.
- Below Bay 17, 6" below Bridge Seat, there is a horizontal crack with minor rust staining, 33" long x 1/16" wide.
- Below Bay 19, there is a full height vertical hairline crack with minor efflorescence.
- Below Bay 21 & Beam 22, at interface of Bridge Seat, is cracked, delaminated with heavy rust staining, 4' wide x 4" high x 6" long (on bridge Seat). **See Photo 27.**

Item 60.1.e - Wingwalls

Wingwalls have moderate mapcracking with and without rust & efflorescence staining. **See Photo 24.**

Item 60.1.f - Slope Paving/Rip-Rap

North Slope Paving:

- Moderate scaling of the concrete blocks, up to 50%, and loss of mortar in scattered locations.
- Below Bays 15 to Bay 17, the top of the North Slope Paving has minor settlement.
- Minor vegetative growth is under the deck overhangs.

South Slope Paving:

- Below Bay 8, (longitudinal deck joint), has settlement up to 2" and approximately 30% of the concrete paving blocks are scaled. **See Photo 28.**
- Minor vegetative growth is under the deck overhangs.

Item 60.1.k - Settlement

Bridge has vertical cracks within the South & North Breastwalls, that may suggests initial settlement, but no active settlement is evident.

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REMARKS

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7 - Parapets & Item 58.8 - Railing.

Item 36b - Transitions
Transitions consist of Thrie-beam guardrail on timber posts with timber offset block that transition into W-beam guardrails. Transitions extend to both approaches and the north end of the median Thrie-beam transitions into a concrete traffic barrier.

Item 36c - Approach Guardrail
Travel lane Approach Guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Median Approach Guardrail consists of continuous Thrie-beam guardrail on steel H-posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends
Southwest & Northeast (trailing ends of one-way traffic) Approach Guardrail have terminal ends.

Southeast Approach Guardrail continues beyond the limits of the bridge.

Northwest Approach Guardrail consists of standard tangent end treatment.

Sketch / Photo Log

Sketch 1 : Location Map
Sketch 2 : Deck Plan
Sketch 3 : Framing Plan
Sketch 4 : Cross Section
Sketch 5 : Beam 1, North End, Section Loss
Sketch 6 : Beam 1, South End, Section Loss
Sketch 7 : Beam 3, South End, Section Loss
Sketch 8 : Beam 4, South End, Section Loss
Sketch 9 : Beam 9, Widespread Section Loss
Sketch 10 : Beam 22, South End, Section Loss
Photo 1 : I-391 Northbound On Ramp, middle lane has a HMA patch, 3' wide full length of the bridge. Left of this HMA patch, the pavement is becoming unraveled with small potholes
Photo 2 : Deck Underside, Bays 1 & 3 have concrete patches, Bay 2, Midspan, has over 40' long of timber form work left in place from full-depth deck repairs.
Photo 3 : Deck Underside, Bay 8, has a few cover spalls.
Photo 4 : Deck Underside, Bay 8, has several areas of delaminations.
Photo 5 : West Parapet, exterior and interior over the travel lane has cracking with rust staining.
Photo 6 : West Parapet, Interior face has horizontal cracking with rust staining. Behind the Thrie-beam, rail base has moderate scaling with vegetation growth.
Photo 7 : All conduits through the backwalls in Bays 1 & 21 (all four total locations) have large rust holes and exposed wires. Beam 1 at North backwall has plywood left in place.
Photo 8 : I-91 Southbound, South Joint, at the skip lines between the middle and right lane, the concrete headers have been repaired since the previous inspection.
Photo 9 : I-391 On Ramp, Center Lane, concrete headers are breaking-up, with a HMA patching. Right of the pothole, South Header has longitudinal cracking next to the joint gland.
Photo 10 : I-391 On Ramp, South Deck Joint, in center lane, is breaking up with HMA patching. South Approach Roadway has a 1' diameter pothole with exposed concrete.

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REMARKS

Photo 11 : I-391 On Ramp North Joint, unsealed pavement crack with minor scaling (particularly in the chevron area) and minor HMA patches in the middle and left lanes.

Photo 12 : I-391 North Approach Roadway has multi HMA patching with several minor potholes.

Photo 13 : Short transverse beam supports the south end of Beam 16. Lower east corner has a short vertical cut in the web. No cracks were found in the beam.

Photo 14 : Beam 1, South End, lower web and bottom flange has up to moderate section loss. Outer edge of Bridge Seat at interface of Breastwall has scaling

Photo 15 : Beam 9, West Face, has severe rust delamination along top and bottom edges of the web and along bottom flange.

Photo 16 : Beam 9, West Face, along top of the web, has severe rust delamination, directly over the active roadway.

Photo 17 : Beam 9, West Face, along bottom of the web and bottom flange has severe rust delamination, directly over the active roadway.

Photo 18 : Beam 22, East Face, southern half, lower web up to moderate section loss.

Photo 19 : South Abutment Bearings 1 - 6 & 22 have moderate to severe surface rust.

Photo 20 : South Concrete End Diaphragm in Bay 3, bottom face is spalled with exposed rust rebars.

Photo 21 : South Bridge Seat, at the interface with the top of the Breastwall, below Beam 1 and Bay 1 is scaled, 5' 6" wide x 7" high.

Photo 22 : North Bridge Seat, at the interface with the top of the Breastwall, below Beam 1 and Bay 1 is scaled with totally exposed rusted rebars.

Photo 23 : North Backwall, Bay 8, lower edge has a spall with an exposed rebar. East of the vertical construction joint, backwall has signs active joint leakage.

Photo 24 : Southwest Corner of Breastwall, vertical face has mapcracking with heavy leaching efflorescence and areas of delamination.

Photo 25 : South Breastwall, Below Bay 8, there is an 1" wide, full height vertical construction joint, with two spalls along the East side of the joint.

Photo 26 : North Breastwall, below Bay 9, top of the wall has a spall with exposed rusted rebars, 4' wide x 3' high x 2" deep.

Photo 27 : North Breastwall, Below Bay 21 & Beam 22, at interface of Bridge Seat, is cracked, delaminated with heavy rust staining, 4' wide x 4" high x 6" long (on bridge Seat).

Photo 28 : South Slope Paving, below Bay 8, (longitudinal deck joint), has settlement up to 2" and approximately 30% of the concrete paving blocks are scaled.

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SKETCHES

Sketch 1: Location Map

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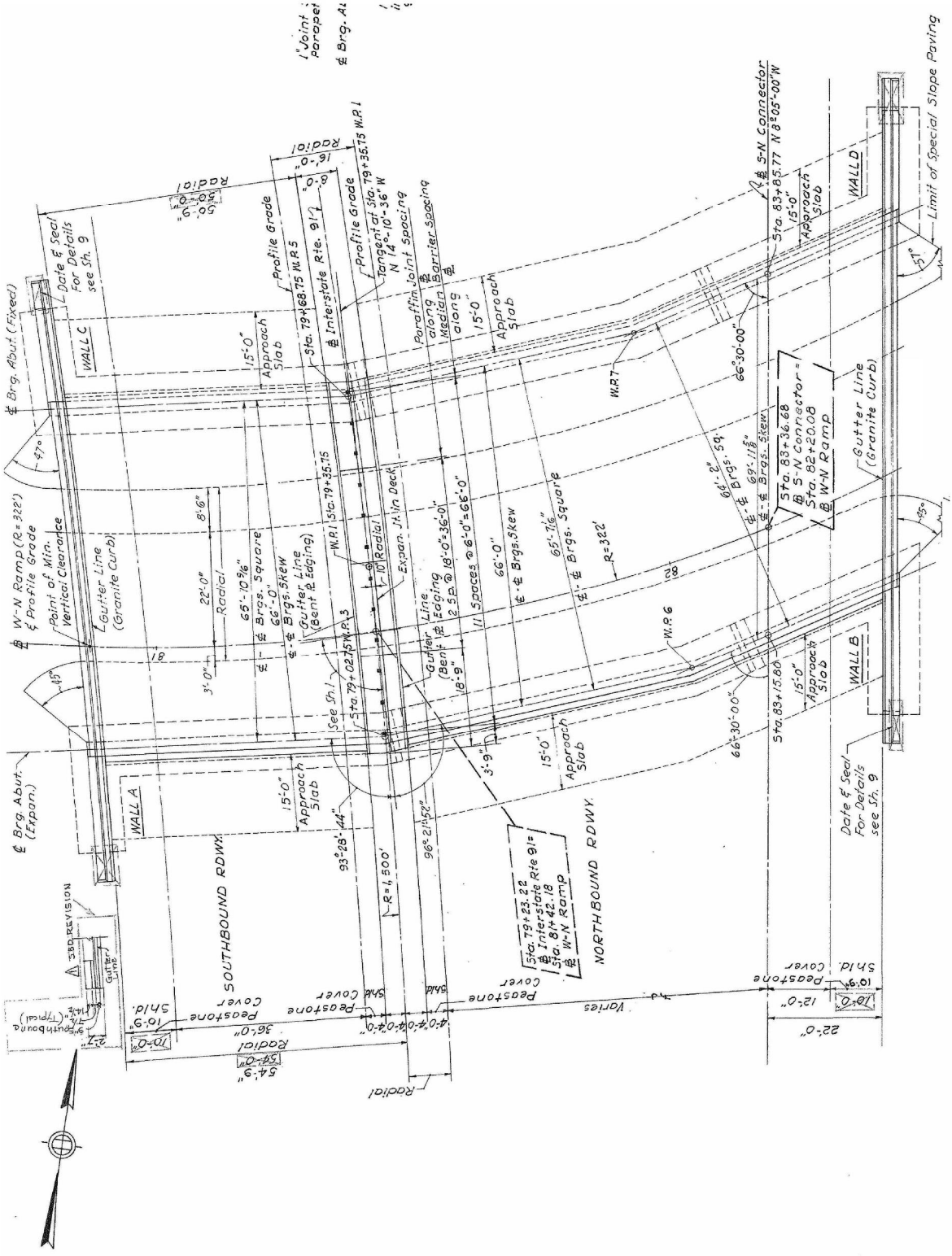
SKETCHES



Sketch 2: Deck Plan

REM.(2)2-21

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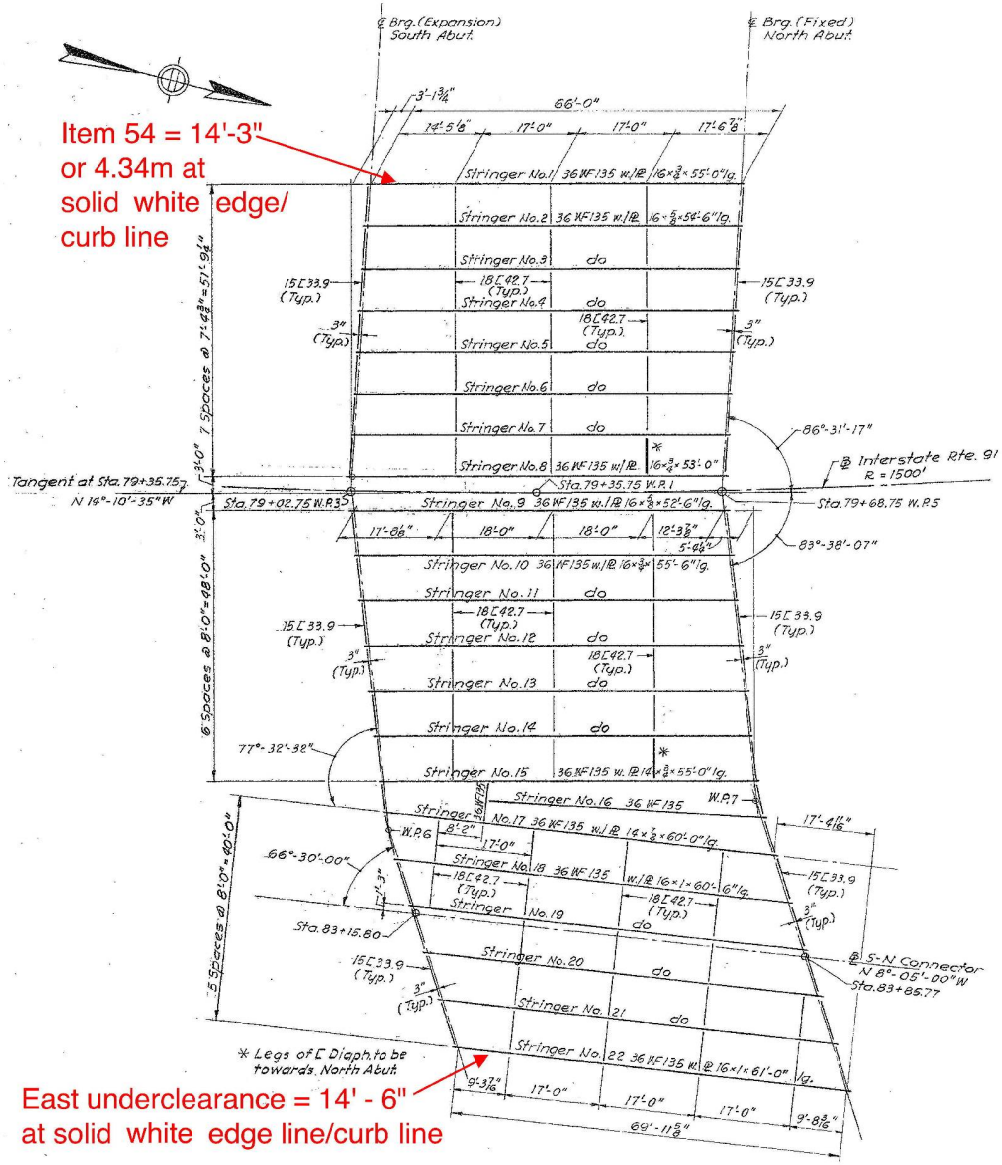

Sketch 3: Framing Plan

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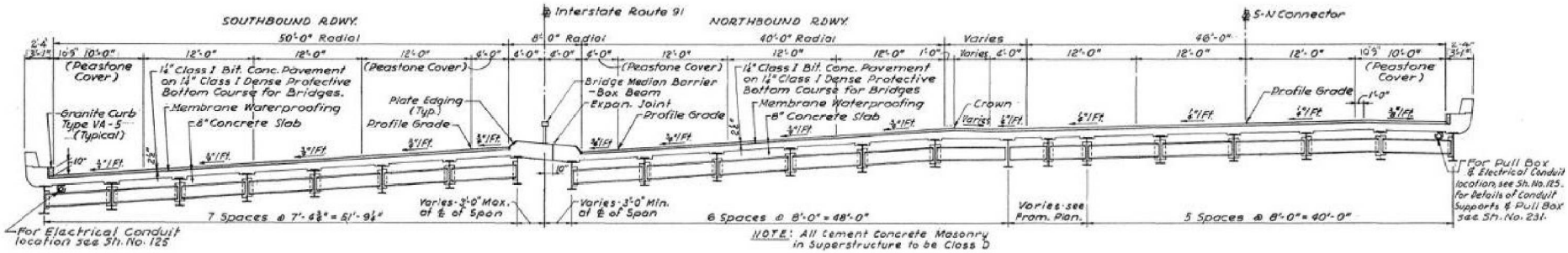

Sketch 4: Cross Section

REM.(2)2-21

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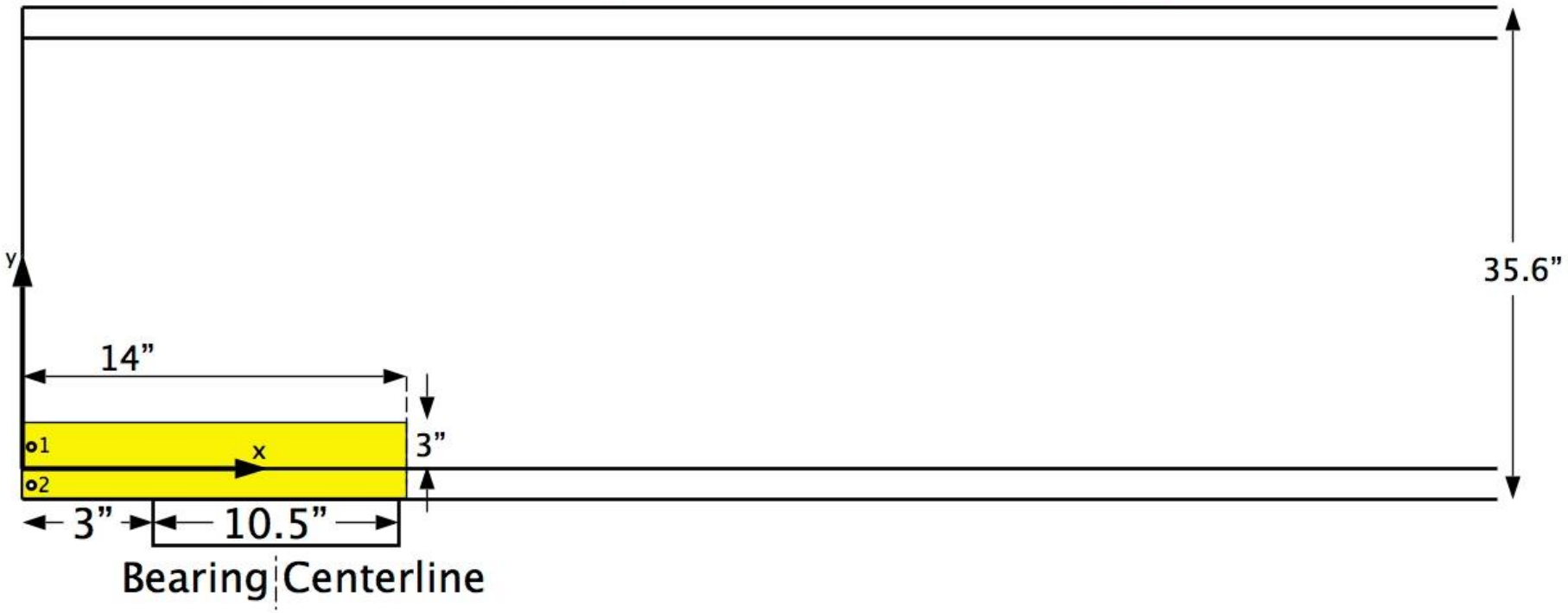
SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange

36WF135 Original Web = 0.6", Original Flange = 0.79" x 12" wide

=section loss

=rust hole



Point	(x)	(y)	thickness remaining	notes (z) x (x)
1	0	1"	0.3"	
2	0	NA	0.55"	6" wide

Sketch 5: Beam 1, North End, Section Loss

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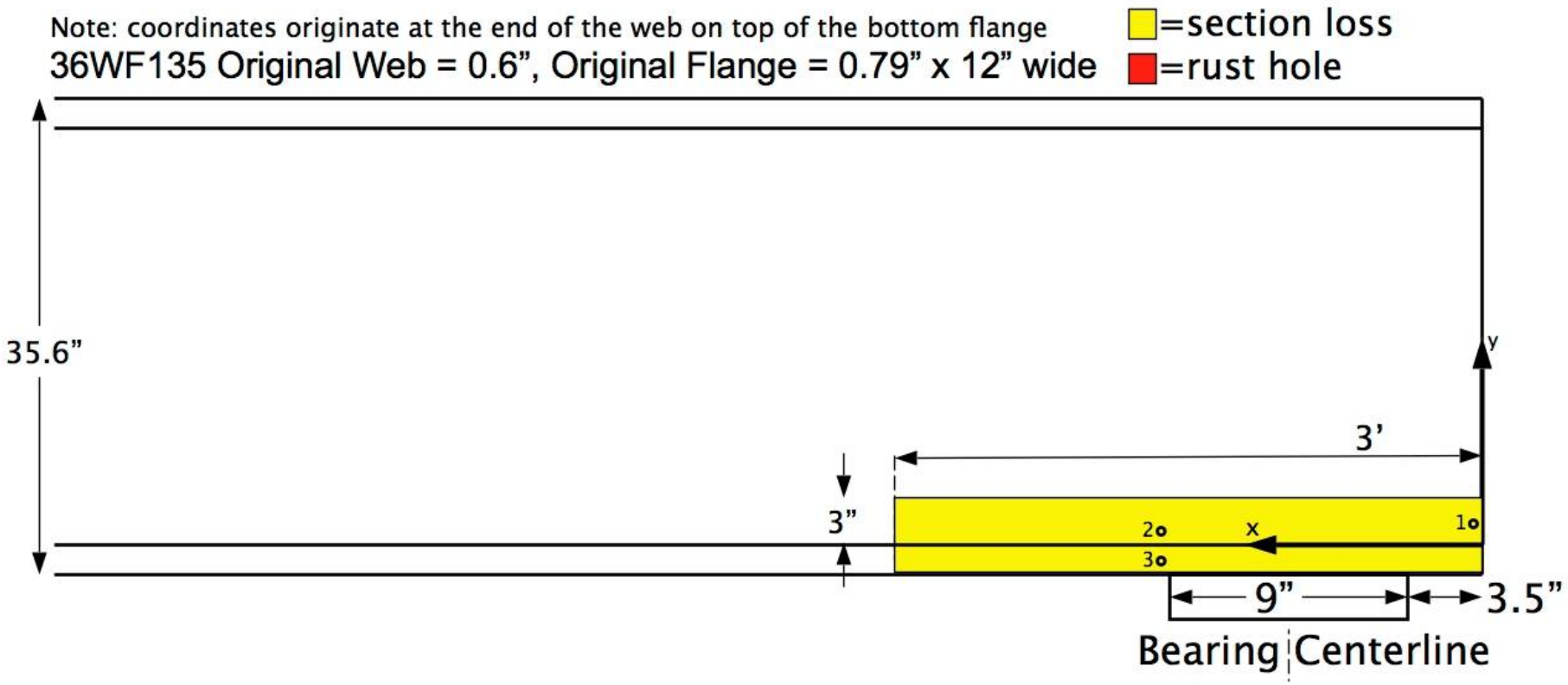
SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange

36WF135 Original Web = 0.6", Original Flange = 0.79" x 12" wide



Point	(x)	(y)	thickness remaining	notes (z) x (x)
1	0	0.5"	0.45"	
2	12.5"	1"	0.4"	
3	12.5"	NA	0.7"	

Sketch 6: Beam 1, South End, Section Loss

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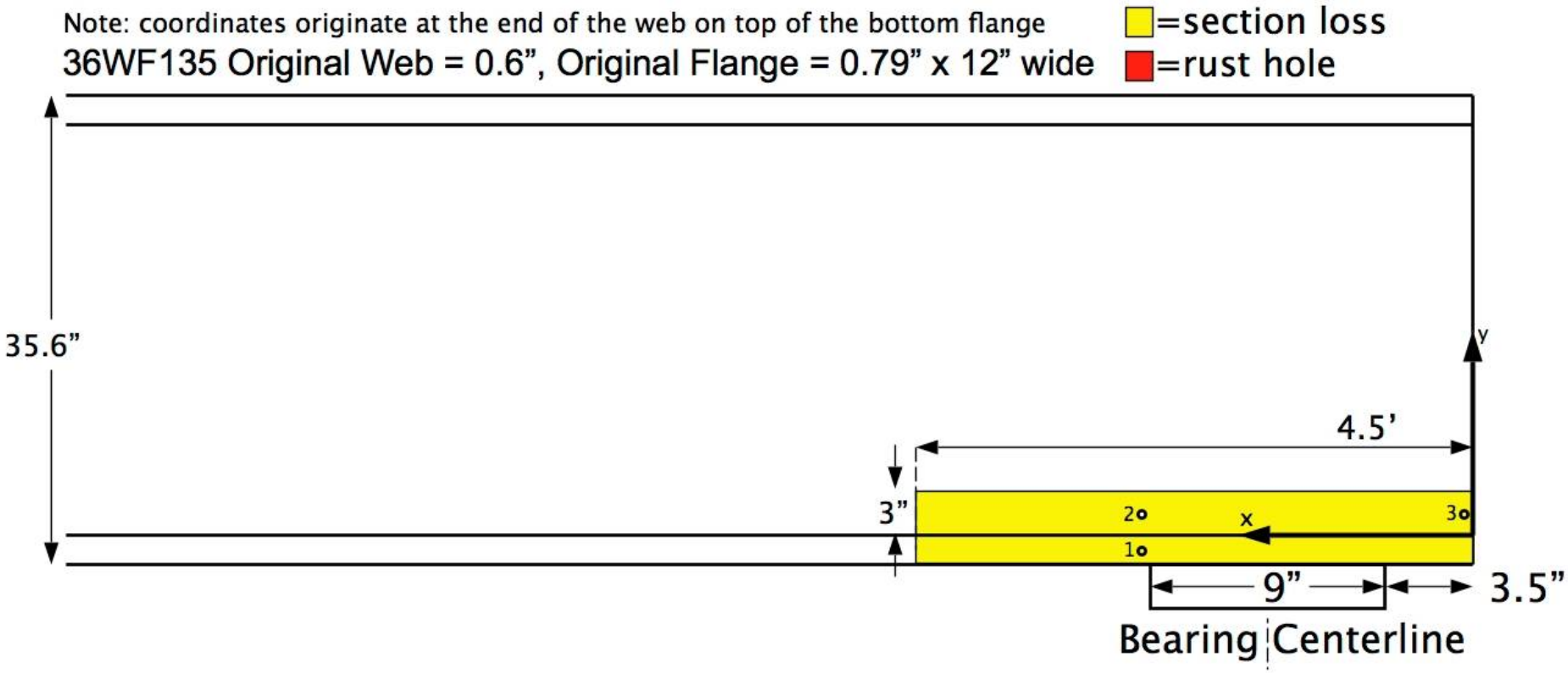
SKETCHES



Point	(x)	(y)	thickness remaining	notes (z) x (x)
1	13	NA	0.6"	6" wide
2	13	1"	0.4"	
3	0	1"	0.4"	

Sketch 7: Beam 3, South End, Section Loss

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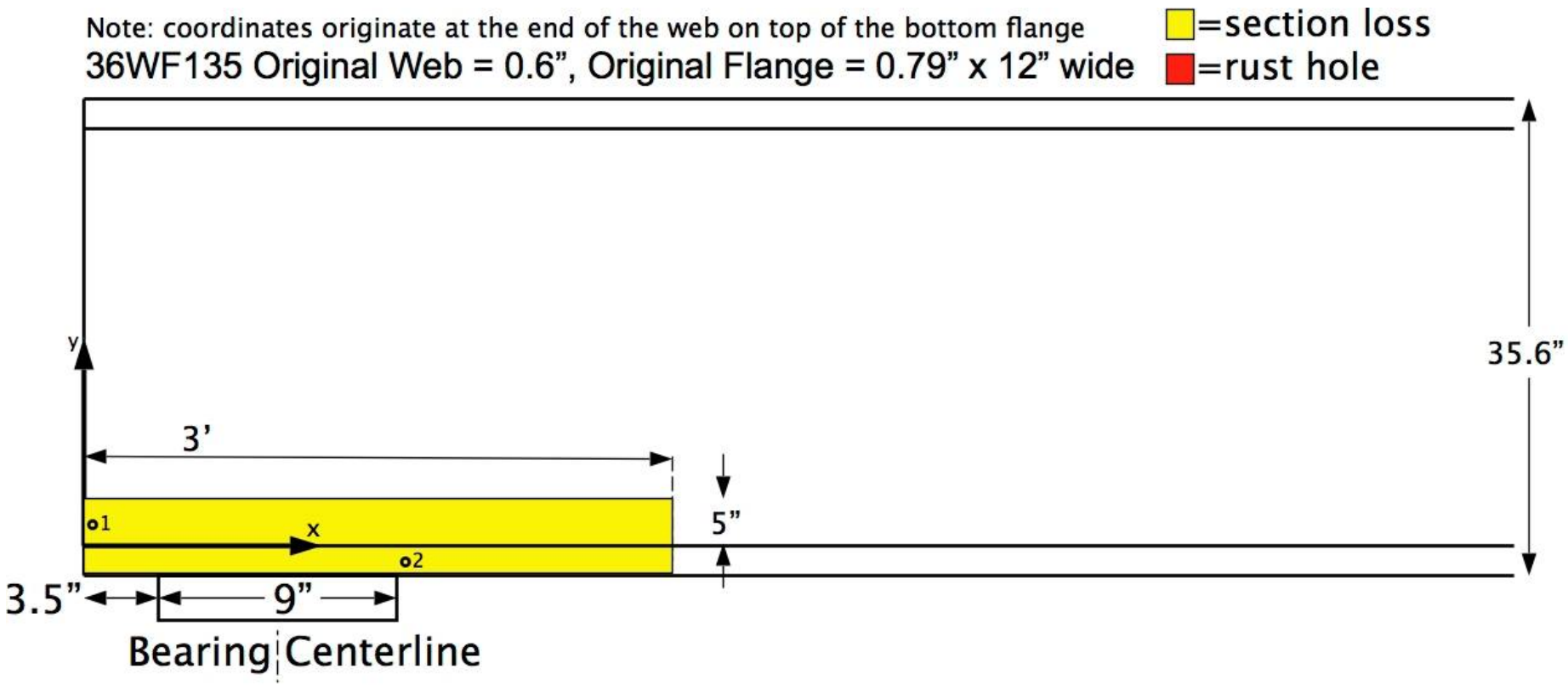
SKETCHES



Point	(x)	(y)	thickness remaining	notes (z) x (x)
1	0	2"	0.5"	
2	13"	NA	0.6"	6" wide

Sketch 8: Beam 4, South End, Section Loss

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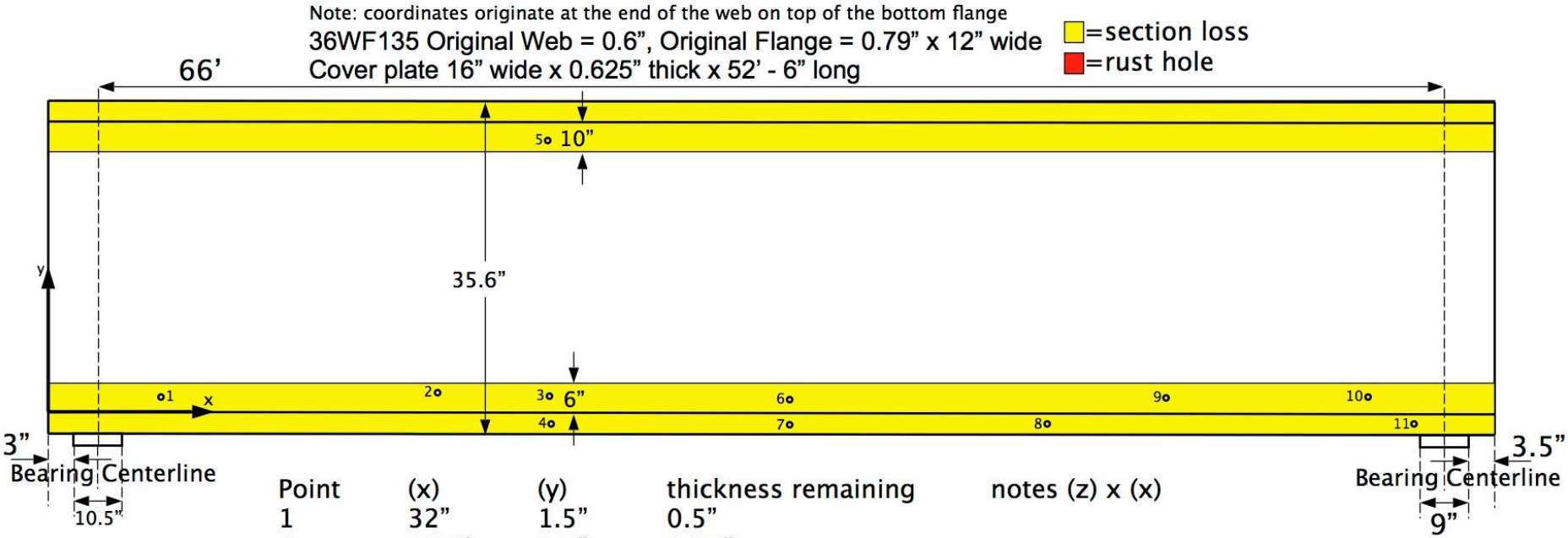
SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange
36WF135 Original Web = 0.6", Original Flange = 0.79" x 12" wide
Cover plate 16" wide x 0.625" thick x 52' - 6" long



Point	(x)	(y)	thickness remaining	notes (z) x (x)
1	32"	1.5"	0.5"	
2	15.9'	1.5"	0.25"	
3	17.5'	2"	0.6"	
4	17.5'	NA	0.7"	
5	17.5'	32"	0.6"	up to 10" high
6	27.5'	2"	0.6"	up to 6" high
7	27.5'	NA	0.7"	
8	37.8'	NA	0.4"	
9	44.4'	1.5"	0.3"	
10	65.4'	1"	0.4"	
11	66.3'	1"	0.4"	

Sketch 9: Beam 9, Widespread Section Loss

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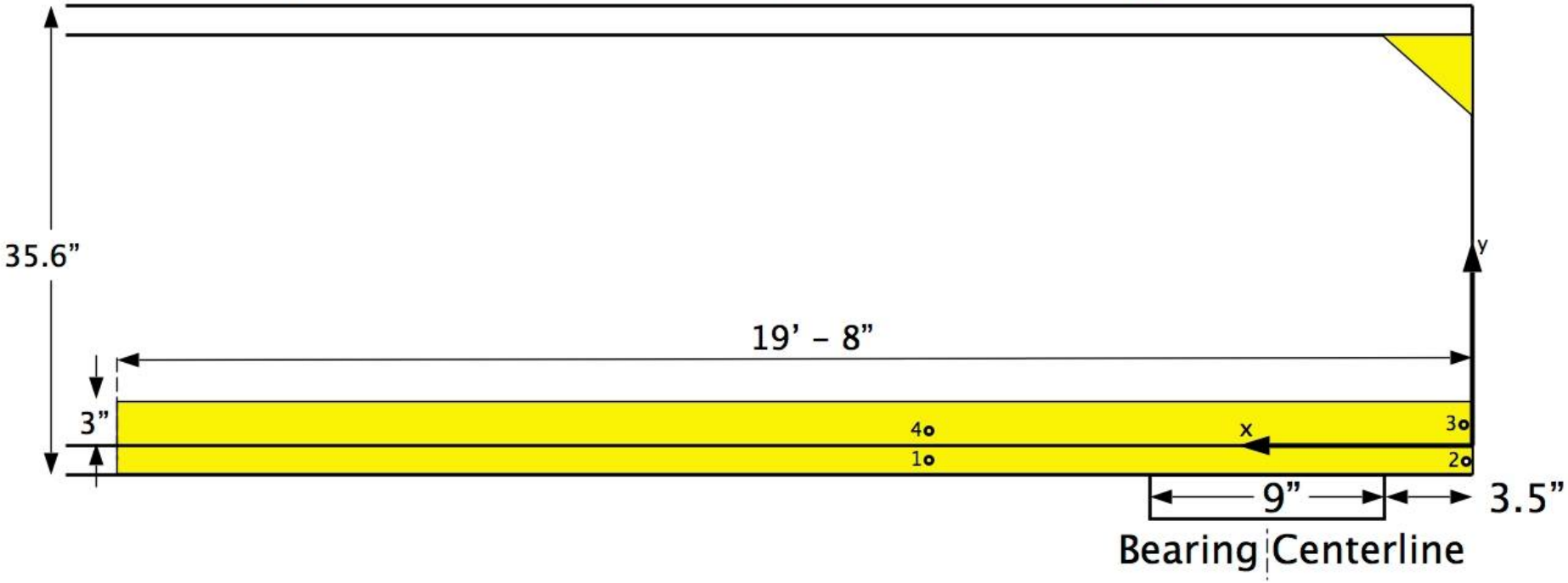
SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange

36WF135 Original Web = 0.6", Original Flange = 0.79" x 12" wide

=section loss

=rust hole



Point	(x)	(y)	thickness remaining	notes (z) x (x)
1	38"	NA	0.4"	up to 6" wide
2	0	NA	0.5"	interior bottom flange
3	0	1"	0.4"	
4	38"	1"	0.4"	

Sketch 10: Beam 22, South End, Section Loss

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PHOTOS

Photo 1: **I-391 Northbound On Ramp, middle lane has a HMA patch, 3' wide full length of the bridge. Left of this HMA patch, the pavement is becoming unraveled with small potholes**

Photo 2: **Deck Underside, Bays 1 & 3 have concrete patches, Bay 2, Midspan, has over 40' long of timber form work left in place from full-depth deck repairs.**

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PHOTOS

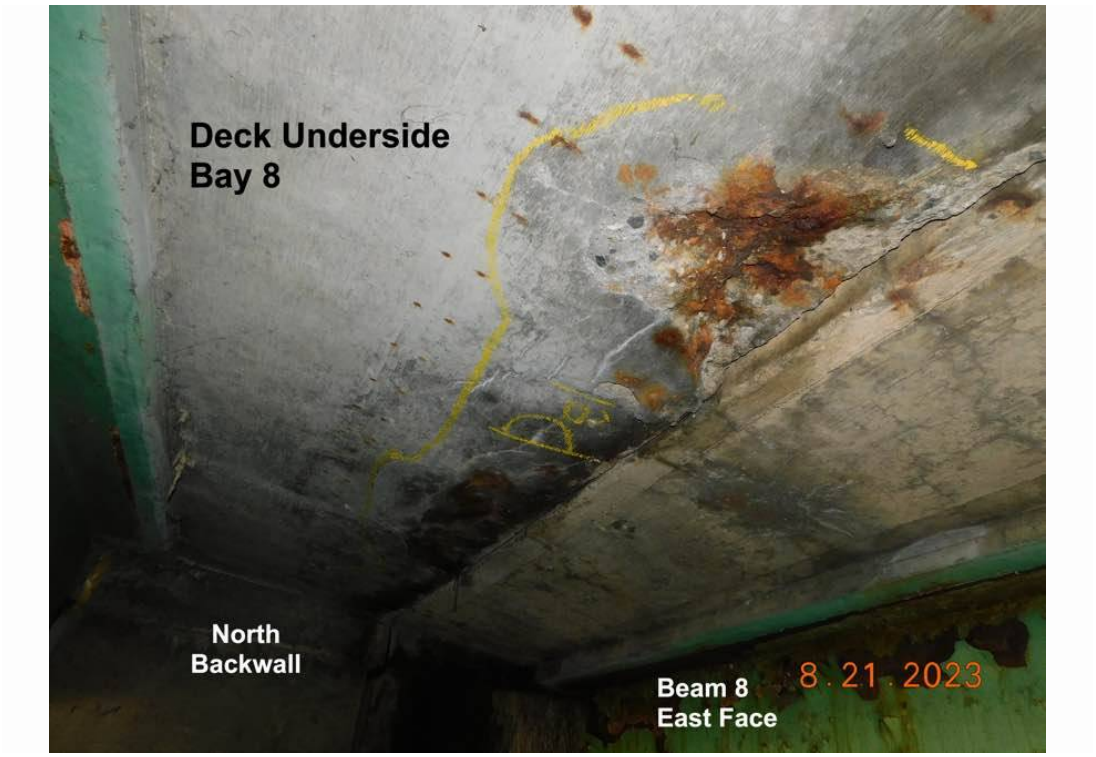

Photo 3: **Deck Underside, Bay 8, has a few cover spalls.**

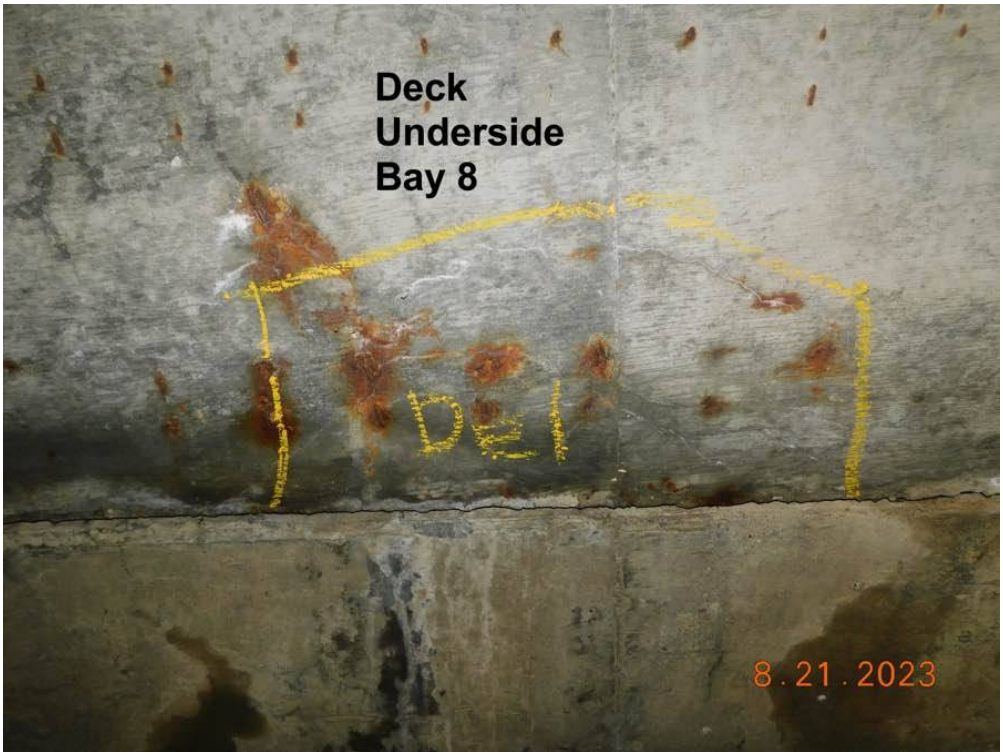

Photo 4: **Deck Underside, Bay 8, has several areas of delaminations.**

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PHOTOS

Photo 5: **West Parapet, exterior and interior over the travel lane has cracking with rust staining.**

Photo 6: **West Parapet, Interior face has horizontal cracking with rust staining. Behind the Thrie-beam, rail base has moderate scaling with vegetation growth.**

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PHOTOS

Photo 7: **All conduits through the backwalls in Bays 1 & 21 (all four total locations) have large rust holes and exposed wires. Beam 1 at North backwall has plywood left in place.**

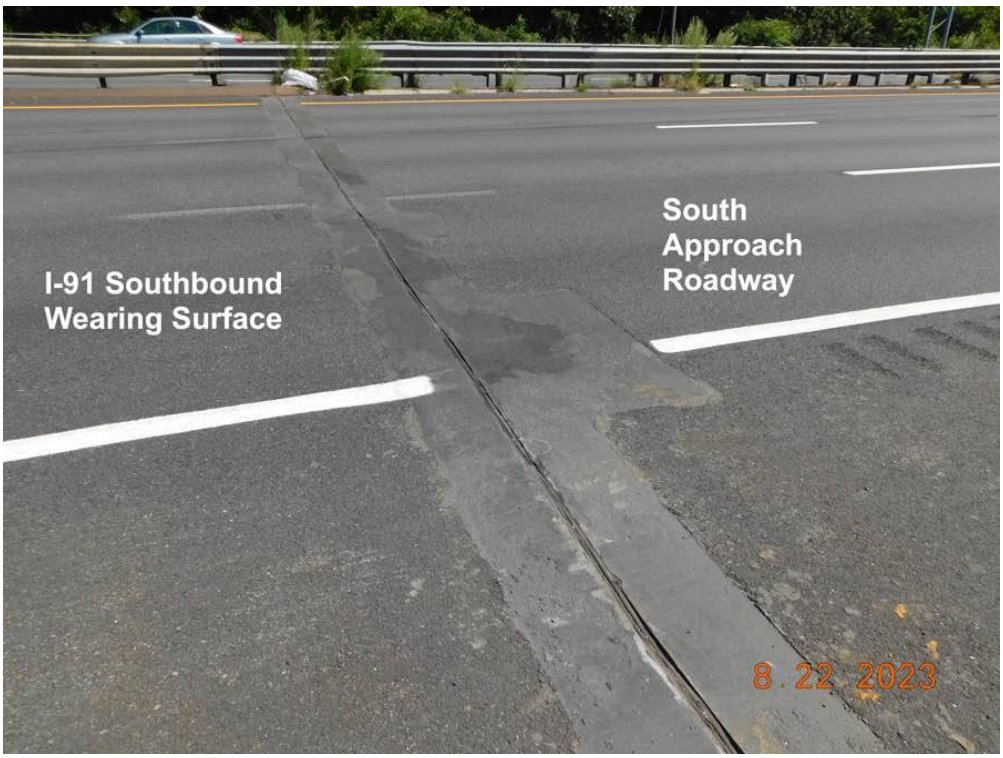

Photo 8: **I-91 Southbound, South Joint, at the skip lines between the middle and right lane, the concrete headers have been repaired since the previous inspection.**

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PHOTOS

Photo 9: **I-391 On Ramp, Center Lane, concrete headers are breaking-up, with a HMA patching. Right of the pothole, South Header has longitudinal cracking next to the joint gland.**

Photo 10: **I-391 On Ramp, South Deck Joint, in center lane, is breaking up with HMA patching. South Approach Roadway has a 1' diameter pothole with exposed concrete.**

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PHOTOS

Photo 11: **I-391 On Ramp North Joint, unsealed pavement crack with minor scaling (particularly in the chevron area) and minor HMA patches in the middle and left lanes.**

Photo 12: **I-391 North Approach Roadway has multi HMA patching with several minor potholes.**

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PHOTOS

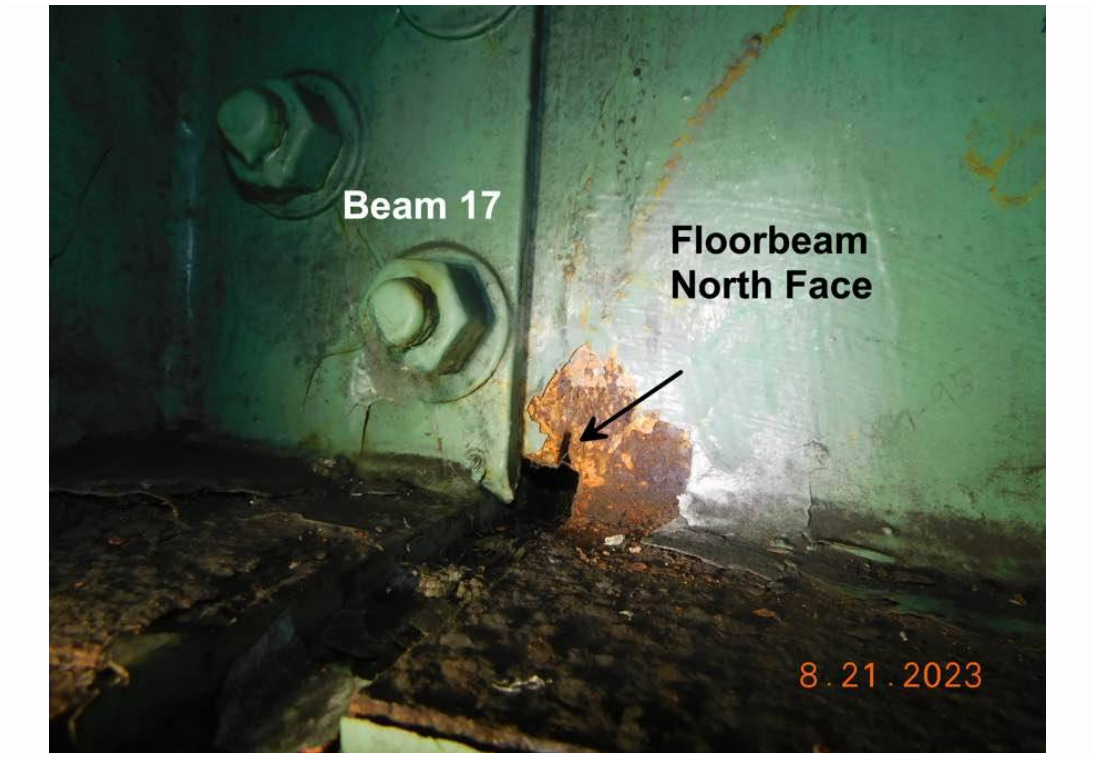

Photo 13: **Short transverse beam supports the south end of Beam 16. Lower east corner has a short vertical cut in the web. No cracks were found in the beam.**

Photo 14: **Beam 1, South End, lower web and bottom flange has up to moderate section loss. Outer edge of Bridge Seat at interface of Breastwall has scaling**

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PHOTOS

Photo 15: **Beam 9, West Face, has severe rust delamination along top and bottom edges of the web and along bottom flange.**

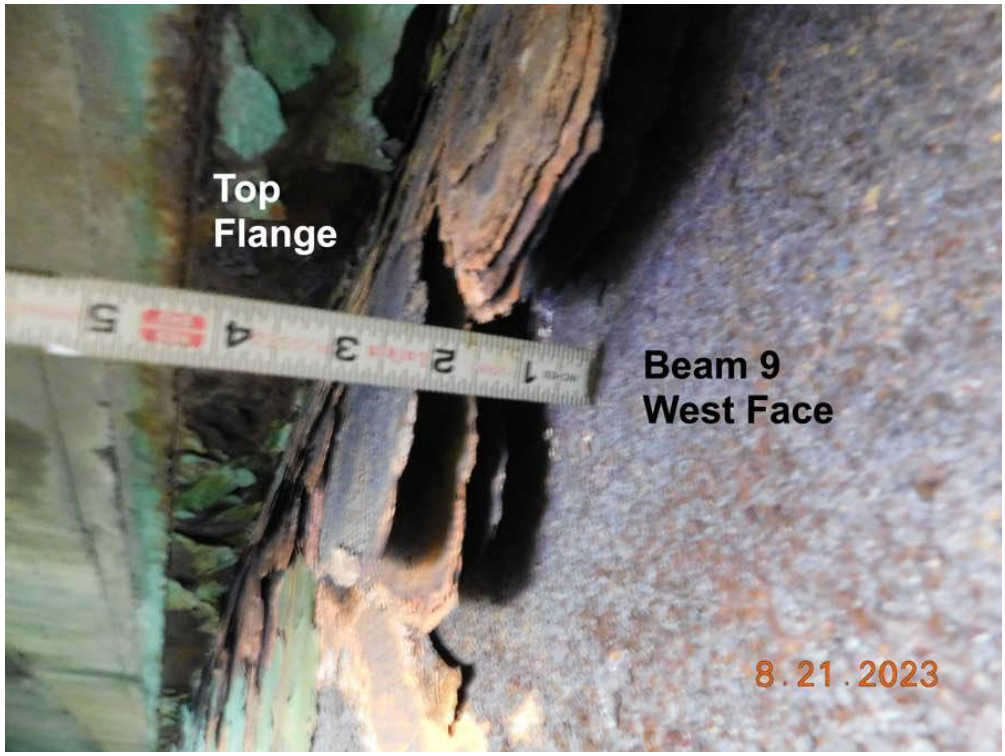

Photo 16: **Beam 9, West Face, along top of the web, has severe rust delamination, directly over the active roadway.**

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PHOTOS

Photo 17: **Beam 9, West Face, along bottom of the web and bottom flange has severe rust delamination, directly over the active roadway.**

Photo 18: **Beam 22, East Face, southern half, lower web up to moderate section loss.**

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PHOTOS

Photo 19: **South Abutment Bearings 1 - 6 & 22 have moderate to severe surface rust.**

Photo 20: **South Concrete End Diaphragm in Bay 3, bottom face is spalled with exposed rust rebars.**

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PHOTOS

Photo 21: **South Bridge Seat, at the interface with the top of the Breastwall, below Beam 1 and Bay 1 is scaled, 5' 6" wide x 7" high.**

Photo 22: **North Bridge Seat, at the interface with the top of the Breastwall, below Beam 1 and Bay 1 is scaled with totally exposed rusted rebars.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
CHICOPEE	0X2	C-13-037	C13037-0X2-DOT-NBI	AUG 21, 2023

PHOTOS

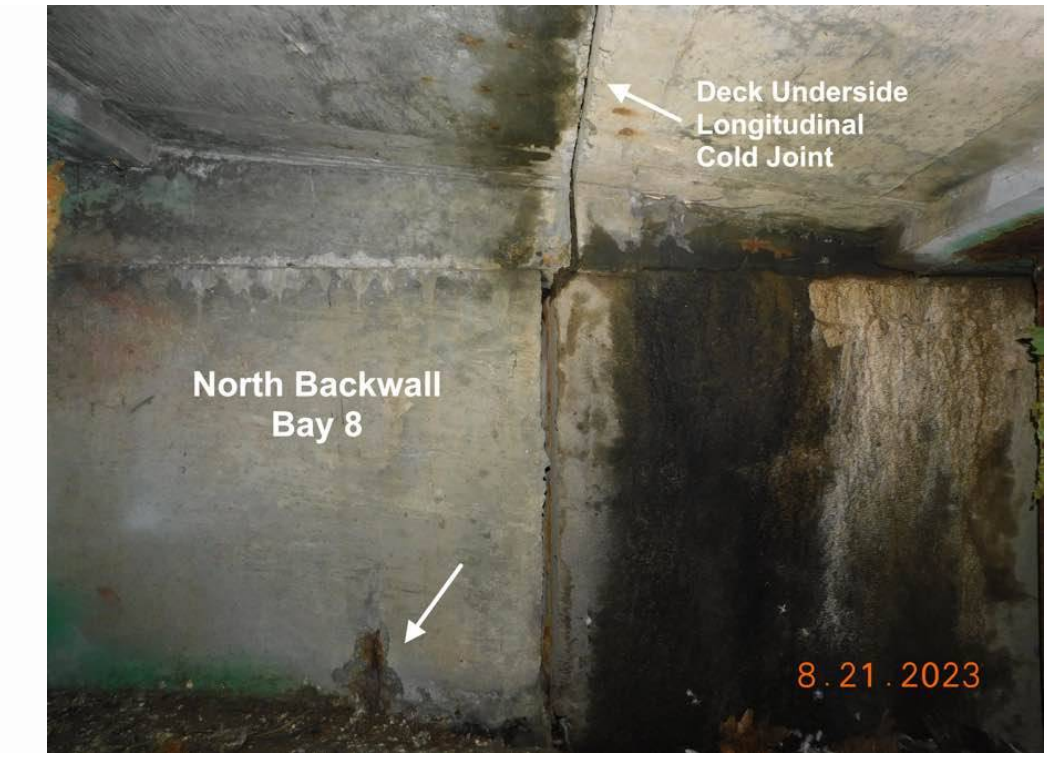

Photo 23: **North Backwall, Bay 8, lower edge has a spall with an exposed rebar. East of the vertical construction joint, backwall has signs active joint leakage.**

Photo 24: **Southwest Corner of Breastwall, vertical face has mapcracking with heavy leaching efflorescence and areas of delamination.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
CHICOPEE	0X2	C-13-037	C13037-0X2-DOT-NBI	AUG 21, 2023

PHOTOS

Photo 25: **South Breastwall, Below Bay 8, there is an 1" wide, full height vertical construction joint, with two spalls along the East side of the joint.**

Photo 26: **North Breastwall, below Bay 9, top of the wall has a spall with exposed rusted rebars, 4' wide x 3' high x 2" deep.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
CHICOPEE	0X2	C-13-037	C13037-0X2-DOT-NBI	AUG 21, 2023

PHOTOS

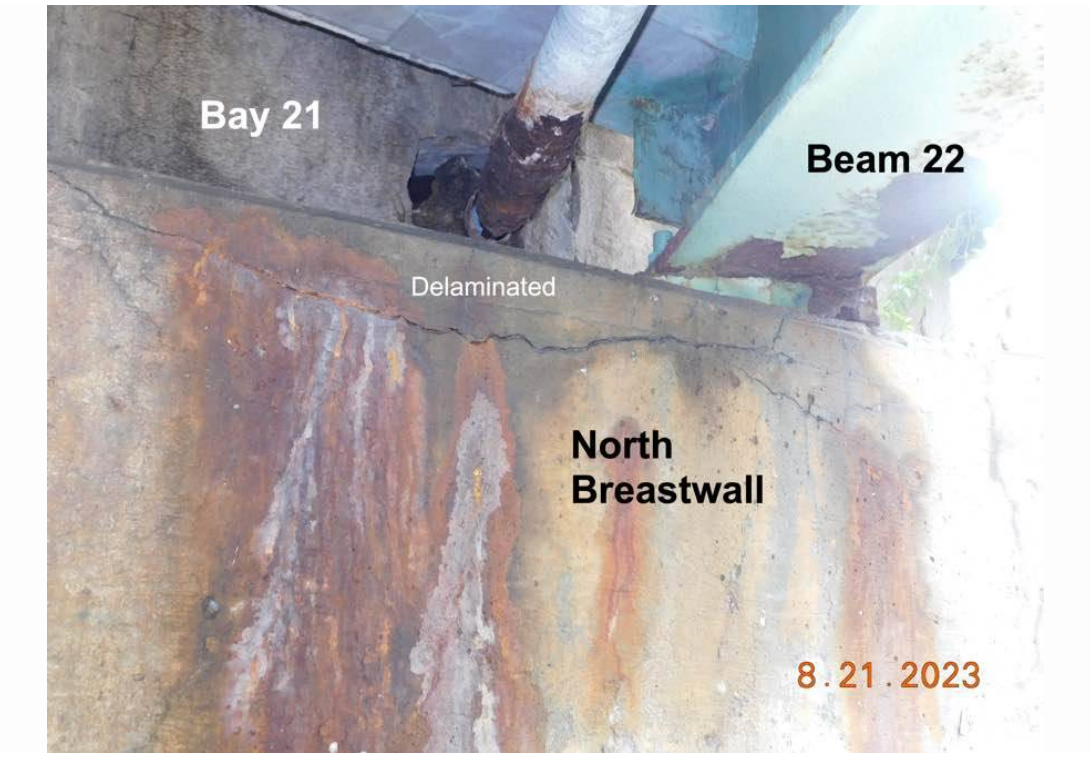

Photo 27: **North Breastwall, Below Bay 21 & Beam 22, at interface of Bridge Seat, is cracked, delaminated with heavy rust staining, 4' wide x 4" high x 6" long (on bridge Seat).**

Photo 28: **South Slope Paving, below Bay 8, (longitudinal deck joint), has settlement up to 2" and approximately 30% of the concrete paving blocks are scaled.**

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Report Date: March 11, 2025

State Information

BDEPT#= C13037 Agency Br.No.
Town= Chicopee L.O. MHD
B.I.N= 0X2 AASHTO= 077.2
RANK= 1379 H.I.= 89.1 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number C130370X2DOTNBI
(5) Inventory Route 111000910
(2) State Highway Department District 02
(3) County Code 013 (4) Place code 13660
(6) Features Intersected **HWY WN RAMP**
(7) Facility Carried **I 91**
(9) Location MILE MARKER 0.4 ON I-91
(11) Kilometerpoint 0013.196
(12) Base Highway Network Y
(13) LRS Inventory Route & Subroute 000000000000
(16) Latitude 42 DEG 07 MIN 59.88 SEC
(17) Longitude 72 DEG 36 MIN 31.73 SEC
(98) Border Bridge State Code Share %
(99) Border Bridge Structure No. #

Structure Type and Material

(43) Structure Type Main: Steel Code 302
Stringer/Girder Jointless bridge type: Not applicable
(44) Structure Type Appr:
Other Code 000
(45) Number of spans in main unit 001
(46) Number of approach spans 0000
(107) Deck Structure Type - Concrete Cast-in-Place Code 1
(108) Wearing Surface / Protective System:
A) Type of wearing surface - Bituminous Code 6
B) Type of membrane - Built-up Code 1
C) Type of deck protection - None Code 0

Age and Service

(27) Year Built 1967
(106) Year Reconstructed 0000
(42) Type of Service: On - Highway
Under - Highway Code 11
(28) Lanes: On Structure 09 Under structure 01
(29) Average Daily Traffic 084000
(30) Year of ADT 2019 (109) Truck ADT 10 %
(19) Bypass, detour length 000 KM

Geometric Data

(48) Length of maximum span 0021.3 M
(49) Structure Length 00023.0 M
(50) Curb or sidewalk: Left 00.2 M Right 00.2 M
(51) Bridge Roadway Width Curb to Curb 043.7 M
(52) Deck Width Out to Out 047.4 M
(32) Approach Roadway Width (w/shoulders) 043.7 M
(33) Bridge Median - Closed median with non-mountable barriers Code 3
(34) Skew 24 DEG (35) Structure Flared Y
(10) Inventory Route MIN Vert Clear 99.99 M
(47) Inventory Route Total Horiz Clear 30.1 M
(53) Min Vert Clear Over Bridge Rdwy 99.99 M
(54) Min Vert Underclear ref H 04.34 M
(55) Min Lat Underclear RT ref H 01.5 M
(56) Min Lat Underclear LT 00.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N
(111) Pier Protection Code
(39) Navigation Vertical Clearance 000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear M
(40) Navigation Horizontal Clearance 0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	5
(59) Superstructure	5
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+M(	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	49.2
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	26.4
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	9
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 08/21/23 (91) Frequency 24 MO
(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/29/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 07/01/87	H20	Type 3	Type 3S2	Type HS
Operating	33.0	57.0	78.0	0.0
Inventory	22.0	31.0	42.0	0.0

Field Posting

Status LEGAL Posting Date 10/06/87

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name
N Anti-missile fence N Acrow Panel N Jointless Bridge
Freeze/Thaw 2 : Deteriorated concrete; No known problematic history
Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	P / N	Other
P / Y	Ladder	N / N	Staging	BIGLIFTTRUCK	
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson	Inspection Hours:	036
		Y / Y	Police		

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National Bridge Element Inspection

BDEPT# **C-13-037**
B.I.N. **0X2**
Item 8 **C13037-0X2-DOT-NBI**
Span Group **1**
Town **Chicopee**
District **2**

Date **08/21/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	11,180.000	☐ %	9,652.000	1,523.000	5.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	5.000	☐ %			5.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	1,523.000	☐ %		1,523.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	10,304.000	☐ %	6,634.000	3,670.000		
Notes :									
> > 3220	*Crack (Wearing Surface)*	sq feet	2	3,670.000	☐ %		3,670.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,370.000	☐ %	1,015.000	277.000	78.000	
Notes :									
> 1000	*Corrosion*	feet	2	355.000	☐ %		277.000	78.000	
Notes :									
> 515	Steel Protective Coating	sq feet	2	14,157.000	☐ %	11,065.000			3,092.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	14,157.000	☐ %	11,065.000			3,092.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	105.000	☐ %	73.000	11.000	21.000	
Notes :									
> 1000	*Corrosion*	feet	3	32.000	☐ %		11.000	21.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,085.000	☐ %	885.000			200.000
Notes :									

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National Bridge Element Inspection

BDEPT# **C-13-037**
B.I.N. **0X2**
Item 8 **C13037-0X2-DOT-NBI**
Span Group **1**
Town **Chicopee**
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Date **08/21/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
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Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,085.000	☐ %	885.000			200.000
Notes :									
152	**Steel Floor Beam**	feet	2	8.000	☐ %	8.000			
Notes :									
> 515	Steel Protective Coating	sq feet	2	83.000	☐ %		83.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	83.000	☐ %		83.000		
Notes :									
215	**Re Conc Abutment**	feet	2	164.000	☐ %	138.000		26.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	4.000	☐ %			4.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	22.000	☐ %			22.000	
Notes :									
215	**Re Conc Abutment**	feet	3	164.000	☐ %	110.000	33.000	21.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	10.000	☐ %		9.000	1.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	44.000	☐ %		24.000	20.000	
Notes :									
306	**Other Joint**	feet	2	158.000	☐ %			158.000	
Notes :									
> 2310	*Leakage*	feet	2	158.000	☐ %			158.000	
Notes :									

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National Bridge Element Inspection

BDEPT# **C-13-037**
B.I.N. **0X2**
Item 8 **C13037-0X2-DOT-NBI**
Span Group **1**
Town **Chicopee**
District **2**

Date **08/21/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
311	**Moveable Bearing**	each	3	21	☐ %	17	4		
Notes :									
> 1000	*Corrosion*	each	3	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	3	44.000	☐ %		44.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	44.000	☐ %		44.000		
Notes :									
313	**Fixed Bearing**	each	2	22	☐ %	18	4		
Notes :									
> 1000	*Corrosion*	each	2	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	2	44.000	☐ %		44.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	44.000	☐ %		44.000		
Notes :									
330	**Metal Bridge Railing**	feet	2	151.000	☐ %	151.000			
Notes :									
331	**Re Conc Bridge Railing**	feet	2	151.000	☐ %		76.000	75.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	151.000	☐ %		76.000	75.000	
Notes :									

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DOCUMENT A00807

CITY OF HOLYOKE BRIDGES –

INSPECTION REPORTS

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 30

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	0YD	H-21-049

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
HOLYOKE	H21049-0YD-DOT-NBI	022.852	A:OPEN	JAN 11, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 NB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
US202 CHERRY ST	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER S. R. Finck
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Clear	-7°C	T. P. PENNA

ITEM 58 — DECK — 6

		DEF
1.Wearing Surface	7	-
2.Deck Condition	6	S-A
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	7	-
9.Anti-Missile Fence	6	M-P
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	7	-
13.Deck Joints	6	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	250	250

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 6

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	-
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	N	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross-Frames	6	-
11.Rivets & Bolts	N	-
12.Welds	6	-
13.Member Alignment	7	-
14.Paint/Coating	7	-
15.	N	-

Year Painted: 2021

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 5

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	6		-
c. Backwalls	N	6		-
d. Breastwalls	N	6		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			5	
a. Pedestals	N	6		-
b. Caps	N	5		M-P
c. Columns	N	6		M-P
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	6		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION: N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — TRAFFIC SAFETY

	36	COND	DEF
A. Bridge Railing	0	7	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	0	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not Actual Field Measurement / Posted Clearance

	E ft	E in	W ft	W in	meter
Actual Field Measurement	17	4	14	5	4.39
Posted Clearance	14	2	14	2	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	Y	Y	NR	NR
	8 / 8	8 / 8		

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 16

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#:

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 11/01/1991

Inspection data at time of existing rating

I 58: **5** I 59: **6** I 60: **5** Date : 12/21/1988

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON:

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YD**	**H-21-049**	**H21049-0YD-DOT-NBI**	**JAN 11, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound Lanes, south to north, over US 202/Cherry Street which travels east and west.

Per bridge plans, the 6 steel plate girders are numbered west to east and south to north. The two spans are numbered from south to north. **Span 3, Girder 301 to Girder 306 and Span 4, Girder 401 to Girder 406.** Bays are numbered from west to east per span. Diaphragms are numbered south to north per span. The 4 pier columns are numbered west to east.
See Sketches 1 - 4.

Per bridge plans, the 6 girders per span are numbered west to east and south to north.
Span 3 Beams are labeled Beam 301 to Beam 306 and Span 4 Beams are labeled Beam 401 to Beam 406. The 5 bays are numbered from west to east per span. Diaphragms are numbered south to north per span and the 4 columns are numbered west to east.
See Sketches 1 - 4.

GENERAL REMARKS
Vertical Posting Signs
There is a single, At Bridge (14'-2") Posting Sign on the east side of I-91, placed too close to the bridge. The minimum vertical clearance for this bridge occurs over the southbound side of Rt 202 only.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has minor wheel rutting.

Wearing Surface in the breakdown lane has minor to moderate mapcracking. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Underside has a few areas of scattered hairline mapcracking with leaching efflorescence.

Span 1, Bay 1, between Diaphragms 6 & 7, has an area of honeycombing, 3' wide x 3' long, from original construction.

Span 2:
- Bay 2, between Diaphragms 6 & 7, has an area of honeycombing, 3' wide x 3' long, from original construction.
- Bay 3, over Diaphragm 5, has two, 8" diameter areas of delamination, (not over roadway).

Item 58.4 - Curbs
Granite Curbing has minor chipping and mortar loss between the curb sections.

Item 58.8 - Railing
Railing consists of 30" high concrete parapets with steel Thrie-beam retrofit bolted to the interior faces with timber offset blocks.

Item 58.9 - Anti-Missile Fence
East & West 6' high Anti-Missile Fences have 45 interior vertical hold down straps.

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REMARKS

West Anti-Missile Fence (Left Travel Lane) is in good condition.

East Anti-Missile Fence has numerous vertical hold down straps with collision damage.
Starting from south End:

- Straps 9-12 are bent.
- Straps 16-19 are bent. **See Photo 2.**
- Straps 31- 35 & Strap 44 are bent.
- North end, between Posts 44 & 45, top of fence through hole, 2.5' wide x 2' high. **See Photo 3.**

Item 58.12 - Utilities
West fascia girders have one conduit bolted to the exterior face.

Bay 5, has a 3" diameter conduit supported by brackets bolted to the bridge deck underside. Deck underside was chipped full depth and patched with new concrete, several utility brackets were not reattached to the new concrete patches over Span 2. There are two brackets at the north end and one at the pier that are hanging. **See Photo 4.**

Item 58.13 - Deck Joints
Extruded Silicone Seal Deck Joints are impacted with sand & debris in the glands, and are allowing leakage onto the abutments, particularly along the curblines.

APPROACHES

Approaches b - Appr. Roadway Settlement
North & South Approach roadways have minor wheel rutting.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Entire superstructure was cleaned and repainted in 2021.

Girders have numerous bolted repair plates added to various bearing stiffeners over the Center Pier. **See Photo 5.**

Girders over the Pier, have a few locations at the very end of the beams (behind the bearing stiffeners), closest to the centerline of the pier, where various sized rust holes were removed leaving curved edges. **See Photo 5.**

All Girders have varying degrees of minor section loss near the pier including minor to moderate section loss of the vertical stiffeners, moderate section loss of the web ends beyond the bearings, and minor section loss along top face of bottom flanges. **See Sketches 5 - 13 and Photo 5.**

Item 59.7 - Conn Plt's, Gussets & Angles
Connection Plates have few areas of minor to moderate section loss, over the pier with 0.25" remaining at Bay 5, adjacent Girder 406. All these areas have a good coat of new paint.

Item 59.9 - Bearing Devices
Entire superstructure was cleaned and repainted in 2021.

Abutment Bearings have minor section loss and moderate movement:

- **South Abutment:**

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REMARKS

- Bearing 3, west anchor bolt is sheared off.
- Bearing 4 is expanded during the cold weather.

• **North Abutment Bearings** are out of alignment by up to 0.6". **See Photo 6.**

Pier Bearings have moderate section loss to the bearing plates and welds, severe section loss to the keepers and moderate movement:

• Severe pack rust. During this inspection, no pack rust was found.
• Few Keepers are down to 0.25" remaining. **See Photo 7.**
• Span 1, fixed bearings have moved 0.4" to the east.
• Girder 406, South Bearing, east keeper has rusted away.

Item 59.10 - Diaphragms/Cross-Frames
Some steel diaphragm/cross-frames few areas of minimal section loss over the pier. All steel diaphragm/cross-frames have a new coat of paint.

Few of the concrete end diaphragms have minor to moderate cracking.

Item 59.12 - Welds
Pier Bearing welds have moderate section loss.

Item 59.14 - Paint/Coating
Paint System was repainted in 2021.

SuperStructure Load Vibration Notes
Bridge has vibrations from heavy truck loads.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
South Bridge Seat:

• Bay 1, center bay has a delamination, 18" diameter.
• Bay 2, has a 1' diameter x 1" deep spall next to Girder 302 bearing.

Item 60.1.c - Backwalls
North & South Backwalls:

• Minor hairline cracking with leaching efflorescence.
• Bay 1, vertical construction joint has spalling along the edges. **See Photo 8.**
• Bays 2 & 4 has full-height 0.05" wide cracks.

Item 60.1.d - Breastwalls
South Breastwall:

• **Below East Curbline,** has minor scaling & staining due to joint leakage.
• **Bays 1 & 2,** top of breastwall has moderate honeycombing from original construction, 16" wide x 4' high. **See Photo 9.**
• Previous Routine Report (01/04/22) stated "Bays 1 & 2 have one each, a horizontal crack, 0.1" wide x 4.5' long. During this inspection, these cracks were not found.
• **Bay 2** has an area of delamination, 1' wide x 3" high.
• **Below Girder 301,** has a 3' horizontal long x hairline crack with rust staining.
• **Bay 3** has horizontal hairline cracking with rust staining and efflorescence.
• **Bay 5,** within a concrete patch, has an area of delaminated area, 2' wide x 1' high. **See Photo 10.**

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REMARKS

North Breastwall:

- **Bay 3** has a full height vertical hairline crack with efflorescence.
- **Bay 4**, top of wall, has an area of delamination, 20" wide x 11" high.
- **Bay 5**, top of wall, has a 5' long repaired crack with scaling below.

Item 60.1.e - Wingwalls
Southeast Wingwall has an 8' high vertical hairline crack with efflorescence and minor scaling.

Item 60.1.f - Slope Paving/Rip-Rap
South Slope has heaving and settlement below Bay 3. **See Photo 11.**

North Slope, below the West End, has settlement by up to 1.5' along the base of the breastwall.

Item 60.2 - Piers or Bents
Item 60.2.a - Pedestals
Pedestals have minor cracking below the bearings.

Below Beam 401, there is minor scaling on the top of the pedestal, undermining the bearing, up to 1". **See Photo 12.**

Item 60.2.b - Caps
South Face:

- West End, top edge, below Girder 301, is spalling with exposed rebars, 3' wide x 1' high x 3" deep. **See Photo 13.**
- West End, 3' below Girder 301 has a 9' long horizontal cracking with severe efflorescence.
- Below Bay 4, 1' below top of the cap, has a 3' long horizontal hairline crack.
- Below Bay 5 & Beam 6 has scaling with rusted rebar, 3.5' wide x 1' high x 3" deep.
- East End, is delaminated & spalled, 1.5' wide x 1' high x 3" deep.

North Face:

- West End, below Girder 401, has a spall with effloresce, 8" wide x 2" high x 2" deep.
- Below Bay 2, bottom edge is delaminated with rust staining, 3' wide x 4" high. **See Photo 14.**
- Below Bay 3, bottom face next to Column 2, is delaminated, 2' wide x 2' long.
- Below Girder 404, top edge has a 0.25" wide horizontal crack x 3' long. This crack runs into the spall below Bay 4. **See Photo 15.**
- Below Bay 4, top edge is spalled, 6' wide x 11" high x 3" deep. **See Photo 15.**
- Below Bay 4, 3' below top edge, has two horizontal cracks with efflorescence, hairline x 3' long. **See Photo 15.**
- East End, top edge is spalled with exposed rebars, 2' wide x 9" high x 2" deep. **See Photo 16.**

Item 60.2.c - Columns
Column 1 has random vertical cracks & areas of mapcracking.

Column 2 & 3:

- South Face of Column 2, along the lower 2/3s has vertical cracks, up to 1/8" wide & is delaminated, 3' wide x 8' high. **See Photo 17.**
- Northeast Face, top of column is delaminated, 2' wide x 7' high.

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REMARKS

Column 3, Northeast Face has delamination with vertical cracks, 2' wide x full height.

Column 4, Northwest Face, lower 2/3 of column has vertical cracks & delamination.

Item 60.2.i - Settlement
Pier Columns have vertical cracks.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of nested steel Thrie-beam guardrail on timber posts with timber offset blocks on the leading ends and steel H-posts with plastic offset blocks on the trailing ends.

Item 36c - Approach Guardrail
Northeast & Southeast Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Northwest & Southwest Approach guardrails consist of steel Thrie-beam guardrail on steel H-posts with plastic offset blocks.

Northwest Approach has only the transition area and is at the trailing end of the bridge.

Item 36d - Approach Guardrail Ends
Southwest & Southeast Approach guardrails (leading ends) have Tangent End Treatments.

Northeast & Northwest Approach guardrails (trailing ends to one-way traffic) have terminal ends.

Sketch / Photo Log

Sketch 1 : Framing Plan of Northbound & Southbound bridges
Sketch 2 : Elevation
Sketch 3 : Cross Section
Sketch 4 : Girder Schedule
Sketch 5 : Girder 301, south end, section loss, with new paint coverage.
Sketch 6 : Girder 302, south end, section loss, with new paint coverage.
Sketch 7 : Girder 303, north end, section loss, with new paint coverage.
Sketch 8 : Girder 305, north end, section loss, with new paint coverage.
Sketch 9 : Girder 305, south end, section loss, with new paint coverage.
Sketch 10 : Girder 306, north end, section loss, with new paint coverage.
Sketch 11 : Girder 401, south end, section loss, with new paint coverage.
Sketch 12 : Girder 405, south end, section loss, with new paint coverage.
Sketch 13 : Girder 406, south end, section loss, with new paint coverage.
Photo 1 : Wearing Surface has minor to moderate mapcracking within the breakdown lane. There is minor wheel rutting in both travel lanes.
Photo 2 : East Anti-Missile Fence has several damage interior interior straps. Interior straps 16-19 are bent outwards.
Photo 3 : North end of the East Anti-Missile Fence, between Posts 44 & 45, top of fence has a through hole, 2.5' wide x 2' high.

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REMARKS

Photo 4 : Bay 5, deck underside was chipped full depth and patched with new concrete. Few of the utility brackets were not reattached to the new concrete patches.

Photo 5 : Girders over the pier, have a few locations at the very end of the beams (behind the bearing stiffeners) where rust holes were cut out leaving curved edges.

Photo 6 : North Abutment Sole Plates are out of alignment with the masonry plates.

Photo 7 : Pier Bearings have moderate section loss to the bearing plates and welds, severe section loss to the keepers.

Photo 8 : South Backwall, Bay 1, vertical construction joint has spalling along the edges.

Photo 9 : South Breastwall, below Bays 1 & 2, top of breastwall has moderate honeycombing from original construction.

Photo 10 : South Breastwall, Bay 5, has an area of delamination within a concrete patch, 2' wide x 1' high.

Photo 11 : South Slope has severe heaving.

Photo 12 : Below Beam 401, has minor scaling under the pedestal, undermining the bearing up to 1".

Photo 13 : South face of Pier Cap, west end, top edge, below Girder 301, is spalled with exposed rebars, 3' wide x 1' high x 3" deep.

Photo 14 : North face of Pier Cap, below Bay 2, bottom edge is delaminated with rust staining, 3' wide x 4" high.

Photo 15 : North face, below Bay 4, top edge is spalled, 6' wide x 3" deep. 3' below top edge, has two horizontal cracks with efflorescence.

Photo 16 : Pier Cap, top East Face is spalled with exposed rebars, 2' wide x 9" high x 2" deep.

Photo 17 : South Face of Column 2, along the lower 2/3s has vertical cracks, up to 1/8" wide & is delaminated, 3' wide x 8' high.

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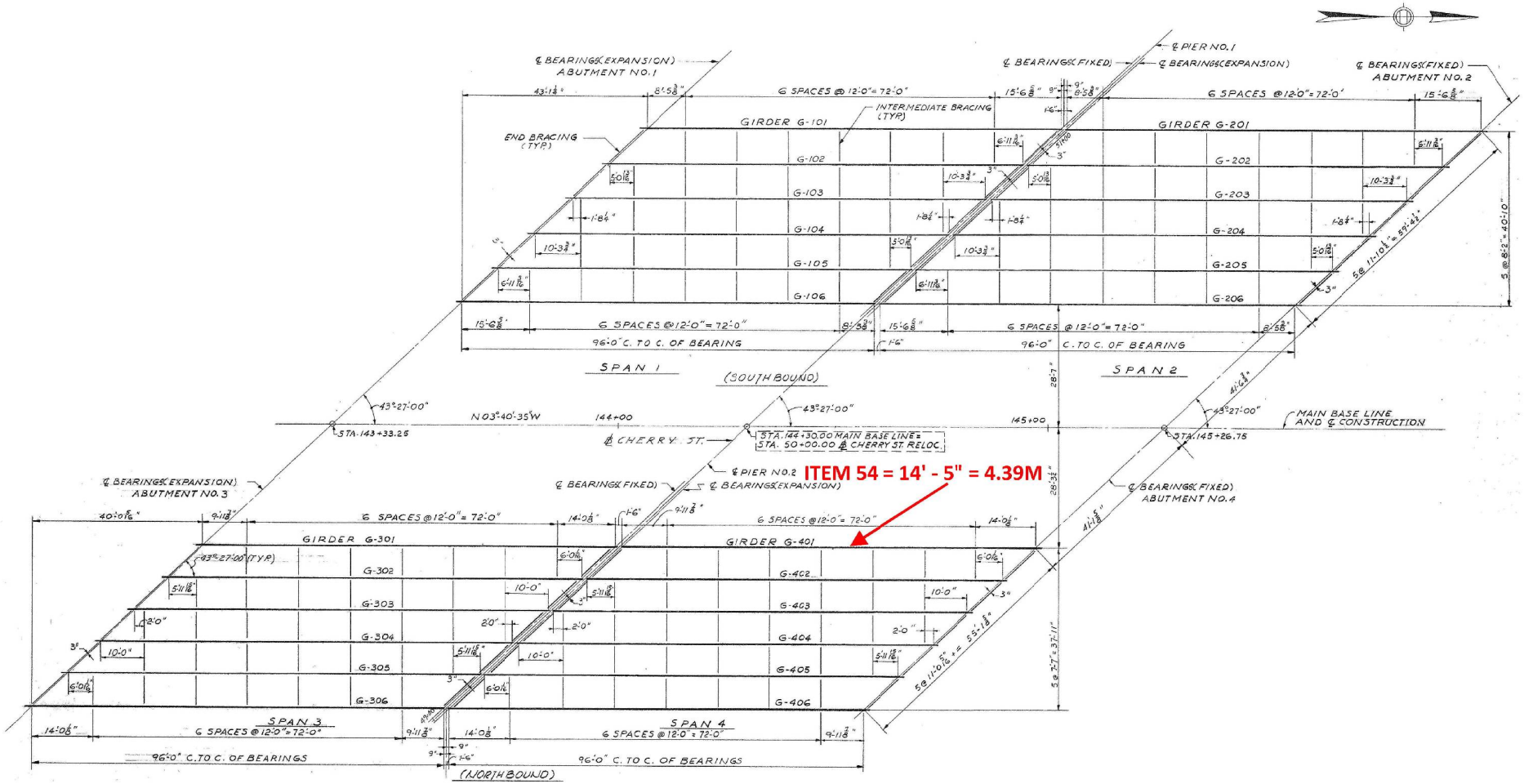
SKETCHES



Sketch 1: Framing Plan of Northbound & Southbound bridges

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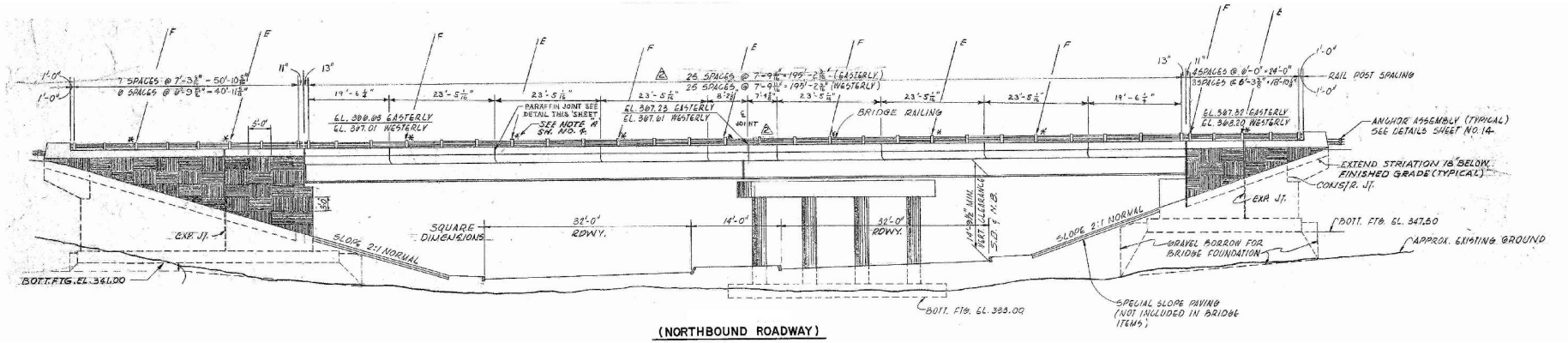

(NORTHBOUND ROADWAY)

Sketch 2: Elevation

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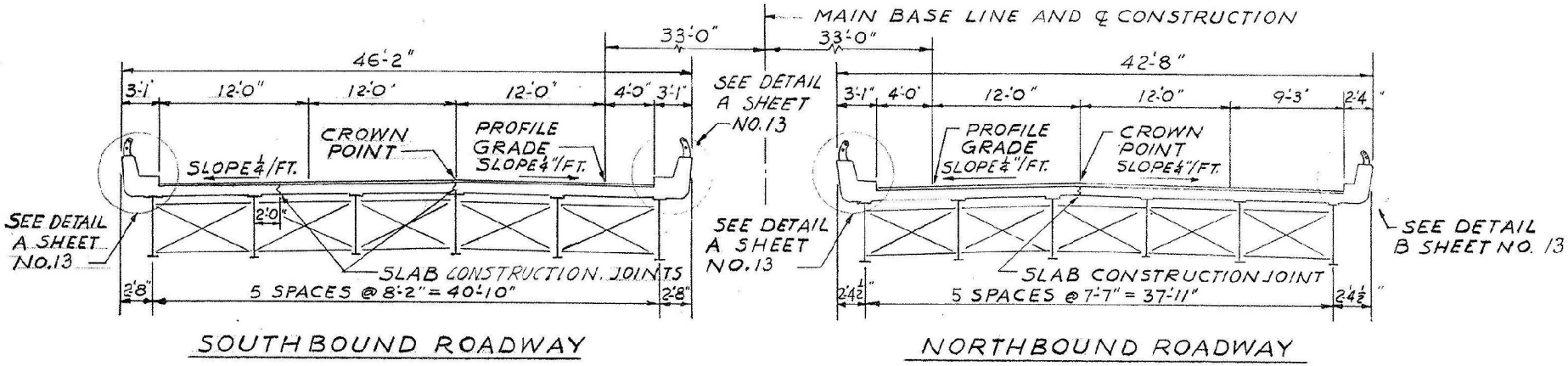

Sketch 3: Cross Section

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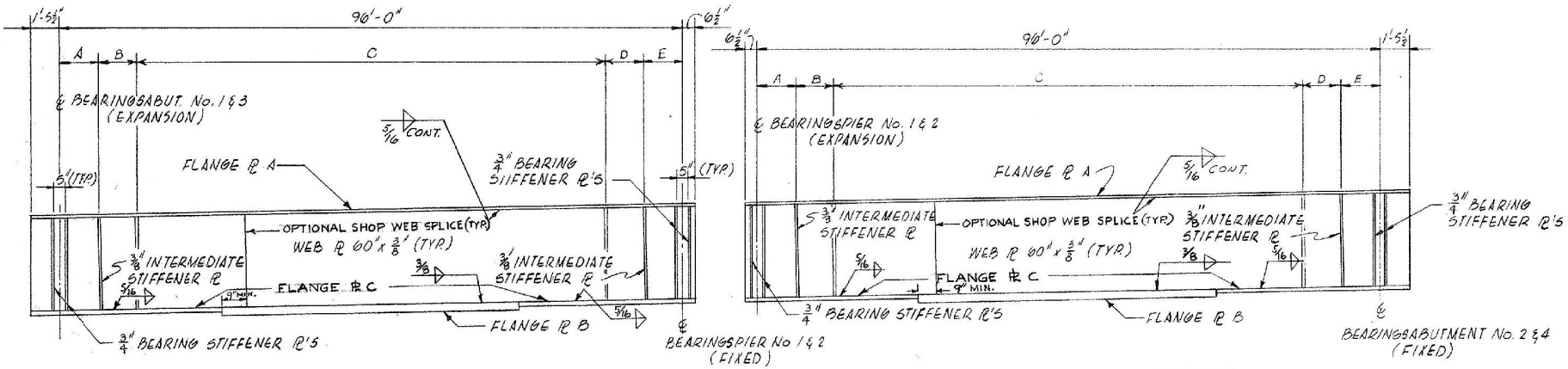
SKETCHES

GIRDER ELEVATION



GIRDERS
G-101 THRU 106
G-301 THRU 306

GIRDERS
G-201 THRU 206
G-401 THRU 406

FLANGE PLATES			
GIRDER No.	PL A	PL B	PL C
G-101, G-106 G-201, G-206	14" x ⅞"	14" x 1⅞" x 40'-0" LG.	14" x 1¼" x 28'-0" LG.
G-102 THRU G-105 G-202 THRU G-205	14" x ¾"	14" x 1⅞" x 50'-0" LG.	14" x 1¼" x 23'-0" LG.
G-301, G-306 G-401, G-406	14" x ⅞"	14" x 1¾" x 40'-0" LG.	14" x 1¼" x 28'-0" LG.
G-302 THRU G-305 G-402 THRU G-405	14" x ¾"	14" x 1¾" x 50'-0" LG	14" x 1¼" x 23'-0" LG.

Sketch 4: Girder Schedule

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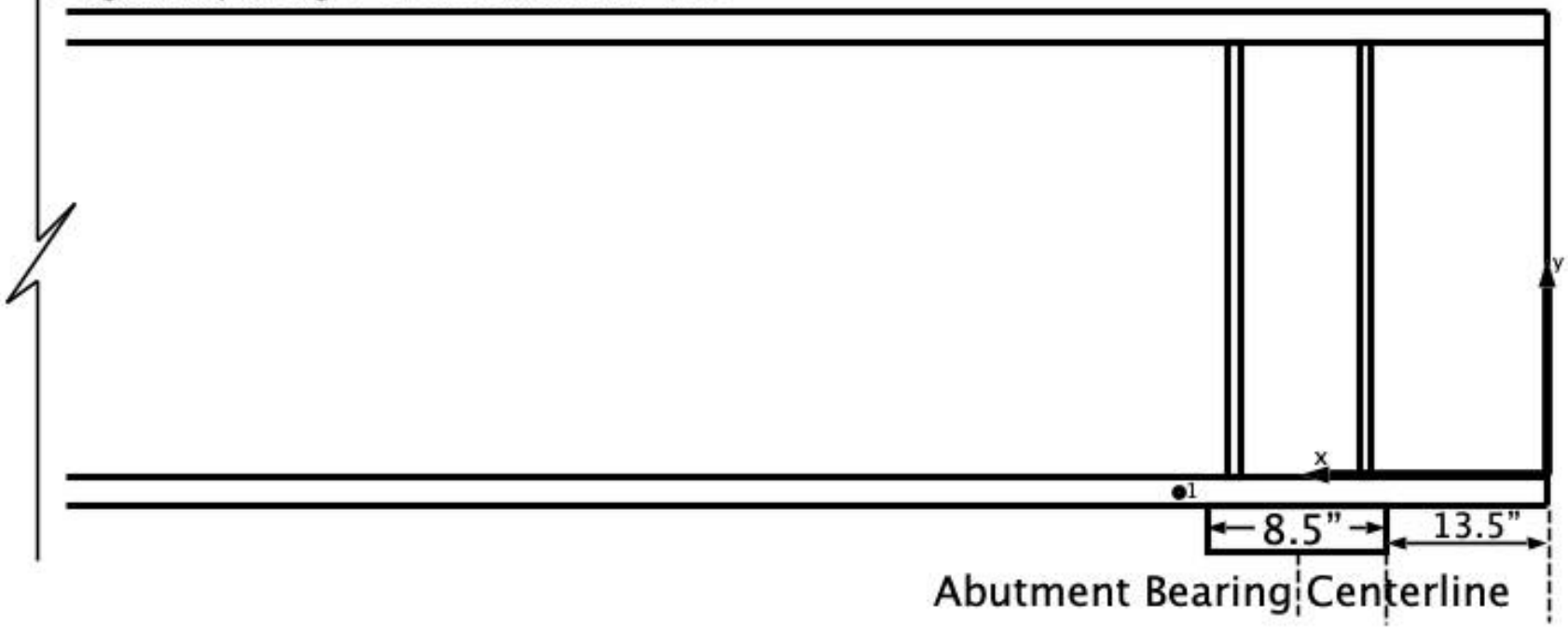
SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick x 60" high
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.875" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	1.8'+	NA	0.875"	full length top of exterior bottom flange 0.375" section loss x up to 6" wide

Sketch 5: **Girder 301, south end, section loss, with new paint coverage.**

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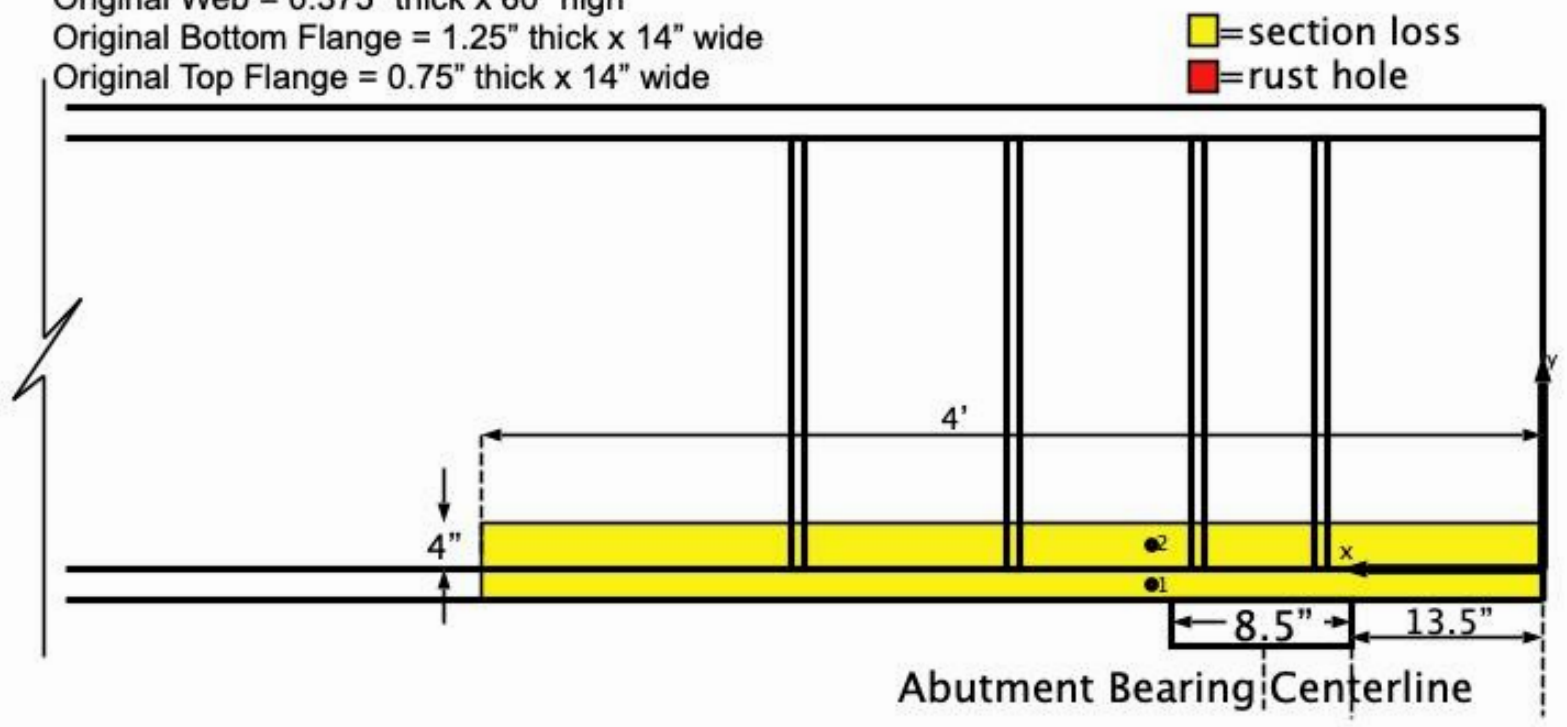
SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick x 60" high
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.75" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	22"	1"	0.3"	
2	22"	NA	1.1"	14" wide

Sketch 6: **Girder 302, south end, section loss, with new paint coverage.**

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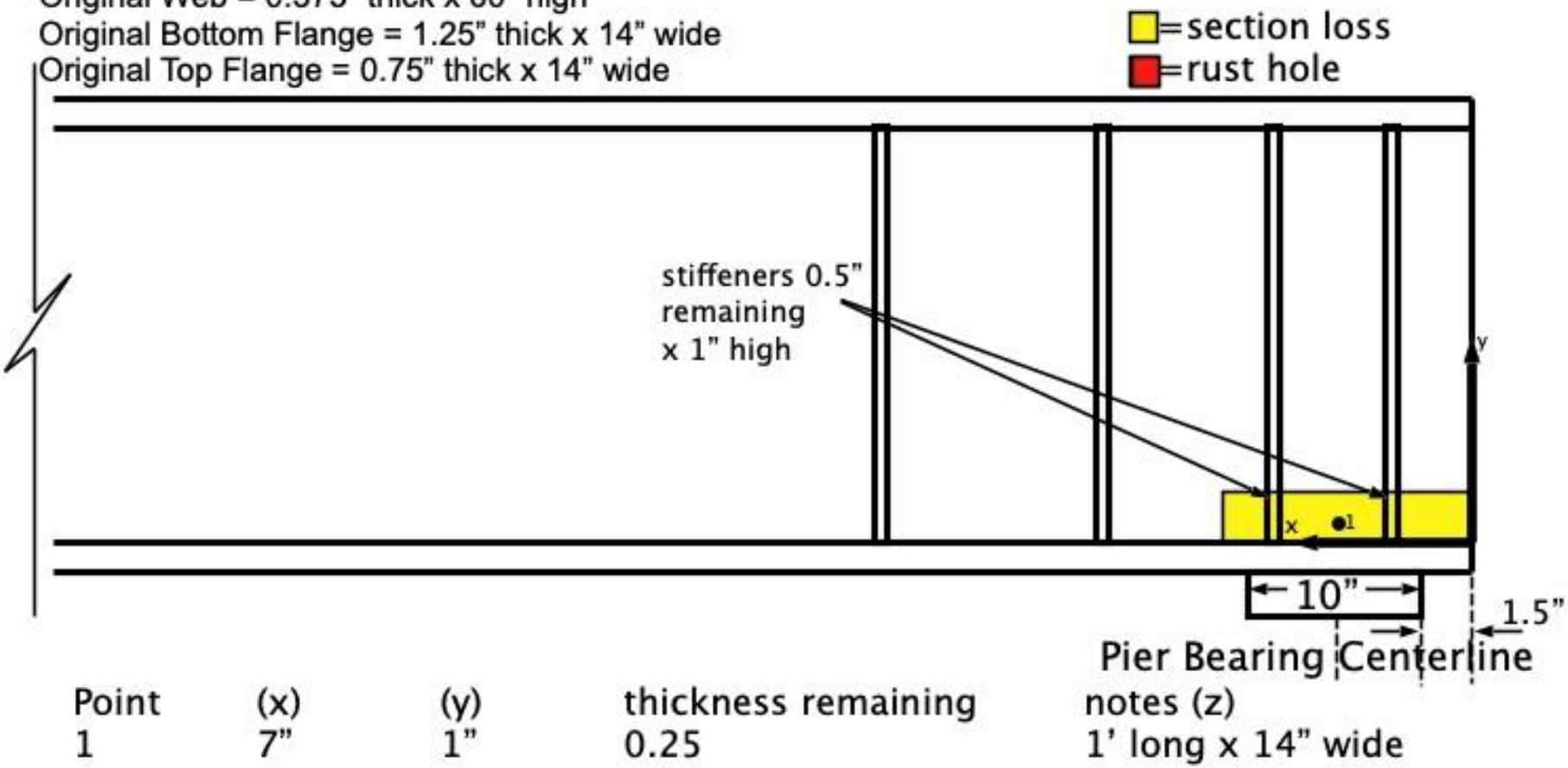
SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick x 60" high
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.75" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	7"	1"	0.25	1' long x 14" wide

Sketch 7: **Girder 303, north end, section loss, with new paint coverage.**

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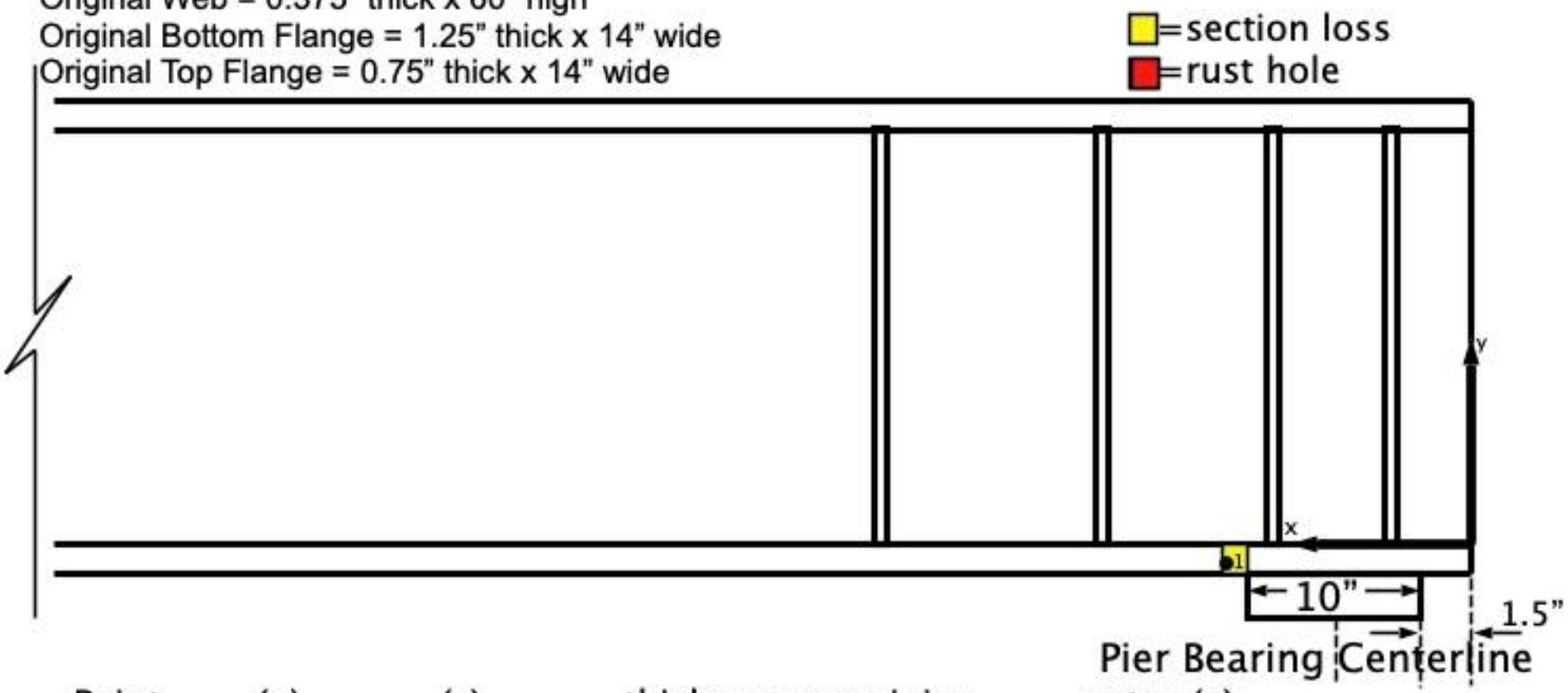
SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick x 60" high
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.75" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	12"	NA	1"	1" long x 14" wide

Sketch 8: **Girder 305, north end, section loss, with new paint coverage.**

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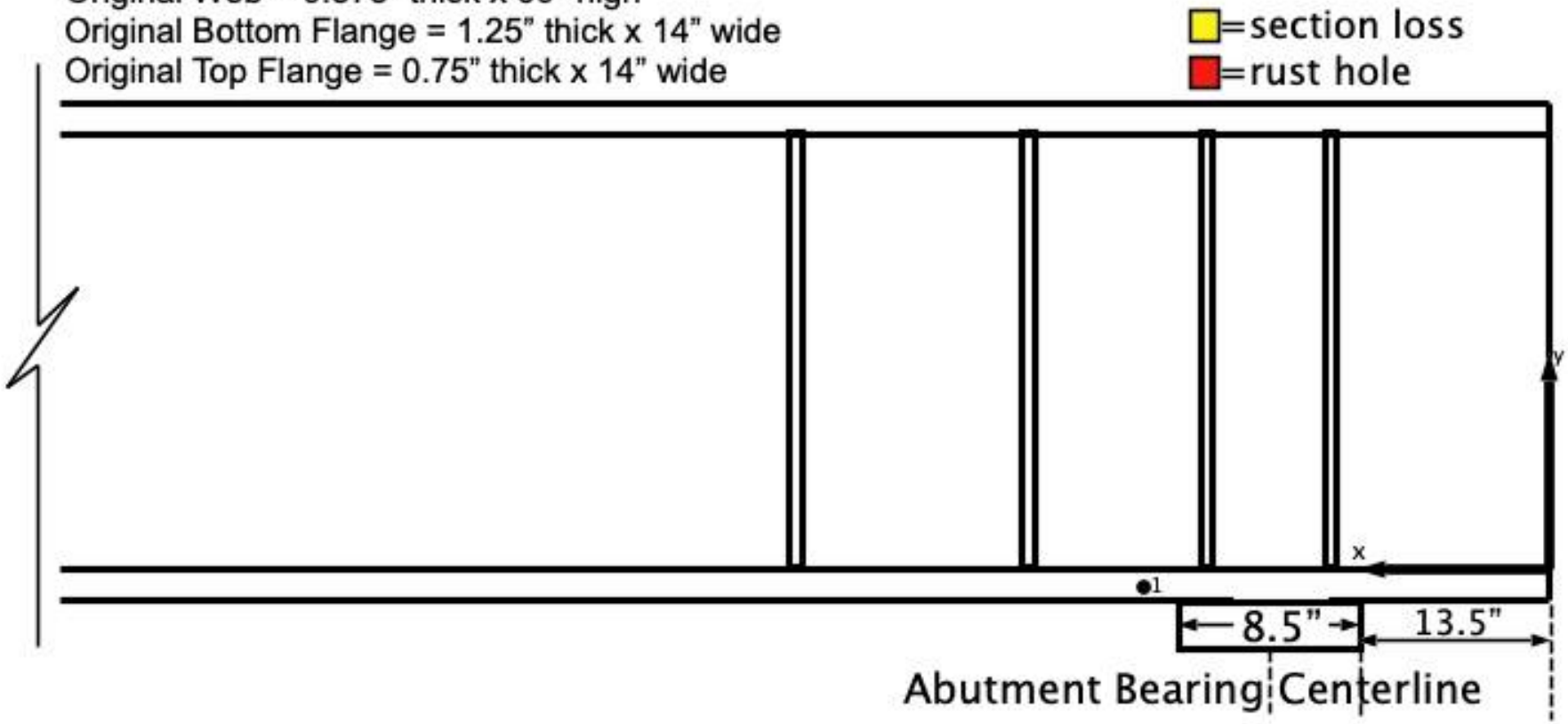
SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick x 60" high
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.75" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	13"+	NA	1"	top of bottom flange 6' long x up to 6" wide

Sketch 9: Girder 305, south end, section loss, with new paint coverage.

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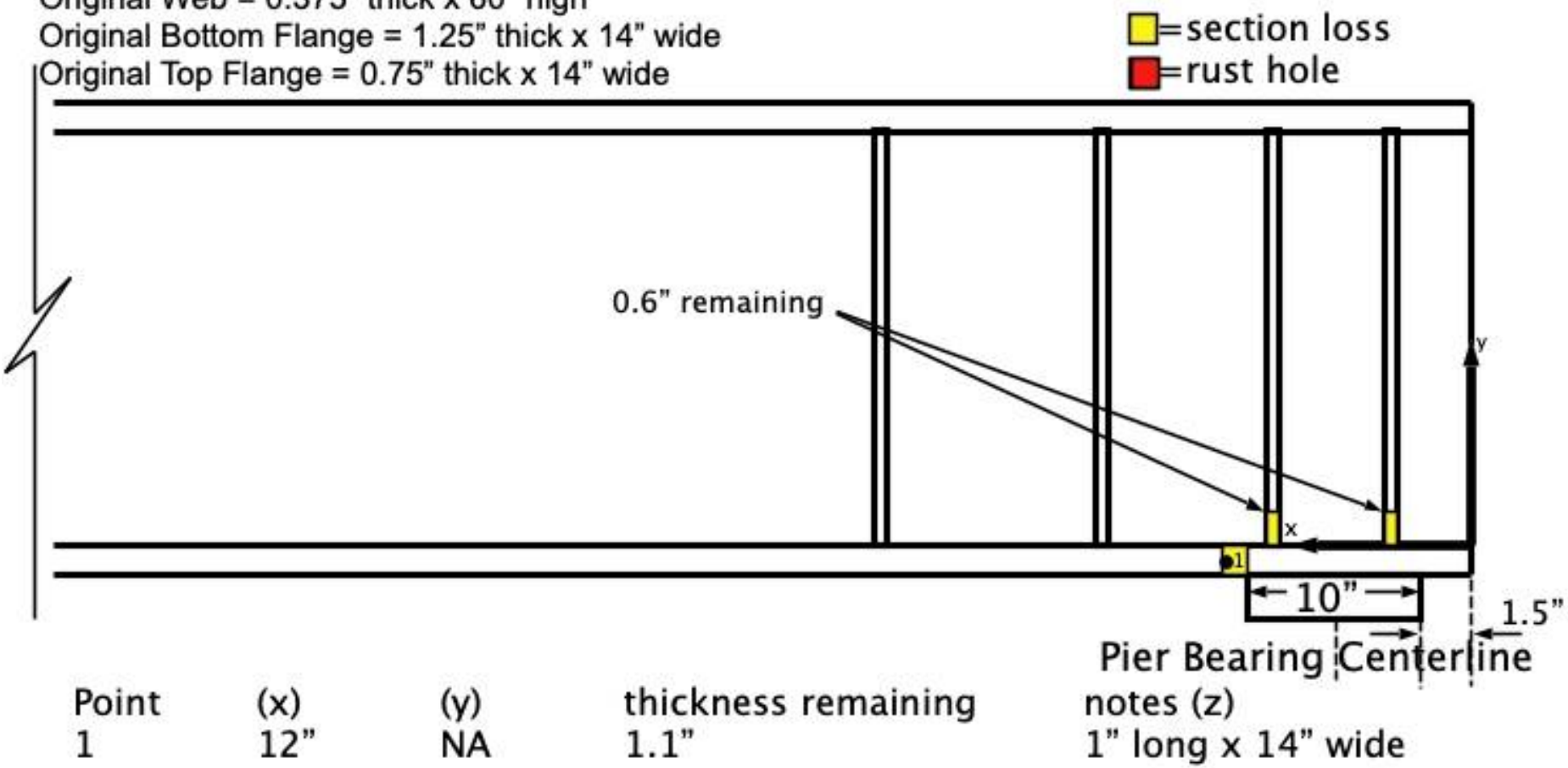
SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick x 60" high
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.75" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	12"	NA	1.1"	1" long x 14" wide

Sketch 10: Girder 306, north end, section loss, with new paint coverage.

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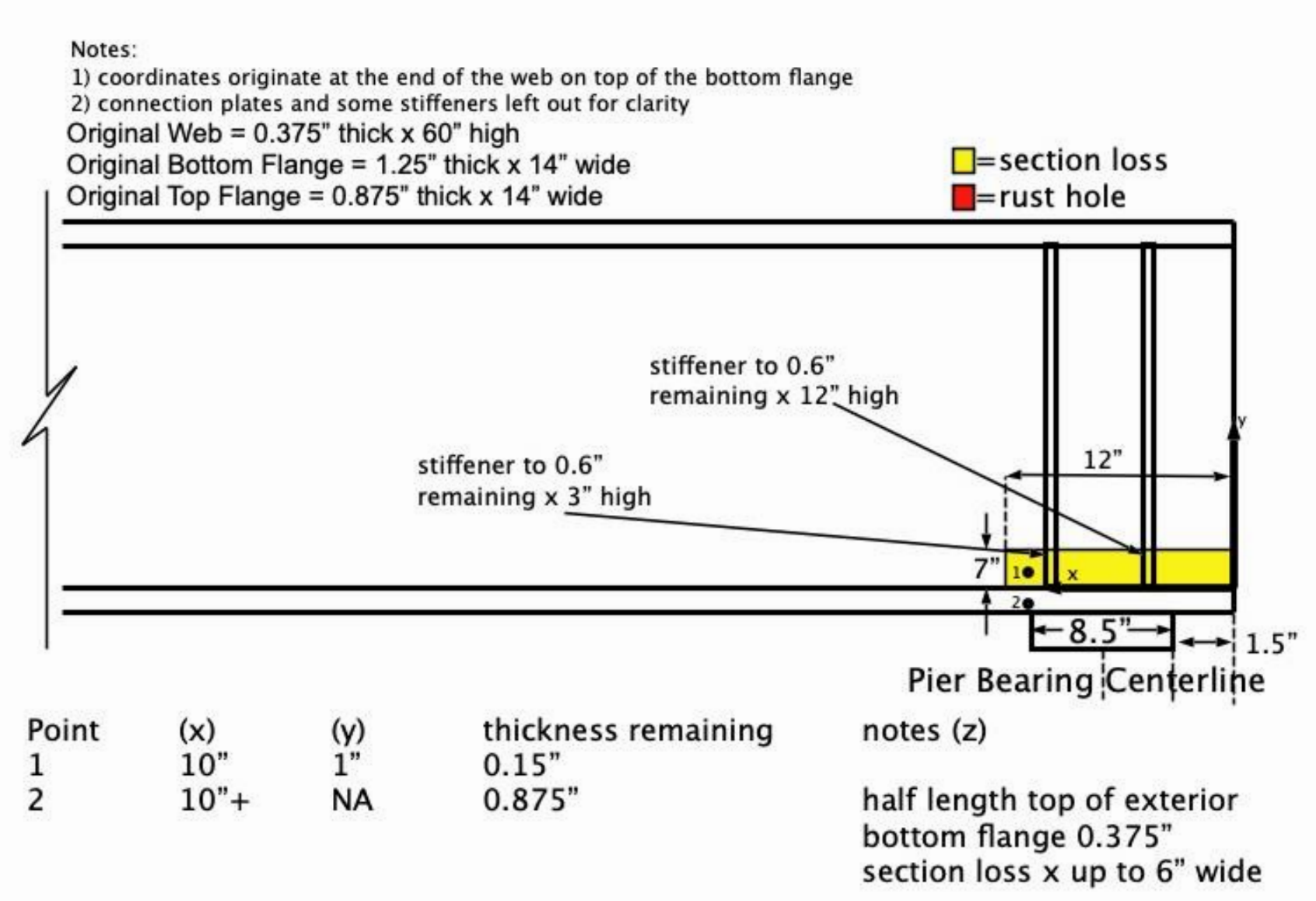
Proposal No. 613219-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

SKETCHES



Sketch 11: Girder 401, south end, section loss, with new paint coverage.

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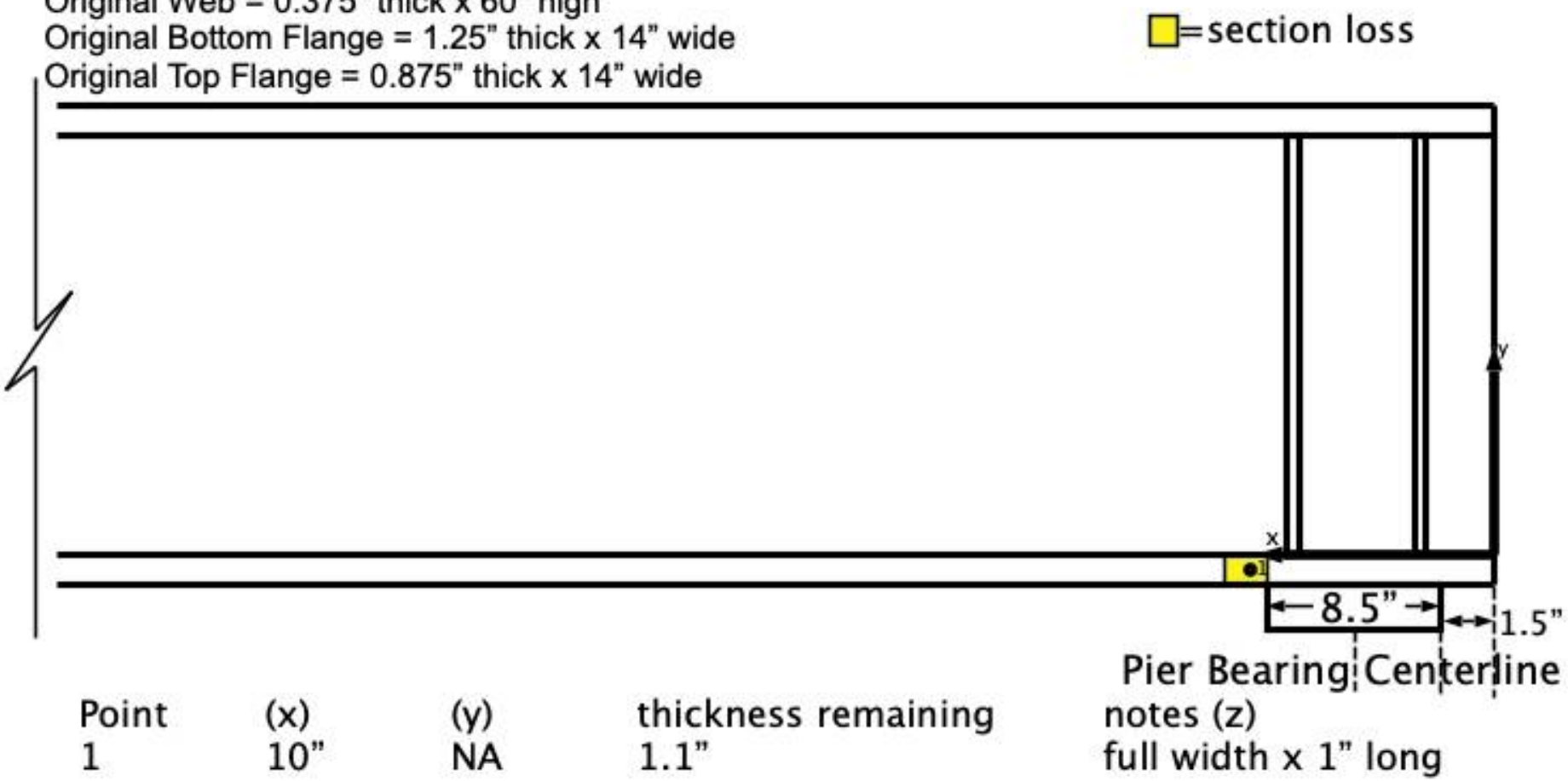
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick x 60" high
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.875" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	10"	NA	1.1"	full width x 1" long

Sketch 12: **Girder 405, south end, section loss, with new paint coverage.**

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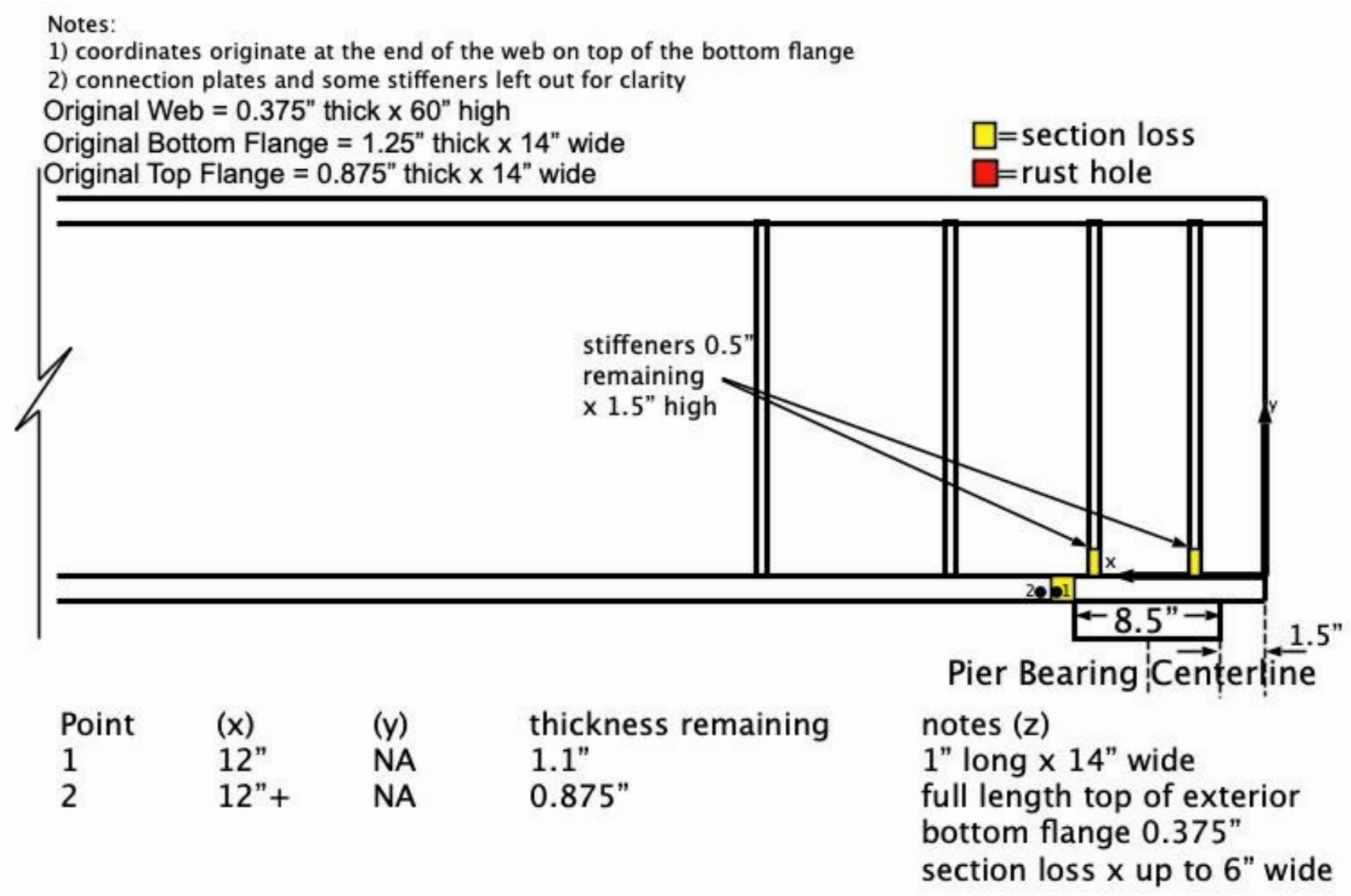
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

SKETCHES



Sketch 13: **Girder 406, south end, section loss, with new paint coverage.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

PHOTOS

Photo 1: **Wearing Surface has minor to moderate mapcracking within the breakdown lane. There is minor wheel rutting in both travel lanes.**

Photo 2: **East Anti-Missile Fence has several damage interior interior straps. Interior straps 16-19 are bent outwards.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

PHOTOS

Photo 3: **North end of the East Anti-Missile Fence, between Posts 44 & 45, top of fence has a through hole, 2.5' wide x 2' high.**

Photo 4: **Bay 5, deck underside was chipped full depth and patched with new concrete. Few of the utility brackets were not reattached to the new concrete patches.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

PHOTOS

Photo 5: **Girders over the pier, have a few locations at the very end of the beams (behind the bearing stiffeners) where rust holes were cut out leaving curved edges.**

Photo 6: **North Abutment Sole Plates are out of alignment with the masonry plates.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

PHOTOS

Photo 7: **Pier Bearings have moderate section loss to the bearing plates and welds, severe section loss to the keepers.**

Photo 8: **South Backwall, Bay 1, vertical construction joint has spalling along the edges.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

PHOTOS

Photo 9: **South Breastwall, below Bays 1 & 2, top of breastwall has moderate honeycombing from original construction.**

Photo 10: **South Breastwall, Bay 5, has an area of delamination within a concrete patch, 2' wide x 1' high.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

PHOTOS

Photo 11: **South Slope has severe heaving.**

Photo 12: **Below Beam 401, has minor scaling under the pedestal, undermining the bearing up to 1".**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

PHOTOS

Photo 13: **South face of Pier Cap, west end, top edge, below Girder 301, is spalled with exposed rebars, 3' wide x 1' high x 3" deep.**

Photo 14: **North face of Pier Cap, below Bay 2, bottom edge is delaminated with rust staining, 3' wide x 4" high.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YD	H-21-049	H21049-0YD-DOT-NBI	JAN 11, 2024

PHOTOS

Photo 15: **North face, below Bay 4, top edge is spalled, 6' wide x 3" deep. 3' below top edge, has two horizontal cracks with efflorescence.**

Photo 16: **Pier Cap, top East Face is spalled with exposed rebars, 2' wide x 9" high x 2" deep.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YD**	**H-21-049**	**H21049-0YD-DOT-NBI**	**JAN 11, 2024**

PHOTOS

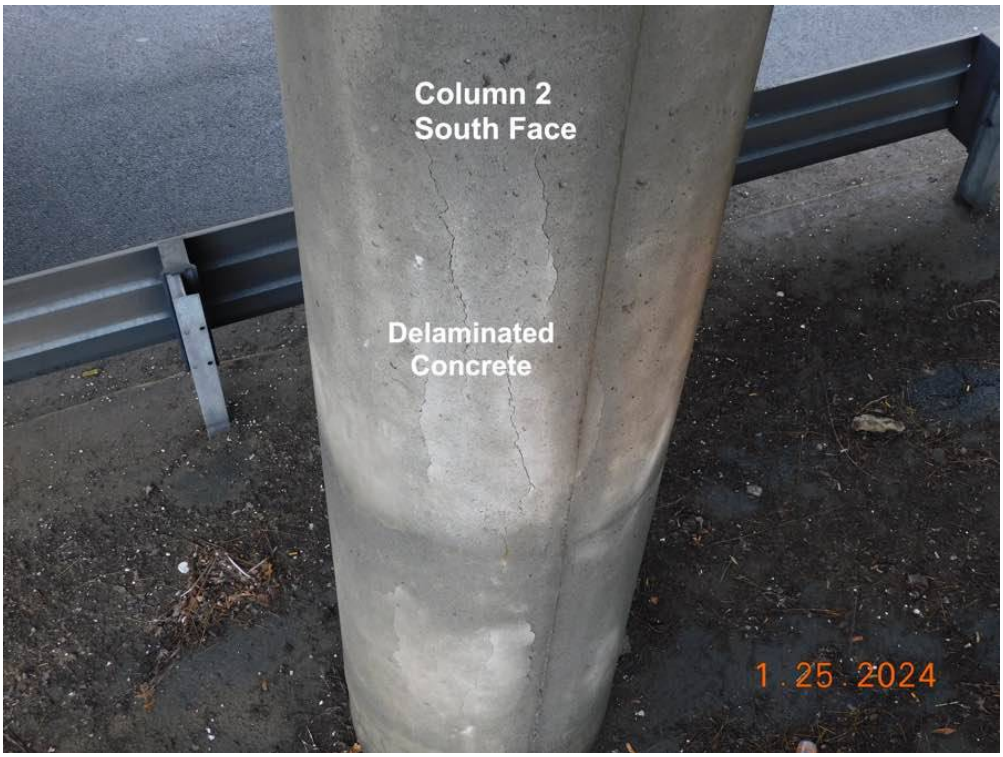

Photo 17: **South Face of Column 2, along the lower 2/3s has vertical cracks, up to 1/8" wide & is delaminated, 3' wide x 8' high.**

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Report Date: March 11, 2025

State Information

BDEPT#= H21049 Agency Br.No.

Town= Holyoke L.O. MHD

B.I.N= 0YD AASHTO= 075.2

RANK= 1016 H.I.= 81.8 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	H210490YDDOTNBI
(5) Inventory Route	111000911
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	30840
(6) Features Intersected	**US202 CHERRY ST**
(7) Facility Carried	**I 91 NB**
(9) Location	MM 14.2 ON I-91 NB
(11) Kilometerpoint	0022.852
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 12 MIN 00.19 SEC
(17) Longitude	72 DEG 38 MIN 17.73 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	002
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Preformed Fabric	Code 2
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 02	Under structure 04
(29) Average Daily Traffic	029379
(30) Year of ADT 2018 (109) Truck ADT	05 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0029.3 M
(49) Structure Length	00060.2 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	011.4 M
(52) Deck Width Out to Out	013.0 M
(32) Approach Roadway Width (w/shoulders)	011.3 M
(33) Bridge Median - No median	Code 0
(34) Skew 47 DEG (35) Structure Flared	N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	11.4 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.39 M
(55) Min Lat Underclear RT ref H	01.8 M
(56) Min Lat Underclear LT	00.3 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	R
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	6
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mo	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	54.2
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	28.6
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	5
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 0
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 01/11/24 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/06/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 11/01/91	H20	Type 3	Type 3S2	Type HS
Operating	33.0	59.0	76.0	60.0
Inventory	23.0	30.0	36.0	31.0

Field Posting

Status LEGAL Posting Date 01/18/95

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

Y Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
P / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 016

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National Bridge Element Inspection

BDEPT# **H-21-049**
B.I.N. **0YD**
Item 8 **H21049-0YD-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **01/11/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	8,424.000	☐ %	7,910.000	514.000		
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	514.000	☐ %		514.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	7,353.000	☐ %	5,953.000		1,400.000	
Notes :									
> > 3220	*Crack (Wearing Surface)*	sq feet	2	1,400.000	☐ %			1,400.000	
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,056.000	☐ %	896.000		160.000	
Notes :									
> 1000	*Corrosion*	feet	2	160.000	☐ %			160.000	
Notes :									
> 515	Steel Protective Coating	sq feet	2	14,784.000	☐ %	14,784.000			
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	14,784.000	☐ %	14,784.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	120.000	☐ %		96.000	24.000	
Notes :									
> 1000	*Corrosion*	feet	3	120.000	☐ %		96.000	24.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,680.000	☐ %	1,680.000			
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,680.000	☐ %	1,680.000			
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-049**
B.I.N. **0YD**
Item 8 **H21049-0YD-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **01/11/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
205	**Re Conc Column**	each	3	4	☐ %		4		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	each	3	2	☐ %		2		
Notes :									
> 1130	*Cracking (RC and Other)*	each	3	2	☐ %		2		
Notes :									
215	**Re Conc Abutment**	feet	3	126.000	☐ %	75.000	25.000	26.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	25.000	☐ %		24.000	1.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	101.000	☐ %	75.000	1.000	25.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	60.000	☐ %	38.000	22.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	22.000	☐ %		22.000		
Notes :									
306	**Other Joint**	feet	2	188.000	☐ %	23.000	105.000	60.000	
Notes :									
> 2310	*Leakage*	feet	2	165.000	☐ %		105.000	60.000	
Notes :									
311	**Moveable Bearing**	each	3	12	☐ %		6	6	
Notes :									
> 1000	*Corrosion*	each	3	12	☐ %		6	6	
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-049**
B.I.N. **0YD**
Item 8 **H21049-0YD-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **01/11/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 515	Steel Protective Coating	sq feet	3	24.000	☐ %	24.000			
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	24.000	☐ %	24.000			
Notes :									
313	**Fixed Bearing**	each	3	12	☐ %		6	6	
Notes :									
> 1000	*Corrosion*	each	3	12	☐ %		6	6	
Notes :									
> 515	Steel Protective Coating	sq feet	3	24.000	☐ %	24.000			
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	24.000	☐ %	24.000			
Notes :									
333	**Other Bridge Railing**	feet	2	395.000	☐ %	395.000			
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 31

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	0YE	H-21-049

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
HOLYOKE	H21049-0YE-DOT-NBI	022.852	A:OPEN	JAN 25, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
US202 CHERRY ST	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	S. R. Finck

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	-7°C	T. P. PENNA

ITEM 58 — DECK: 6

		DEF
1.Wearing Surface	6	-
2.Deck Condition	6	S-P
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	7	-
9.Anti-Missile Fence	6	M-P
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	6	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	250	250

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	6	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N): N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE: 6

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	N	-
9.Bearing Devices	4	S-P
10.Diaphragms/Cross-Frames	6	-
11.Rivets & Bolts	5	M-P
12.Welds	5	M-P
13.Member Alignment	5	M-P
14.Paint/Coating	7	-
15.	N	-

Year Painted: 2021

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE: 5

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	6		-
d. Breastwalls	N	6		M-P
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	5		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			5	
a. Pedestals	N	5		M-P
b. Caps	N	5		S-P
c. Columns	N	5		M-P
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	6		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	1	6	-
B. Transitions	1	7	-
C. Approach Guardrail	1	7	-
D. Approach Guardrail Ends	1	6	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	17	1	16	8	5.08
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 16

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 11/01/1991

Inspection data at time of existing rating

I 58: **5** I 59: **6** I 60: **5** Date : 07/23/1990

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YE**	**H-21-049**	**H21049-0YE-DOT-NBI**	**JAN 25, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound Lanes, north to south, over US 202/Cherry Street which travels east and west.

Per bridge plans, the 6 girders per span are numbered west to east and south to north.
Span 1, Beam 101 to Beam 106 and Span 2, Beam 201 to Beam 206.
Bays are numbered from west to east per span. Diaphragms are numbered south to north per span.
The 4 pier columns are numbered west to east.
See Sketches 1 - 4.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has various degrees of mapcracking throughout entire deck.

Previous Routine Report dated 01/04/2022 stated the following:
"*Hot mix asphalt (HMA) Wearing Surface, along the right skip lines has numerous potholes up to approximately 2' wide with some through the membrane to the concrete deck*."

At the time of this inspection, the longitudinal paving seam that had numerous potholes, have been repaired with several new HMA patches. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Underside has a few areas of scattered hairline transverse & mapcracking, spalls with exposed rebars, small patched areas, and a few areas of delaminations & random hollow areas.

Span 1:
- Bay 1, between Diaphragms 6 & 7, has honeycombed concrete from original construction and a hollow sounding area around a spall with exposed rebars, 7" diameter x 3" deep.
- Bay 3, over Diaphragm 5, has two 8" diameter delaminated concrete (not over roadway).
- Bay 3, between Diaphragms 4 & 5, has honeycombed concrete with a spall with an exposed rebar, 6" diameter x 2" deep.
- Bay 4, near the pier, has hollow sounding concrete next to a small spall with an exposed rebar.
- Bay 5, between Diaphragms 7 & 8, has a spall, 1' wide x 9" long x 2" deep.

Span 2:
- Bay 1, between Diaphragms 6 & 7 has honeycombed concrete from original construction, 3' wide x 3' long. **See Photo 2.**
- Bay 3, over Diaphragm 5 has two, 8" diameter areas of delamination (not over the road).
- Bay 5, close to Girder 205, 7' south of Pier Bearing, deck is spalled with exposed rusted rebars, 2'.5 wide x 6' long x 2" deep. Deck on the South & North sides of this spall, are delaminated, 2' wide x 5' long. These delaminated areas are directly over the left travel lane. **See Photo 3.**

Item 58.4 - Curbs
Granite Curb sections have minor mortar loss, chipping, and a few cracks.

Item 58.7 - Parapets
East & West Concrete Parapets have multiple patched areas throughout.

Parapets have isolated vertical hairline cracks with minor efflorescence on the outside face.

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REMARKS

West Parapet, Span 2 over Rt 202 Southbound, there are three horizontal cracks with rust staining and efflorescence up to 0.1" wide x 3' long.

Item 58.8 - Railing
Railing consists of steel Thrie-beam retrofit on timber posts with offset blocks mounted to the repaired 30" high concrete parapets, and 6' high Type II Protective Screening mounted on top of the parapets.

Item 58.9 - Anti-Missile Fence
East & West sides of I-91 have **6' high Anti-Missile Fences** with 45 interior vertical hold down straps.

East Anti-Missile Fence (Left Travel Lane) is in good condition.

West Anti-Missile Fence has a few vertical hold down straps with collision damage. Starting from south End, Straps 3, 6, & 8 are bent outwards. **See Photo 4.**

Item 58.12 - Utilities
Bay 1, has a 3" diameter abandoned electrical conduit supported by brackets bolted to the bridge deck underside. **See Sketch 5.**
During the rehab. project, a long section of this conduit was cut and remove over the pier. **See Photo 5.**

Previous report stated about a detached utility hanger over diaphragm 5. No detached hanger was found during this inspection.

No defects was found on the remainders of the abandoned electrical conduit during this inspection, the condition number for this item was raised from a 5 to a 6.

Item 58.13 - Deck Joints
Extruded Silicone Seal Deck Joints are impacted with sand and debris in the glands, and show leakage along both curblines.

Previous Inspection stated the Pier Deck Joint header had a spalled, in the left travel lane, 1' long x 6" wide. Deterioration was not located during this inspection.

North Abutment Deck Joint, at the right skip lines has minor cracking and scaling.

APPROACHES

Approaches b - Appr. Roadway Settlement
North & South Approach roadways have minor to moderate wheel rutting.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Entire superstructure was cleaned and repainted in 2021.

Girders have numerous bolted repair plates added to various bearing stiffeners over the Center Pier. **See Photos 6 & 9.**

Girders over the pier, have a few locations at the very end of the beams (behind the bearing stiffeners), closest to the centerline of the pier, where various sized rust holes were removed leaving curved edges. **See Photo 6.**

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REMARKS

All Girders have varying degrees of minor section loss near the pier including minor to moderate section loss of the vertical stiffeners, moderate section loss of the web ends beyond the bearings, and minor section loss along top face of bottom flanges. **See Sketches 5 - 13 and Photos 6 & 7.**

In the last Routine Report, it was noted that Girder 103, over the Pier, at the end of the web, had rust holes. Entire section of the web in this location was removed as a result of the recent rehabilitation and painting project. **See Photo 6.**

Girders have numerous locations at the very end of the girders, behind the bearing stiffeners that are closest to the centerline of the pier, where these 2.5" long x various height rust holes were found and taken down to a safe, rounded, edge during the coating and rehabilitation.

Girders have numerous bolted repair plates added to various bearing stiffeners over the Pier.
See Photos 6 & 9.

All Girders have varying degrees of minor section loss near the pier including minor to moderate section loss of the vertical stiffeners, moderate section loss of the web ends beyond the bearings, and minor section loss along the lower flanges. **See Sketches 5 - 11 & Photos 7 & 9.**

Item 59.7 - Conn Plt's, Gussets & Angles
Several of the Connection Plates under the deck joints have painted small rust holes.

Item 59.9 - Bearing Devices
After the cleaning and painting project, the **Pier Bearings** have moderate to severe section loss. There is minor scaling to a few of the pier pedestals that is causing some of the bearings to be misaligned when coupled with the severe section loss. **See Photo 7.**
The section loss includes flat keeper plate to masonry plate welds, anchor bolt nuts with up to 50% section loss and keeper plates with severe section loss and numerous rust holes. **See Photos 8 & 9.**

Pier Bearings that are out of plane with the level pedestal surface, due to severe section loss and minor concrete pedestal scaling: **See Photo 8.**

- G201 - 0.5" out of level with a 0.35" gap at the back edge. **See Photo 11.**
- G202 - 0.35" out of level.
- G203 - 0.35" out of level.
- G205 - 0.3" out of level.

Girder 101 fixed (north) pier sole plate is 0.5" to the east of the masonry plate.

Girder 206 expansion (south) sole plate is in contact with the west keeper plate.

Item 59.10 - Diaphragms/Cross-Frames
Steel Diaphragms under the joints has been repainted in 2021.

Several Steel Diaphragms had severe corrosion and areas of 100% section loss that have been replaced:

- Pier end diaphragm between Girder 102 & 103.
- Pier end diaphragm between Girder 103 & 104.
- Pier end diaphragm between Girder 201 & 202.

Concrete End Diaphragm, Bay 2 over the Pier, has two spalls adjacent Girders 103 & 203 that are 2.5' wide x 10" long x 10" deep.

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REMARKS

Item 59.11 - Rivets & Bolts
There are numerous cross frame bolts that have severe section loss. **See Photo 10.**

Item 59.12 - Welds
Previous Inspection stated "Pier Bearing keeper welds have severe corrosion." At the time of this inspection, almost all welds inspected, now have a good coat of paint. **See Photo 9.**

Item 59.13 - Member Alignment
Some of the Pier Bearings are misaligned. See Item 59.9 Bearing Devices. **See Photo 11.**

Item 59.14 - Paint/Coating
Entire superstructure was cleaned and repainted in 2021. **See Photos 5, 6, & 7.**

SuperStructure Load Vibration Notes
Bridge has noticeable vibrations under heavy live loads.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
South Bridge Seat, Bay 3, has a large piece of timber form work. **See Photo 10.**

North Bridge Seat:
- Drain trough was to be dry during this inspection.
- Bay 2, drain trough is scale, 8" wide x 8" long x 3" deep. **See Photo 12.**
- Behind Girder 204 Bearing is delaminated, 1' diameter.

Item 60.1.c - Backwalls
North & South Backwalls have hairline cracking with scattered efflorescence, and rust staining.

South Backwall:
- Behind Girder 106, has a spall along the vertical construction joint, 1' long x 4" wide x 4" deep, with efflorescence.
- Lower south corner, has a spall with one rusted rebar, 6" diameter x 2" deep.

North Backwall:
- Behind Girder 201, top edge is scaled, 1' diameter x 2" deep.
- Behind Girder 201, edges of the vertical construction joint are scaled, 1' wide x 7" high x 2" deep.
- Bays 1 & 3 have full-height hairline vertical cracks.
- Bay 2 has a full-height vertical hairline to 1/8" wide crack.

Item 60.1.d - Breastwalls
South Breastwall:
- Bay 3, starting at bridge seat, full height, 1/16" wide vertical crack.
- Bay 4, near the base of the wall is a delamination, 1' wide x 4' high. **See Photo 13.**
- Bay 4, near the top of the wall is a horizontal crack 0.25" wide x 4.5' long.
- Bay 5, 5' below the Bridge Seat, scaling 1' wide x 6" high x 1" deep.
- Girder 6, at the base of the wall is cracked, delaminated & spalled, 4' wide x 3' high. **See Photo 14.**
- Scattered cracking, rust and water staining, and repairs under the curb lines.
- Vertical hairline cracks up to 0.05" wide below Bays 3 & 4.

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REMARKS

North Breastwall, Bay 3, has a full-height hairline vertical crack.

Item 60.1.f - Slope Paving/Rip-Rap
North & South Slope granite blocks have some heaving of the blocks from previous joint leakage.

South Abutment Slope:
- West end has several granite blocks removed from the top row.
- East end has moderate erosion with the slope material sloughing, and the pavement blocks undermined from joint leakage and moderate vegetative growth. **See Photo 15.**

Item 60.2 - Piers or Bents
Item 60.2.a - Pedestals
Pedestals have minor cracking, delaminations and scaling.

Span 1, Girder 101 Pedestal is scaled at the Southwest corner, 6" wide x 6" long x 3" high. North Bearing is undermined by up to 1/4". **See Photo 16.**

Girder 103 & 203 Pedestal are scaled at the Northwest & Southwest corners, 15" wide x 4" high x 6" deep.

Girder 201 Pedestal is scaled at the northeast corner, 8" wide x 6" high x 2" deep. **See Photo 16.**

Pedestals have minor scaling under the front edges of the masonry plates of the moveable bearings, causing them to be out of plane with the normal surface of the pedestals.
- G201
- G202
- G203
- G205

Item 60.2.b - Caps
South Face:
- @ **Southwest Corner** & South Top Edge is scaled with rusted rebars, 8' wide x 2' high x 6" deep. **See Photo 11**.
  - Top Edge is spalled, 1.5' wide x 6" high x 4" deep.
  - Southwest corner of Girder 101 Bearing is undermined by 0.25". **See Photo 11.**
  - There are heavy efflorescence & rust staining below these areas.
  - Southwest corner, Bottom Face is delaminated, 18" diameter.
- **Bays 1 & 2**, Top Face is scaled with exposed rusted rebars, up to 3' wide x 2' long x 8" deep. **See Photo 17.**
- **Bay 3,** Bottom Face has several areas of delamination.
- **Below Girder 104**, along top edge is cracked & delaminated, 3' wide x 7" high.
- **Bay 5**:
  - Top Face is delaminated & spalled along the west edge.
  - Bottom Face is scaled with exposed rebars, 4 wide x 2.5' long x 2" deep. **See Photo 18.**
- @ **East Corner:**
  - Scaled with with exposed rusted rebars, 9.5' wide x 3.5' high x up to 8" deep. Remaining concrete is soft with heavy efflorescence. **See Photo 19.**
  - Bottom Face delaminated 1.5' wide x 5' long and scaled 1.5' wide x 3" wide x 1" deep.

North Face:
- **Below Bay 1,** bottom edge is delaminated & scaled, 4' wide x 5" high x 5" deep. **See Photo 20.**
- **Over Column 1**, base of North Face is scaled, 2' wide x 6" high x up to 8" deep.

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REMARKS

- **Below Girder 202** has minor mapcracking, up to 3' wide with rust staining.
- **Below Bay 3,** base of cap has a 6' long x 1/16" wide horizontal crack.
- **Between Columns 2 & 3,** bottom face is delaminated, next to Column 2, 6' wide x 2' long and next to Column 3, 6' wide x 2.5' long.
- **Below Girder 205** has 4' long x 1/16" wide horizontal crack.

Item 60.2.c - Columns
Column 1, top south face, is cracked, delaminated and spalled, 5' wide x full height and 2' diameter x up to 3" deep, respectively. **See Photo 16.**

Column 2 top south face is cracked and delaminated, 5' wide x up to 8' high adjacent a repair patch.

Column 3 top south face minor vertical cracking.

Column 4
- Top north face is cracked and delaminated 2' wide x 2' high.
- Mid height, north face, is cracked and delaminated 2' wide x 6' high.

Item 60.2.i - Settlement
Pier Columns have minor to moderate vertical cracks.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of nested steel Thrie-beam mounted on timber posts with timber offset blocks at the leading ends and steel H-posts with plastic offset blocks at the trailing ends.

Item 36c - Approach Guardrail
Northeast & Southeast Approach guardrails consist of steel Thrie-beam guardrail on steel H-posts with plastic offset blocks.

Northwest & Southwest Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends
Southwest Approach guardrail (trailing end to one-way traffic) has a steel terminal end with collision damage. **See Photo 22.**

Southeast, Northeast, & Northwest Approach guardrails continue beyond the limits of the bridge.

Sketch / Photo Log
Sketch 1 : Framing Plan
Sketch 2 : Elevation
Sketch 3 : Cross Section
Sketch 4 : Girder Schedule
Sketch 5 : Girder 101, north end, section loss
Sketch 6 : Girder 101, south end, section loss
Sketch 7 : Girder 102, south end, section loss

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REMARKS

Sketch 8 : Girder 106, north end, section loss
Sketch 9 : Girder 106, south end, section loss
Sketch 10 : Girder 201, south end, section loss
Sketch 11 : Girder 202, south end, section loss
Photo 1 : Wearing Surface has various degrees of mapcracking throughout entire deck. Longitudinal paving seam that had numerous potholes, have been repaired.
Photo 2 : Deck Underside, Span 2, Bay 1, between Diaphragms 6 & 7 has honeycombed concrete from original construction, 3' wide x 3' long.
Photo 3 : Deck Underside, Span 2, Bay 5, over US 202 Southbound, 7' north of center pier is spalled with several rusted rebars. Both North & South side of this spall are delaminated.
Photo 4 : East Anti-Missile Fence has numerous vertical hold down straps with collision damage. Starting from south End, Straps 3, 6, & 8 are bent outwards.
Photo 5 : Bay 5, 3" diameter conduit has been cut & removed over the center pier.
Photo 6 : Girders over the Pier, have a few locations at the very end of the beams (behind the bearing stiffeners) where rust holes were cut out leaving curved edges.
Photo 7 : Span 1, lower interior face of Beam 101, base of stiffeners have painted rust holes.
Photo 8 : Pier Cap has minor scaling to a few of the Pedestals that is causing some of the bearings to be misaligned when coupled with the severe section loss.
Photo 9 : Section loss includes flat keeper plate to masonry plate welds, anchor bolt nuts with up to 50% section loss and keeper plates with severe section loss.
Photo 10 : Cross Frames have numerous bolts that have severe section loss. South Abutment, Bay 4, has timber form board left in place.
Photo 11 : Girder 201, bottom of bearing is 0.5" out of level with a 0.35" gap at the back edge. Top west end of Pier Cap is severely spalled with exposed rebars.
Photo 12 : North Bridge Seat, Bay 2, drain trough is scale, 8" wide x 8" long x 3" deep.
Photo 13 : South Breastwall, Bay 4, near the base of the wall is a delamination, 1' wide x 4' high.
Photo 15 : South slope pavement, top row of blocks missing. East end has moderate erosion with the slope material sloughing with moderate vegetation.
Photo 16 : Span 1, Girder 101, Pier pedestal is scaled at the southwest corner. Top of Pier Cap, West end & below Girder 101 is spalled with exposed rusted rebars.
Photo 16 : Column 1 has a spall.
Photo 17 : Bays 1 & 2, Top Face is scaled with exposed rusted rebars, up to 3' wide x 2' long x 8" deep.
Photo 18 : Pier Cap, Bay 5, Bottom Face is scaled with exposed rebars, 4 wide x 2.5' long x 2" deep.
Photo 19 : Pier Cap, South Face, near the East Corner is heavily scaled with with exposed rusted rebars, 9.5' wide x 3.5' high x up to 8" deep.
Photo 20 : Pier Cap, North Face, below Bay 1, bottom edge is delaminated & scaled, 4' wide x 5" high x 5" deep.
Photo 21 : Column 1, Top Southwest Face, is spalled, 2' diameter x up to 3" deep.
Photo 22 : Southwest Approach guardrail (trailing end to one-way traffic) has a steel terminal end with collision damage.

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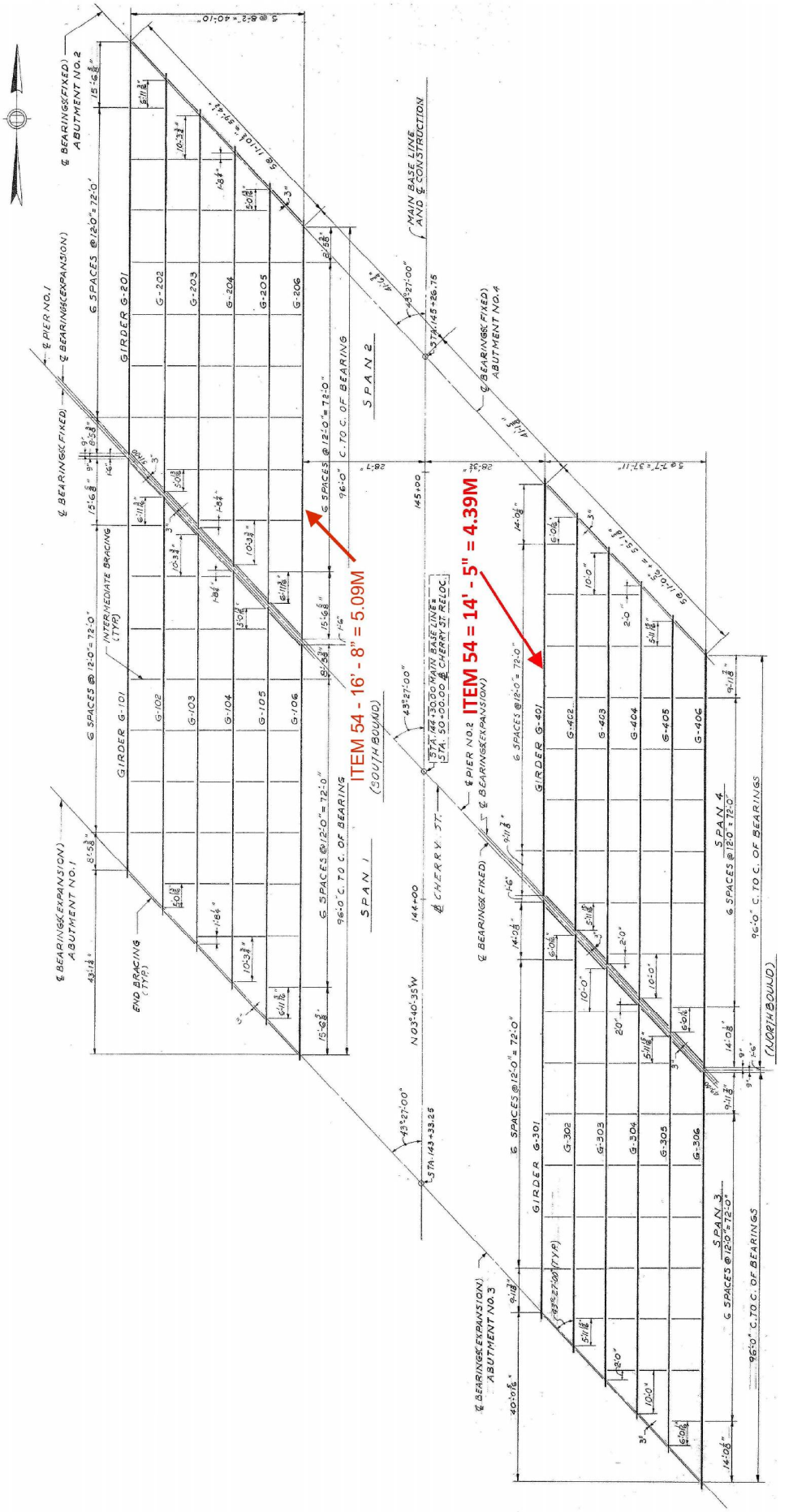
OLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

SKETCHES



Sketch 1: Framing Plan

REM.(2)2-21

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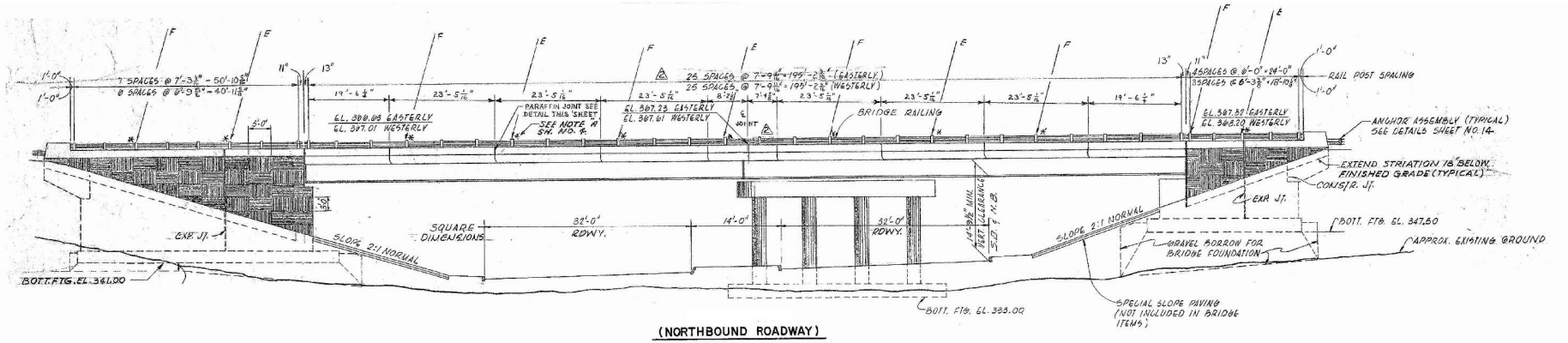
SKETCHES



(NORTHBOUND ROADWAY)

Sketch 2: Elevation

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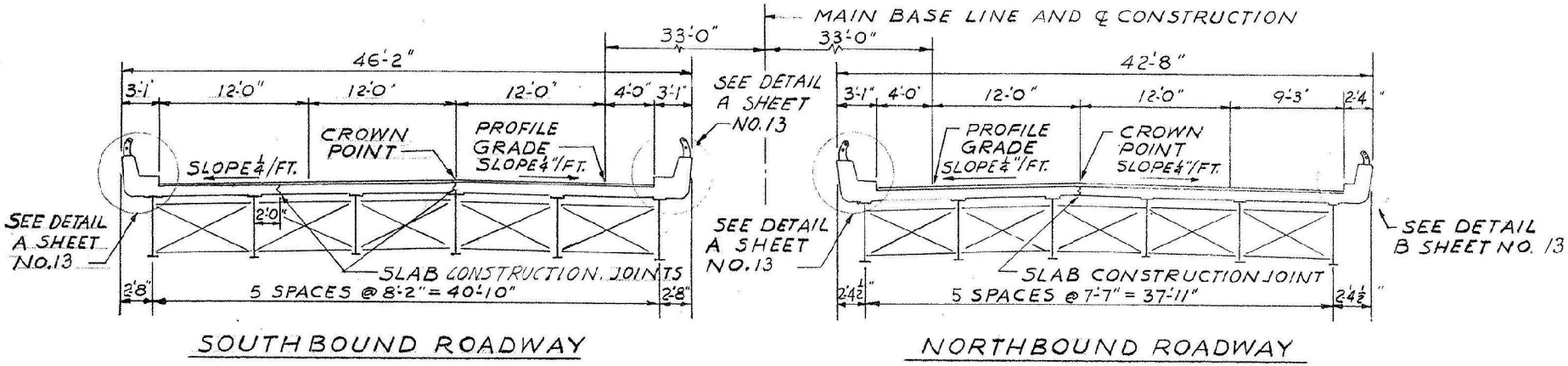
SKETCHES



Sketch 3: Cross Section

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A00807 - 48
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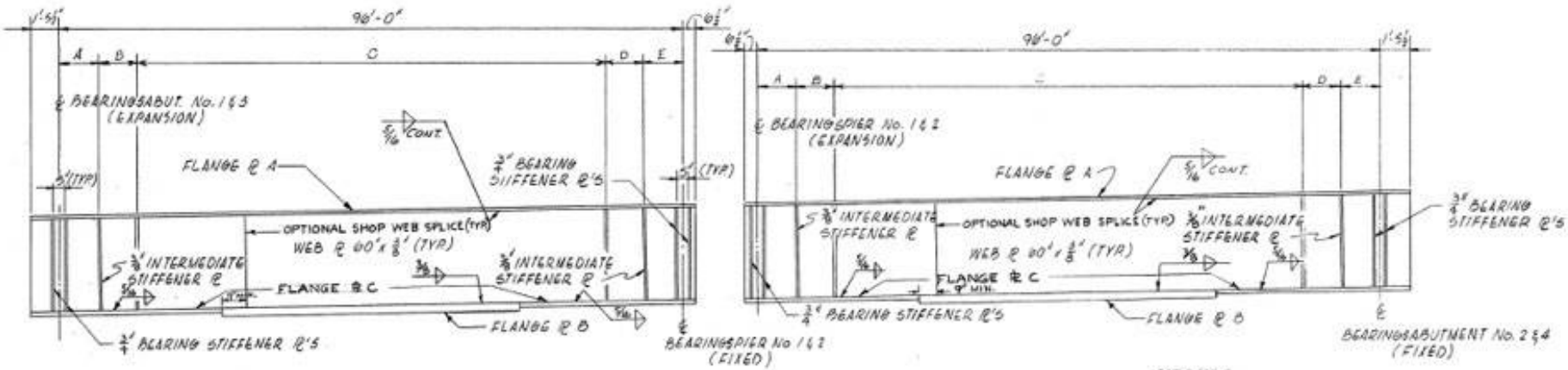
SKETCHES

GIRDER ELEVATION



GIRDERS
G-101 THRU 106
G-301 THRU 306

GIRDERS
G-201 THRU 206
G-401 THRU 406

FLANGE PLATES			
GIRDER No.	℄ A	℄ B	℄ C
G-101, G-106 G-201, G-206	14" x 7/8"	14" x 1 3/8" x 40'-0" LG.	14" x 1 1/4" x 28'-0" LG.
G-102 THRU G-105 G-202 THRU G-205	14" x 3/4"	14" x 1 3/8" x 50'-0" LG.	14" x 1 1/4" x 23'-0" LG.
G-301, G-306 G-401, G-406	14" x 7/8"	14" x 1 3/8" x 40'-0" LG.	14" x 1 1/4" x 28'-0" LG.
G-302 THRU G-305 G-402 THRU G-405	14" x 3/4"	14" x 1 3/8" x 50'-0" LG.	14" x 1 1/4" x 23'-0" LG.

Sketch 4: Girder Schedule

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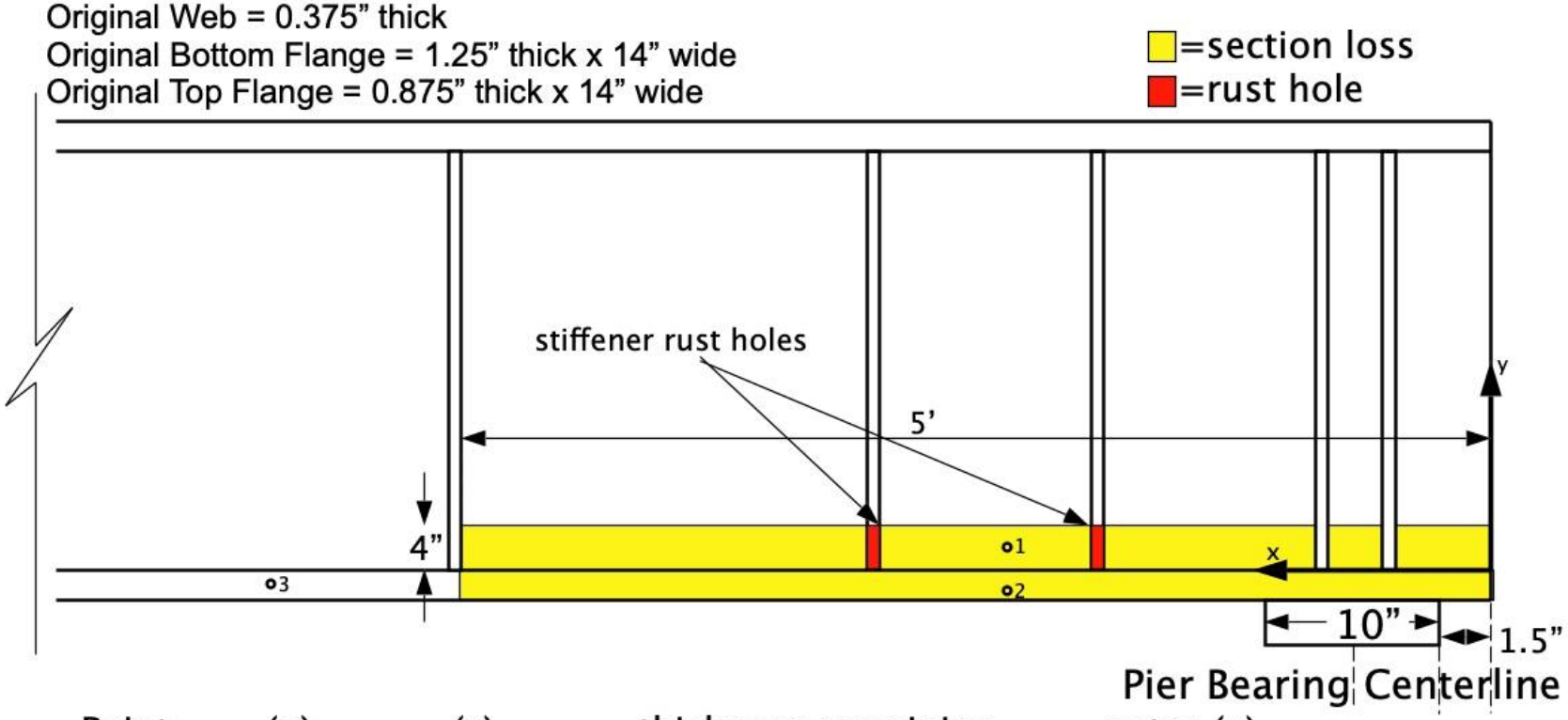
A00807 - 49
Proposal No. 6132l9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.875" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	30"	2"	0.2"	
2	30"	NA	0.8"	
3	5'+	NA	0.875"	full length top of exterior bottom flange 0.375" section loss x up to 6" wide

Sketch 5: Girder 101, north end, section loss

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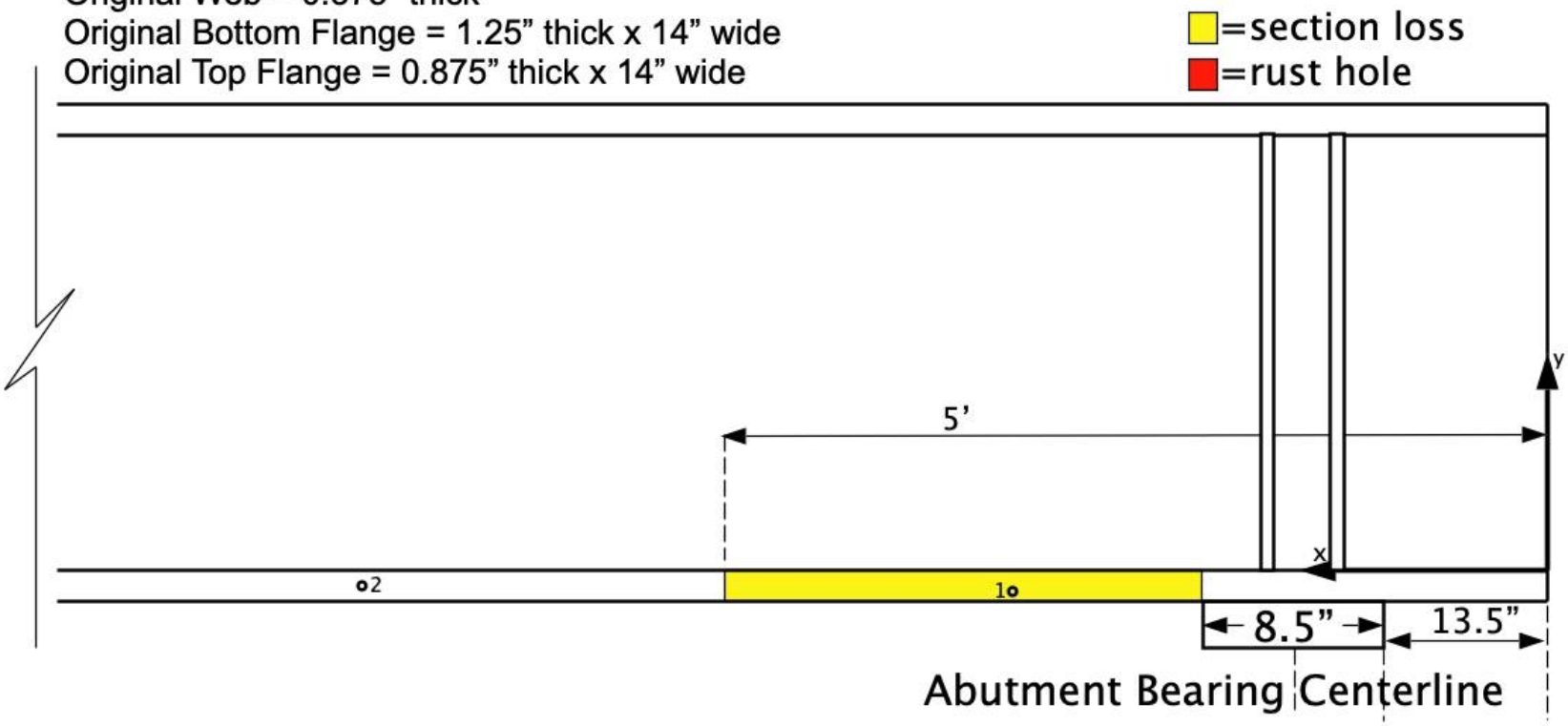
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.875" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	0	NA	0.7"	7" wide bottom of bottom flange
2	5'+	NA	0.875"	full length top of exterior bottom flange 0.375" section loss x up to 6" wide

Sketch 6: Girder 101, south end, section loss

REM.(2)2-21

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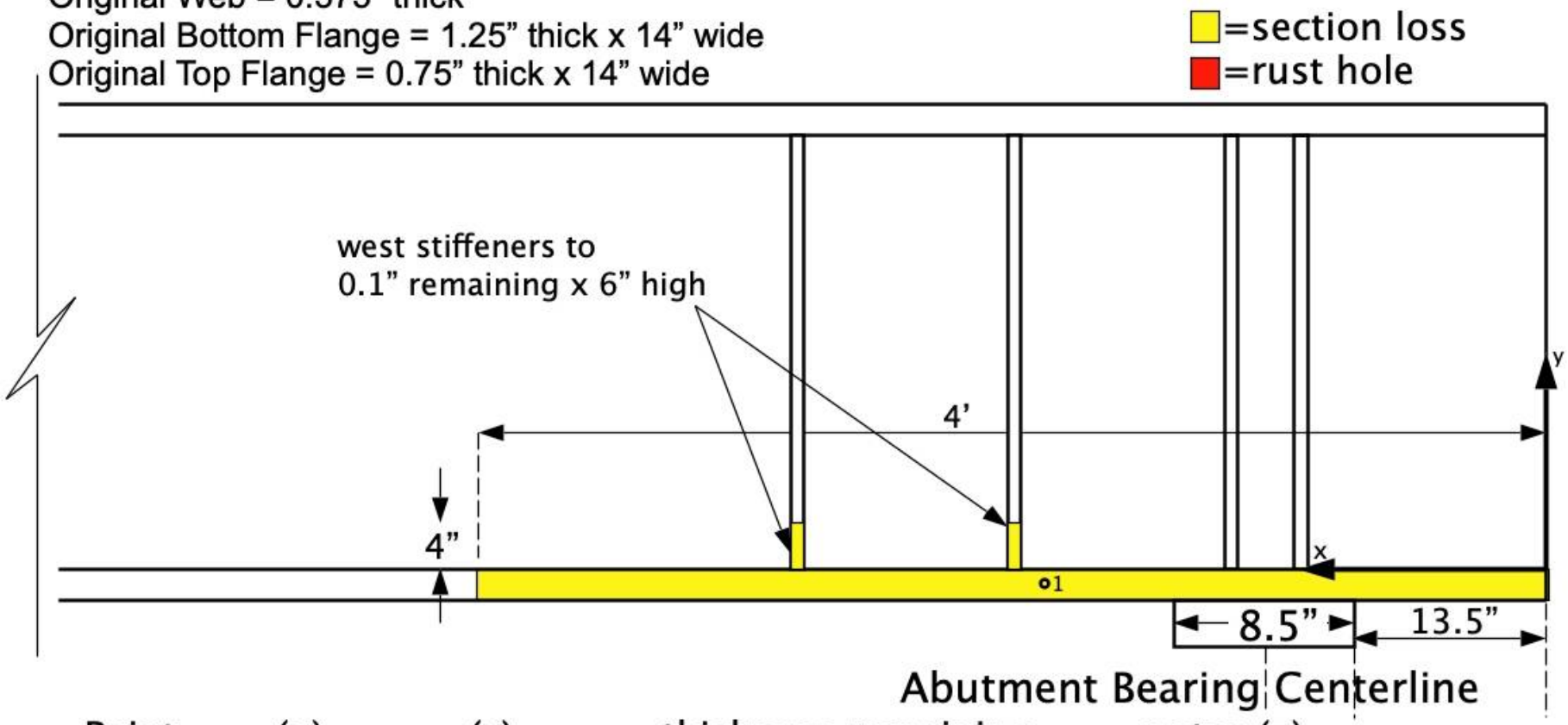
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.75" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	30"	NA	1.1"	14" wide

Sketch 7: Girder 102, south end, section loss

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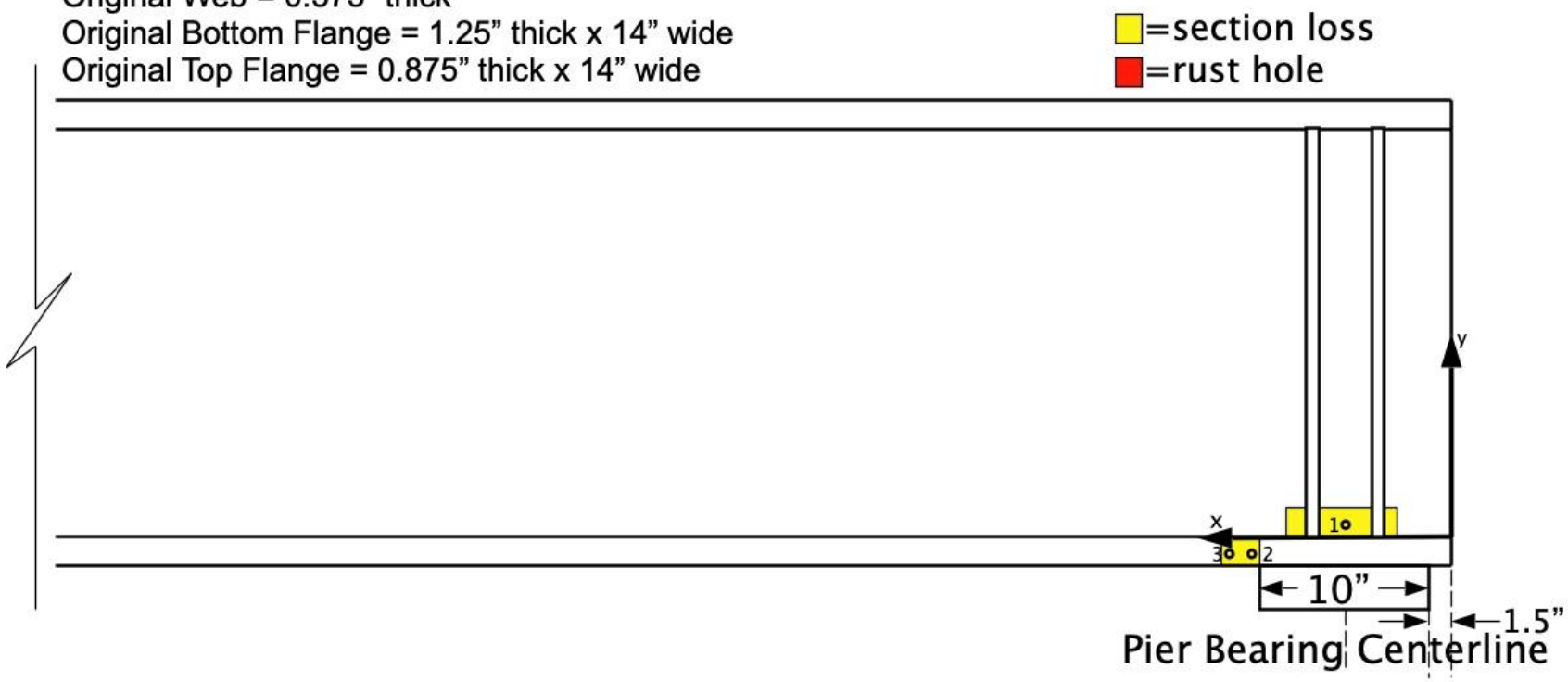
Proposal No. 6132I9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375” thick
Original Bottom Flange = 1.25” thick x 14” wide
Original Top Flange = 0.875” thick x 14” wide



Point	(x)	(y)	thickness remaining	notes (z)
1	7”	1”	0.25”	1’ wide x 4” high
2	12”	NA	0.8”	14” wide local section loss
3	12”+	NA	0.875”	full length top of exterior bottom flange 0.375” section loss x up to 6” wide

Sketch 8: Girder 106, north end, section loss

REM.(2)2-21

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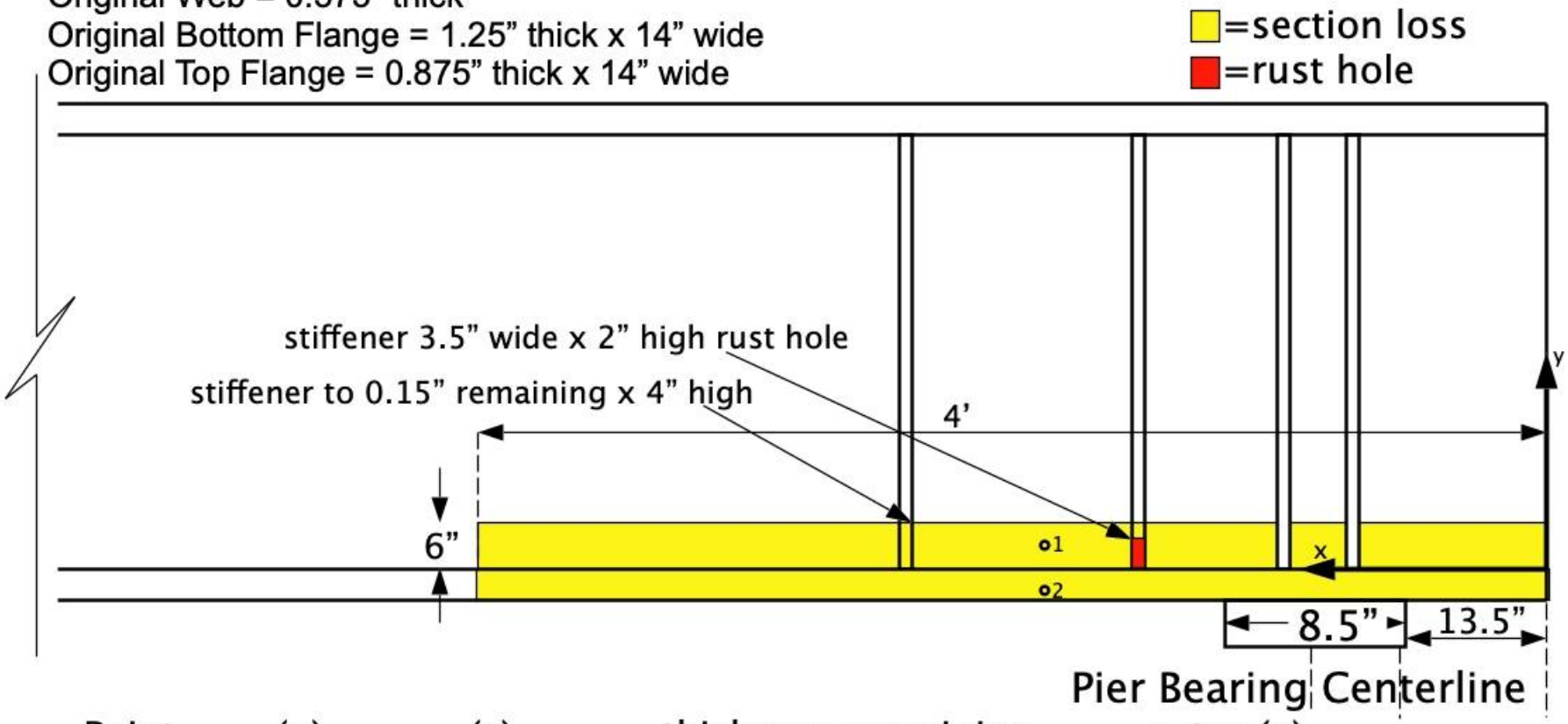
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.875" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	30"	2"	0.3"	
2	30"	NA	1.1"	

Sketch 9: **Girder 106, south end, section loss**

REM.(2)2-21

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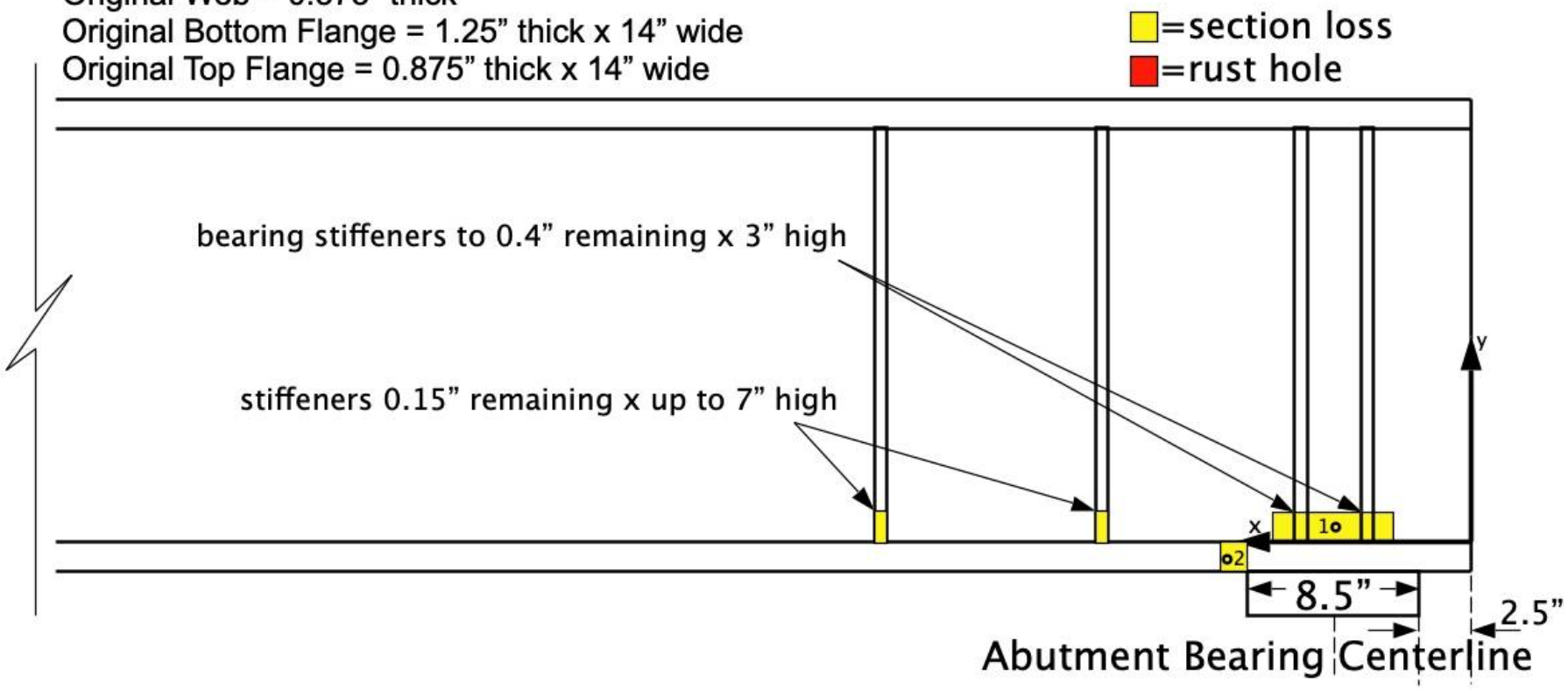
OLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.875" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	0	1"	0.25"	3" high x 1' long
2	13"	NA	0.8"	full width local section loss

Sketch 10: Girder 201, south end, section loss

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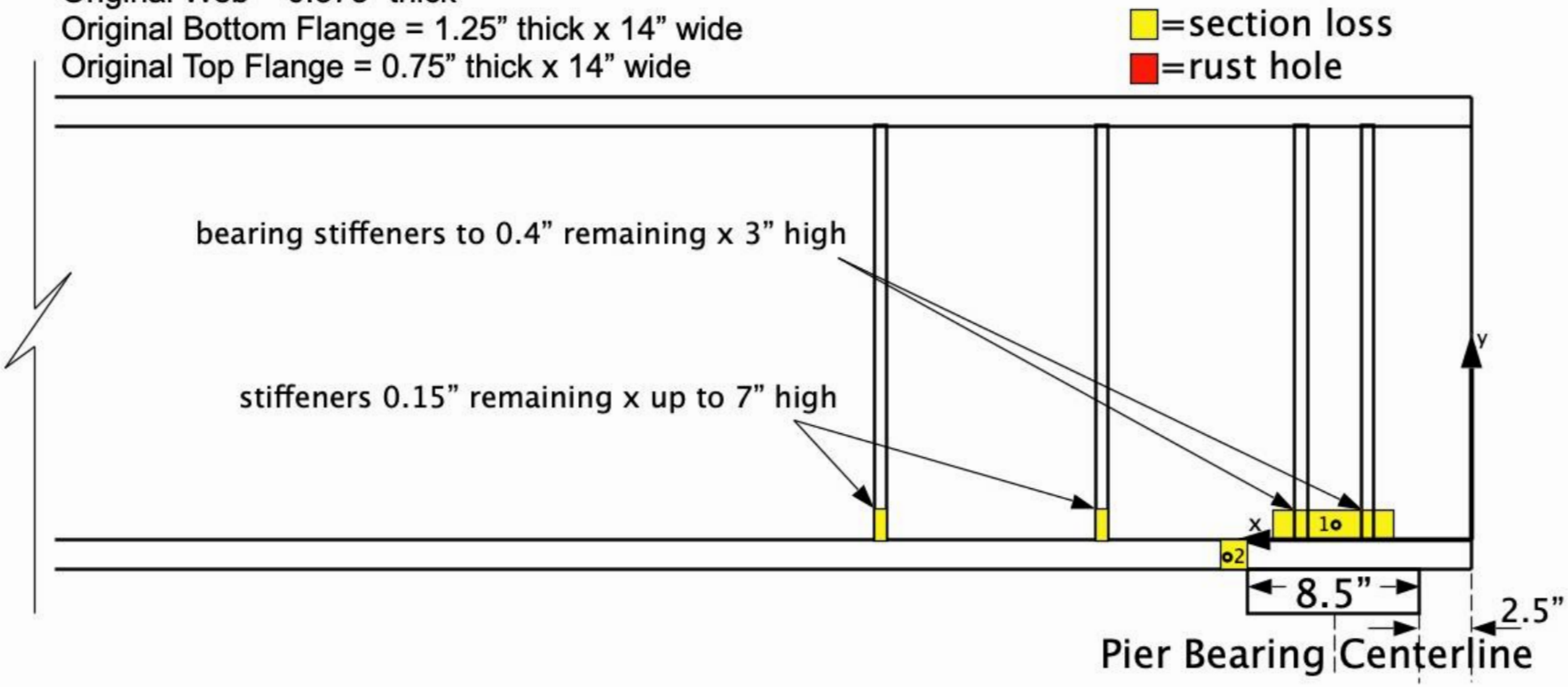
Proposal No. 6132l9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

SKETCHES

Notes:
1) coordinates originate at the end of the web on top of the bottom flange
2) connection plates and some stiffeners left out for clarity

Original Web = 0.375" thick
Original Bottom Flange = 1.25" thick x 14" wide
Original Top Flange = 0.75" thick x 14" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	7"	1"	0.25"	3" high x 1' long
2	13"	NA	0.8"	full width local section loss

Sketch 11: Girder 202, south end, section loss

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 1: **Wearing Surface has various degrees of mapcracking throughout entire deck. Longitudinal paving seam that had numerous potholes, have been repaired.**

Photo 2: **Deck Underside, Span 2, Bay 1, between Diaphragms 6 & 7 has honeycombed concrete from original construction, 3' wide x 3' long.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 3: **Deck Underside, Span 2, Bay 5, over US 202 Southbound, 7' north of center pier is spalled with several rusted rebars. Both North & South side of this spall are delaminated.**

Photo 4: **East Anti-Missile Fence has numerous vertical hold down straps with collision damage. Starting from south End, Straps 3, 6, & 8 are bent outwards.**

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HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 5: **Bay 5, 3" diameter conduit has been cut & removed over the center pier.**

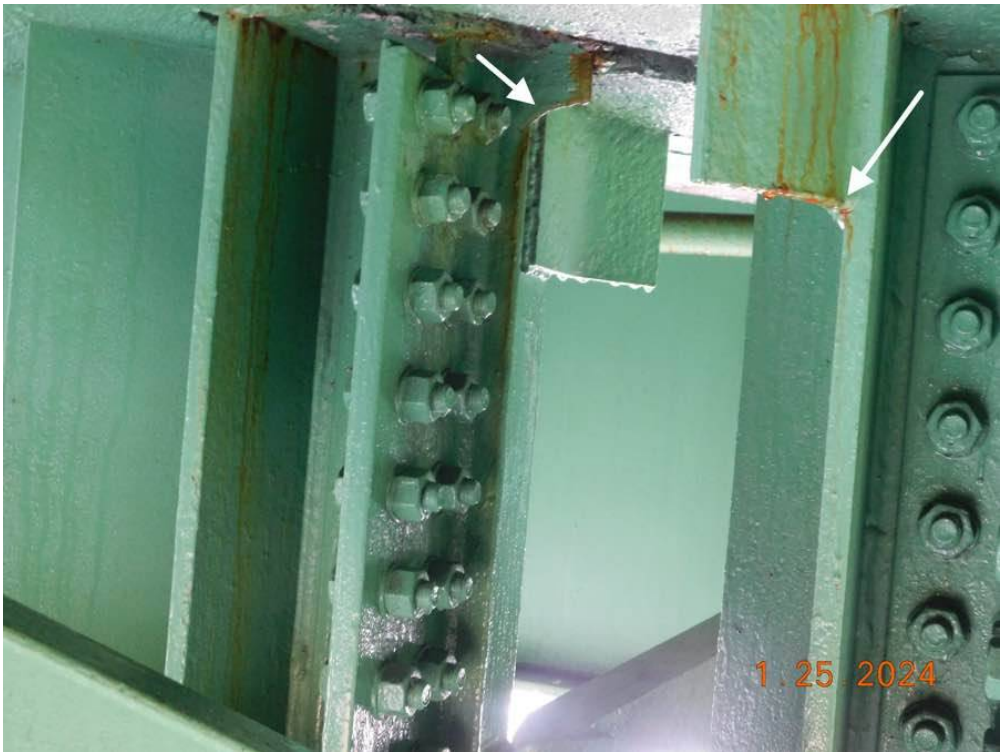

Photo 6: **Girders over the Pier, have a few locations at the very end of the beams (behind the bearing stiffeners) where rust holes were cut out leaving curved edges.**

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HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 7: **Span 1, lower interior face of Beam 101, base of stiffeners have painted rust holes.**

Photo 8: **Pier Cap has minor scaling to a few of the Pedestals that is causing some of the bearings to be misaligned when coupled with the severe section loss.**

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HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 9: **Section loss includes flat keeper plate to masonry plate welds, anchor bolt nuts with up to 50% section loss and keeper plates with severe section loss.**

Photo 10: **Cross Frames have numerous bolts that have severe section loss. South Abutment, Bay 4, has timber form board left in place.**

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HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 11: **Girder 201, bottom of bearing is 0.5" out of level with a 0.35" gap at the back edge. Top west end of Pier Cap is severely spalled with exposed rebars.**

Photo 12: **North Bridge Seat, Bay 2, drain trough is scale, 8" wide x 8" long x 3" deep.**

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HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

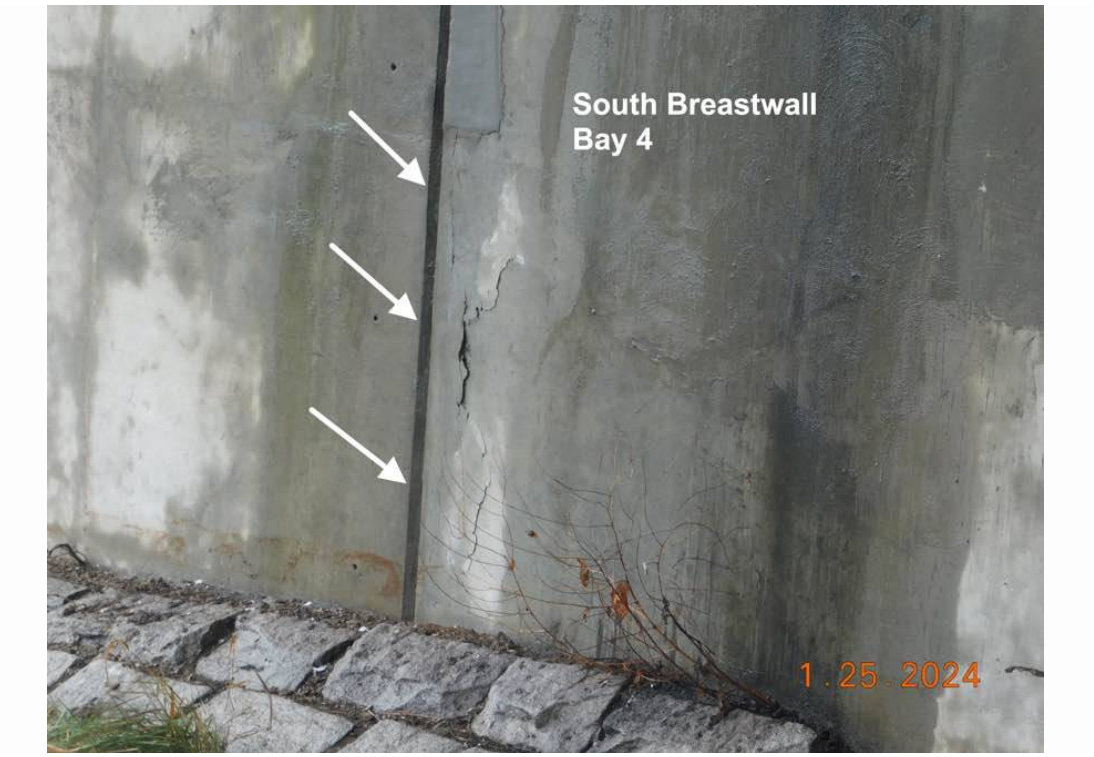

Photo 13: **South Breastwall, Bay 4, near the base of the wall is a delamination, 1' wide x 4' high.**

Photo 15: **South slope pavement, top row of blocks missing. East end has moderate erosion with the slope material sloughing with moderate vegetation.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 16: **Span 1, Girder 101, Pier pedestal is scaled at the southwest corner. Top of Pier Cap, West end & below Girder 101 is spalled with exposed rusted rebars.**

Photo 16: **Column 1 has a spall.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 17: **Bays 1 & 2, Top Face is scaled with exposed rusted rebars, up to 3' wide x 2' long x 8" deep.**

Photo 18: **Pier Cap, Bay 5, Bottom Face is scaled with exposed rebars, 4 wide x 2.5' long x 2" deep.**

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HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 19: **Pier Cap, South Face, near the East Corner is heavily scaled with with exposed rusted rebars, 9.5' wide x 3.5' high x up to 8" deep.**

Photo 20: **Pier Cap, North Face, below Bay 1, bottom edge is delaminated & scaled, 4' wide x 5" high x 5" deep.**

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HOLYOKE	0YE	H-21-049	H21049-0YE-DOT-NBI	JAN 25, 2024

PHOTOS

Photo 21: **Column 1, Top Southwest Face, is spalled, 2' diameter x up to 3" deep.**

Photo 22: **Southwest Approach guardrail (trailing end to one-way traffic) has a steel terminal end with collision damage.**

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Report Date: March 11, 2025

State Information

BDEPT#= H21049 Agency Br.No.

Town= Holyoke L.O. MHD

B.I.N= 0YE AASHTO= 057.9

RANK= 809 H.I.= 83.1 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	H210490YEDOTNBI
(5) Inventory Route	111000913
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	30840
(6) Features Intersected	**US202 CHERRY ST**
(7) Facility Carried	**I 91 SB**
(9) Location	MM 14.2 ON I-91 SB
(11) Kilometerpoint	0022.852
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 12 MIN 01.09 SEC
(17) Longitude	72 DEG 38 MIN 19.14 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	002
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Preformed Fabric	Code 2
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 03	Under structure 04
(29) Average Daily Traffic	036357
(30) Year of ADT 2018 (109) Truck ADT	05 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0029.3 M
(49) Structure Length	00060.2 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	012.2 M
(52) Deck Width Out to Out	014.1 M
(32) Approach Roadway Width (w/shoulders)	012.2 M
(33) Bridge Median - No median	Code 0
(34) Skew 47 DEG (35) Structure Flared	N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	12.2 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	05.08 M
(55) Min Lat Underclear RT ref H	01.3 M
(56) Min Lat Underclear LT	00.3 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	L
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	6
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mo	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	54.2
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	28.6
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	3
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 1 1 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 01/25/24 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/06/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 11/01/91	H20	Type 3	Type 3S2	Type HS
Operating	33.5	59.6	76.8	60.3
Inventory	23.0	30.6	36.9	31.8

Field Posting

Status LEGAL Posting Date 01/18/95

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

Y Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 1 : Known problematic history of concrete deterioration

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
P / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 016

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National Bridge Element Inspection

BDEPT# **H-21-049**
B.I.N. **0YE**
Item 8 **H21049-0YE-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **01/25/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	9,115.000	☐ %	7,510.000	1,603.000	2.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	27.000	☐ %		25.000	2.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	1,578.000	☐ %		1,578.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	7,897.000	☐ %	7,797.000	40.000	50.000	10.000
Notes :									
> > 3210	*Del/Spall/Patch/Pot(Wear Surf)*	sq feet	2	100.000	☐ %		40.000	50.000	10.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,056.000	☐ %	900.000	156.000		
Notes :									
> 1000	*Corrosion*	feet	2	156.000	☐ %		156.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	14,256.000	☐ %	14,256.000			
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	14,256.000	☐ %	14,256.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	120.000	☐ %		84.000	36.000	
Notes :									
> 1000	*Corrosion*	feet	3	120.000	☐ %		84.000	36.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,620.000	☐ %	1,620.000			
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-049**
B.I.N. **0YE**
Item 8 **H21049-0YE-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **01/25/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
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Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,620.000	☐ %	1,620.000			
Notes :									
205	**Re Conc Column**	each	3	4	☐ %		1	3	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	each	3	3	☐ %		1	2	
Notes :									
> 1130	*Cracking (RC and Other)*	each	3	1	☐ %			1	
Notes :									
215	**Re Conc Abutment**	feet	3	136.000	☐ %	122.000	11.000	3.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	14.000	☐ %		11.000	3.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	65.000	☐ %	25.000	5.000	20.000	15.000
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	40.000	☐ %		5.000	20.000	15.000
Notes :									
306	**Other Joint**	feet	2	177.000	☐ %	9.000	107.000	61.000	
Notes :									
> 2310	*Leakage*	feet	2	165.000	☐ %		105.000	60.000	
Notes :									
> 2360	*Adjacent Deck or Header*	feet	2	3.000	☐ %		2.000	1.000	
Notes :									
311	**Moveable Bearing**	each	3	12	☐ %		6	5	1
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-049**
B.I.N. **0YE**
Item 8 **H21049-0YE-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **01/25/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1000	*Corrosion*	each	3	8	☐ %		6	2	
Notes :									
> 2240	*Loss of Bearing Area*	each	3	4	☐ %			3	1
Notes :									
> 515	Steel Protective Coating	sq feet	3	24.000	☐ %	24.000			
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	24.000	☐ %	24.000			
Notes :									
313	**Fixed Bearing**	each	3	12	☐ %		12		
Notes :									
> 1000	*Corrosion*	each	3	12	☐ %		12		
Notes :									
> 515	Steel Protective Coating	sq feet	3	24.000	☐ %	24.000			
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	24.000	☐ %	24.000			
Notes :									
333	**Other Bridge Railing**	feet	2	395.000	☐ %	386.000		9.000	
Notes :									
> 1010	*Cracking*	feet	2	9.000	☐ %			9.000	
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 26

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	0YF	H-21-051

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
HOLYOKE	H21051-0YF-DOT-NBI	023.496	A:OPEN	MAY 24, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 NB		1963	1986	2013

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
HWY SCOTT TOWER ROAD	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	W. Morin

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Clear	23°C	T. MAZZAFERRO

ITEM 58 — DECK — 7

		DEF
1.Wearing Surface	7	M-P
2.Deck Condition	7	-
3.Stay-In-Place Forms	6	-
4.Curbs	N	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	N	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	75	75

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 5

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	N	-
8.Cover Plates	7	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross Frames	7	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	4	S-P
15.	N	-

Year Painted: 1988

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) Y

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 6

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	6		-
c. Backwalls	N	6		-
d. Breastwalls	N	6		-
e. Wingwalls	N	6		M-P
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			6	
a. Pedestals	N	7		-
b. Caps	N	6		M-P
c. Columns	N	6		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 6

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	7	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	N	N	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	16	8	17	1	5.08
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	N
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	N	N
RR Flagger	N	N
Police	N	N
Other:		
	N	N

TOTAL HOURS 12

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 11/01/2006

Inspection data at time of existing rating

I 58: **7** I 59: **7** I 60: **6** Date : 05/05/2005

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YF**	**H-21-051**	**H21051-0YF-DOT-NBI**	**MAY 24, 2023**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound over Scott Tower Road which travels east and west.

Per the bridge plans, the 7 beams per span are numbered west to east and then south to north,
Span 4 has Beams 401 - 407, Span 5 has Beams 501 - 507, and Span 6 has Beams 601 - 607.
The bays are numbered west to east per span.

The 3 spans (4 - 6) and 2 piers (3 & 4) are numbered south to north.
The 4 columns per pier are numbered west to east.
See Sketches 1 - 3.

GENERAL REMARKS
Access:
To unlock gate to Scott Tower Road, Call Holyoke Park & Rec. @ 413-322-5620 or Holyoke Public Works @ 413-322-5645, ask for David Beoudion.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
All Spans, the pavement is unraveling along the longitudinal joints on the right side of the travel lanes have minor wheel rutting. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Overhangs have hairline transverse cracks with leaching efflorescence that start on the exterior faces of the parapets. **See Photo 2.**

Item 58.3 - Stay-In-Place Forms
Stay-In-Place (SIP) Forms, Span 5, Bay 2, and Span 6, Bay 5, both have areas of moderate surface rust along edge of beams. **See Photo 3.**

Item 58.7 - Parapets
Railing consists of 32" high Jersey style concrete parapets.

Interior & exterior faces have vertical hairline cracks with and without leaching efflorescence.

East Parapet in Span 6:
- Interior lower edge has scaling, particularly at the north end measuring 28" wide x 8" high x 3" deep.
- Top interior edge near the north end, has minor collision damage.

Item 58.13 - Deck Joints
New compression seal deck joints have been installed over the Piers. **See Photos 4 & 5.**

APPROACHES

Approaches a - Appr. pavement condition
South Approach roadway has a few scattered transverse cracks. **See Photo 1.**

Approaches b - Appr. Roadway Settlement
Approaches have minor wheel rutting. **See Photo 1.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YF**	**H-21-051**	**H21051-0YF-DOT-NBI**	**MAY 24, 2023**

REMARKS

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beams 401, 406, 601 & 606 are 33WF118, Flange Thickness =0.740" Web Thickness = 0.550"
Beams 402 - 405 are 30WF116, Flange Thickness =0.850" Web Thickness =0.850"
Beams 501 - 507 are 33WF130, Flange Thickness =0.855" Web Thickness =0.580"
Beams 602 - 605 are 30WF018, Flange Thickness =0.760" Web Thickness =0.545"

Beam ends throughout the structure have widespread corrosion and delamination. Corrosion is more severe in Span 5 at Pier 4. **See Sketches 4 - 10 and Photos 6 - 12**

Notable defects are as follows:

- **Beam 605** has a rust hole at the south end of the beam 7" wide x 1" high. **See Photo 10.**

Item 59.9 - Bearing Devices
Abutment Bearings typically have minor surface rust.

Pier Bearings have moderate surface rust. **See Photos 7 - 12.**

Pier 3, Span 4 Bearing Anchors are bent to the south. **See Photo 13.**

Beam 504, South Bearing, east anchor bolt, is broken off. **See Photo 14.**
Beam 602, North Bearing, west anchor bolt, is broken off.
Beam 605, North Bearing, west anchor bolt, is broken off.

Item 59.14 - Paint/Coating
Paint System throughout the structure is beginning to freckle and break up. **See Photos 6 - 14.**

Pier beam ends and bearing paint have failed. **See Photos 7 - 14.**

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North & South Bridge Seats have minor scaling at various areas at the Breastwall patching interfaces. **See Photo 15.**

Item 60.1.c - Backwalls
North & South Backwalls have some vertical hairline cracks.

North Backwall, east end, minor scaling 2' wide x 2' high.

Item 60.1.d - Breastwalls
North & South Breastwalls have minor scaling at various areas at the Bridge Seat patching interfaces. **See Photo 15.**

South Breastwall, under Beam 405 there is a delamination 5' wide x 7" high.

Item 60.1.e - Wingwalls
Southeast Wingwall, along vertical construction joint, has an area of delamination and scaling, 1' wide x 2.5' high x Full Depth. **See Photos 16 & 17.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YF**	**H-21-051**	**H21051-0YF-DOT-NBI**	**MAY 24, 2023**

REMARKS

Northeast Wingwall, has an area of scaling, 2' wide x 1' high x 2" deep.

Northwest Wingwall has moderate vegetative growth.

Item 60.1.f - Slope Paving/Rip-Rap
North & South granite block slopes have some minor heaving.

Item 60.2 - Piers or Bents
Item 60.2.a - Pedestals
Pedestal for Beam 403, north end has minor cracking.

Pedestal for Beam 603, south end is cracked with minor delaminations.

Item 60.2.b - Caps
Both Pier Caps have minor hairline cracks with rust and efflorescence staining.

Pier 3:

- **South Face:**
  - Under Beam 403, 4" below the top of cap is a crack, 3' long with minor rust staining and severe efflorescence.
  - Under Beam 404, 4" below the top of cap is a crack with efflorescence and delamination, 4' long x 10" high.
- **North Face:**
  - Under Beam 507 (East Fascia), has a horizontal crack and delamination, 70" wide x 12" long.
  - Under Bay 5 top of the cap has a horizontal crack 65" long x 0.1" wide.

Pier 4:

- **Top Surface,** Bays 3 - 6 has moderate to heavy debris build-up. **See Photo 18.**
- **Underside,** between columns 3 & 4 is delaminated 4' long x 3' wide
- **East End:**
  - Top Edge is scaled, 3' wide x 1.3' high x 7" deep.
  - Bottom Edge is spalled with exposed rebars, 3' wide x 1' high x 6" deep. **See Photo 19.**
- **South Face:**
  - Under Beam 507 (East Fascia), 6" above the bottom of cap, has a horizontal crack, 3' long x hairline .
  - Bay 3 at the bottom of the cap there is a crack 4' long x 9/16" wide.
- **North Face:**
  - Bay 3, the top of cap is cracked and delaminated, 3' long x 4" high.
  - Bay 4, top edge has spall, 4' wide x 12" high x 4" deep with rust and efflorescence.
  - Bays 2, 5 & 6, 4" below the top of cap is a horizontal crack, 8' long x 1/8" wide.

Item 60.2.c - Columns
Columns have several, hairline to 1/8" wide, vertical cracks, with few delaminated areas.

Pier 4:

- **Column 3:**
  - South face, the top of the cap is cracking with delamination 3' wide x 60" high.
  - Northeast face, full height delamination.
- **Column 4,** northwest face, full height delamination. **See Photo 20.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YF**	**H-21-051**	**H21051-0YF-DOT-NBI**	**MAY 24, 2023**

REMARKS

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets.

Item 36b - Transitions
Transitions consist of steel Thrie-beam guardrail bolted to the concrete parapets, on timber posts with timber offset blocks.

Item 36c - Approach Guardrail
Northeast & Southeast Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Northwest & Southwest Approach guardrails consist of steel Thrie-beam guardrail on steel H-posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends
All approach guardrails travel beyond the limits of the bridge.

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Northbound Elevation
Sketch 3 : Cross Section
Sketch 4 : Beams 403 & 405, south ends, section loss.
Sketch 5 : Beam 407, south end, & Beam 503, north end, section loss.
Sketch 6 : Beams 504 & 505, north ends, section loss.
Sketch 7 : Beams 506 & 507, north ends, section loss.
Sketch 8 : Beams 603 & 604, south ends, section loss.
Sketch 9 : Beam 605, south end, minor rust hole. Beam 606, south end, section loss.
Sketch 10 : Beam 607, south end, section loss.
Photo 1 : Wearing Surface, full length is unraveling along the paving seams with minor wheel rutting. Approaches have minor wheel rutting.
Photo 2 : Deck, West Overhang has typical transverse cracks and efflorescence.
Photo 3 : S-I-P Forms in Span 5, Bay 2, have areas of moderate surface rust along edge of beams.
Photo 4 : Deck Joint over Pier 4, replaced.
Photo 5 : Deck Joint over Pier 5, replaced.
Photo 6 : Beam 407, south end, section loss.
Photo 7 : Beam 504, north end, section loss.
Photo 8 : Beam 506, north end, section loss.
Photo 9 : Beam 507, north end, section loss.
Photo 10 : Beam 605, south end, rust hole.
Photo 11 : Beam 606, south end, section loss.
Photo 12 : Beam 607, south end, section loss.
Photo 13 : Pier 3, Span 4 anchors are bent to the south.
Photo 14 : Beam 504, south bearing anchor is broken.
Photo 15 : North Bridge Seat and Breastwall, east end, scaling at a concrete patch.
Photo 16 : Southeast Wingwall has severe scaling.
Photo 17 : Southeast Wingwall has severe scaling.
Photo 18 : Pier 4, Bays 3 - 6 moderate to heavy debris build-up.
Photo 19 : Pier 4, east end, scaling with rusting rebars.
Photo 20 : Pier 4, Column 4, cracking with delamination and rust staining.

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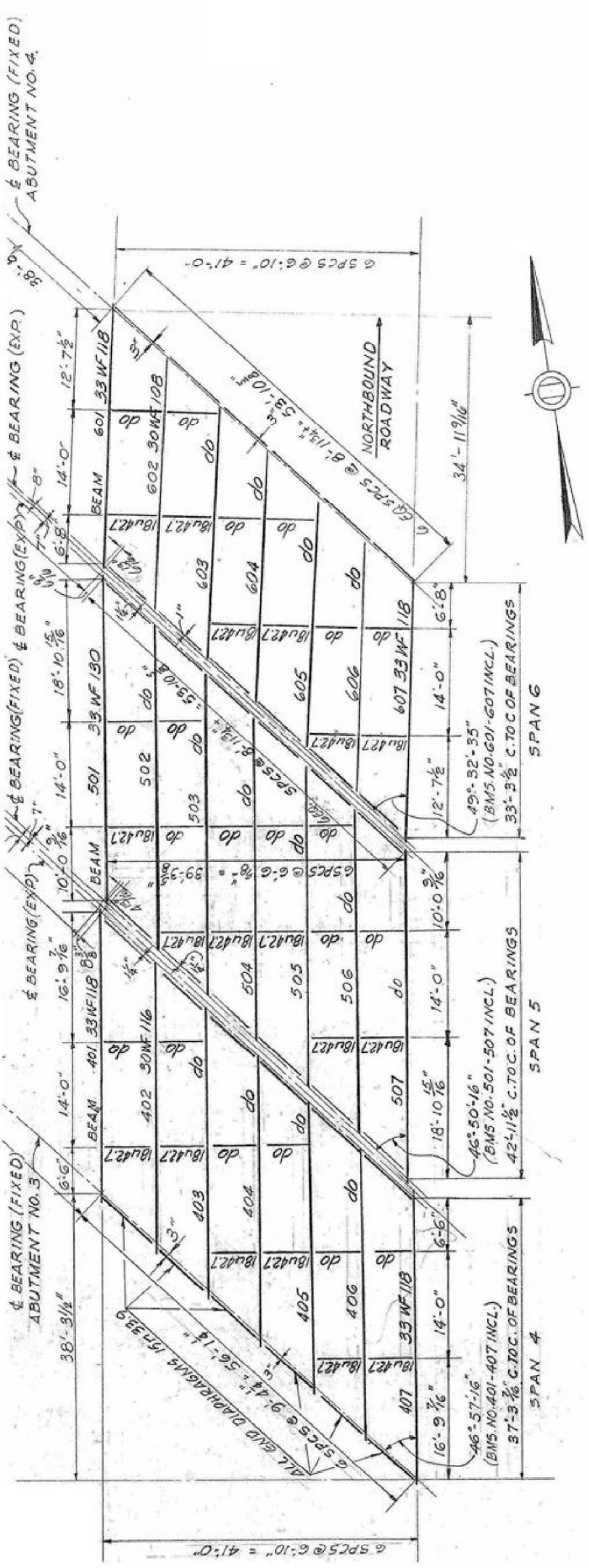
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES



Sketch 1: Framing Plan

REM.(2)2-21

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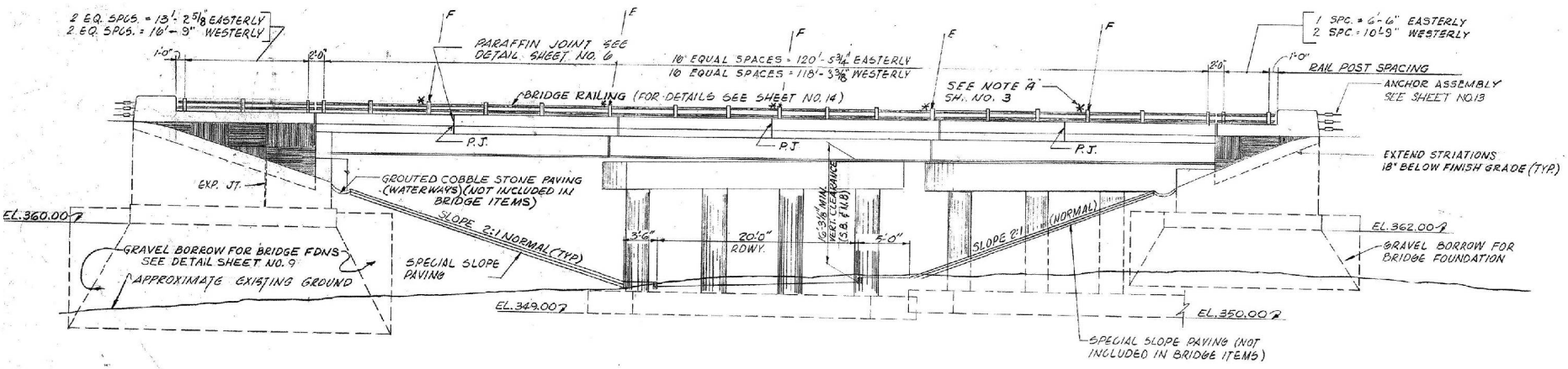
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES



Sketch 2: Northbound Elevation

REM.(2)2-21

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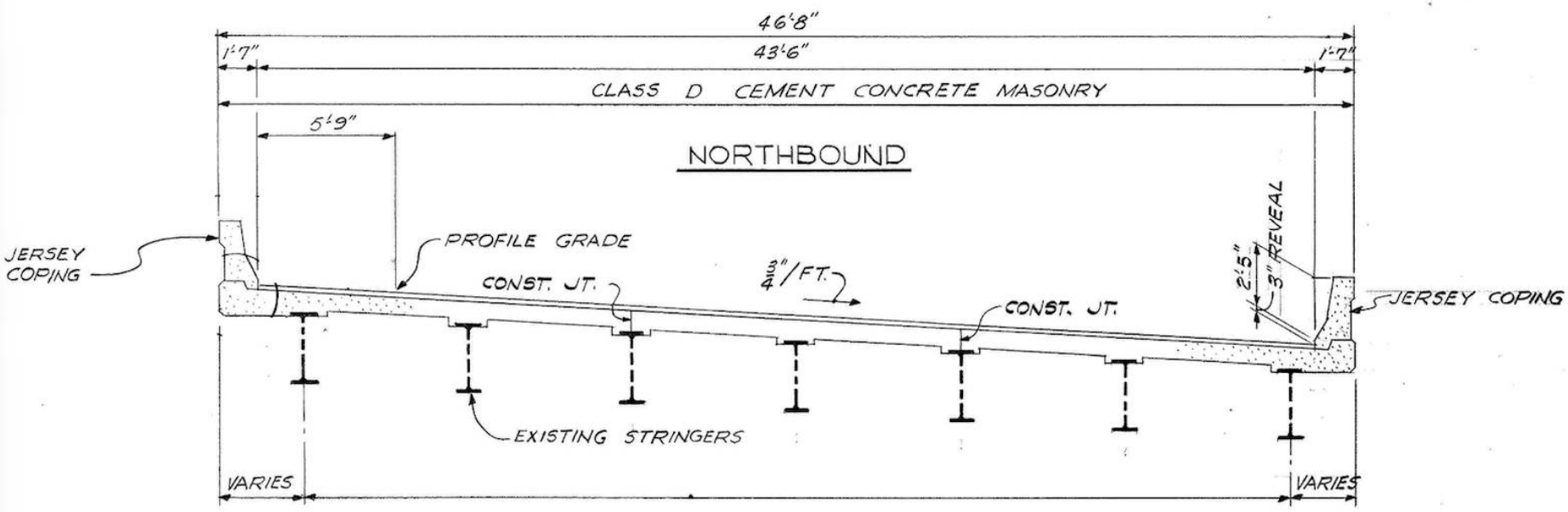
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES



Sketch 3: Cross Section

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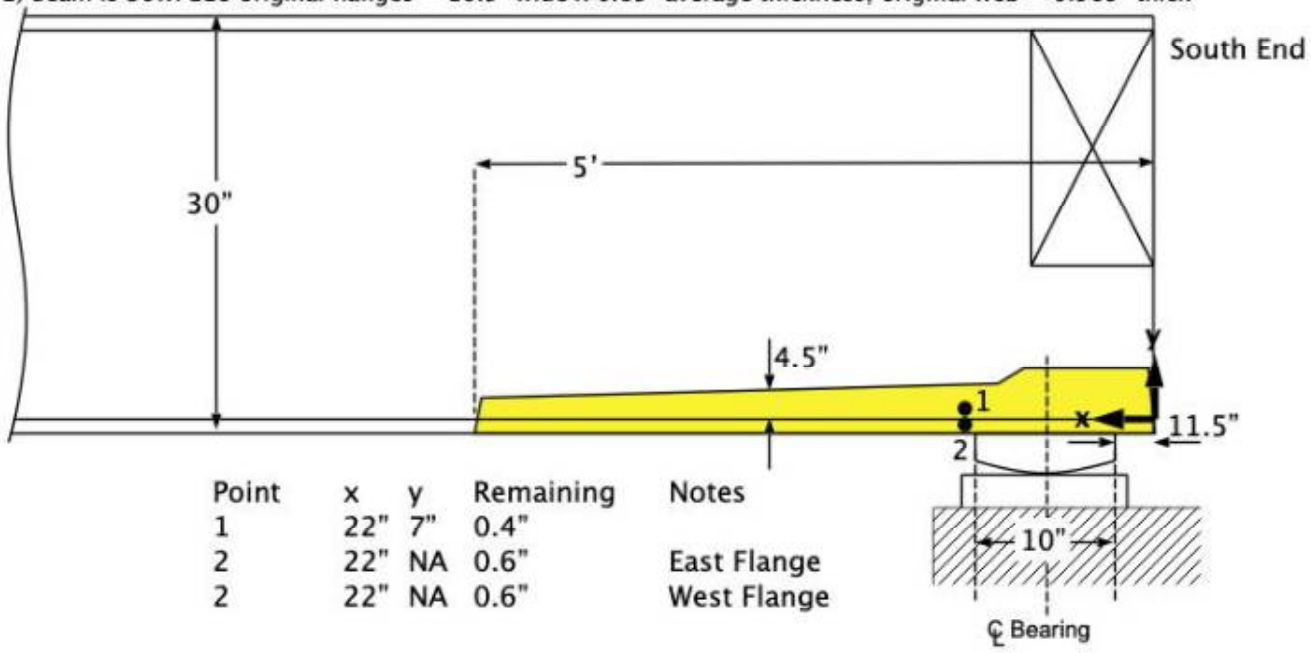
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES

Beam 403

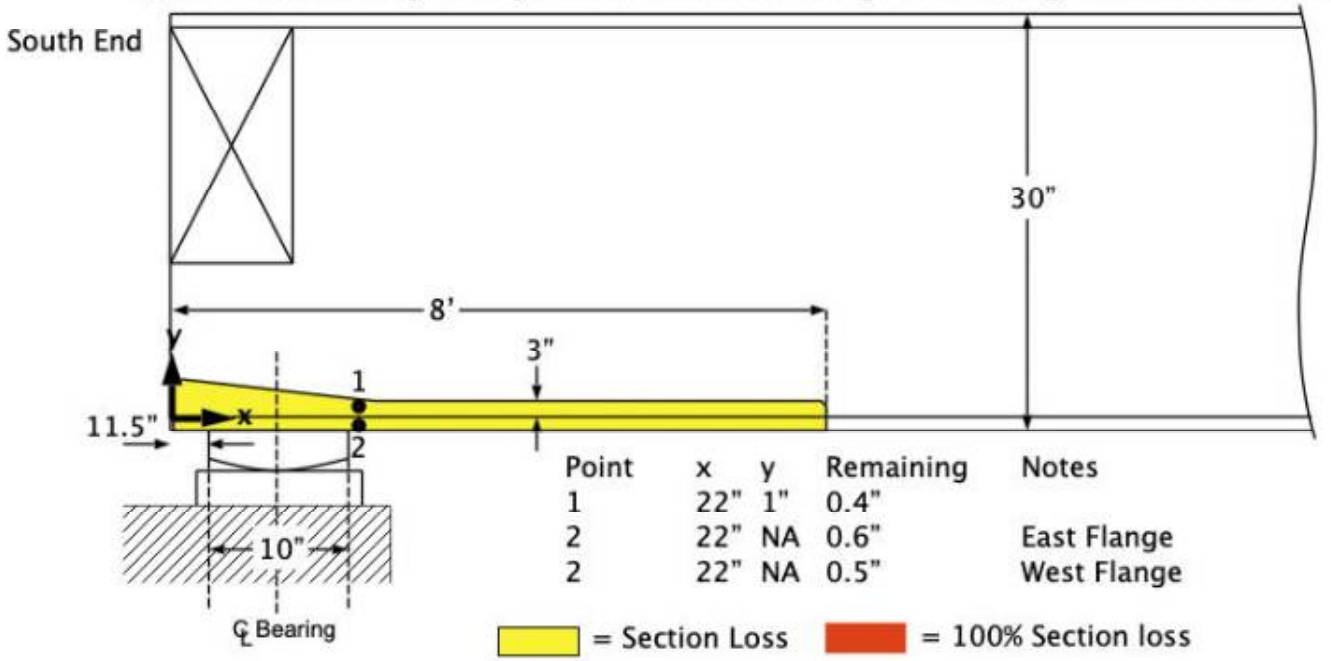
Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 30WF116 original flanges = 10.5" wide x 0.85" average thickness; original web = 0.565" thick



Point	x	y	Remaining	Notes
1	22"	7"	0.4"	
2	22"	NA	0.6"	East Flange
2	22"	NA	0.6"	West Flange

Beam 405

Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 30WF116 original flanges = 10.5" wide x 0.85" average thickness; original web = 0.565" thick



Point	x	y	Remaining	Notes
1	22"	1"	0.4"	
2	22"	NA	0.6"	East Flange
2	22"	NA	0.5"	West Flange

Sketch 4: Beams 403 & 405, south ends, section loss.

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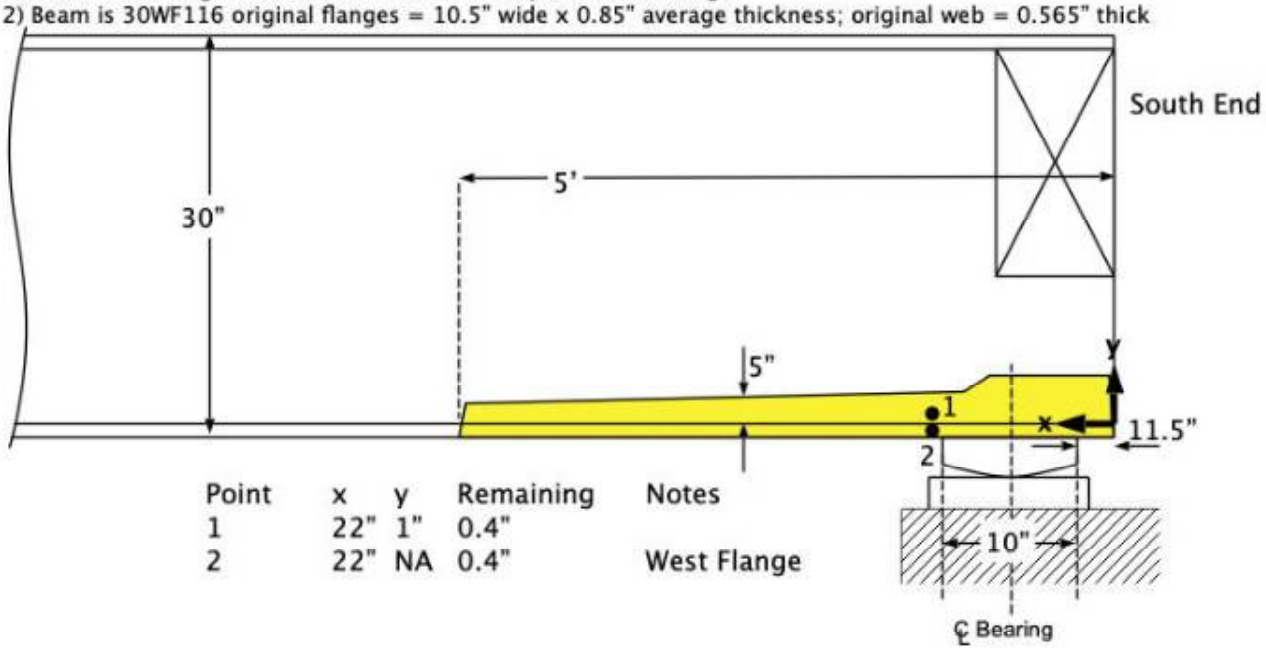
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES

Beam 407

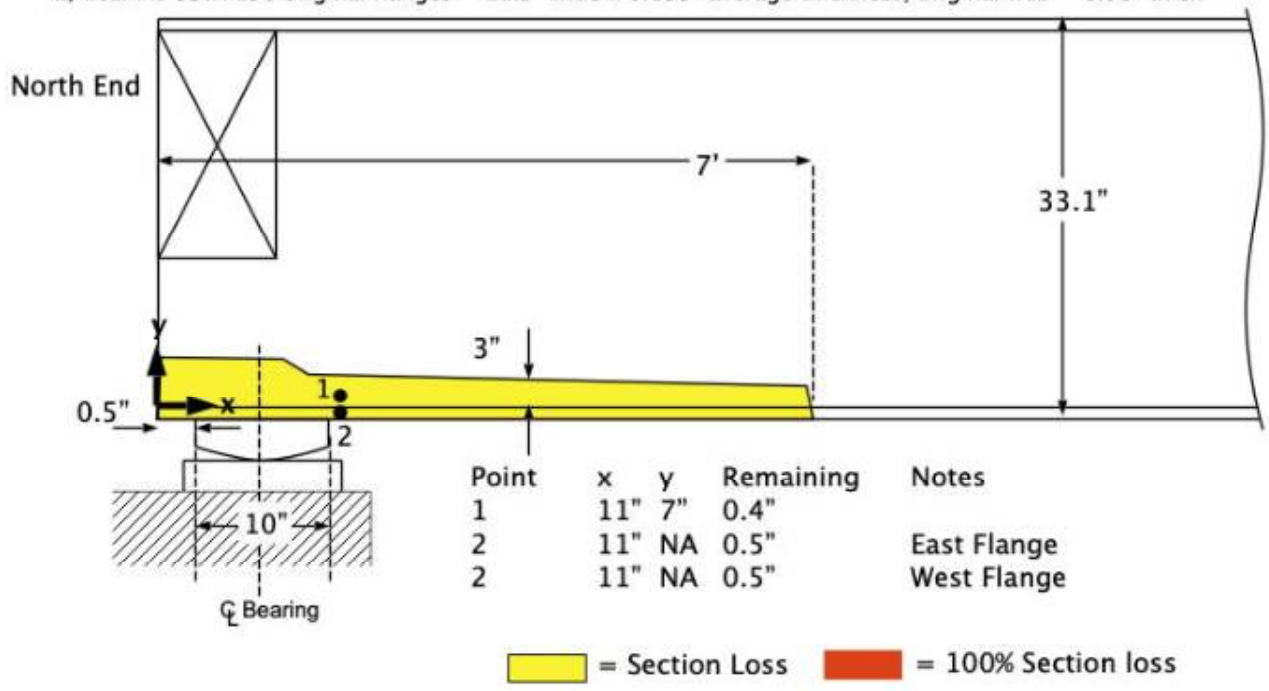
Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 30WF116 original flanges = 10.5" wide x 0.85" average thickness; original web = 0.565" thick



Point	x	y	Remaining	Notes
1	22"	1"	0.4"	
2	22"	NA	0.4"	West Flange

Beam 503

Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 33WF130 original flanges = 11.5" wide x 0.855" average thickness; original web = 0.58" thick



Point	x	y	Remaining	Notes
1	11"	7"	0.4"	
2	11"	NA	0.5"	East Flange
2	11"	NA	0.5"	West Flange

Sketch 5: Beam 407, south end, & Beam 503, north end, section loss.

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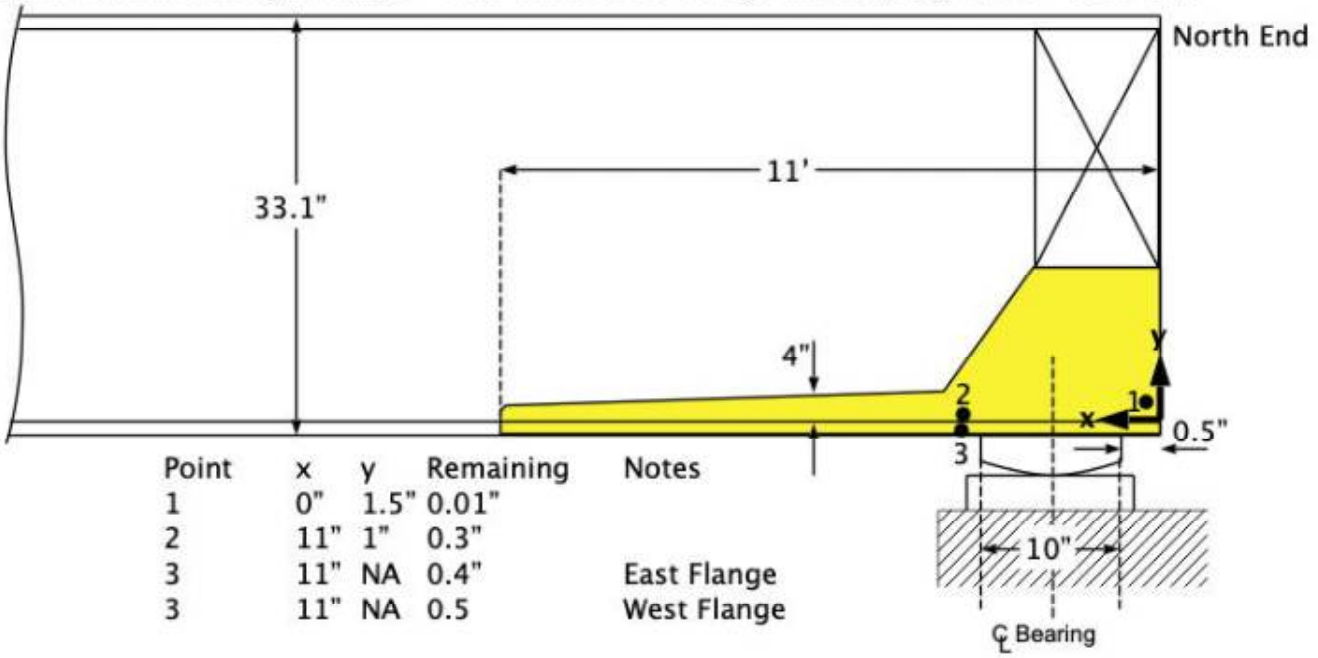
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES

Beam 504

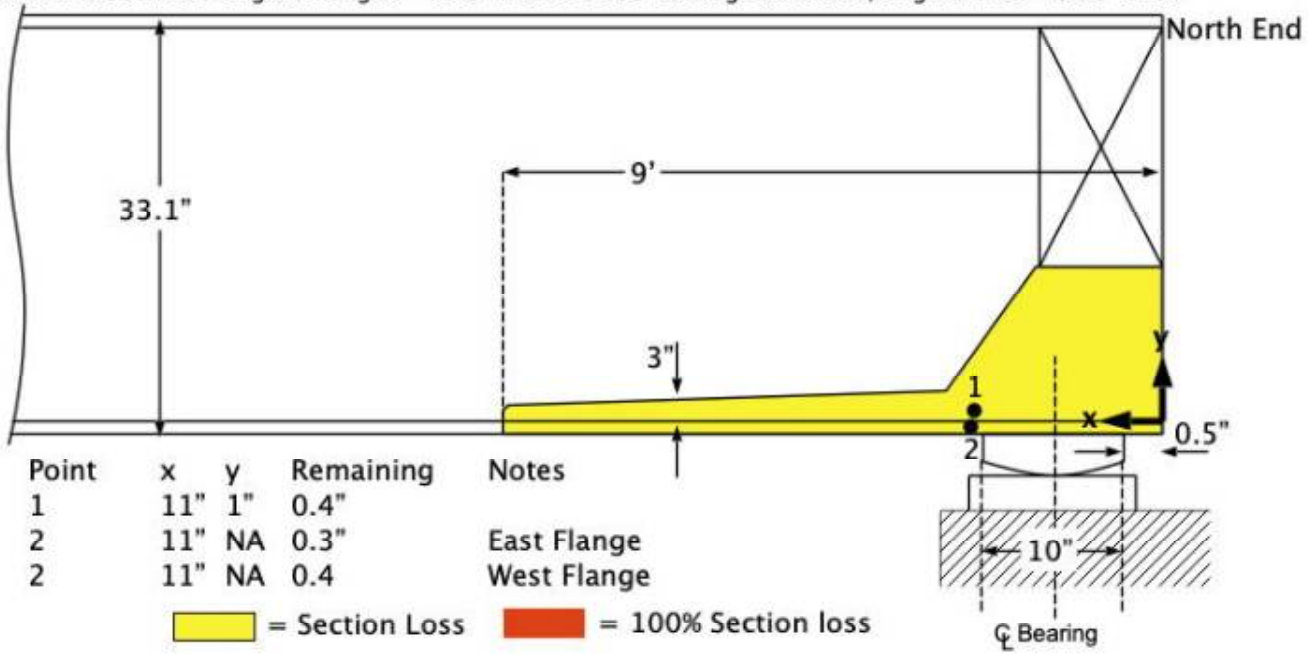
Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 33WF130 original flanges = 11.5" wide x 0.855" average thickness; original web = 0.58" thick



Point	x	y	Remaining	Notes
1	0"	1.5"	0.01"	
2	11"	1"	0.3"	
3	11"	NA	0.4"	East Flange
3	11"	NA	0.5	West Flange

Beam 505

Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 33WF130 original flanges = 11.5" wide x 0.855" average thickness; original web = 0.58" thick



Point	x	y	Remaining	Notes
1	11"	1"	0.4"	
2	11"	NA	0.3"	East Flange
2	11"	NA	0.4	West Flange

= Section Loss = 100% Section loss

Sketch 6: Beams 504 & 505, north ends, section loss.

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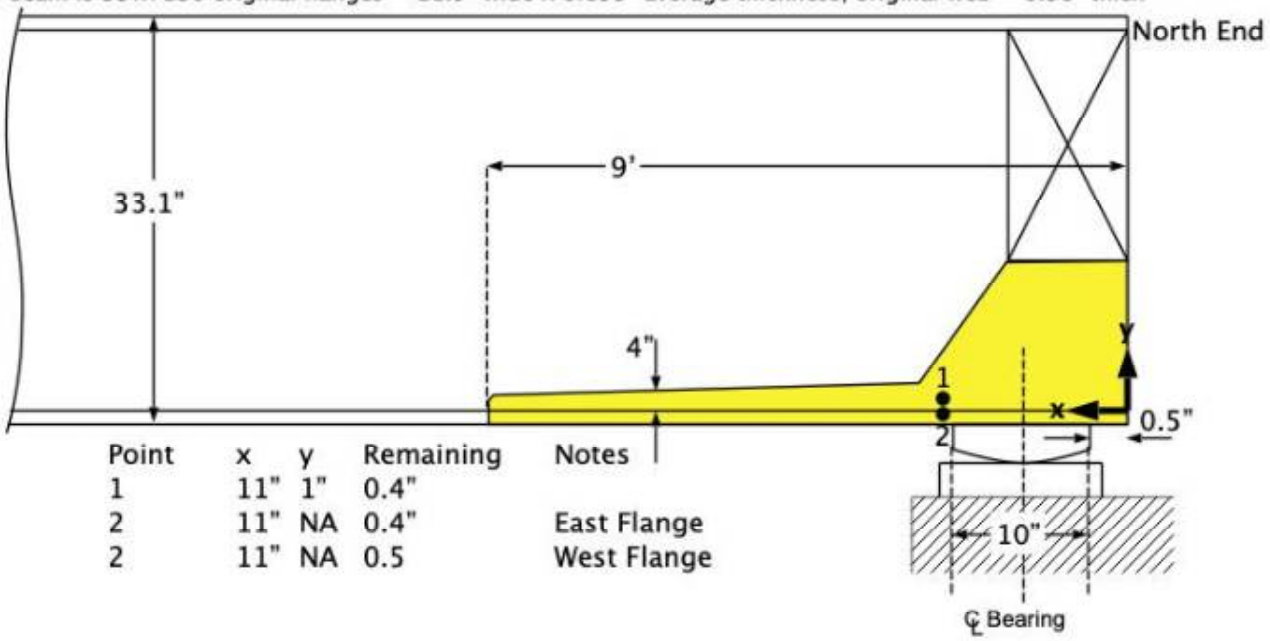
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES

Beam 506

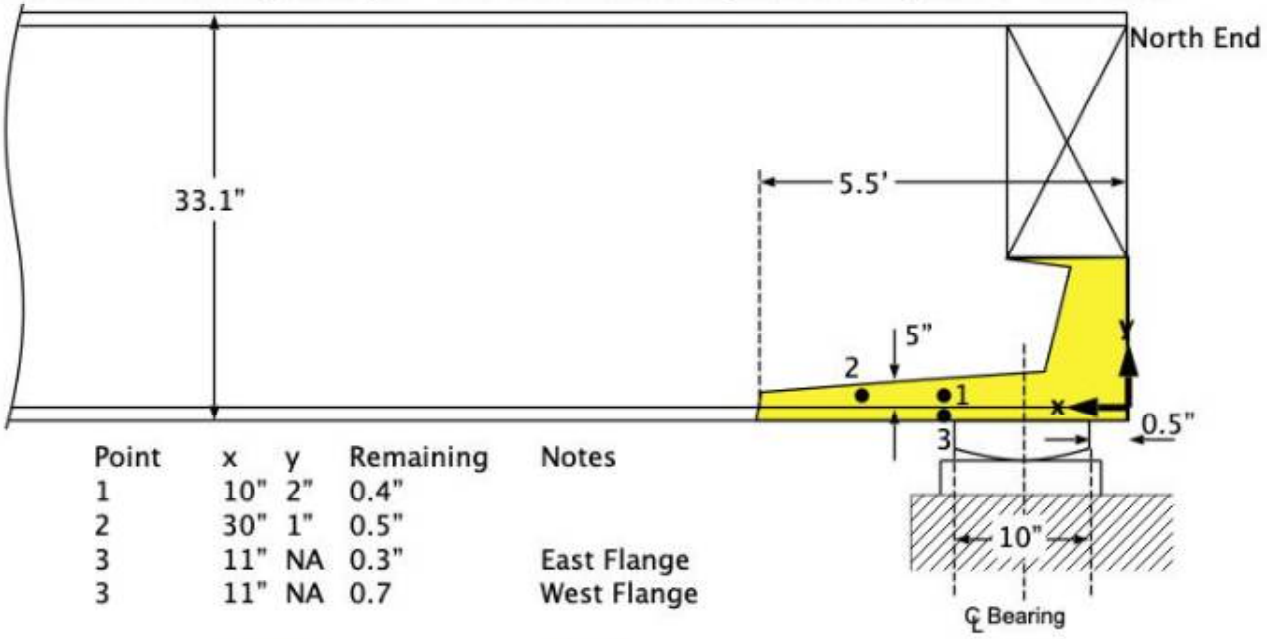
Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 33WF130 original flanges = 11.5" wide x 0.855" average thickness; original web = 0.58" thick



Point	x	y	Remaining	Notes
1	11"	1"	0.4"	
2	11"	NA	0.4"	East Flange
2	11"	NA	0.5	West Flange

Beam 507

Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 33WF130 original flanges = 11.5" wide x 0.855" average thickness; original web = 0.58" thick



Point	x	y	Remaining	Notes
1	10"	2"	0.4"	
2	30"	1"	0.5"	
3	11"	NA	0.3"	East Flange
3	11"	NA	0.7	West Flange

= Section Loss = 100% Section loss

Sketch 7: Beams 506 & 507, north ends, section loss.

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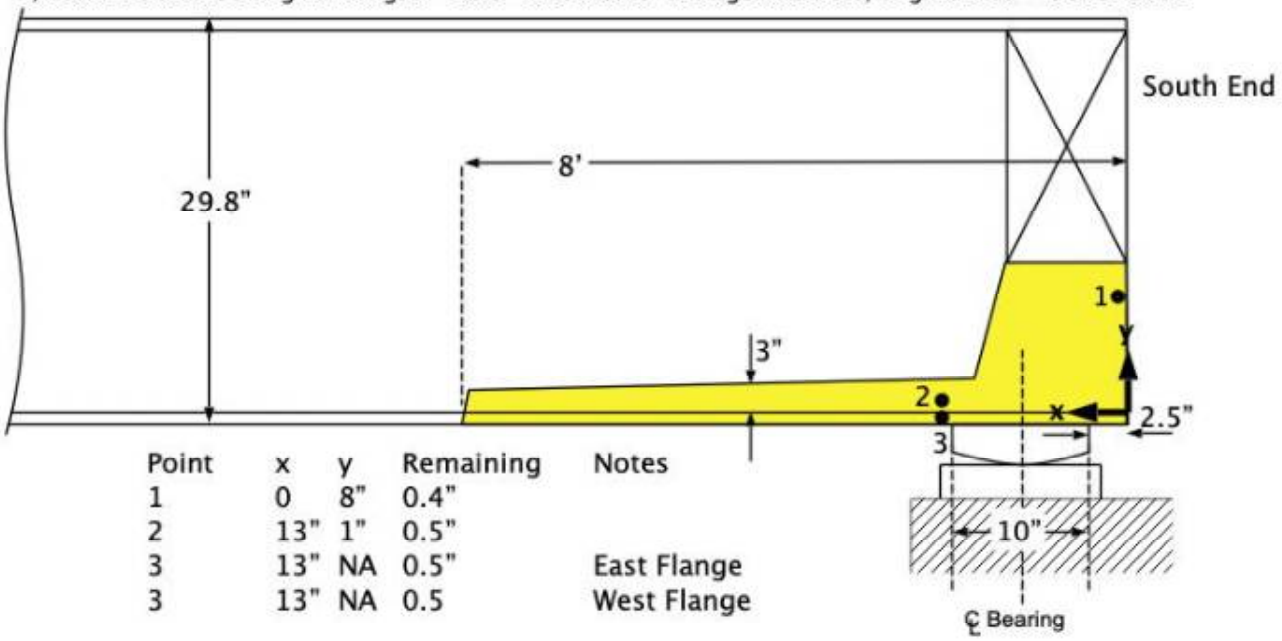
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES

Beam 603

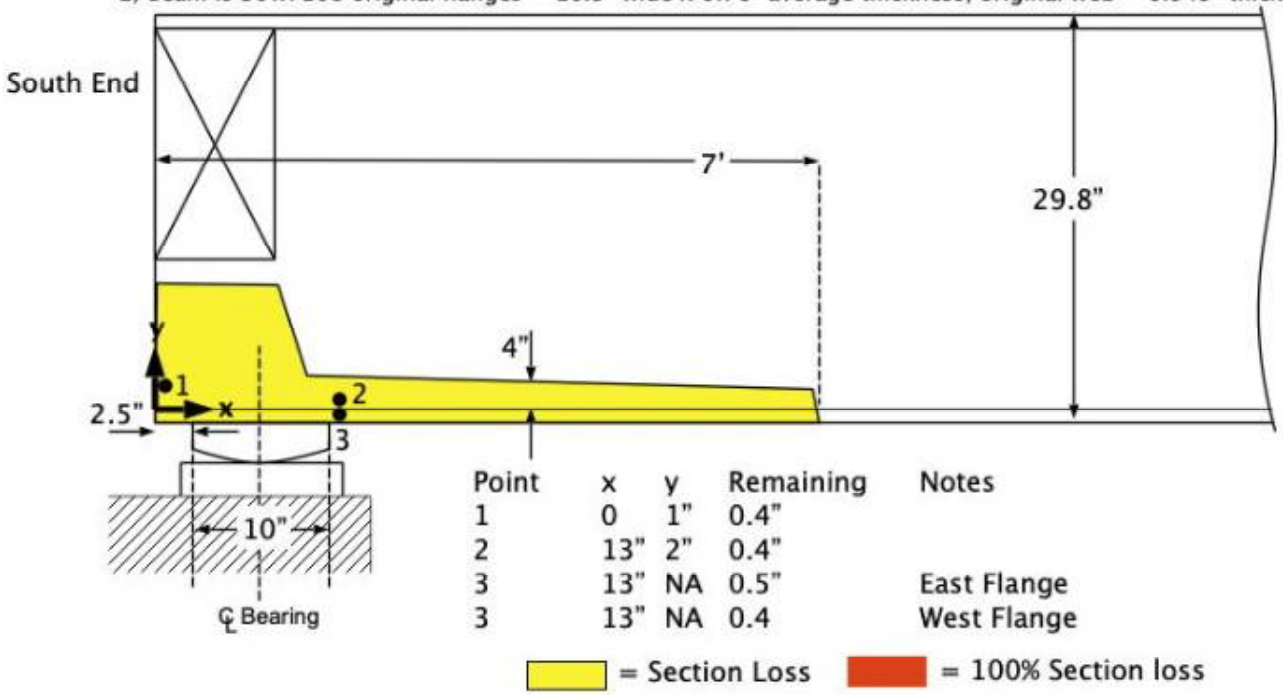
Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 30WF108 original flanges = 10.5" wide x 0.76" average thickness; original web = 0.545" thick



Point	x	y	Remaining	Notes
1	0	8"	0.4"	
2	13"	1"	0.5"	
3	13"	NA	0.5"	East Flange
3	13"	NA	0.5	West Flange

Beam 604

Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 30WF108 original flanges = 10.5" wide x 0.76" average thickness; original web = 0.545" thick



Point	x	y	Remaining	Notes
1	0	1"	0.4"	
2	13"	2"	0.4"	
3	13"	NA	0.5"	East Flange
3	13"	NA	0.4	West Flange

Sketch 8: Beams 603 & 604, south ends, section loss.

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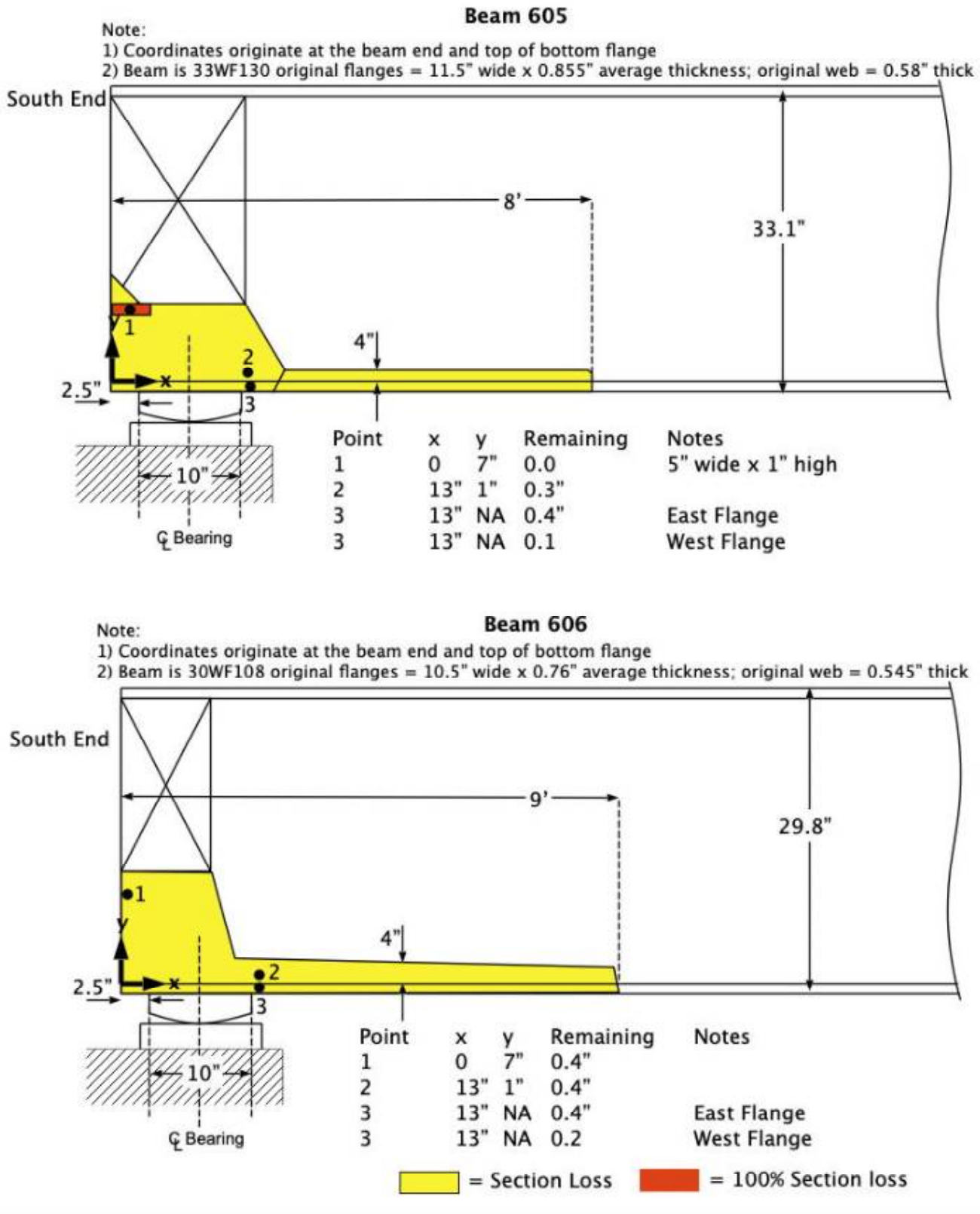
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES



Sketch 9: **Beam 605, south end, minor rust hole. Beam 606, south end, section loss.**

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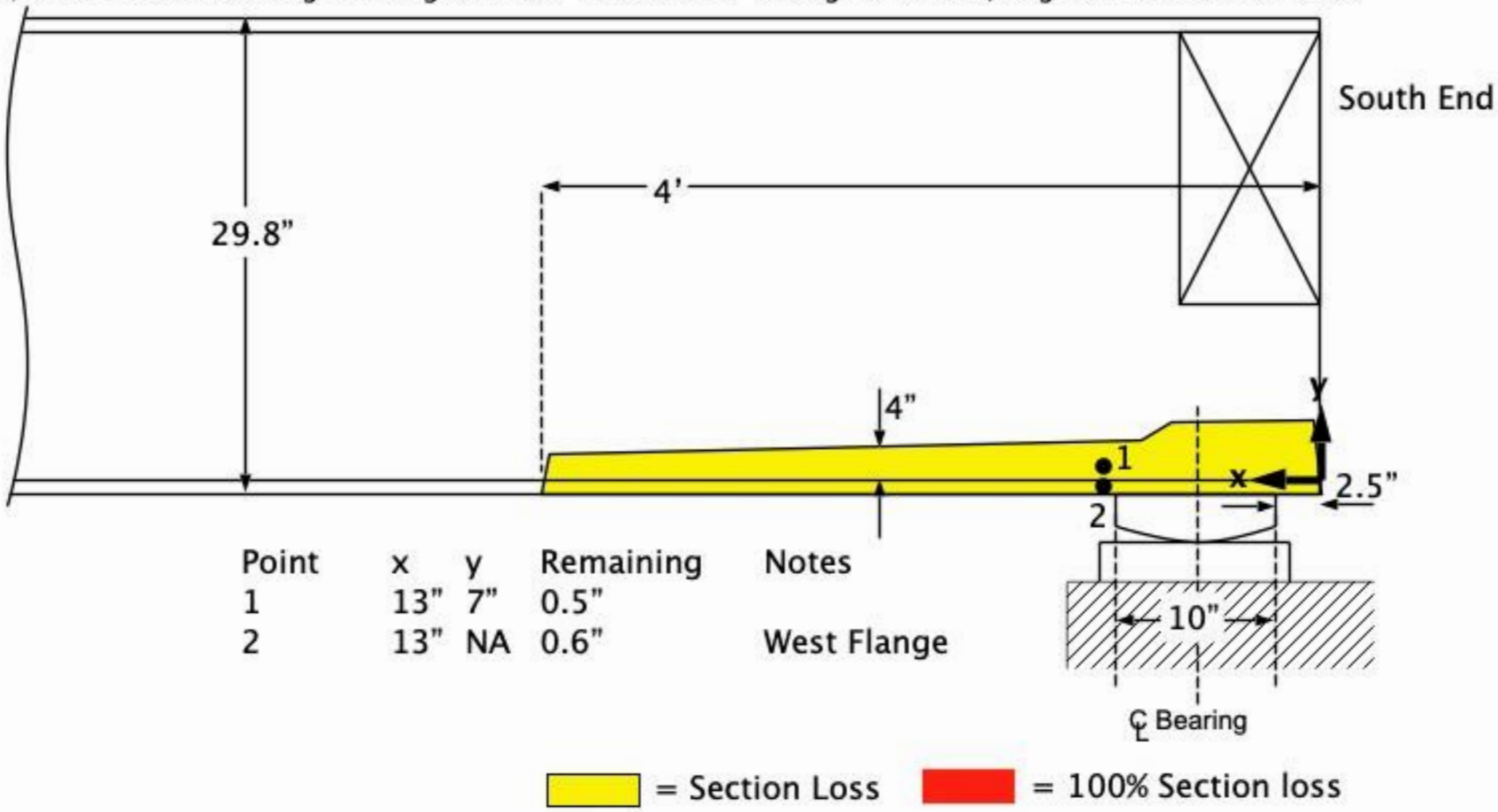
OLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

SKETCHES

Beam 607

Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 30WF108 original flanges = 10.5" wide x 0.76" average thickness; original web = 0.545" thick



Point	x	y	Remaining	Notes
1	13"	7"	0.5"	
2	13"	NA	0.6"	West Flange

Sketch 10: Beam 607, south end, section loss.

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HOLYOKE	**0YF**	**H-21-051**	**H21051-0YF-DOT-NBI**	**MAY 24, 2023**

PHOTOS

Photo 1: **Wearing Surface, full length is unraveling along the paving seams with minor wheel rutting. Approaches have minor wheel rutting.**

Photo 2: **Deck, West Overhang has typical transverse cracks and efflorescence.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YF**	**H-21-051**	**H21051-0YF-DOT-NBI**	**MAY 24, 2023**

PHOTOS

Photo 3: **S-I-P Forms in Span 5, Bay 2, have areas of moderate surface rust along edge of beams.**

Photo 4: **Deck Joint over Pier 4, replaced.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YF**	**H-21-051**	**H21051-0YF-DOT-NBI**	**MAY 24, 2023**

PHOTOS

Photo 5: Deck Joint over Pier 5, replaced.

Photo 6: Beam 407, south end, section loss.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YF**	**H-21-051**	**H21051-0YF-DOT-NBI**	**MAY 24, 2023**

PHOTOS

Photo 7: Beam 504, north end, section loss.

Photo 8: Beam 506, north end, section loss.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 9: **Beam 507, north end, section loss.**

Photo 10: **Beam 605, south end, rust hole.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 11: Beam 606, south end, section loss.

Photo 12: Beam 607, south end, section loss.

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HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 13: Pier 3, Span 4 anchors are bent to the south.

Photo 14: Beam 504, south bearing anchor is broken.

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HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 15: **North Bridge Seat and Breastwall, east end, scaling at a concrete patch.**

Photo 16: **Southeast Wingwall has severe scaling.**

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HOLYOKE	**0YF**	**H-21-051**	**H21051-0YF-DOT-NBI**	**MAY 24, 2023**

PHOTOS

Photo 17: Southeast Wingwall has severe scaling.

Photo 18: Pier 4, Bays 3 - 6 moderate to heavy debris build-up.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YF	H-21-051	H21051-0YF-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 19: **Pier 4, east end, scaling with rusting rebars.**

Photo 20: **Pier 4, Column 4, cracking with delamination and rust staining.**

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Report Date: March 11, 2025

State Information

BDEPT#= H21051 Agency Br.No.

Town= Holyoke L.O. MHD

B.I.N= 0YF AASHTO= 075.2

RANK= 1530 H.I.= 72.5 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	H210510YFDOTNBI
(5) Inventory Route	111000911
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	30840
(6) Features Intersected	**HWY SCOTT TOWER ROAD**
(7) Facility Carried	**I 91 NB**
(9) Location	MM 14.5 ON I-91 NB
(11) Kilometerpoint	0023.496
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 12 MIN 17.84 SEC
(17) Longitude	72 DEG 38 MIN 18.77 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	003
(46) Number of approach spans	0000

(107) Deck Structure Type - Concrete Cast-in-Place Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous Code 6

B) Type of membrane - Built-up Code 1

C) Type of deck protection - Epoxy Coated Reinforcing Code 1

Age and Service

(27) Year Built	1963
(106) Year Reconstructed	1986

(42) Type of Service: On - Highway

Under - Highway Code 11

(28) Lanes: On Structure 02	Under structure 02
(29) Average Daily Traffic	051336
(30) Year of ADT 2017	(109) Truck ADT 05 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0013.1 M
(49) Structure Length	00036.8 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	013.3 M
(52) Deck Width Out to Out	014.2 M
(32) Approach Roadway Width (w/shoulders)	013.3 M

(33) Bridge Median - No median Code 0

(34) Skew 45 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	13.3 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	05.08 M
(55) Min Lat Underclear RT ref H	00.0 M
(56) Min Lat Underclear LT	01.5 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N

(111) Pier Protection Code

(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	R
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	60.1
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	36.0
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	9
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 N
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 05/24/23 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/06/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 11/01/06	H20	Type 3	Type 3S2	Type HS
Operating	39.0	53.0	81.0	61.0
Inventory	25.0	34.0	52.0	39.0

Field Posting

Status LEGAL Posting Date 01/08/07

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 3 : No Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
P / N	Ladder	N / N	Staging		
N / N	Boat	N / N	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		N / N	Police		

Inspection Hours: 012

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National Bridge Element Inspection

BDEPT# **H-21-051**
B.I.N. **0YF**
Item 8 **H21051-0YF-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **05/24/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Wilfred Morin**
Team Member(s) **Tony Mazzaferro**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	5,641.000	☐ %	5,241.000	200.000	200.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	400.000	☐ %		200.000	200.000	
Notes :									
> 510	Wearing Surfaces	sq feet	2	5,258.000	☐ %	4,458.000	800.000		
Notes :									
> > 3210	*Del/Spall/Patch/Pot(Wear Surf)*	sq feet	2	800.000	☐ %		800.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	675.000	☐ %	70.000	558.000	47.000	
Notes :									
> 1000	*Corrosion*	feet	2	605.000	☐ %		558.000	47.000	
Notes :									
> 515	Steel Protective Coating	sq feet	2	5,535.000	☐ %	592.000		3,943.000	1,000.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	4,943.000	☐ %			3,943.000	1,000.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	140.000	☐ %			139.000	1.000
Notes :									
> 1000	*Corrosion*	feet	3	140.000	☐ %			139.000	1.000
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,148.000	☐ %			848.000	300.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,148.000	☐ %			848.000	300.000
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-051**
B.I.N. **0YF**
Item 8 **H21051-0YF-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **05/24/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Wilfred Morin**
Team Member(s) **Tony Mazzaferro**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
205	**Re Conc Column**	each	3	8	☐ %	5	3		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	each	3	2	☐ %		2		
Notes :									
> 1130	*Cracking (RC and Other)*	each	3	1	☐ %		1		
Notes :									
215	**Re Conc Abutment**	feet	2	127.000	☐ %	112.000	13.000	2.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	15.000	☐ %		13.000	2.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	123.000	☐ %	88.000	28.000	7.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	25.000	☐ %		18.000	7.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	29.000	☐ %	19.000	10.000		
Notes :									
302	**Compressn Joint Seal**	feet	3	117.000	☐ %	117.000			
Notes :									
311	**Moveable Bearing**	each	3	21	☐ %		21		
Notes :									
> 1000	*Corrosion*	each	3	21	☐ %		21		
Notes :									
> 515	Steel Protective Coating	sq feet	3	42.000	☐ %			42.000	
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-051**
B.I.N. **0YF**
Item 8 **H21051-0YF-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **05/24/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Wilfred Morin**
Team Member(s) **Tony Mazzaferro**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > *3440*	*Eff (Stl Protect Coat)*	sq feet	3	42.000	☐ %			42.000	
Notes :									
313	**Fixed Bearing**	each	2	14	☐ %	12		2	
Notes :									
> *1020*	*Connection*	each	2	2	☐ %			2	
Notes :									
> 515	Steel Protective Coating	sq feet	2	28.000	☐ %	28.000			
Notes :									
> > *3440*	*Eff (Stl Protect Coat)*	sq feet	2	28.000	☐ %	28.000			
Notes :									
313	**Fixed Bearing**	each	3	7	☐ %			7	
Notes :									
> *1020*	*Connection*	each	3	2	☐ %			2	
Notes :									
> *2220*	*Alignment*	each	3	5	☐ %			5	
Notes :									
> 515	Steel Protective Coating	sq feet	3	14.000	☐ %			14.000	
Notes :									
> > *3440*	*Eff (Stl Protect Coat)*	sq feet	3	14.000	☐ %			14.000	
Notes :									
331	**Re Conc Bridge Railing**	feet	2	242.000	☐ %	242.000			
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 20

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	0YG	H-21-051

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
HOLYOKE	H21051-0YG-DOT-NBI	023.496	A:OPEN	MAY 24, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB		1965	1986	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	M. Barrett
HWY SCOTT TOWER RD	Urban Interstate		

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER W. Morin
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Clear	23°C	T. MAZZAFERRO

ITEM 58 — DECK — 6

		DEF
1.Wearing Surface	6	M-P
2.Deck Condition	6	-
3.Stay-In-Place Forms	6	M-P
4.Curbs	N	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	N	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	75	75

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 5

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	7	-
8.Cover Plates	7	-
9.Bearing Devices	6	-
10.Diaphragms/Cross Frames	7	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1988

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 5

	Dive	Cur		DEF
1. Abutments			7	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	7		-
d. Breastwalls	N	7		-
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	6		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			5	
a. Pedestals	N	5		M-P
b. Caps	N	5		M-P
c. Columns	N	5		M-P
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION — N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:
Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	7	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	N	N	-

WEIGHT POSTING — *Not Applicable* X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING — *Not* X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	24	6	24	7	7.46
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	Y	Y
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	N	N
RR Flagger	N	N
Police	N	N
Other:		
	N	N

TOTAL HOURS 12

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 11/01/2006

Inspection data at time of existing rating

I 58: **7** I 59: **7** I 60: **6** Date : 05/05/2005

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE (For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YG**	**H-21-051**	**H21051-0YG-DOT-NBI**	**MAY 24, 2023**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound, north to south, over Scott Tower Road which travels east and west.

Per the bridge plans, the 6 beams per span are numbered west to east and then south to north, Span 1 has Beams 101 - 106, Span 2 has Beams 201 - 206, and Span 3 has Beams 301 - 306. The bays are numbered west to east per span.

The 3 spans (1 - 3) and 2 piers (1 & 2) are numbered south to north.
The 3 columns per pier are numbered west to east.
See Sketches 1 - 3.

GENERAL REMARKS
Access:
To unlock gate to Scott Tower Road, call Holyoke Park & Rec. @ 413-322-5620 or Holyoke Public Works @ 413-322-5645, ask for David Beoudion.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Right travel lane, full length, there are four concrete patches and numerous HMA patches. The concrete patches have hairline to 1/16" wide, transverse cracks, surrounded by mapcracking. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Overhangs have hairline transverse cracks with leaching efflorescence that starts on the exterior faces of the parapets.

Deck Underside, Span 1, southwest corner of the deck, under the overhang one of the six weep pipes is broken at the overhang. **See Photo 2.**

Item 58.3 - Stay-In-Place Forms
Stay-In-Place (S-I-P) Forms in Span 1, Bays 1 & 2; Span 2, Bays 1 -4; and Span 3 Bay 1 have areas of moderate to severe corrosion and some section loss. **See Photo 3.**

Item 58.7 - Parapets
Railing consists of 32" high Jersey style concrete parapets.

Parapet interior & exterior faces have vertical hairline cracks with and without leaching efflorescence.

Item 58.13 - Deck Joints
North & South Piers have compression joints.

APPROACHES

Approaches b - Appr. Roadway Settlement
Approach roadways have minor wheel rutting.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beams 101 - 106, 301 & 306 are 33WF118, Flange Thickness = 0.740" Web Thickness = 0.550"
Beams 201 - 206 are 33WF130, Flange Thickness =0.855" Web Thickness =0.580"

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YG**	**H-21-051**	**H21051-0YG-DOT-NBI**	**MAY 24, 2023**

REMARKS

Beams 302 - 305 are 30WF108, Flange Thickness =0.760" Web Thickness =0.545"

Beam ends have widespread surface rust and rust delamination with section loss.
See Sketches 4 - 8 and Photos 4 - 7.

Notable defects are as follows:
- Beam 301 has out of plane bending.
- Beam 304 has a minor hole at the south end of the beam.

Item 59.9 - Bearing Devices
All Bearings have minor to moderate surface rust. **See Photos 4 - 7**

Beams 203 - 205, north end each have a broken west anchor bolt. **Beam 204** east anchor bolt is severely pack rusted and bent. **See Photos 4 & 5.**

Span 3 at Pier 2 movable bearings:
- **Beams 304 & 305,** south end, keepers are to knife edge. **See Photo 7.**
- Bearings are pack rusted and have shifted putting them in contact with the east keepers, bending them to the east.

Item 59.14 - Paint/Coating
Paint System has minor to moderate surface rust of the beam ends and bearings at the piers and abutments.

Bottom flange undersides in all spans have areas of scattered surface rust, with the worse conditions being at the piers. **See Photos 2 - 7.**

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North Bridge Seat, Bay 3, horizontal crack 1/4" wide x 4' long.

Item 60.1.c - Backwalls
North & South Backwalls were chipped and patched, but have light efflorescence staining.

South Backwall, west end has two minor areas of scaling:
- In the middle of the wall the scale is 10" wide x up to 10" high x 2" deep.
- Top of the west end of the wall the scale is 10" wide x 4" high x up to 2" deep. **See Photo 2.**

Item 60.1.d - Breastwalls
North Breastwall:
- Bay 2, top corner delamination 5' wide x 6" long.
- Bay 4, top corner delamination 7' wide x 6" long.

Item 60.1.e - Wingwalls
Wingwalls have scattered areas of hairline vertical cracking.

Item 60.1.f - Slope Paving/Rip-Rap
North & South granite block slopes have minor heaving.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YG**	**H-21-051**	**H21051-0YG-DOT-NBI**	**MAY 24, 2023**

REMARKS

North Slope has a 3+" caliper tree growth at either slope pavement that has almost grown into the superstructure. **See Photo 8.**

Item 60.2 - Piers or Bents
Item 60.2.a - Pedestals
Some Pedestal have cracking, delamination, and spalling. Notable deficiencies are as follows;

Pier 2:
- Beams 204 & 304 pedestal is cracked, delaminated, and spalled, 10" wide x 8" high x 2" deep.
- Beams 205 & 305 pedestal is cracked, delaminated, and spalled, 1.5' wide x 6" high x 1" deep. **See Photo 5.**

Item 60.2.b - Caps
North & South Pier Caps have scattered hairline to 1/4" wide horizontal cracks, delaminations, leaching efflorescence, and rust staining.

Pier 1 Cap:
- South Face under Beam 103 is delaminated 13' wide x 10" high with minor spalling 2.5' wide x 7" high x 1.5" deep
- North & South Faces, under Bays 3 & 4 are cracked and delaminated with leaching efflorescence in several locations. **See Photo 9.**

Pier 2 Cap:
- South Face, bottom edge, west end, is spalled, 3' wide x 6" high x 6" deep.
- South Face, top edge, under Bays 1-3, is cracked and delaminated that are each 9" wide x 12" high.
- South Face, under Bays 2 & 3, and North Face, full width, the top and bottom edges, have horizontal cracking with efflorescence and a few areas of delamination up to 1' high. **See Photo 10.**
- Top Surface, Bay 3 is delaminated 8' wide x 4' long.
- Underside Surface, between columns 1 & 2, is cracked and delaminated, 18' wide x up to 4' long.
- Underside Surface, between columns 2 & 3, is cracked and delaminated, 18' wide x up to 2' long.
- Underside Surface, east end, is delaminated and spalled with exposed, deteriorated rebars, 5' wide x 32" long x 3" deep. **See Photo 11.**

Item 60.2.c - Columns
Columns have several hairline to 1/8" wide vertical cracks, and several delaminated areas.

Pier 2:
- **Column 1,** North Face is cracked and delaminated 2' wide x 8' high.
- **Column 2,** South Face, 4' from the top is spalled, 8" diameter x 2" deep and delaminated 16' high x 4' wide. **See Photo 8.**
- **Column 3,** top north face, is spalled with rusted rebars, 2' wide x 4' high x up to 2" deep. **See Photo 12.**

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets.

Item 36b - Transitions
Transitions consist of steel Thrie-beam guardrail bolted to the concrete parapets, on timber posts with timber offset blocks.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YG**	**H-21-051**	**H21051-0YG-DOT-NBI**	**MAY 24, 2023**

REMARKS

Item 36c - Approach Guardrail

Northwest & Southwest Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Northeast & Southeast Approach guardrails consist of steel Thrie-beam guardrail on steel H-posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends

All approach rails travel beyond the limits of the bridge.

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Southbound Elevation
Sketch 3 : Cross Section
Sketch 4 : Beam 103, south end, section loss.
Sketch 5 : Beam 203, north and south ends, section loss.
Sketch 6 : Beam 204 & 205, north ends, section loss.
Sketch 7 : Beam 301, south end, out of plane bending. Beam 304, south end, rust hole.
Sketch 8 : Beams 304 & 306, north ends, section loss.
Photo 1 : Wearing Surface, right lane has four concrete patches and numerous large HMA patches.
Photo 2 : Span 1, southwest corner, deck overhang weep pipe is broken at the concrete deck.
Photo 3 : S-I-P Forms have moderate to severe corrosion in, few, scattered locations.
Photo 4 : Beam 204, north end with section loss and a missing anchor.
Photo 5 : Beams 205 & 305, section loss, broken Beam 205 west anchor and spalled pedestal..
Photo 6 : Beam 301, south end has moderate out of plane bending.
Photo 7 : Beam 304, south end with section loss and keeper to knife edge.
Photo 8 : North Slope Pavement has a young tree growing into the superstructure. South slope also has a tree of similar size. Pier 2, Column 2, nearly full height cracking, delamination and minor spalling.
Photo 9 : Pier 1, South Face, has cracking with efflorescence and scaling.
Photo 10 : Pier 2, North Face, moderate to severe cracking with efflorescence and rust staining.
Photo 11 : Pier 2, east end, the underside of the cap has delamination with spalling and rusting rebars.
Photo 12 : Pier 2, Column 3, north face is spalled at the top.

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TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

SKETCHES

Sketch 1: Framing Plan

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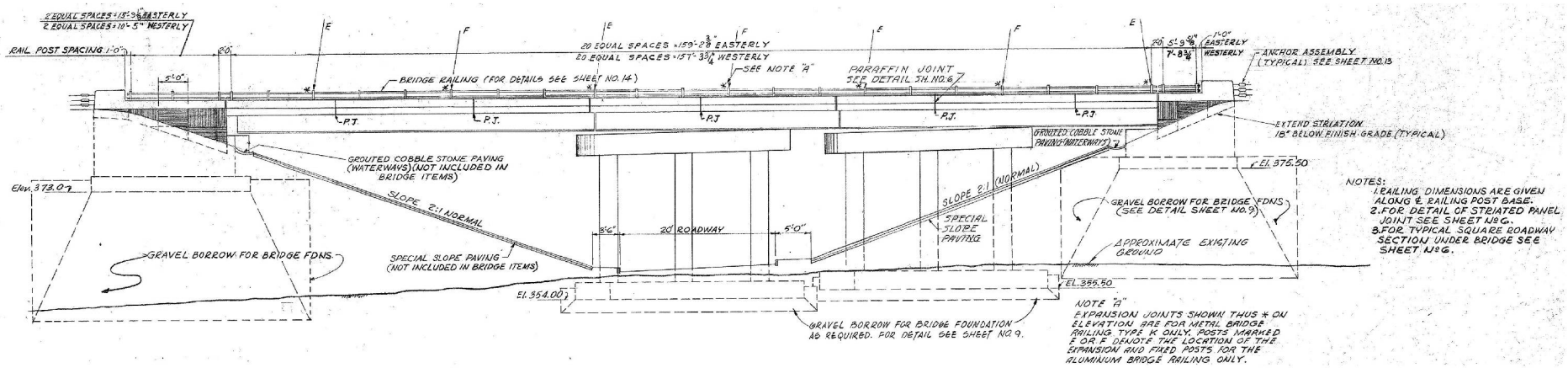
Proposal No. 6132l9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

SKETCHES



Sketch 2: Southbound Elevation

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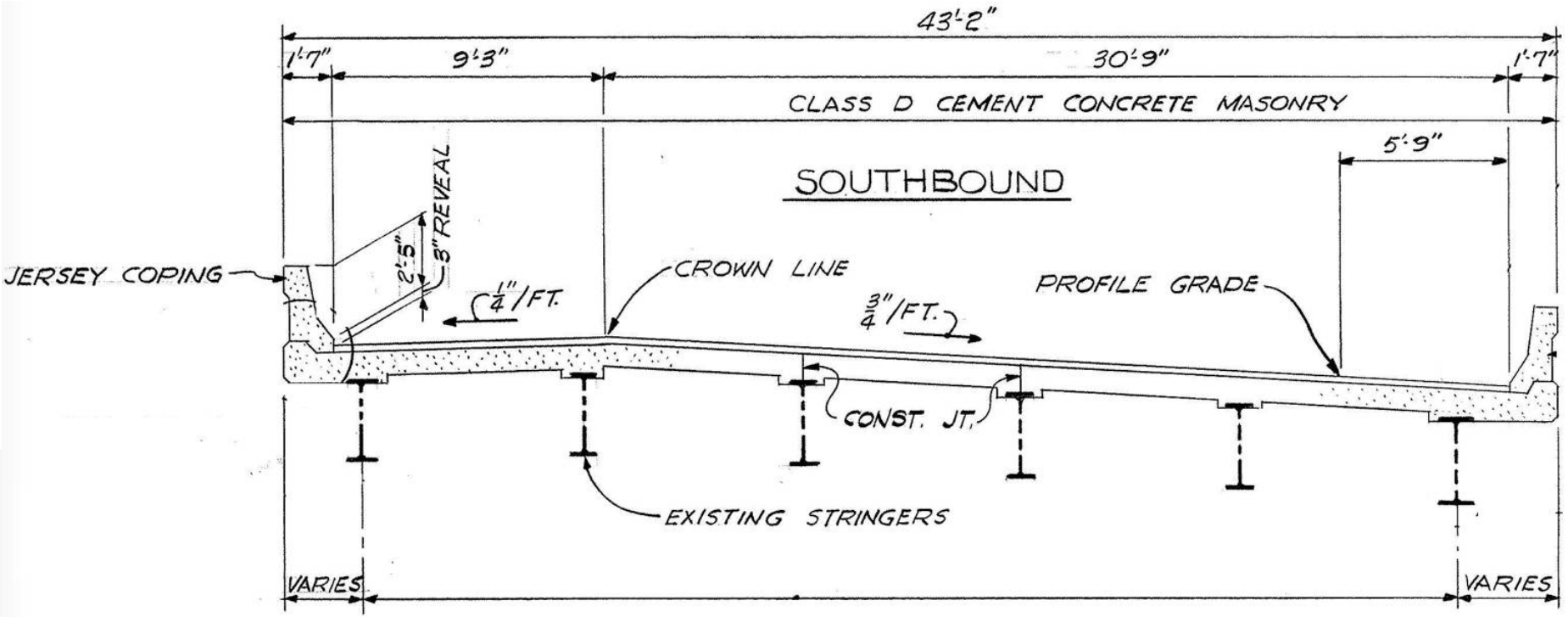
Proposal No. 6132l9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

SKETCHES



Sketch 3: Cross Section

REM.(2)2-21

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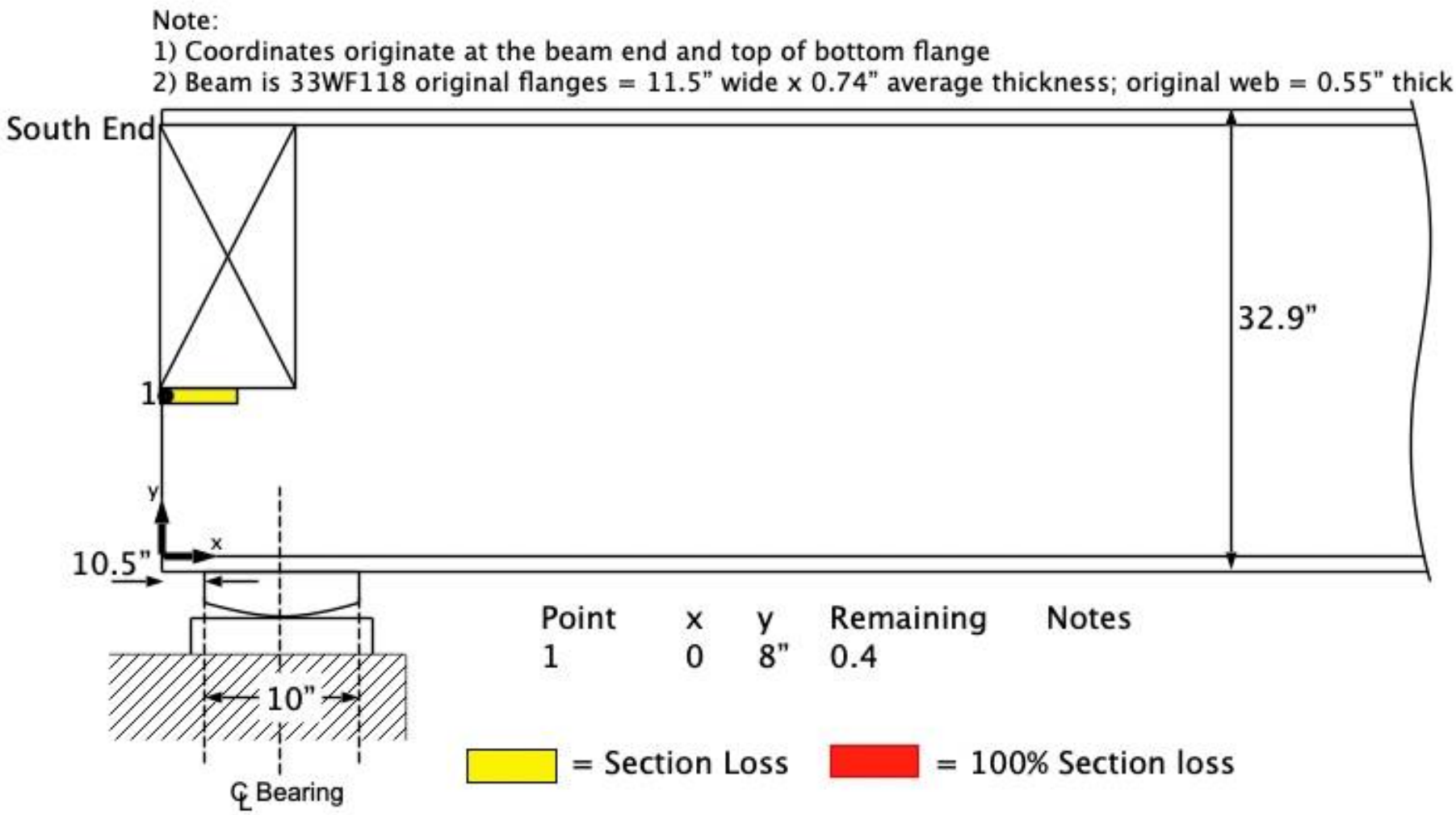
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

SKETCHES



Sketch 4: **Beam 103, south end, section loss.**

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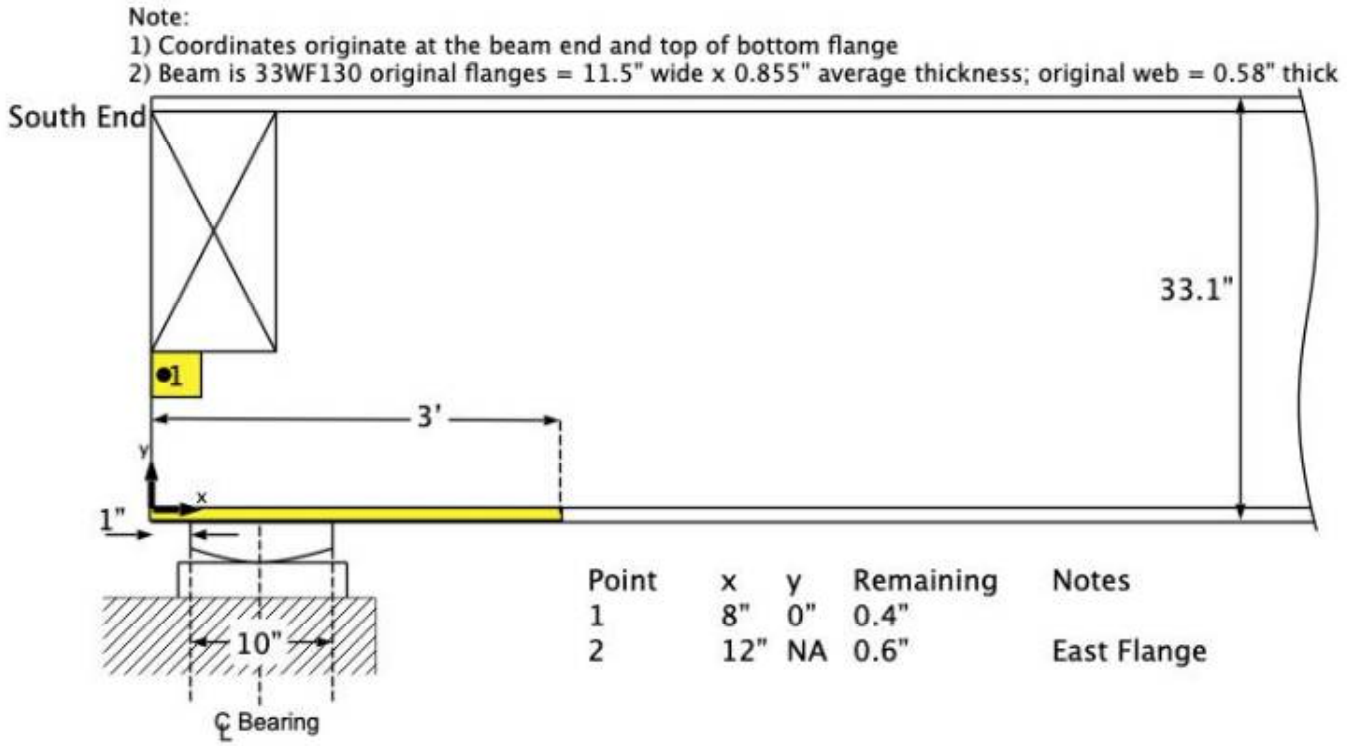
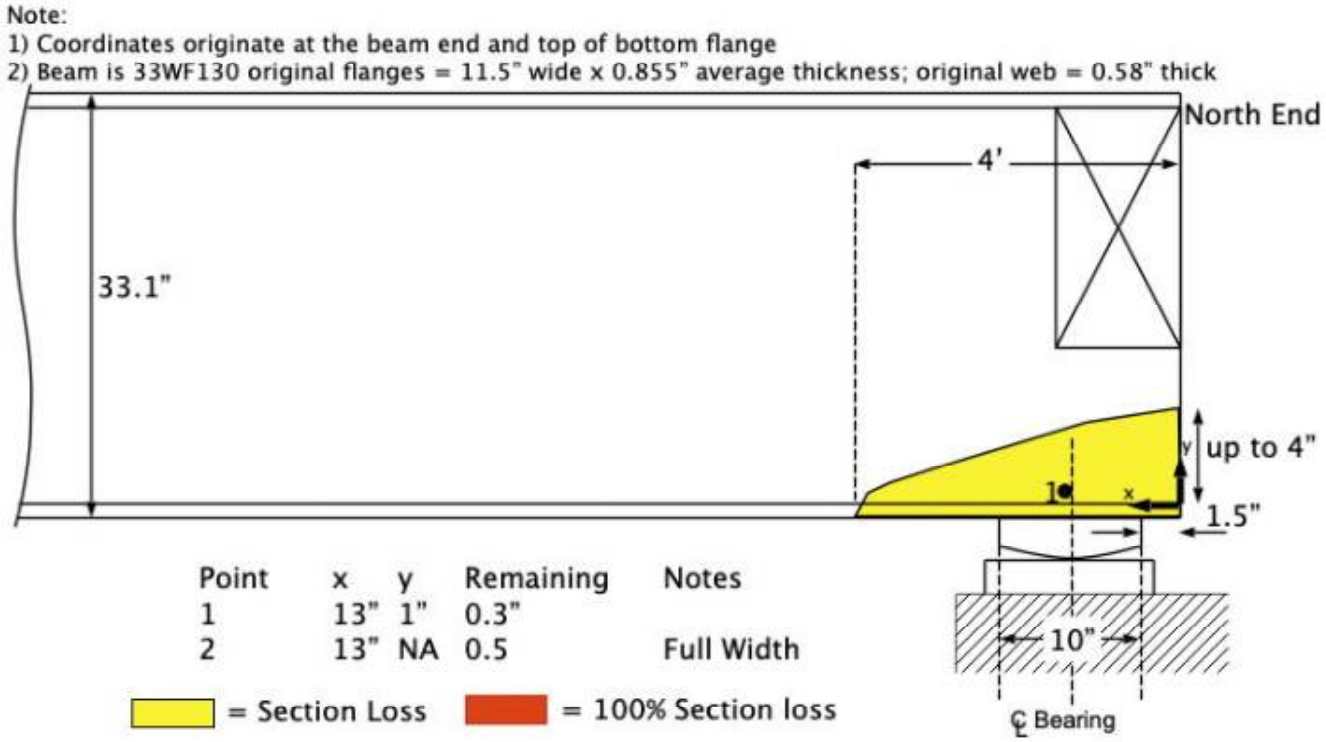
A00807 - 111
Proposal No. 6132I9-132950

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

SKETCHES





Sketch 5: Beam 203, north and south ends, section loss.

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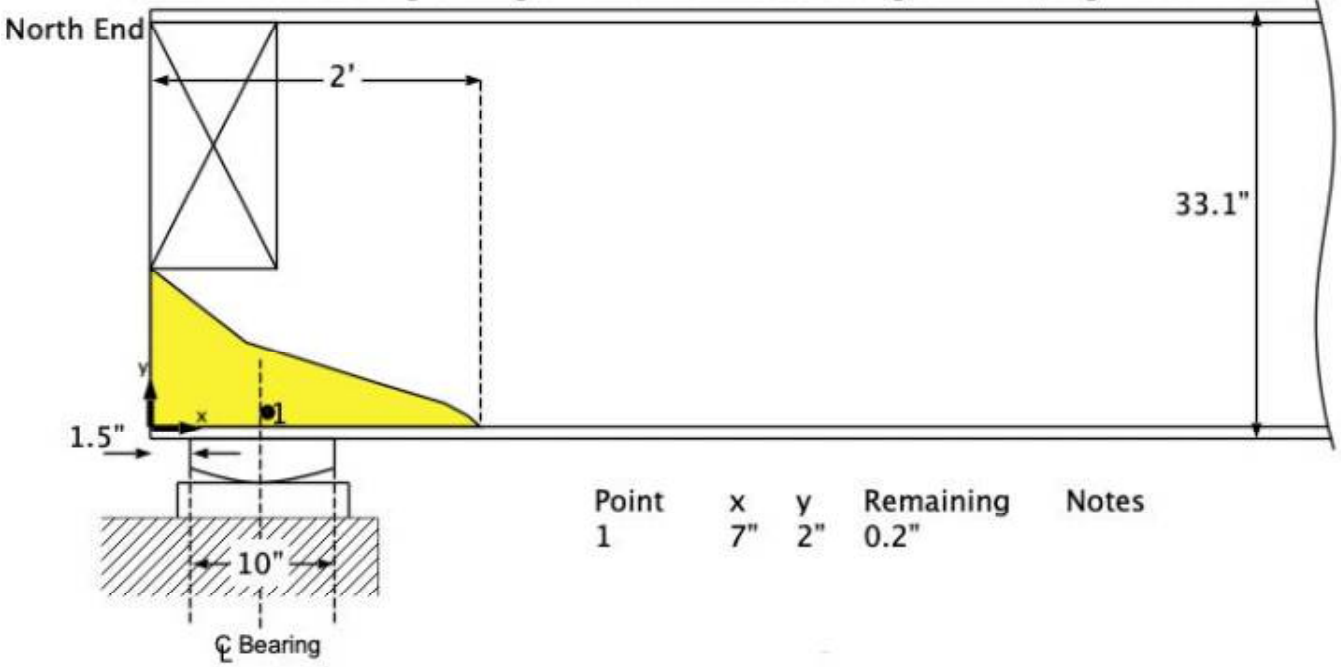
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

SKETCHES

Beam 204

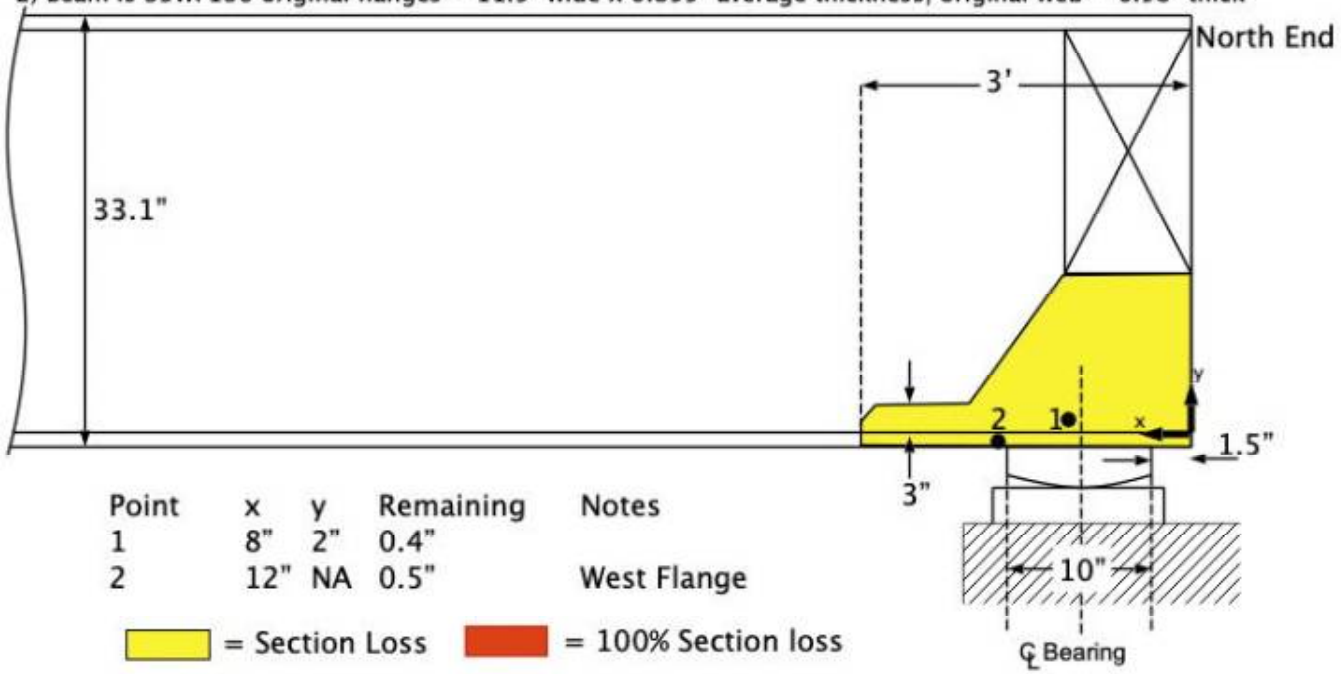
Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 33WF130 original flanges = 11.5" wide x 0.855" average thickness; original web = 0.58" thick



Point	x	y	Remaining	Notes
1	7"	2"	0.2"	

Beam 205

Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 33WF130 original flanges = 11.5" wide x 0.855" average thickness; original web = 0.58" thick



Point	x	y	Remaining	Notes
1	8"	2"	0.4"	
2	12"	NA	0.5"	West Flange

= Section Loss = 100% Section loss

Sketch 6: Beam 204 & 205, north ends, section loss.

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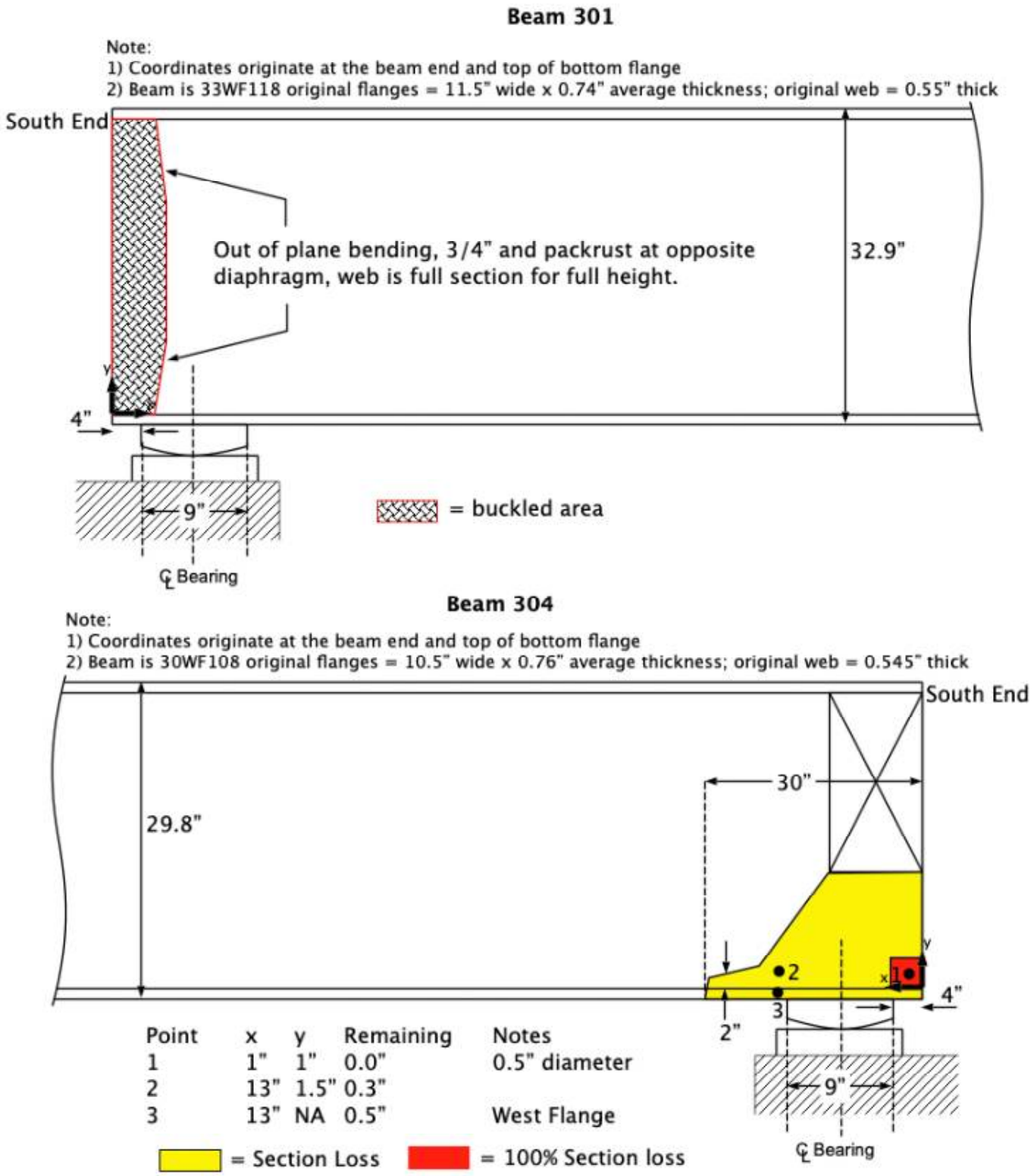
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

SKETCHES



Sketch 7: **Beam 301, south end, out of plane bending. Beam 304, south end, rust hole.**

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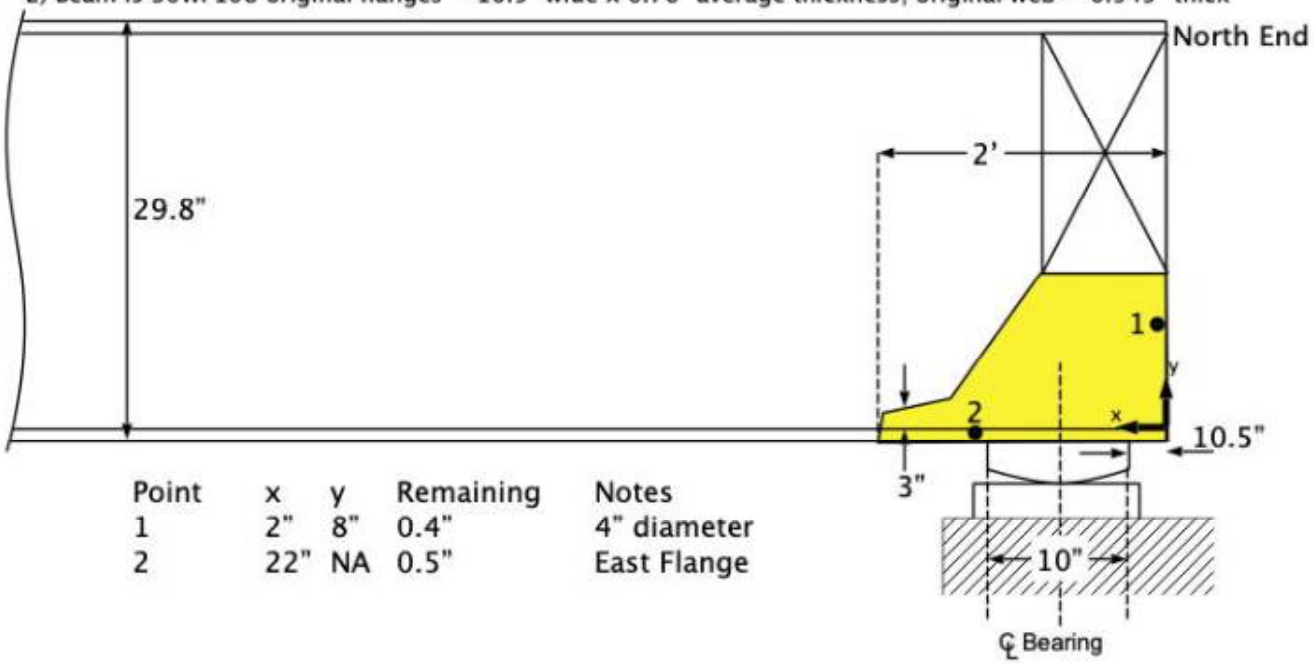
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

SKETCHES

Beam 304

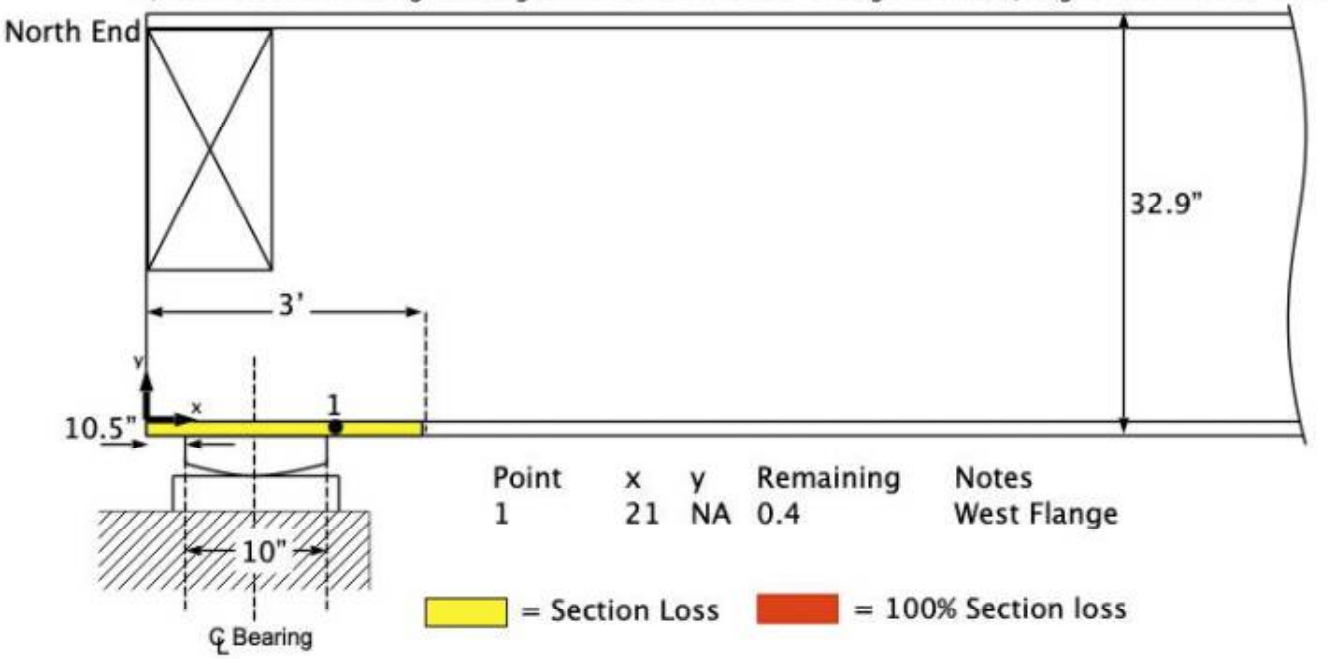
Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 30WF108 original flanges = 10.5" wide x 0.76" average thickness; original web = 0.545" thick



Point	x	y	Remaining	Notes
1	2"	8"	0.4"	4" diameter
2	22"	NA	0.5"	East Flange

Beam 306

Note:
1) Coordinates originate at the beam end and top of bottom flange
2) Beam is 33WF118 original flanges = 11.5" wide x 0.74" average thickness; original web = 0.55" thick



Point	x	y	Remaining	Notes
1	21	NA	0.4	West Flange

Sketch 8: Beams 304 & 306, north ends, section loss.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 1: **Wearing Surface, right lane has four concrete patches and numerous large HMA patches.**

Photo 2: **Span 1, southwest corner, deck overhang weep pipe is broken at the concrete deck.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 3: **S-I-P Forms have moderate to severe corrosion in, few, scattered locations.**

Photo 4: **Beam 204, north end with section loss and a missing anchor.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 5: **Beams 205 & 305, section loss, broken Beam 205 west anchor and spalled pedestal..**

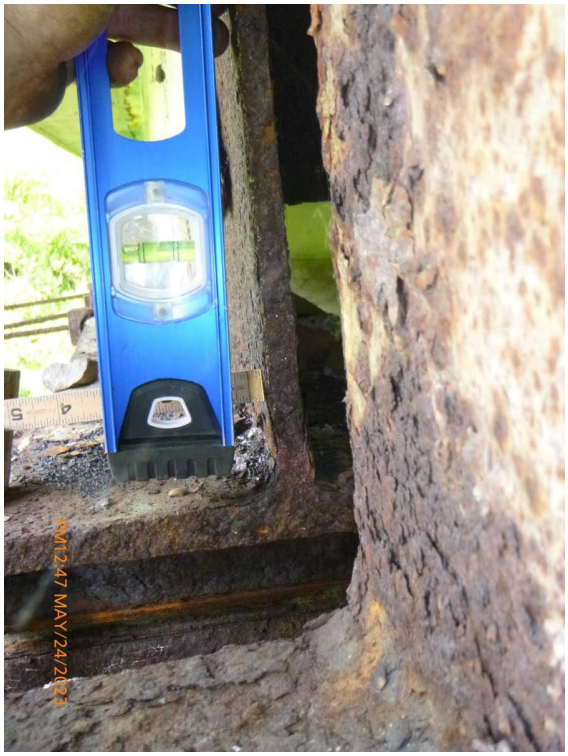

Photo 6: **Beam 301, south end has moderate out of plane bending.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 7: **Beam 304, south end with section loss and keeper to knife edge.**

Photo 8: **North Slope Pavement has a young tree growing into the superstructure. South slope also has a tree of similar size. Pier 2, Column 2, nearly full height cracking, delamination and minor**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YG**	**H-21-051**	**H21051-0YG-DOT-NBI**	**MAY 24, 2023**

PHOTOS

Photo 9: **Pier 1, South Face, has cracking with efflorescence and scaling.**

Photo 10: **Pier 2, North Face, moderate to severe cracking with efflorescence and rust staining.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YG	H-21-051	H21051-0YG-DOT-NBI	MAY 24, 2023

PHOTOS

Photo 11: **Pier 2, east end, the underside of the cap has delamination with spalling and rusting rebars.**

Photo 12: **Pier 2, Column 3, north face is spalled at the top.**

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Report Date: March 11, 2025

State Information

BDEPT#= H21051 Agency Br.No.

Town= Holyoke L.O. MHD

B.I.N= 0YG AASHTO= 075.2

RANK= 643 H.I.= 72.2 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	H210510YGDOTNBI
(5) Inventory Route	111000913
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	30840
(6) Features Intersected	**HWY SCOTT TOWER RD**
(7) Facility Carried	**I 91 SB**
(9) Location	MM 14.5 ON I-91 SB
(11) Kilometerpoint	0023.496
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 12 MIN 18.76 SEC
(17) Longitude	72 DEG 38 MIN 19.89 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	003
(46) Number of approach spans	0000

(107) Deck Structure Type - Concrete Cast-in-Place Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous Code 6

B) Type of membrane - Built-up Code 1

C) Type of deck protection - Epoxy Coated Reinforcing Code 1

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	1986

(42) Type of Service: On - Highway

Under - Highway Code 11

(28) Lanes: On Structure	02	Under structure	02
(29) Average Daily Traffic			051336
(30) Year of ADT	2017	(109) Truck ADT	05 %
(19) Bypass, detour length			002 KM

Geometric Data

(48) Length of maximum span	0018.3 M
(49) Structure Length	00050.2 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	012.2 M
(52) Deck Width Out to Out	013.2 M
(32) Approach Roadway Width (w/shoulders)	012.2 M

(33) Bridge Median - No median Code 0

(34) Skew 42 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	12.2 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	07.46 M
(55) Min Lat Underclear RT ref H	00.0 M
(56) Min Lat Underclear LT	01.5 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N

(111) Pier Protection Code

(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	L
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	6
(59) Superstructure	5
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	58.6
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	35.1
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	7
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 N
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 05/24/23 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/06/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 11/01/06	H20	Type 3	Type 3S2	Type HS
Operating	40.0	53.0	83.0	59.0
Inventory	26.0	33.0	51.0	37.0

Field Posting

Status LEGAL Posting Date 01/08/07

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y Liftbucket	N / N Rigging	N / N Other
Y / Y Ladder	N / N Staging	
N / N Boat	N / N Traffic Control	
N / N Wader	N / N RR Flagperson	Inspection Hours: 012
	N / N Police	

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National Bridge Element Inspection

BDEPT# **H-21-051**
B.I.N. **0YG**
Item 8 **H21051-0YG-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **05/24/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Wilfred Morin**
Team Member(s) **Tony Mazzaferro**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	7,116.000	☐ %	4,716.000	2,400.000		
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	2,400.000	☐ %		2,400.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	6,594.000	☐ %	5,514.000	1,080.000		
Notes :									
> > 3210	*Del/Spall/Patch/Pot(Wear Surf)*	sq feet	2	1,080.000	☐ %		1,080.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	842.000	☐ %	56.000	786.000		
Notes :									
> 1000	*Corrosion*	feet	2	786.000	☐ %		786.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	6,904.000	☐ %	489.000		3,207.000	3,208.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	6,415.000	☐ %			3,207.000	3,208.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	120.000	☐ %		98.000	22.000	
Notes :									
> 1000	*Corrosion*	feet	3	119.000	☐ %		98.000	21.000	
Notes :									
> 1900	*Distortion*	feet	3	1.000	☐ %			1.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	984.000	☐ %			384.000	600.000
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-051**
B.I.N. **0YG**
Item 8 **H21051-0YG-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **05/24/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Wilfred Morin**
Team Member(s) **Tony Mazzaferro**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	984.000	☐ %			384.000	600.000
Notes :									
205	**Re Conc Column**	each	3	6	☐ %	3	1	2	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	each	3	3	☐ %		1	2	
Notes :									
215	**Re Conc Abutment**	feet	2	113.000	☐ %	95.000	12.000	6.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	14.000	☐ %		12.000	2.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	4.000	☐ %			4.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	109.000	☐ %	41.000	21.000	47.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	68.000	☐ %		21.000	47.000	
Notes :									
302	**Compressn Joint Seal**	feet	2	108.000	☐ %	108.000			
Notes :									
311	**Moveable Bearing**	each	3	18	☐ %		18		
Notes :									
> 1000	*Corrosion*	each	3	18	☐ %		18		
Notes :									
> 515	Steel Protective Coating	sq feet	3	36.000	☐ %			36.000	
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-051**
B.I.N. **0YG**
Item 8 **H21051-0YG-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **05/24/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Wilfred Morin**
Team Member(s) **Tony Mazzaferro**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	36.000	☐ %			36.000	
Notes :									
313	**Fixed Bearing**	each	2	12	☐ %		12		
Notes :									
> 1000	*Corrosion*	each	2	12	☐ %		12		
Notes :									
> 515	Steel Protective Coating	sq feet	2	24.000	☐ %			24.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	24.000	☐ %			24.000	
Notes :									
313	**Fixed Bearing**	each	3	6	☐ %		6		
Notes :									
> 1000	*Corrosion*	each	3	6	☐ %		6		
Notes :									
> 515	Steel Protective Coating	sq feet	3	12.000	☐ %		12.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	12.000	☐ %		12.000		
Notes :									
331	**Re Conc Bridge Railing**	feet	2	330.000	☐ %	330.000			
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 14

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	0YL	H-21-053

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
HOLYOKE	H21053-0YL-DOT-NBI	024.494	A:OPEN	OCT 16, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 NB		1965	1986	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
ST141 WB	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER S. J. Ausevich
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	11°C	G. GILLIGAN

ITEM 58 — DECK — 7

		DEF
1.Wearing Surface	6	-
2.Deck Condition	7	-
3.Stay-In-Place Forms	7	-
4.Curbs	7	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	6	M-P
8.Railing	N	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	7	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	64	64

APPROACHES

		DEF
a. Appr. pavement condition	6	M-P
b. Appr. Roadway Settlement	6	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 6

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	-
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	7	-
8.Cover Plates	7	-
9.Bearing Devices	6	-
10.Diaphragms/Cross-Frames	7	-
11.Rivets & Bolts	7	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	7	-
15.	N	-

Year Painted: 2021

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 5

	Dive	Cur		DEF
1. Abutments			5	
a. Pedestals	N	N		-
b. Bridge Seats	N	5		M-P
c. Backwalls	N	6		-
d. Breastwalls	N	5		M-P
e. Wingwalls	N	5		M-P
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YL	H-21-053	H21053-0YL-DOT-NBI	OCT 16, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	6	M-P
B. Transitions	1	6	-
C. Approach Guardrail	1	6	-
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	15	9	15	9	4.80
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	N	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 8

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 10/01/1997

Inspection data at time of existing rating

I 58: **7** I 59: **7** I 60: **6** Date : 11/15/1995

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YL**	**H-21-053**	**H21053-0YL-DOT-NBI**	**OCT 16, 2023**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound, south to north, over State Route 141 Westbound which travels east to west.

Per the bridge plans, beams are numbered west to east (201 - 207). Abutments are labeled north and south. **See Sketches 1 & 2.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has asphalt patches, and random minor cracking. **See Photo 1.**

South Saw & Seal joint is in good condition.

North Deck Joint has been recently repaired, with full width asphalt patching adjacent to the joint. **See Photo 2.**

Item 58.2 - Deck Condition
Deck Underside is not visible due to Stay-In-Place (S-I-P) Forms in place.

Deck Overhangs:
- Several transverse hairline cracks with efflorescence that extend up the parapets.
- Weep pipes at the overhang ends have efflorescence around the top.

Item 58.7 - Parapets
Railing consists of 2'-8" high Jersey style concrete parapets.

East & West Parapets have a few narrow cracks.

East Parapet, at the north & south approaches has spalled areas at the base up to 2'.5 long x 6" high x 2" deep. **See Photo 3.**

Item 58.13 - Deck Joints
North Extruded Silicone Joint has been recently repaired and is in good condition. **See Photo 2.**

APPROACHES

Approaches a - Appr. pavement condition
Approach roadways have minor cracking, minor travel line scaling and minor curbline debris. **See Photo 1.**

South Approach, adjacent to the east concrete parapet, has a 4" diameter hole that extends down through to the Southeast Wingwall.

Approaches b - Appr. Roadway Settlement
North & South Approach roadways have minor to moderate wheel rutting.

South Approach roadway, has minor settlement at the east end of the deck interface. **See Photo 1.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YL**	**H-21-053**	**H21053-0YL-DOT-NBI**	**OCT 16, 2023**

REMARKS

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beams 201 & 207 are 36WF230 (original web = 0.76" and flange = 1.26" thick). Two top of bottom flange cover plates are 2-7/16" x 1/2" x 84' and bottom of bottom flange cover plates are 15" x 7/8" x 63'.

Beams 202 - 206 are 36WF194 (original web = 0.765" and flange = 1.26" thick). Two top of bottom flange cover plates are 2-7/16" x 1/2" x 84' and bottom of bottom flange cover plates are 14" x 1-1/8" x 66'-6".

Beam 201 (west fascia) has an attached 6" utility.

Steel elements were repainted in September 2021. **See Photo 4.**

The northernmost 5' of the following beams had been previously reported and cleaned and primed, but remained unpainted and had minor section loss. **Since the last inspection:**

- Beam 201, north end:
  - New Bolted Repair Plates, 1' 10" long x 1' 1" high and repainted. **See Photo 5.**
- Beam 203, north end:
  - New Bolted Repair Plates, 1' 10" long x 1' 1" high and repainted.
- Beam 206, north end has painted over pitting. **See Photo 6.**
- Beam 207, north end has painted over pitting.

Item 59.9 - Bearing Devices
Bearing devices at both abutments were cleaned and painted in September 2021. **See Photos 4 - 8.**

North Abutment Bearings are typically in the expanded condition despite cool weather;
Beam 201, North Bearing is extended up to 1/2" beyond the masonry plate. **See Photo 5.**

Item 59.10 - Diaphragms/Cross-Frames
Concrete end diaphragms have random vertical hairline cracks.

Item 59.14 - Paint/Coating
Superstructure was cleaned and painted in September 2021. **See Photos 4 - 6.**

SuperStructure Load Deflection Notes
Bridge has minor load deflection under heavy live loads.

SuperStructure Load Vibration Notes
Bridge has minor load vibration under heavy live loads.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North & South Bridge Seats have scaled areas adjacent to the bearings. **See Sketch 3 & Photo 7.**

Item 60.1.c - Backwalls
North & South Backwalls have scaling and cracking with efflorescence. **See Sketch 3.**

Item 60.1.d - Breastwalls
North & South Breastwalls have minor cracking, scaling, and hollow areas. **See Sketch 3 & Photo 8.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YL**	**H-21-053**	**H21053-0YL-DOT-NBI**	**OCT 16, 2023**

REMARKS

A few full height cracks are treated with injected epoxy sealant. **See Sketch 3.**

Item 60.1.e - Wingwalls
Wingwalls have random areas of light to severe scaling, mapcracking, horizontal cracks, and vertical cracks with and without efflorescence. **See Sketch 3 & Photo 9.**

Southeast Wingwall has an area of scaling with a hole that carries through to the approach pavement. **See Photo 9.**

Item 60.1.f - Slope Paving/Rip-Rap
Paving stones along both slopes are beginning to shift with gaps between the bottom of the breastwalls and the top row of the stones.

North & South Slopes have moderate vegetative growth encroaching at east and west edges and minimal settlement. **See Photo 10.**

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets.

Item 36b - Transitions
Transitions consist of steel Thrie-beam guardrail anchored to the concrete parapets with Schedule 40 tubes, on timber posts with timber offset blocks.

All four approaches have minor scrapes with minor collision damage.

Item 36c - Approach Guardrail
Northwest & Southwest Approach guardrails consist of steel Thrie-beam guardrail on steel H-posts with plastic offset blocks.

Northeast & Southeast Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Approach guardrails have random minor dings and scrapes.

Item 36d - Approach Guardrail Ends
Southeast & Southwest Approach guardrails continue beyond the limits of the bridge.

Northeast & Northwest Approach guardrails (trailing ends to one-way traffic) have terminal ends.

Sketch / Photo Log

Sketch 1 :	Framing Plan
Sketch 2 :	Cross Section
Sketch 3 :	Abutment - Defects
Photo 1 :	Wearing Surface, south end has large HMA patch and minor mapcracking. South Approach has minor settlement and minor scaling in the travel lane.
Photo 2 :	North Deck Joint is in good condition.
Photo 3 :	East Parapet, at the north approach has two spalled areas at the base. South Approach has similar condition.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YL**	**H-21-053**	**H21053-0YL-DOT-NBI**	**OCT 16, 2023**

REMARKS

Photo 4 : Superstructure was repainted 9/2021.

Photo 5 : Beams 201 & 203, north beam ends, have new bolted repairs since last inspection. North Bearings are in the expanded position; Beam 201 North Bearing is overhanging the masonry plate by 1/2".

Photo 6 : Beam 206, north end, previously cleaned and primed, but unpainted, has now been painted.

Photo 7 : North Bridge Seat, Bays 2 & 3, has spalling adjacent/behind the Beam 203 North Bearing.

Photo 8 : South Breastwall, west end has an area of cracking and spalling with exposed rebar.

Photo 9 : Southeast Wingwall has areas of severe scaling with a hole that carries through to the approach roadway with evidence of active leakage.

Photo 10 : North Abutment Slope Paving has minor settlement and vegetative growth.

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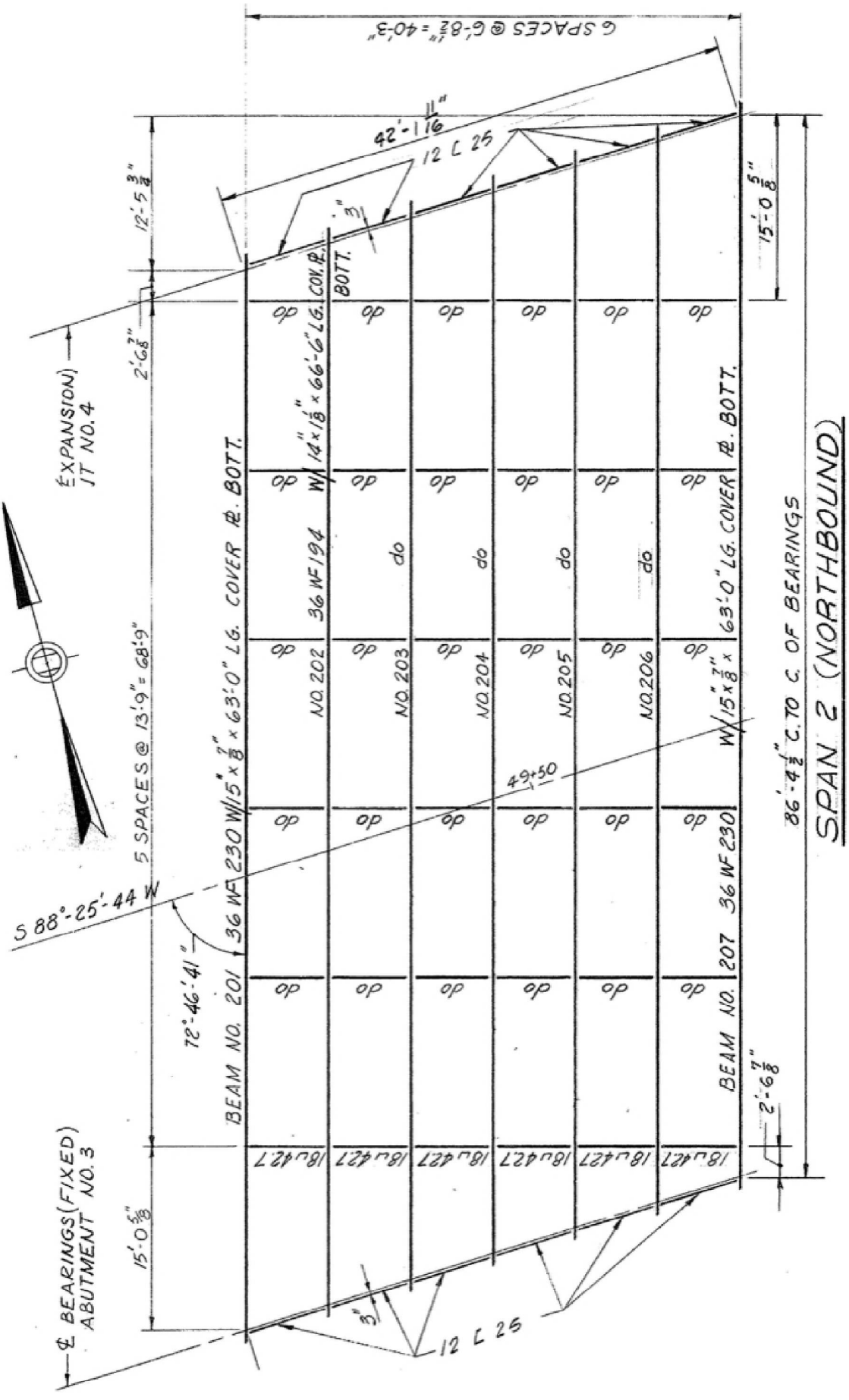
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YL	H-21-053	H21053-0YL-DOT-NBI	OCT 16, 2023

SKETCHES



Sketch 1: Framing Plan

REM.(2)2-21

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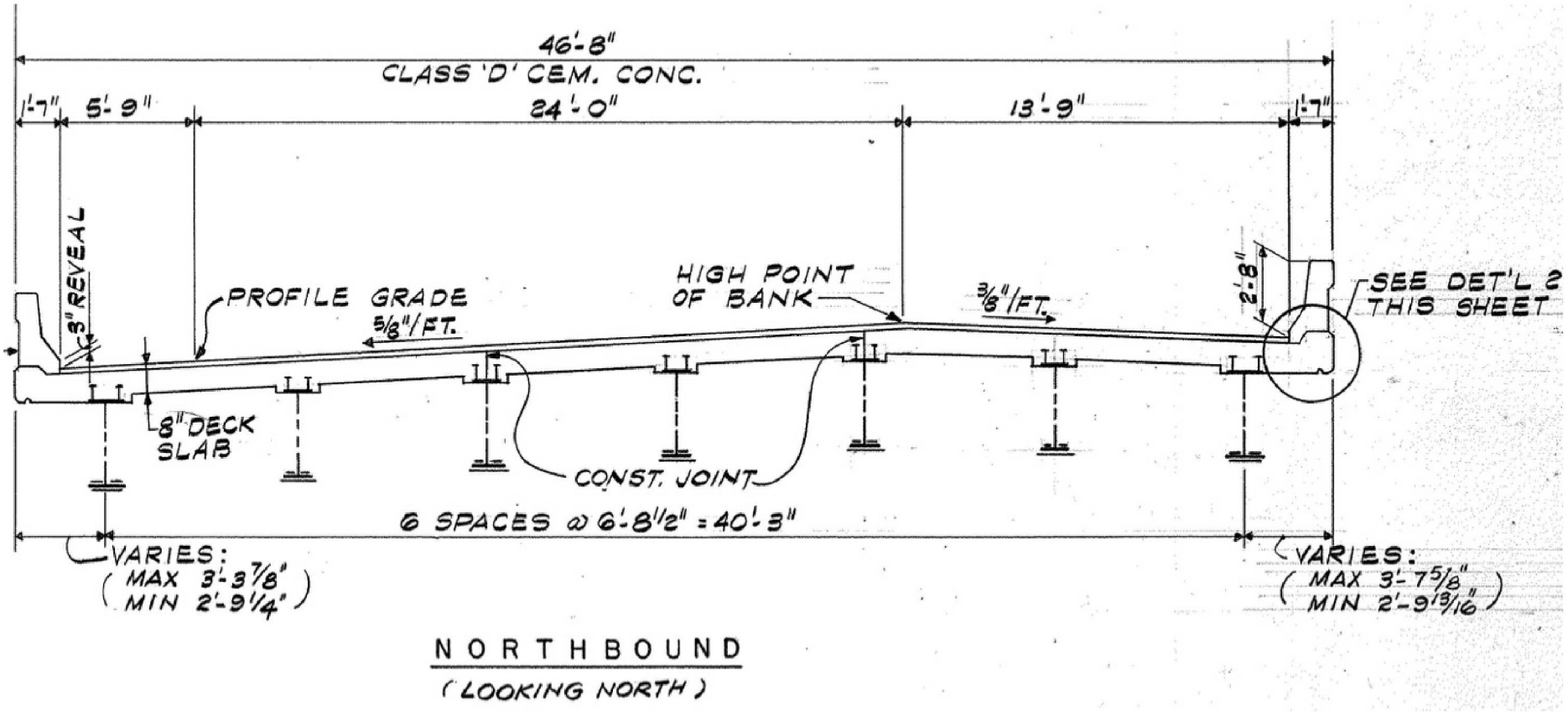
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YL	H-21-053	H21053-0YL-DOT-NBI	OCT 16, 2023

SKETCHES



Sketch 2: Cross Section

REM.(2)2-21

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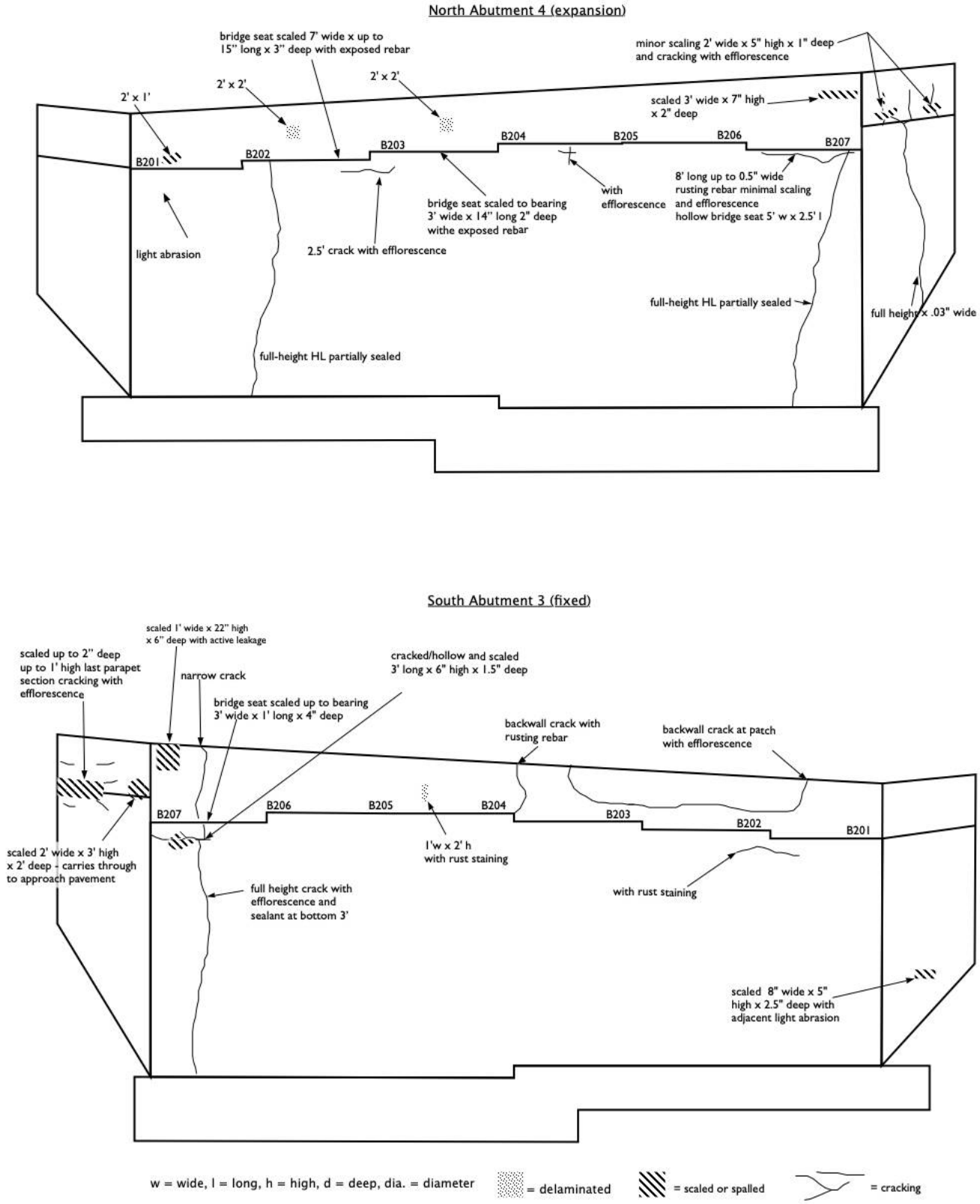
A00807 - 133

Proposal No. 6132l9-132950

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YL	H-21-053	H21053-0YL-DOT-NBI	OCT 16, 2023

SKETCHES



Sketch 3: Abutment - Defects

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YL	H-21-053	H21053-0YL-DOT-NBI	OCT 16, 2023

PHOTOS

Photo 1: **Wearing Surface, south end has large HMA patch and minor mapcracking. South Approach has minor settlement and minor scaling in the travel lane.**

Photo 2: **North Deck Joint is in good condition.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YL	H-21-053	H21053-0YL-DOT-NBI	OCT 16, 2023

PHOTOS

Photo 3: **East Parapet, at the north approach has two spalled areas at the base. South Approach has similar condition.**

Photo 4: **Superstructure was repainted 9/2021.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YL**	**H-21-053**	**H21053-0YL-DOT-NBI**	**OCT 16, 2023**

PHOTOS

Photo 5: **Beams 201 & 203, north beam ends, have new bolted repairs since last inspection. North Bearings are in the expanded position; Beam 201 North Bearing is overhanging the masonry plate by 1/2".**

Photo 6: **Beam 206, north end, previously cleaned and primed, but unpainted, has now been painted.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YL	H-21-053	H21053-0YL-DOT-NBI	OCT 16, 2023

PHOTOS

Photo 7: **North Bridge Seat, Bays 2 & 3, has spalling adjacent/behind the Beam 203 North Bearing.**

Photo 8: **South Breastwall, west end has an area of cracking and spalling with exposed rebar.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YL	H-21-053	H21053-0YL-DOT-NBI	OCT 16, 2023

PHOTOS

Photo 9: **Southeast Wingwall has areas of severe scaling with a hole that carries through to the approach roadway with evidence of active leakage.**

Photo 10: **North Abutment Slope Paving has minor settlement and vegetative growth.**

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Report Date: March 11, 2025

State Information

BDEPT#= H21053 Agency Br.No.

Town= Holyoke L.O. MHD

B.I.N= 0YL AASHTO= 083.0

RANK= 2475 H.I.= 92.4 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	H210530YLDOTNBI
(5) Inventory Route	111000911
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	30840
(6) Features Intersected	**ST141 WB**
(7) Facility Carried	**I 91 NB**
(9) Location	MM 15.2 ON I-91 NB
(11) Kilometerpoint	0024.494
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 12 MIN 46.54 SEC
(17) Longitude	72 DEG 37 MIN 57.75 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main:	Steel	Code	302
Stringer/Girder	Jointless bridge type:	Not applicable	
(44) Structure Type Appr:			
Other		Code	000
(45) Number of spans in main unit			001
(46) Number of approach spans			0000
(107) Deck Structure Type -	Concrete Cast-in-Place	Code	1
(108) Wearing Surface / Protective System:			
A) Type of wearing surface -	Bituminous	Code	6
B) Type of membrane -	Built-up	Code	1
C) Type of deck protection -	Epoxy Coated Reinforcing	Code	1

Age and Service

(27) Year Built			1965
(106) Year Reconstructed			1986
(42) Type of Service: On -	Highway		
Under - Highway		Code	11
(28) Lanes: On Structure	02	Under structure	02
(29) Average Daily Traffic			027094
(30) Year of ADT 2016	(109) Truck ADT		08 %
(19) Bypass, detour length			002 KM

Geometric Data

(48) Length of maximum span				0026.3 M
(49) Structure Length				00027.8 M
(50) Curb or sidewalk:	Left	00.0 M	Right	00.0 M
(51) Bridge Roadway Width Curb to Curb				013.3 M
(52) Deck Width Out to Out				014.2 M
(32) Approach Roadway Width (w/shoulders)				013.3 M
(33) Bridge Median -	No median		Code	0
(34) Skew 17 DEG	(35) Structure Flared			N
(10) Inventory Route MIN Vert Clear				99.99 M
(47) Inventory Route Total Horiz Clear				13.3 M
(53) Min Vert Clear Over Bridge Rdwy				99.99 M
(54) Min Vert Underclear ref	H			04.80 M
(55) Min Lat Underclear RT ref	H			02.5 M
(56) Min Lat Underclear LT				02.2 M

Navigation Data

(38) Navigation Control -	Not applicable, no waterway	Code N
(111) Pier Protection		Code
(39) Navigation Vertical Clearance		000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear		M
(40) Navigation Horizontal Clearance		0000.0 M

Classification

		Code
(112) NBIS Bridge Length		Y
(104) Highway System		Y
(26) Functional Class -	Urban Interstate	11
(100) Defense Highway		1
(101) Parallel Structure		R
(102) Direction of Traffic -	1-way traffic	1
(103) Temporary Structure		N
(105) Federal Lands Highways		0
(110) Designated National Network		Y
(20) Toll -	On free road	3
(21) Maintain -	State Highway Agency	01
(22) Owner -	State Highway Agency	01
(37) Historical Significance	less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

		Code
(31) Design Load -	HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method -	Load Factor (LF)	1
(64) Operating Rating		75.3
(65) Inventory Rating Method -	Load Factor (LF)	1
(66) Inventory Rating		45.1
(70) Bridge Posting		5
(41) Structure -	Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	9
(69) Underclearances, vert. and horiz.	5
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 1 1 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 10/16/23 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	06/12/12
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/06/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 10/01/97	H20	Type 3	Type 3S2	Type HS
Operating	40.0	70.0	87.0	73.0
Inventory	26.0	34.0	42.0	36.0

Field Posting

Status LEGAL Posting Date 10/20/97

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 3 : No Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
N / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 008

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National Bridge Element Inspection

BDEPT# **H-21-053**
B.I.N. **0YL**
Item 8 **H21053-0YL-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **10/16/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Stephen J. Ausevich**
Team Member(s) **Glenn Gilligan**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	4,191.000	☐ %	4,191.000			
Notes :									
> 510	Wearing Surfaces	sq feet	2	3,906.000	☐ %	3,906.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	584.000	☐ %	559.000	25.000		
Notes :									
> 1000	*Corrosion*	feet	2	25.000	☐ %		25.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	5,747.000	☐ %	5,722.000	25.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	25.000	☐ %		25.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	35.000	☐ %	35.000			
Notes :									
> 515	Steel Protective Coating	sq feet	3	344.000	☐ %	344.000			
Notes :									
215	**Re Conc Abutment**	feet	2	69.000	☐ %	59.000		10.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	6.000	☐ %			6.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	4.000	☐ %			4.000	
Notes :									
215	**Re Conc Abutment**	feet	3	74.000	☐ %	48.000	15.000	11.000	
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-053**
B.I.N. **0YL**
Item 8 **H21053-0YL-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **10/16/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Stephen J. Ausevich**
Team Member(s) **Glenn Gilligan**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1080	*Delamination/Spall/Patched Area*	feet	3	8.000	☐ %		4.000	4.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	10.000	☐ %		3.000	7.000	
Notes :									
> 1190	*Abrasion(PSC/RC)*	feet	3	8.000	☐ %		8.000		
Notes :									
306	**Other Joint**	feet	2	50.000	☐ %	50.000			
Notes :									
311	**Moveable Bearing**	each	3	7	☐ %		6	1	
Notes :									
> 2220	*Alignment*	each	3	7	☐ %		6	1	
Notes :									
> 515	Steel Protective Coating	sq feet	3	14.000	☐ %	14.000			
Notes :									
313	**Fixed Bearing**	each	2	7	☐ %	7			
Notes :									
> 515	Steel Protective Coating	sq feet	2	14.000	☐ %	14.000			
Notes :									
331	**Re Conc Bridge Railing**	feet	2	182.000	☐ %	177.000	5.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	5.000	☐ %		5.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	0YM	H-21-053

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
HOLYOKE	H21053-0YM-DOT-NBI	024.494	A:OPEN	OCT 15, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB		1965	1986	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
ST141 WB	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	G. Gilligan

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	12°C	S. J. AUSEVICH

ITEM 58 — 7

DECK

		DEF
1. Wearing Surface	6	M-P
2. Deck Condition	7	-
3. Stay-In-Place Forms	6	-
4. Curbs	7	-
5. Median	N	-
6. Sidewalks	N	-
7. Parapets	6	-
8. Railing	N	-
9. Anti Missile Fence	N	-
10. Drainage System	N	-
11. Lighting Standards	N	-
12. Utilities	N	-
13. Deck Joints	6	M-P
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	65	65

APPROACHES

		DEF
a. Appr. pavement condition	6	M-P
b. Appr. Roadway Settlement	6	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N): N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 6

SUPERSTRUCTURE

		DEF
1. Stringers	N	-
2. Floorbeams	N	-
3. Floor System Bracing	N	-
4. Girders or Beams	6	-
5. Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6. Pin & Hangers	N	-
7. Conn Plt's, Gussets & Angles	7	-
8. Cover Plates	6	-
9. Bearing Devices	5	M-P
10. Diaphragms/Cross Frames	7	-
11. Rivets & Bolts	6	-
12. Welds	7	-
13. Member Alignment	7	-
14. Paint/Coating	7	-
15.	N	-

Year Painted: 2021

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N): N

Any Cracks: (Y/N): N

ITEM 60 — 5

SUBSTRUCTURE

	Dive	Cur		DEF
1. Abutments			5	
a. Pedestals	N	N		-
b. Bridge Seats	N	5		M-P
c. Backwalls	N	6		M-P
d. Breastwalls	N	5		M-P
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

ITEM 61 N

CHANNEL & CHANNEL PROTECTION

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:
Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 ***TRAFFIC SAFETY***

	36	COND	DEF
A. Bridge Railing	0	6	-
B. Transitions	1	6	-
C. Approach Guardrail	1	6	-
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING *Not Applicable* X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 10/20/1997 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING *Not* X

	E ft	E in	W ft	W in	meter
Actual Field Measurement		0	17	0	5.18
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	N	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 8

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING
Rating Report (Y/N): Y
Date: 10/01/1997
Inspection data at time of existing rating
I 58: **7** I 59: **7** I 60: **6** Date : 11/15/1995

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound, north to south, over State Route 141 Westbound which travels east to west.

Per the bridge plans, the girders are numbered west to east (101 - 106). Abutments are labeled south and north. **See Sketches 1 & 2.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has been repaired in the travel lane. Repaired area has longitudinal cracking. Both lanes have wheel rutting. **See Photo 1.**

South end of bridge has a Saw & Seal Joint.

Item 58.2 - Deck Condition
Only the Deck Overhangs are visible due to the S-I-P Forms between beams.

Deck Overhangs have scattered transverse hairline cracking with efflorescence that extends downward from the parapet. **See Photo 2.**

Item 58.3 - Stay-In-Place Forms
Stay-In-Place Forms have Isolated areas of minor corrosion:
- Bay 5, near north end. **See Photo 2.**
- Bay 4, near south end.

Item 58.7 - Parapets
Railing consists of 2'-8" high Jersey style concrete parapets.

Parapet Interior Faces have scattered hairline to 1/16" wide vertical cracks, efflorescence, minor scaling, and scrape marks. **See Photo 3.**

Parapet Exterior Faces have scattered hairline to 1/16" wide vertical cracks with efflorescence.

Item 58.13 - Deck Joints
North Extruded Silicone Joint:
- North deck joint has been repaired since last inspection but there is mapcracking in header in left lane. **See Photo 4.**

APPROACHES

Approaches a - Appr. pavement condition
North Approach roadway has been repaired in travel lane but patched area has settled. **See Photo 5.**

South Departure roadway has been repaired in travel lane but patched area has settled. **See Photo 6.**

Approaches have minor wheel rutting in both lanes.

Approaches b - Appr. Roadway Settlement
North Approach & South Departure have settlement at the newly patched areas. **See Photos 5 & 6.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YM**	**H-21-053**	**H21053-0YM-DOT-NBI**	**OCT 15, 2023**

REMARKS

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beams have been repainted prior to last Routine Inspection dated 10/25/2021. **See Photo 7.**

North Abutment, beam ends, have minor pitting and section loss which has been painted over.

Item 59.8 - Cover Plates
Beam bottom flanges have cover plates along the top and bottom of the flange.

Item 59.9 - Bearing Devices
North Abutment Expansion Bearings:

- Expansion Bearings have minor section loss which has been cleaned and painted.
- Beam 101, masonry plate, is undermined up to 3/8" deep due to a spall in the bridge seat. **See Photo 8.**
- Beams 105 & 106 Bearings have backed off anchor bolt nuts on the west side. **See Photo 9.**

Item 59.11 - Rivets & Bolts
Beams 105 & 106 have anchor nuts that have backed off of the west side of the masonry plates.

Item 59.14 - Paint/Coating
Superstructure had been repainted prior to 10/25/2021 Routine Inspection.

SuperStructure Load Deflection Notes
Bridge has minor load deflection under heavy loads.

SuperStructure Load Vibration Notes
Bridge has minor load vibration under live loads.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North & South Bridge Seats have minimal accumulation of debris & delaminated areas.

Beam 101, north end is slightly undermined. **See Sketch 3 & Photo 8.**

Item 60.1.c - Backwalls
North & South Backwalls have minor scaling and delaminations, primarily under the gutterlines, cracking with efflorescence and rust staining, and vertical hairline cracking with efflorescence.
See Sketches 3 & 4 and Photo 10.

Item 60.1.d - Breastwalls
North & South Breastwalls have scattered areas of painted over graffiti, scaling, delaminations and minor cracking with efflorescence and rust stains. **See Sketches 3 & 4 and Photo 8.**

North & South Abutments have **injection epoxy sealant** along hairline cracks. **See Photo 11.**

Item 60.1.e - Wingwalls
All four Wingwalls have scattered vertical cracks up to 1/16" wide, efflorescence, areas of minor scaling, and deteriorated/missing joint filler material at the vertical expansion joints. **See Photo 12.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

REMARKS

Item 60.1.f - Slope Paving/Rip-Rap
North & South Slopes have minor vegetative growth, settlement, movement, and misalignment.
See Photo 13.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets.

Item 36b - Transitions
Transitions consist of the steel Thrie-beam guardrail bolted to the concrete parapets with Schedule 40 tubes, on timber posts with timber offset blocks.

Transitions have areas of minor scrapes.

Item 36c - Approach Guardrail
Northwest & Southwest Approach guardrails consist of steel W-beam guardrail on steal H-posts with plastic offset blocks.

Northeast & Southeast Approach guardrails consist of steel Thrie-beam guardrail on steal H-posts with plastic offset blocks.

Approach guardrails have minor scrapes.

Item 36d - Approach Guardrail Ends
Southeast, Southwest, & Northeast Approach guardrails extend beyond the limits of the bridge.

Northwest Approach guardrail has a Tangent End Treatment.

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Cross Section
Sketch 3 : North Abutment Defects
Sketch 4 : South Abutment Defects
Photo 1 : Wearing Surface has repairs in the travel lane. Repaired area has longitudinal cracking. Both lanes have wheel rutting.
Photo 2 : Deck Overhangs have scattered transverse hairline cracking with efflorescence that extends downward from the parapet. Note S-I-P Forms have rusting, Bay 5.
Photo 3 : East Interior Parapet has vertical hairline cracks.
Photo 4 : North Deck Joint has been repaired since last inspection but there is mapcracking in header in left lane.
Photo 5 : North Approach roadway has been repaired in travel lane but patched area has settled.
Photo 6 : South Departure roadway has been repaired in travel lane but patched area has settled.
Photo 7 : Superstructure has been painted prior to the 10/25/2021 Routine Inspection report.
Photo 8 : Beam 101, North Bearing is being undermined up to 3/8" at the southeast corner due to a spall in the bridge seat.
Photo 9 : Beam 106, North Bearing, west anchor bolt nut is backed off.
Photo 10 : North Backwall, west end has an area of cracking and scaling.
Photo 11 : North & South Abutments have injection epoxy sealant along hairline cracks.
Photo 12 : Northwest Wingwall has scattered vertical cracks up to 1/16" wide, efflorescence, areas of minor scaling.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YM**	**H-21-053**	**H21053-0YM-DOT-NBI**	**OCT 15, 2023**

REMARKS

Photo 13 : North Slope has settlement, misalignment, and minor vegetative growth.

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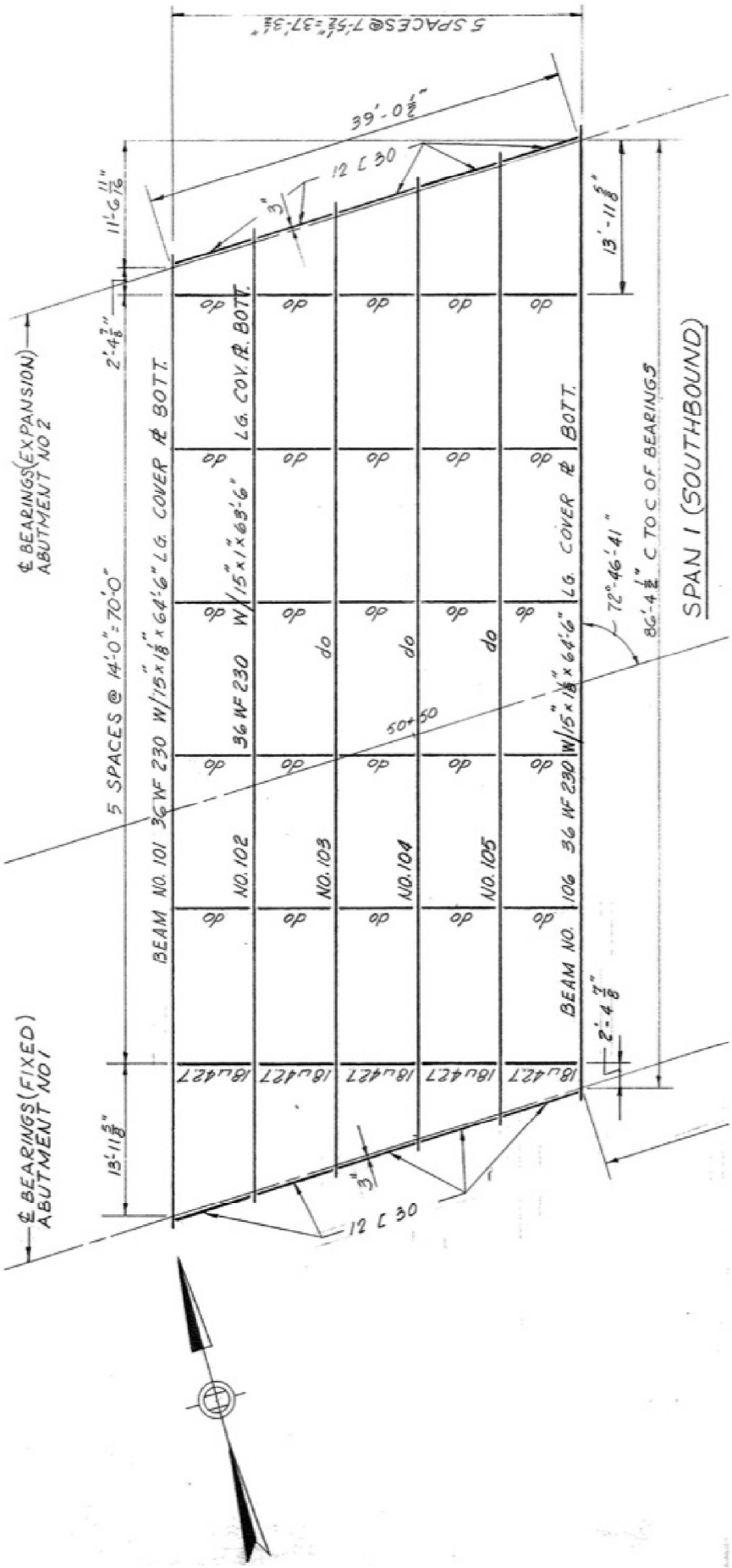
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

SKETCHES



Sketch 1: Framing Plan

REM.(2)2-21

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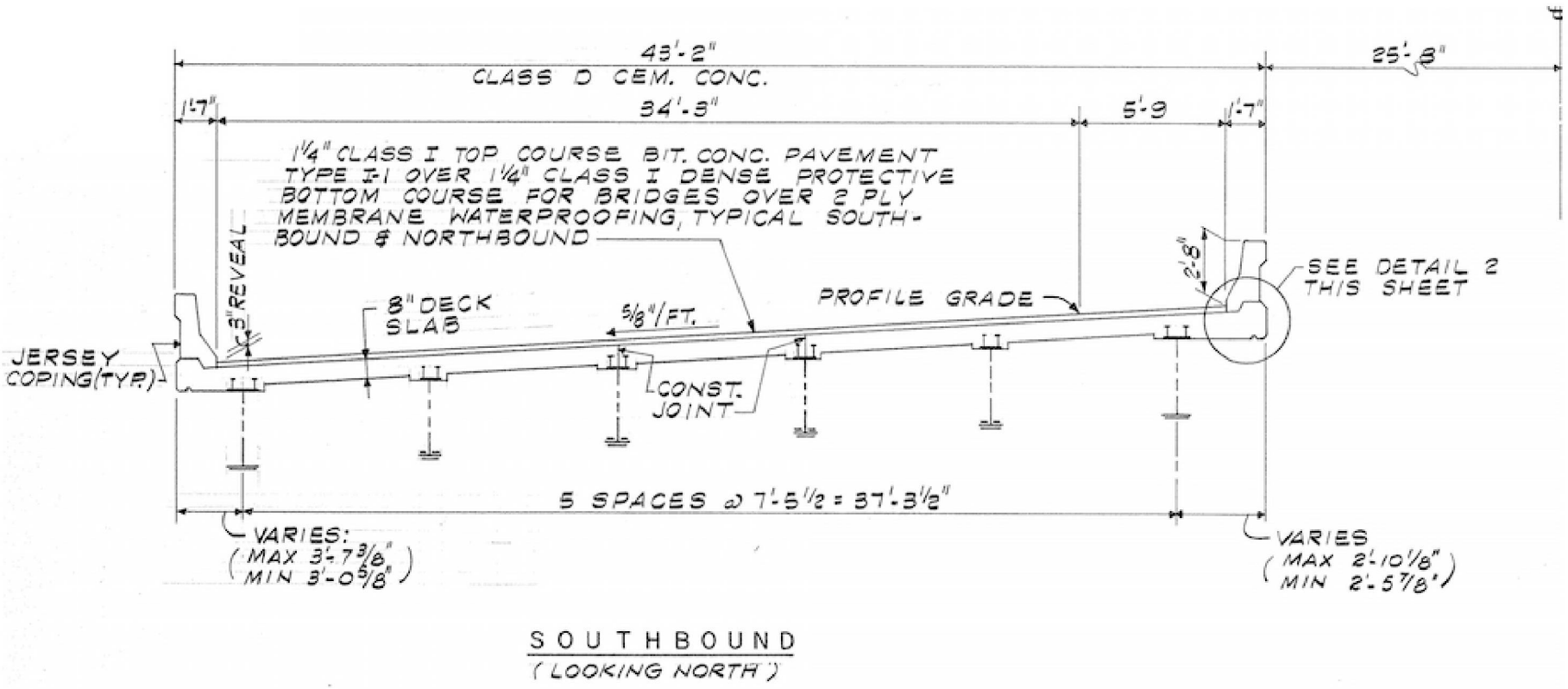
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

SKETCHES



Sketch 2: Cross Section

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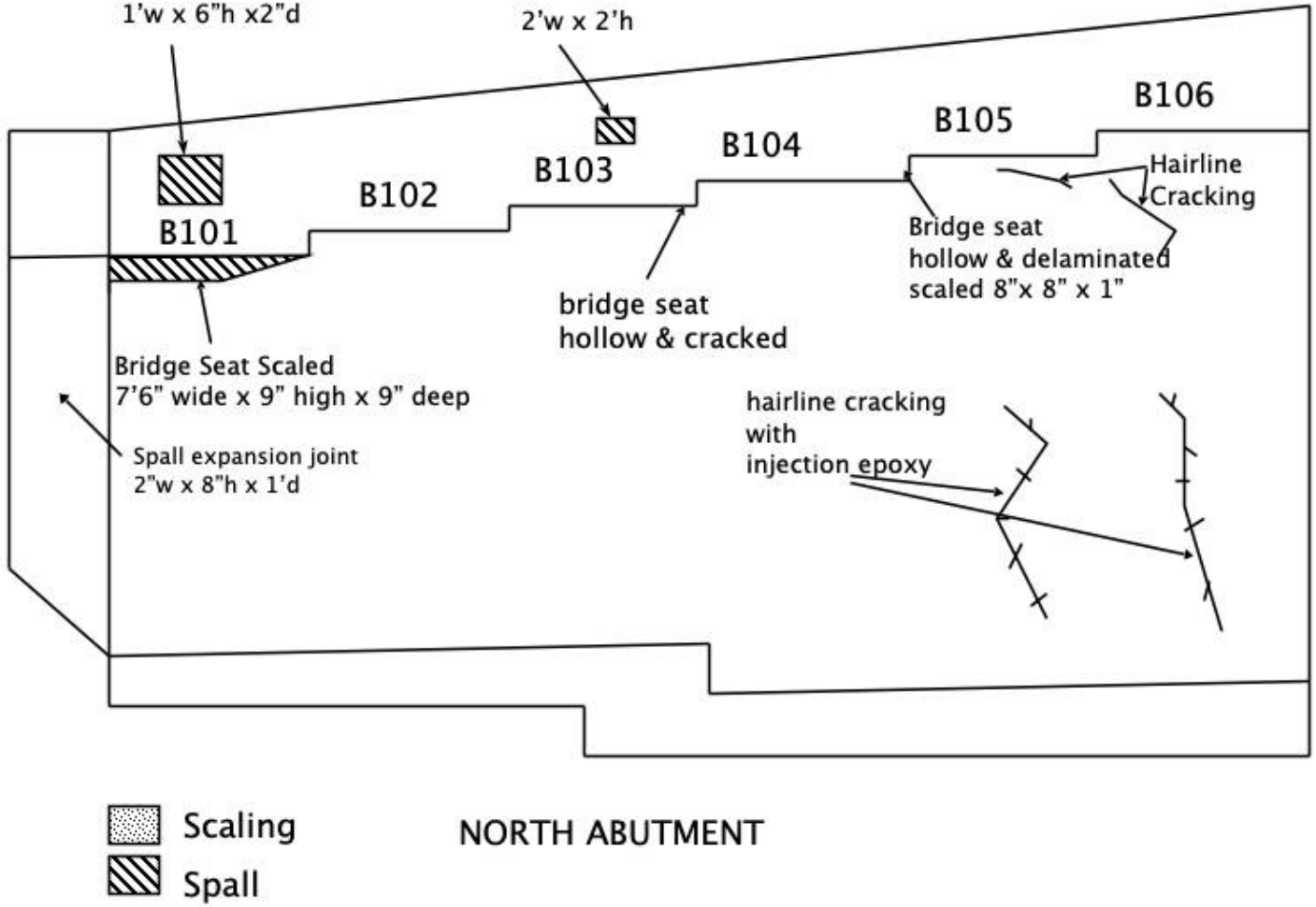
A00807 - 150

Proposal No. 6132l9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

SKETCHES



Sketch 3: North Abutment Defects

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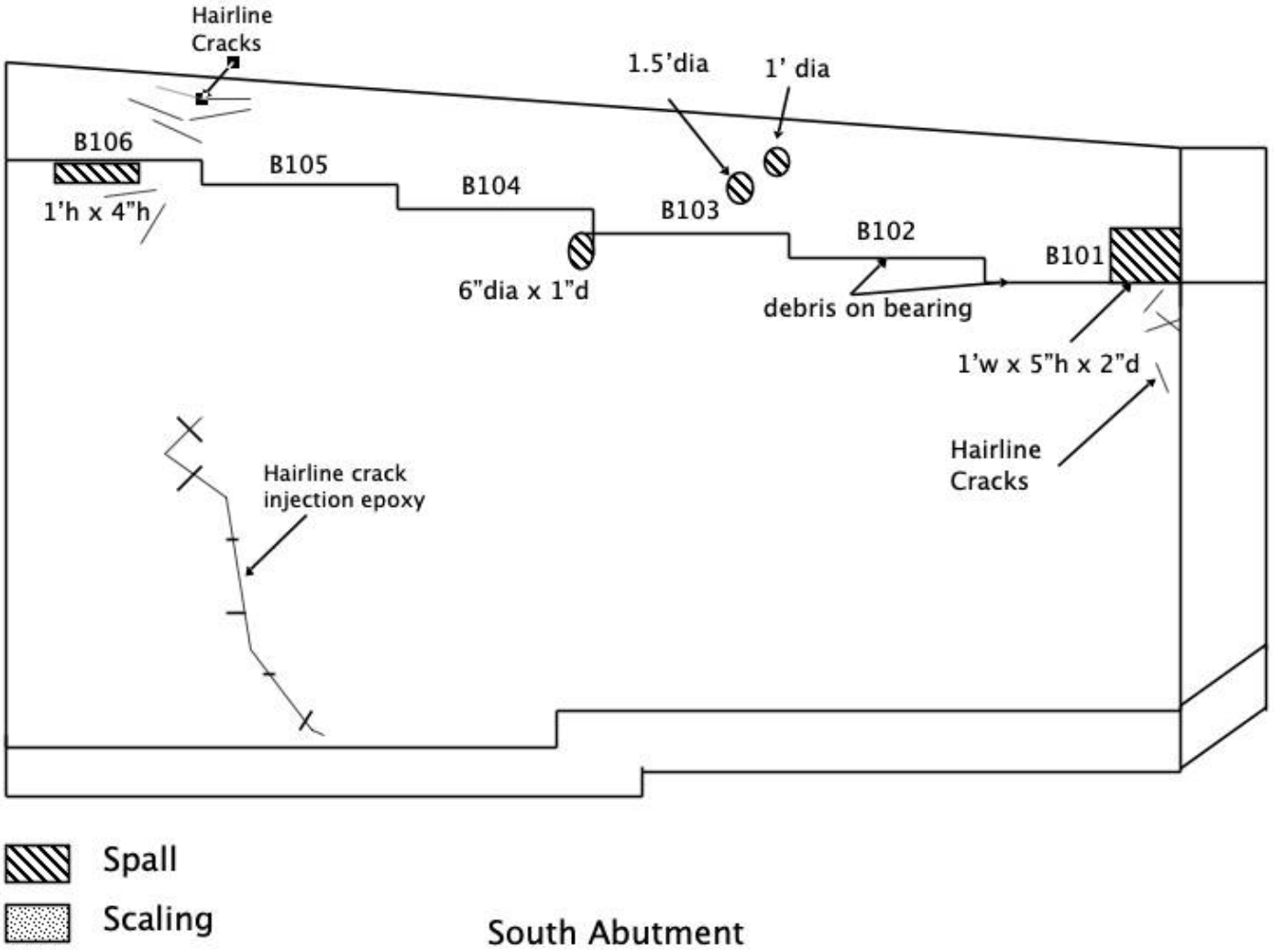
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

SKETCHES



Sketch 4: South Abutment Defects

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Proposal No. 613219-132950

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

PHOTOS

Photo 1: **Wearing Surface has repairs in the travel lane. Repaired area has longitudinal cracking. Both lanes have wheel rutting.**

Photo 2: **Deck Overhangs have scattered transverse hairline cracking with efflorescence that extends downward from the parapet. Note S-I-P Forms have rusting, Bay 5.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

PHOTOS

Photo 3: **East Interior Parapet has vertical hairline cracks.**

Photo 4: **North Deck Joint has been repaired since last inspection but there is mapcracking in header in left lane.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

PHOTOS

Photo 5: **North Approach roadway has been repaired in travel lane but patched area has settled.**

Photo 6: **South Departure roadway has been repaired in travel lane but patched area has settled.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

PHOTOS

Photo 7: **Superstructure has been painted prior to the 10/25/2021 Routine Inspection report.**

Photo 8: **Beam 101, North Bearing is being undermined up to 3/8" at the southeast corner due to a spall in the bridge seat.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

PHOTOS

Photo 9: **Beam 106, North Bearing, west anchor bolt nut is backed off.**

Photo 10: **North Backwall, west end has an area of cracking and scaling.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YM	H-21-053	H21053-0YM-DOT-NBI	OCT 15, 2023

PHOTOS

Photo 11: **North & South Abutments have injection epoxy sealant along hairline cracks.**

Photo 12: **Northwest Wingwall has scattered vertical cracks up to 1/16" wide, efflorescence, areas of minor scaling.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YM**	**H-21-053**	**H21053-0YM-DOT-NBI**	**OCT 15, 2023**

PHOTOS

Photo 13: **North Slope has settlement, misalignment, and minor vegetative growth.**

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Report Date: March 11, 2025

State Information

BDEPT#= H21053 Agency Br.No.

Town= Holyoke L.O. MHD

B.I.N= 0YM AASHTO= 082.3

RANK= 2357 H.I.= 97.9 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	H210530YMDOTNBI
(5) Inventory Route	111000913
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	30840
(6) Features Intersected	**ST141 WB**
(7) Facility Carried	**I 91 SB**
(9) Location	MM 15.2 ON I-91 SB
(11) Kilometerpoint	0024.494
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 12 MIN 46.55 SEC
(17) Longitude	72 DEG 37 MIN 59.13 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr:	
Other	Code 000
(45) Number of spans in main unit	001
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Built-up	Code 1
C) Type of deck protection - Epoxy Coated Reinforcing	Code 1

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	1986
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 02	Under structure 02
(29) Average Daily Traffic	024566
(30) Year of ADT 2016	(109) Truck ADT 08 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0026.3 M
(49) Structure Length	00027.8 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	012.2 M
(52) Deck Width Out to Out	013.2 M
(32) Approach Roadway Width (w/shoulders)	012.2 M
(33) Bridge Median - No median	Code 0
(34) Skew 17 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	12.2 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	05.18 M
(55) Min Lat Underclear RT ref H	02.3 M
(56) Min Lat Underclear LT	02.1 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	L
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	75.9
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	45.5
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	7
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 1 1 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 10/15/23 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	06/12/12
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/06/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 10/01/97	H20	Type 3	Type 3S2	Type HS
Operating	40.0	58.0	72.0	60.0
Inventory	25.0	28.0	34.0	29.0

Field Posting

Status WAIVED Posting Date 10/20/97

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 3 : No Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
N / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 008

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National Bridge Element Inspection

BDEPT# **H-21-053**
B.I.N. **0YM**
Item 8 **H21053-0YM-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **10/15/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Glenn Gilligan**
Team Member(s) **Stephen J. Ausevich**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	3,876.000	☐ %	3,876.000			
Notes :									
> 510	Wearing Surfaces	sq feet	2	3,592.000	☐ %	3,592.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	500.000	☐ %	500.000			
Notes :									
> 515	Steel Protective Coating	sq feet	2	4,480.000	☐ %	4,480.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	30.000	☐ %	30.000			
Notes :									
> 515	Steel Protective Coating	sq feet	3	269.000	☐ %	269.000			
Notes :									
215	**Re Conc Abutment**	feet	2	66.000	☐ %	57.000	5.000	4.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	7.000	☐ %		5.000	2.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	2.000	☐ %			2.000	
Notes :									
215	**Re Conc Abutment**	feet	3	70.000	☐ %	50.000	4.000	16.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	17.000	☐ %		4.000	13.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	3.000	☐ %			3.000	
Notes :									

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National Bridge Element Inspection

BDEPT#	**H-21-053**	Date	**10/15/2023**
B.I.N.	**0YM**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**H21053-0YM-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Glenn Gilligan**
Town	**Holyoke**	Team Member(s)	**Stephen J. Ausevich**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
306	**Other Joint**	feet	2	45.000	☐ %	43.500	1.500		
Notes :									
> 2320	*Seal Adhesion*	feet	2	1.500	☐ %		1.500		
Notes :									
311	**Moveable Bearing**	each	3	6	☐ %	6			
Notes :									
> 515	Steel Protective Coating	sq feet	3	12.000	☐ %	12.000			
Notes :									
313	**Fixed Bearing**	each	2	6	☐ %	6			
Notes :									
> 515	Steel Protective Coating	sq feet	2	12.000	☐ %	12.000			
Notes :									
331	**Re Conc Bridge Railing**	feet	2	182.000	☐ %	155.000	27.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	27.000	☐ %		27.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	0YN	H-21-054

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
HOLYOKE	H21054-0YN-DOT-NBI	025.749	A:OPEN	OCT 17, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 NB		1965	1986	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
HWY BEMIS RD	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	A. Power

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Clear	10°C	J. LENARES

ITEM 58 — 7

DECK

		DEF
1.Wearing Surface	6	-
2.Deck Condition	7	-
3.Stay-In-Place Forms	6	-
4.Curbs	N	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	N	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	70	80

APPROACHES

		DEF
a. Appr. pavement condition	6	M-P
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 5

SUPERSTRUCTURE

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	N	-
9.Bearing Devices	6	M-P
10.Diaphragms/Cross-Frames	6	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted	1988

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — 6

SUBSTRUCTURE

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	6		-
c. Backwalls	N	6		-
d. Breastwalls	N	6		-
e. Wingwalls	N	5		M-P
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 6

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — TRAFFIC SAFETY

	36	COND	DEF
A. Bridge Railing	0	6	-
B. Transitions	0	6	-
C. Approach Guardrail	0	6	-
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not Actual Field Measurement

Posted Clearance

	E ft	E in	W ft	W in	meter
	15	8	14	3	4.34
	14	2	14	2	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	Y	N	NR	NR
	7	7		

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	N	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 8

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#:

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 10/01/1997

Inspection data at time of existing rating

I 58: **7** I 59: **7** I 60: **6** Date : 09/21/1995

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON:

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YN**	**H-21-054**	**H21054-0YN-DOT-NBI**	**OCT 17, 2023**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound, south to north, over Bemis Road which travels east and west.

Per the bridge plans, the six welded steel plate girders are numbered west to east (201- 206). South Abutment is designated as Abutment 3, the north is Abutment 4. This is a single span structure. **See Sketches 1 - 3.**

GENERAL REMARKS
Clearance Posting:
Bridge has only one clearance posting sign 500' from the east side of the bridge for the westbound traffic on Bemis Road that reads 14'-2". Measured minimum clearance was 14'-3" and therefore posted clearance signs should read 14'-1". **See Sketch 1.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has a longitudinal crack along the skip line, a longitudinal crack adjacent to the fog line that continues for the full length of the bridge, and minor wear in the travel lanes. **See Photo 1.**

Wearing Surface has HMA patching adjacent to the north joint concrete header in the Left Travel Lane continuing into the right travel lane.

South Saw & Seal Joint is in good condition.

Item 58.2 - Deck Condition
Deck Underside is hidden by Stay-In-Place (S-I-P) Forms.

Deck Overhangs:
- Hairline transverse cracks with efflorescence that originate at each construction joint.
- Adjacent to the southeastern most crack is an embedded piece of wood, exposed by a 8" diameter spall.

Item 58.3 - Stay-In-Place Forms
Stay-In-Place (S-I-P) Forms have random areas of light rust, and isolated areas of moderate rust.

Bays 1 & 2, have random minor areas of crumpling throughout the forms.

Bay 1:
- North end, 3' wide x 1' long severe rust corrosion.
- Midspan, 18" diameter severe rust corrosion.

Item 58.7 - Parapets
Railing consists of 32" high CP-PL2 concrete Jersey style parapets. The curb height was measured to the first break in the parapets. Parapets have no granite curb insert.

Parapet Interiors have scattered scrape marks and above the wingwalls there are full-height vertical cracks, up to 1/16" wide.

Southeast Parapet corner has diagonal cracking with light efflorescence on both faces. **See Photo 2.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YN**	**H-21-054**	**H21054-0YN-DOT-NBI**	**OCT 17, 2023**

REMARKS

Item 58.13 - Deck Joints
North Extruded Silicone Joint has been repaired since the last inspection, and now has areas of minor debris impaction. **See Photo 3.**

APPROACHES

Approaches a - Appr. pavement condition
North & South Approach roadways have a longitudinal crack along the skip line and a longitudinal crack adjacent to the fog line. **See Photo 4.**

Approaches have HMA patching adjacent to the concrete joint header in the left travel land and continuing into the Right Travel Lane.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Girders have a 48" high x 3/8" thick web plate, a 12" wide x 3/4" thick top flange, and a 14" wide x 1.25" thick bottom flange.

Girder 201 & Girder 202, north end, the interior bearing stiffeners are filled with concrete at the bottom flange up to 1' high.

North end of the Girders, under the deck joint:
- Severe corrosion including rust holes typically behind the north bearing stiffener.
- Minor to moderate corrosion of the lower web and bottom flanges at the bearing and into the span.
- Isolated heavy corrosion over the bearings including a hole in the lower web in Girder 203.

See Sketches 4 - 7 and Photos 5 - 7.

Item 59.7 - Conn Plt's, Gussets & Angles
North end under the concrete diaphragms, the cross-frame connection plates have moderate to severe corrosion and delamination. **See Photo 6.**

Item 59.9 - Bearing Devices
Fixed Bearings (South Abutment)
- Minor to moderate surface rust.
- Girder 201 east anchor bolt nut is missing.
- Random loose or backed off anchor bolt nuts.

Expansion Bearings (North Abutment):
- Bearings have moderate to severe rusting, delaminations, and some areas of section loss.
- Bearings are partially buried in debris.
- Girder 201, west anchor bolt nut is missing.
- Random loose and/or backed off anchor bolt nuts.
- Girder 202 is undermined along the back edge due to scaling in the bridge seat. **See Photo 8.**

Item 59.10 - Diaphragms/Cross-Frames
Interior Cross-Frames have only scattered minor rust.

End Diaphragm concrete encasements have some cracking.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YN**	**H-21-054**	**H21054-0YN-DOT-NBI**	**OCT 17, 2023**

REMARKS

North End Cross-Frames have severe corrosion, delaminations, with at least 0.25" remaining mainly along the bottom horizontal angle. **See Photo 6.**

Item 59.14 - Paint/Coating
Lower part of the girder ends at the North Abutment have severe corrosion and paint failure, and scattered minor rust throughout the entire superstructure. **See Photos 5 - 8.**

SuperStructure Load Vibration Notes
Bridge has minor load vibration can be felt under typical loading.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North Bridge Seat:

- Bays 1 & 2 are scaled around Girder 202 18" wide x 8" long x 3" deep undermining the bearing 0.5". **See Photo 8.**
- Bays 1 & 2 are delaminated 5' wide x 9" long.
- Bays 2 & 3, have a cracked and delaminated area (upper edge delamination) for approximately 9' long x 5" high at the top of the breastwall that extends up to 8" onto the bridge seat. **See Photo 9.**

South Bridge Seat, Bay 1 adjacent Girder 201 bearing, delamination 2' diameter.

Item 60.1.c - Backwalls
North & South Backwalls have scattered hairline cracking, efflorescence, and some patching under the curb line areas.

North Backwall, west end repair, is scaling 20" wide x 10" high x 3" deep.

Item 60.1.d - Breastwalls
North Breastwall:

- Scattered areas of minor to moderate scaling, scattered horizontal and vertical hairline cracks.
- Bays 1 - 4, top of wall, has continuous horizontal cracking. **See Photo 9.**
- Bays 1 & 2 have delaminations along the top edge up to 8" high.
- Bay 3, east side of the vertical construction joint, has a 2' long x 1/8" wide horizontal crack with bleeding rust, and a 1' wide x 6" high delamination.

South Breastwall:

- Under Girder 201, has a 4' long x 1/8" wide horizontal crack with rust staining adjacent to a 1' diameter delamination.
- East end has heavy vegetative growth. **See Photo 2.**

Item 60.1.e - Wingwalls
Wingwalls have scattered vertical cracks up to 1/16" wide and hairline map cracking along the top 2'.

Northwest Wingwall horizontal construction joint near the abutment breastwall is open up to 0.25".

Southeast Wingwall has 4' diagonal cracking starting at the backwall corner and painted over efflorescence which is hidden by vegetative growth. **See Photo 2.**

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HOLYOKE	**0YN**	**H-21-054**	**H21054-0YN-DOT-NBI**	**OCT 17, 2023**

REMARKS

Item 60.1.f - Slope Paving/Rip-Rap
Paving Stones on both slopes are starting to settle/shift downwards under the east (low side) curbline.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets.

Item 36b - Transitions
Transitions consist of the steel Thrie-beam guardrail bolted to the concrete parapets with Schedule 40 tubes, on timber posts with timber offset blocks.

Northeast Transition has minor impact damage at the connection to the railing.

Item 36c - Approach Guardrail
Approach guardrails consist of steel W-beam guardrail on the east side and steel Thrie-beam guardrail on the west side, both on steel H-posts with plastic offset blocks.

Southeast, Northeast, & Northwest Approach guardrails have isolated areas of minor collision damage.

Item 36d - Approach Guardrail Ends
Southeast & Northeast Approach guardrails continue beyond the bridge limits.

Northwest Approach guardrail (trailing end) has a terminal end.

Southwest Approach guardrail has a Tangent End Treatment.

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Elevation
Sketch 3 : Cross Section
Sketch 4 : Girder 202, north end, section loss
Sketch 5 : Girder 203, north end, section loss
Sketch 6 : Girder 204, north end, section loss
Sketch 7 : Girder 205, north end, section loss
Photo 1 : Wearing Surface has longitudinal cracking and minor wear.
Photo 2 : Southeast Parapet has diagonal cracking with efflorescence. East end of the South Abutment is hidden by vegetative growth.
Photo 3 : North Joint has been repaired in the travel lanes, and has areas of debris impaction.
Photo 4 : North Approach pavement has longitudinal cracking and patching adjacent to the joint.
Photo 5 : Girder 205 has severe section loss to the web behind the bearing stiffeners.
Photo 6 : Girder 204, north end, web and bottom flange have moderate rust with minor section loss. Steel diaphragm has rust with minor section loss.
Photo 7 : Girder 203, north end, lower web has a hole over the bearing.
Photo 8 : North Bridge Seat is scaled, undermining the bearing of Girder 202 along the back edge.
Photo 9 : North Breastwall has severe cracking, delamination, and rust staining.

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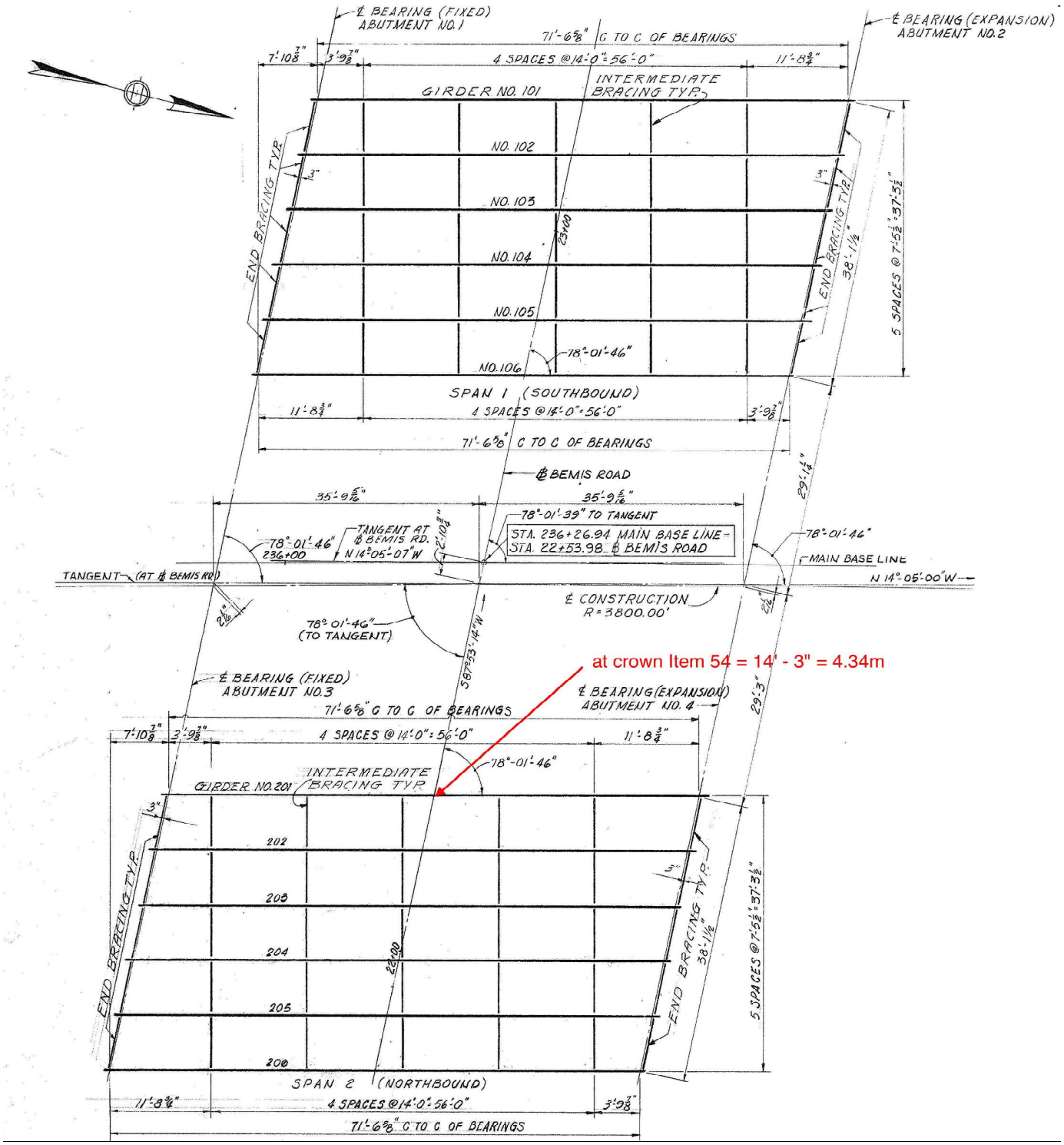
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

SKETCHES



Sketch 1: Framing Plan

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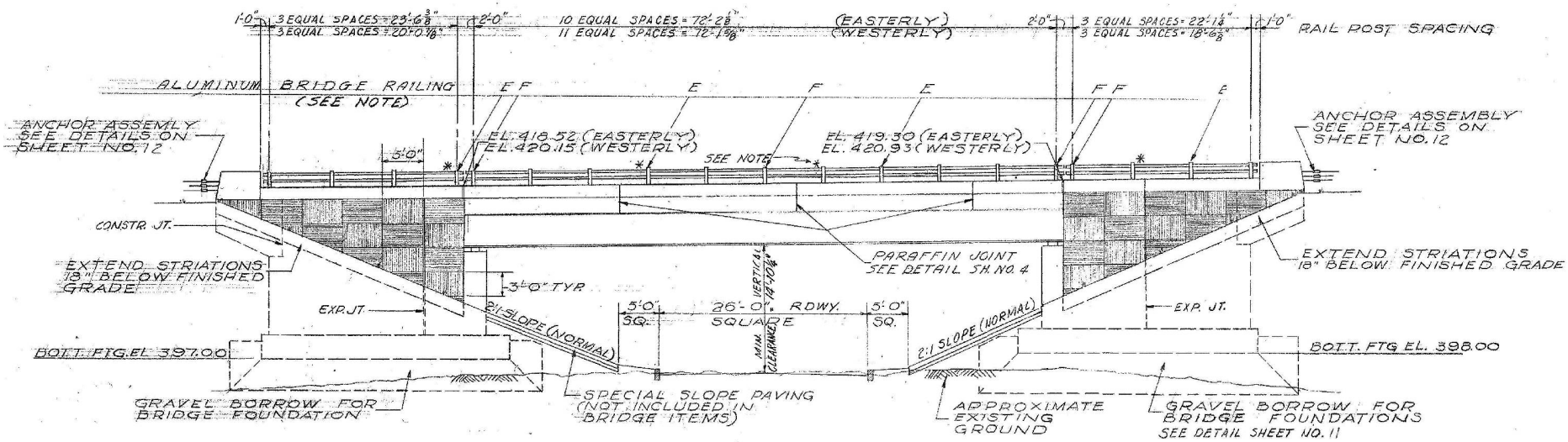
OLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

SKETCHES



Sketch 2: Elevation

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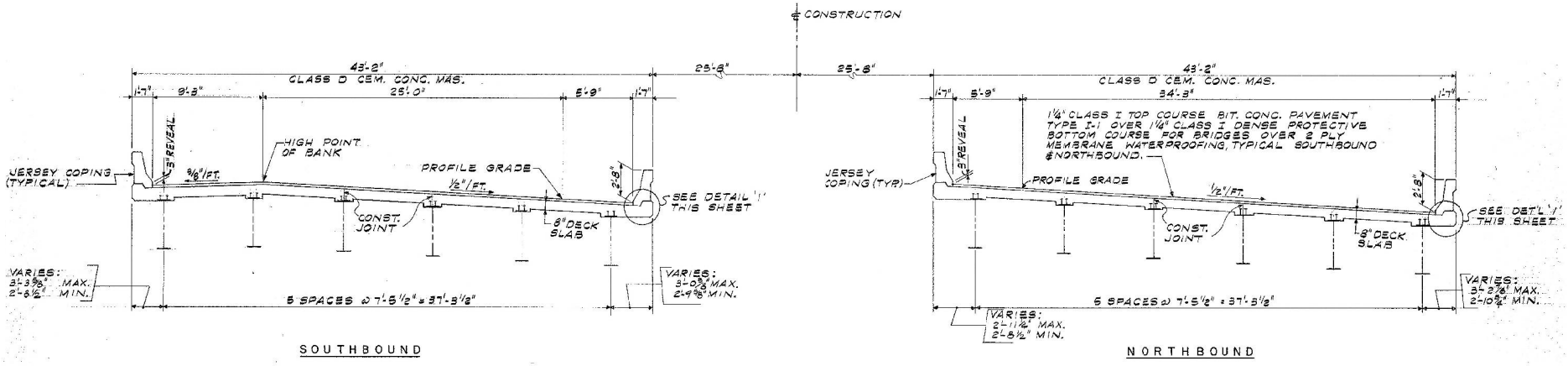
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

SKETCHES



Sketch 3: Cross Section

REM.(2)2-21

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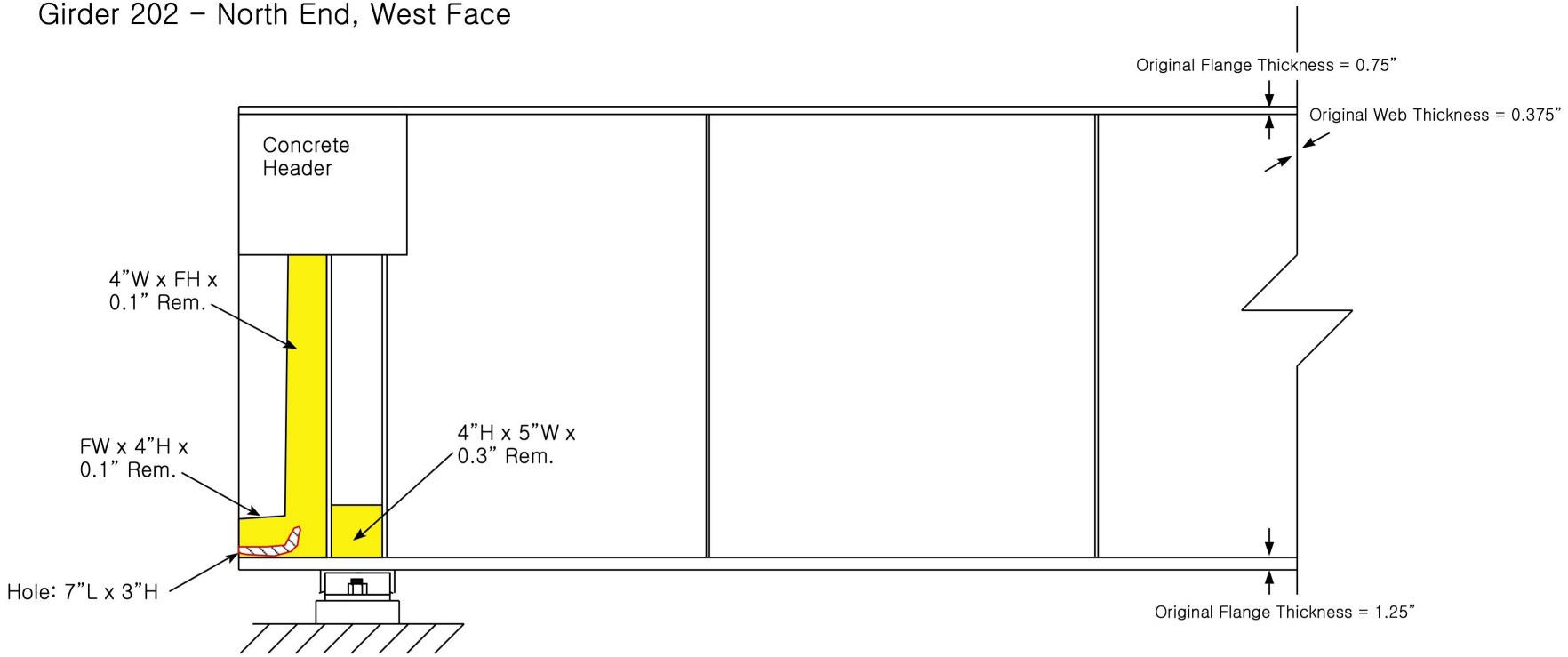
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

SKETCHES

Girder 202 - North End, West Face



Original Dimensions:
Web Plate: 48" x 3/8"
Bottom Flange Plate: 14" x 1-1/4"
Top Flange Plate: 12" x 3/4"
Bearing Stiffener Plates: 5-1/2" x 9/16"
Intermediate Stiffener Plates: 5" x 3/8"

- Section Loss
- Rust Hole

Sketch 4: Girder 202, north end, section loss

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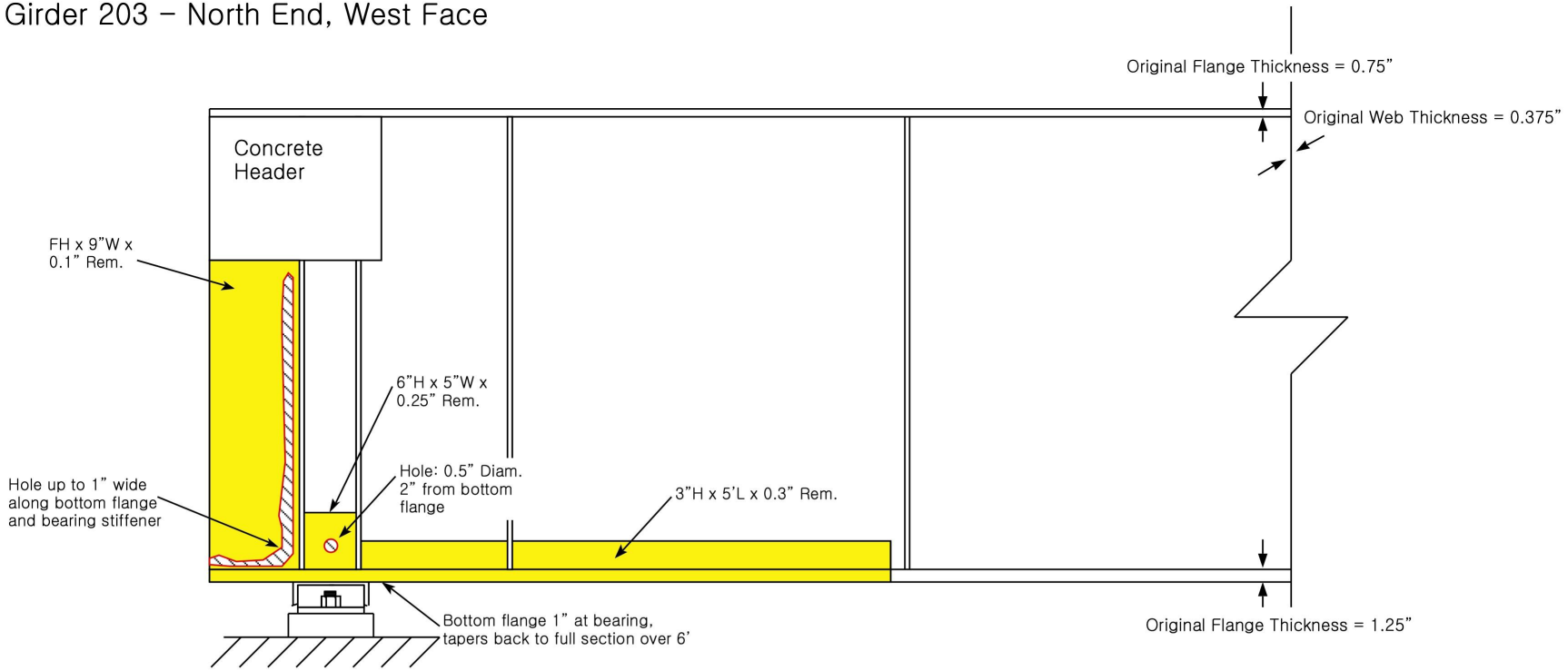
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
OLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

SKETCHES

Girder 203 – North End, West Face



Original Dimensions:
Web Plate: 48" x 3/8"
Bottom Flange Plate: 14" x 1-1/4"
Top Flange Plate: 12" x 3/4"
Bearing Stiffener Plates: 5-1/2" x 9/16"
Intermediate Stiffener Plates: 5" x 3/8"

– Section Loss

– Rust Hole

Sketch 5: Girder 203, north end, section loss

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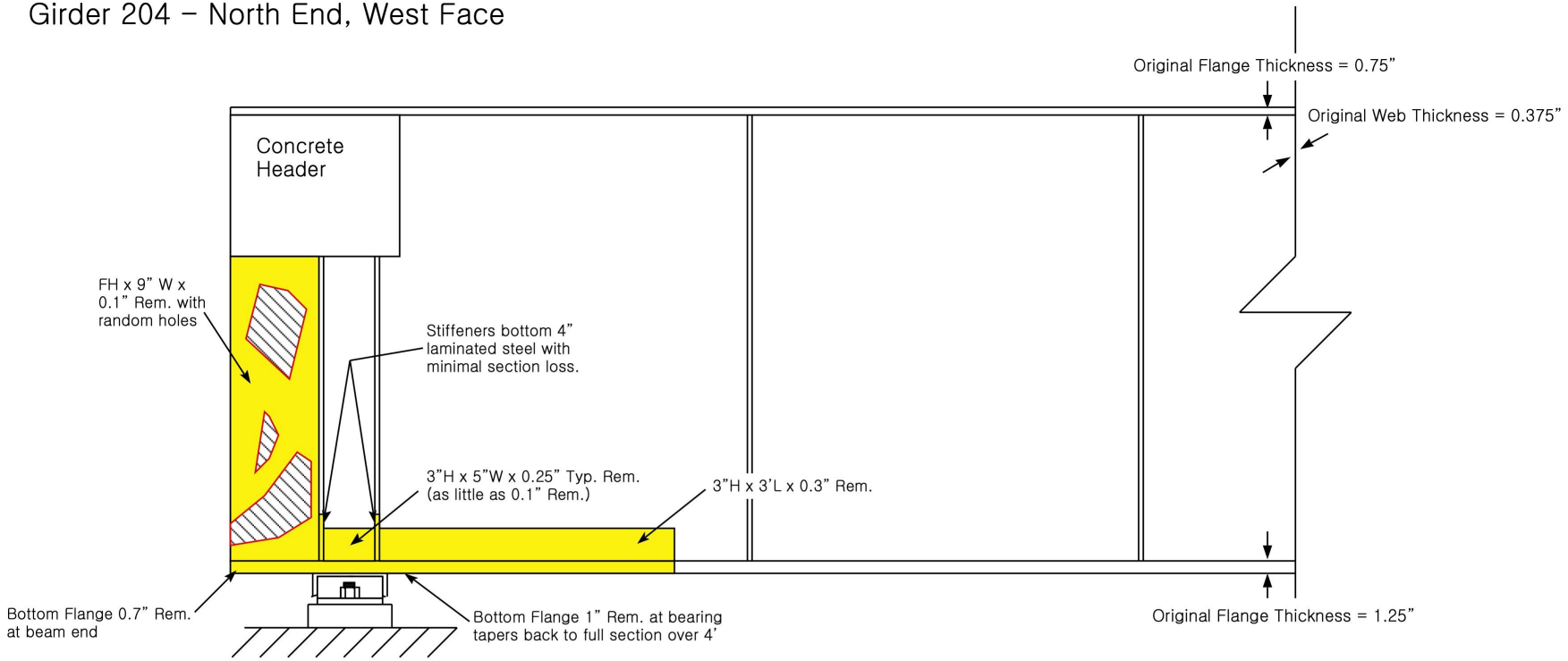
OLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

SKETCHES

Girder 204 - North End, West Face



Original Dimensions:
Web Plate: 48" x 3/8"
Bottom Flange Plate: 14" x 1-1/4"
Top Flange Plate: 12" x 3/4"
Bearing Stiffener Plates: 5-1/2" x 9/16"
Intermediate Stiffener Plates: 5" x 3/8"

- Section Loss
- Rust Hole

Sketch 6: Girder 204, north end, section loss

REM.(2)2-21

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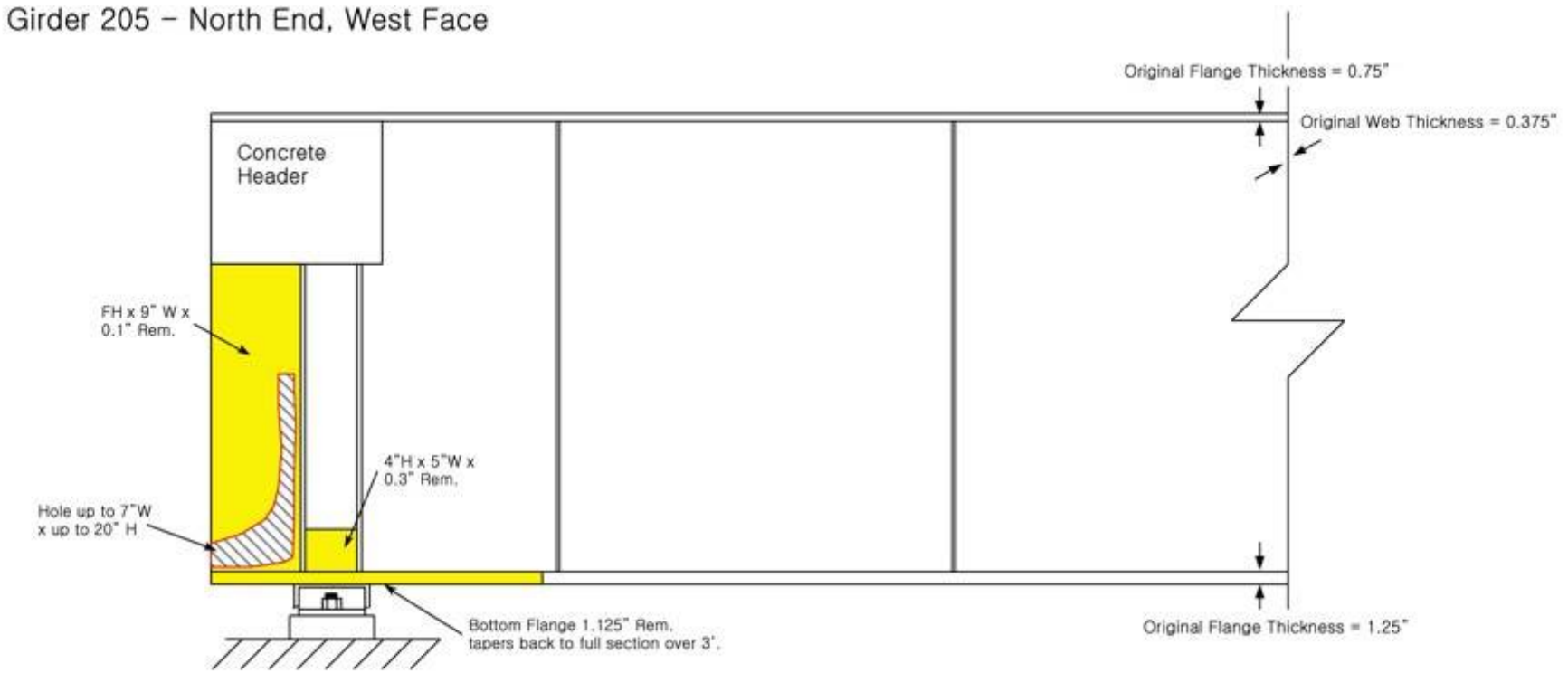
OLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

SKETCHES



Original Dimensions:
Web Plate: 48" x 3/8"
Bottom Flange Plate: 14" x 1-1/4"
Top Flange Plate: 12" x 3/4"
Bearing Stiffener Plates: 5-1/2" x 9/16"
Intermediate Stiffener Plates: 5" x 3/8"

Sketch 7: Girder 205, north end, section loss

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A00807 - 175
Proposal No. 6132l9-132950

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

PHOTOS

Photo 1: **Wearing Surface has longitudinal cracking and minor wear.**

Photo 2: **Southeast Parapet has diagonal cracking with efflorescence. East end of the South Abutment is hidden by vegetative growth.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YN**	**H-21-054**	**H21054-0YN-DOT-NBI**	**OCT 17, 2023**

PHOTOS

Photo 3: **North Joint has been repaired in the travel lanes, and has areas of debris impaction.**

Photo 4: **North Approach pavement has longitudinal cracking and patching adjacent to the joint.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

PHOTOS

Photo 5: **Girder 205 has severe section loss to the web behind the bearing stiffeners.**

Photo 6: **Girder 204, north end, web and bottom flange have moderate rust with minor section loss. Steel diaphragm has rust with minor section loss.**

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HOLYOKE	0YN	H-21-054	H21054-0YN-DOT-NBI	OCT 17, 2023

PHOTOS

Photo 7: **Girder 203, north end, lower web has a hole over the bearing.**

Photo 8: **North Bridge Seat is scaled, undermining the bearing of Girder 202 along the back edge.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YN**	**H-21-054**	**H21054-0YN-DOT-NBI**	**OCT 17, 2023**

PHOTOS

Photo 9: **North Breastwall has severe cracking, delamination, and rust staining.**

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Report Date: March 11, 2025

State Information

BDEPT#= H21054 Agency Br.No.

Town= Holyoke L.O. MHD

B.I.N= 0YN AASHTO= 079.9

RANK= 1123 H.I.= 66.8 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	H210540YNDOTNBI
(5) Inventory Route	111000911
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	30840
(6) Features Intersected	**HWY BEMIS RD**
(7) Facility Carried	**I 91 NB**
(9) Location	MM 16.0 ON I-91 NB
(11) Kilometerpoint	0025.749
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 13 MIN 24.57 SEC
(17) Longitude	72 DEG 38 MIN 11.05 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	001
(46) Number of approach spans	0000

(107) Deck Structure Type - Concrete Cast-in-Place Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous Code 6

B) Type of membrane - Built-up Code 1

C) Type of deck protection - None Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	1986

(42) Type of Service: On - Highway

Under - Highway Code 11

(28) Lanes: On Structure 02	Under structure 02
(29) Average Daily Traffic	027900
(30) Year of ADT 2018 (109) Truck ADT	06 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0021.8 M
(49) Structure Length	00023.1 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	012.2 M
(52) Deck Width Out to Out	013.2 M
(32) Approach Roadway Width (w/shoulders)	011.3 M

(33) Bridge Median - No median Code 0

(34) Skew 12 DEG (35) Structure Flared N

(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	12.2 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.34 M
(55) Min Lat Underclear RT ref H	01.5 M
(56) Min Lat Underclear LT	00.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N

(111) Pier Protection Code

(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	R
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	67.1
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	40.2
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	7
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 10/17/23 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	06/12/12
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/06/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 10/01/97	H20	Type 3	Type 3S2	Type HS
Operating	40.0	67.0	87.0	71.0
Inventory	25.0	36.0	47.0	38.0

Field Posting

Status LEGAL Posting Date 10/21/97

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 3 : No Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
N / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 008

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National Bridge Element Inspection

BDEPT# **H-21-054**
B.I.N. **0YN**
Item 8 **H21054-0YN-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **10/17/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	3,275.000	☐ %	3,275.000			
Notes :									
> 510	Wearing Surfaces	sq feet	2	3,035.000	☐ %	2,915.000	120.000		
Notes :									
> > 3220	*Crack (Wearing Surface)*	sq feet	2	120.000	☐ %		120.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	411.000	☐ %		411.000		
Notes :									
> 1000	*Corrosion*	feet	2	411.000	☐ %		411.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	5,096.000	☐ %		4,841.000	255.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	5,096.000	☐ %		4,841.000	255.000	
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	30.000	☐ %		18.000	12.000	
Notes :									
> 1000	*Corrosion*	feet	3	30.000	☐ %		18.000	12.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	372.000	☐ %			272.000	100.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	372.000	☐ %			272.000	100.000
Notes :									
215	**Re Conc Abutment**	feet	2	45.000	☐ %	40.000	5.000		
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-054**
B.I.N. **0YN**
Item 8 **H21054-0YN-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **10/17/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1080	*Delamination/Spall/Patched Area*	feet	2	1.000	☐ %		1.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	4.000	☐ %		4.000		
Notes :									
215	**Re Conc Abutment**	feet	3	45.000	☐ %	5.000	5.000	35.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	10.000	☐ %		5.000	5.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	30.000	☐ %			30.000	
Notes :									
302	**Compressn Joint Seal**	feet	2	40.000	☐ %	30.000	10.000		
Notes :									
> 2350	*Debris Impaction*	feet	2	10.000	☐ %		10.000		
Notes :									
311	**Moveable Bearing**	each	3	6	☐ %		1	5	
Notes :									
> 1000	*Corrosion*	each	3	5	☐ %		1	4	
Notes :									
> 2240	*Loss of Bearing Area*	each	3	1	☐ %			1	
Notes :									
> 515	Steel Protective Coating	sq feet	3	12.000	☐ %			2.000	10.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	12.000	☐ %			2.000	10.000
Notes :									

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National Bridge Element Inspection

BDEPT#	**H-21-054**	Date	**10/17/2023**
B.I.N.	**0YN**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**H21054-0YN-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Holyoke**	Team Member(s)	**Jonathan Lenares**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
313	**Fixed Bearing**	each	2	6	☐ %		6		
Notes :									
> 1000	*Corrosion*	each	2	6	☐ %		6		
Notes :									
> 515	Steel Protective Coating	sq feet	2	12.000	☐ %			10.000	2.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	12.000	☐ %			10.000	2.000
Notes :									
331	**Re Conc Bridge Railing**	feet	2	150.000	☐ %	118.000	32.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	32.000	☐ %		32.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	0YP	H-21-054

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
HOLYOKE	H21054-0YP-DOT-NBI	025.749	A:OPEN	OCT 17, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB		1965	1986	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
HWY BEMIS RD	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	A. Power

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Clear	10°C	J. LENARES

ITEM 58 — 7

DECK

		DEF
1.Wearing Surface	5	M-P
2.Deck Condition	7	-
3.Stay-In-Place Forms	7	-
4.Curbs	N	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	N	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	6	M-P
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	50	80

APPROACHES

		DEF
a. Appr. pavement condition	6	M-P
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 6

SUPERSTRUCTURE

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders	6	-
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	N	-
8.Cover Plates	N	-
9.Bearing Devices	6	-
10.Diaphragms/Cross-Frames	5	M-P
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	6	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted	1988

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: **(Y/N)** N

Any Cracks: **(Y/N)** N

ITEM 60 — 6

SUBSTRUCTURE

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	5		M-P
c. Backwalls	N	6		-
d. Breastwalls	N	6		-
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 6

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YP	H-21-054	H21054-0YP-DOT-NBI	OCT 17, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	7	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	N	N	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not Actual Field Measurement

Posted Clearance

	E ft	E in	W ft	W in	meter
	18	0	16	0	4.87
	14	2	14	2	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	Y	N	NR	NR
	7	7		

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	N	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 8

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#:

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 10/01/1997

Inspection data at time of existing rating

I 58: **7** I 59: **7** I 60: **7** Date : 09/21/1995

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON:

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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HOLYOKE	**0YP**	**H-21-054**	**H21054-0YP-DOT-NBI**	**OCT 17, 2023**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound, north to south, over Bemis Road which travels east and west.

Per the bridge plans, the six welded steel plate girders are numbered west to east (101 - 106). The south abutment is designated as Abutment 1, and the north abutment is Abutment 2. This is a single span structure. **See Sketches 1 - 3.**

GENERAL REMARKS
Clearance Posting:
Bridge has only one clearance posting sign on Bemis Road, westbound, 500' from the east side of parallel structure H-21-054 (0YN) carrying I-91 Northbound over Bemis Road that reads 14'-2".

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has minor deterioration and rutting along the wheel paths in both lanes.

Center Skip Line has a longitudinal crack.

Wearing Surface has a few HMA patches, including a large patch in the south half of the Left Travel Lane and a full width patch along the north joint.

Breakdown Lane, at the south end, has a 2' diameter area of mapcracking, delamination, and heaving.

Left Travel Lane, south end, has severe wear with a 6" diameter pothole exposing the surface of the concrete deck. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Underside is mostly hidden by S-I-P (Stay-In-Place) Forms.

Deck Overhang undersides have evenly spaced transverse hairline cracks with light to heavy efflorescence.

Item 58.7 - Parapets
Railing consists of 32" high CP-PL2 concrete Jersey style parapets. The curb height was measured to the first break line in the parapets. Parapets have no granite insert so there are no curbs on this bridge.

Parapets have few, random, vertical hairline cracks with efflorescence.

Southwest Endpost has a spall along the top edge.

Item 58.13 - Deck Joints
North Extruded Silicone Joint:
- Joint has been repaired since the last inspection.
- Minor creaking in the joint header, including a 1' long area of cracking in the low speed lane.
- Random minor areas of failing joint adhesion. **See Photo 2.**

APPROACHES

Approaches a - Appr. pavement condition
North & South Approach roadways have minor deterioration and rutting along the wheel paths in both lanes.

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REMARKS

North Approach has longitudinal cracking in the Left Travel Lane.

South Approach:

- Transverse crack across the shoulder and left of the high speed lane, behind the solid yellow edge line, 3' from the south joint.
- Longitudinal cracking in the high speed lane with random minor pavement breakup and random patching. **See Photo 3.**

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders
Girders have a 48" high x 3/8" thick web plate, a 12" wide x 3/4" thick top flange, and a 14" wide x 1.25" thick bottom flange.

Girders are in overall satisfactory condition with more severe corrosion at the north end, including rust holes behind the bearing stiffeners. **See Sketches 4 - 6 and Photos 4 & 5.**

Item 59.9 - Bearing Devices
South Bearings:

- Fascia Bearings have moderate to severe rust at both abutments.
- Interior Bearings have minor rust.
- Girder 102 & 105 Bearings & sole plates have shifted up to 3/8" to the east and have bent anchor bolts.
- Girder 106 Bearing is undermined along the back edge due to bridge seat scaling. **See Photo 6.**

North Bearings:

- Moderate to severe rust from joint leakage. **See Photos 4 & 5.**
- Partially buried in debris.

Item 59.10 - Diaphragms/Cross-Frames
North Abutment, Cross-Frames have moderate to severe section loss up to a rust hole in the lower angle of Bay 5 and 0.1" remaining to the lower angle in Bay 4. **See Photo 4.**

Intermediate Cross-Frames have scattered minor rust and pitting.

Item 59.13 - Member Alignment
Girders 102 & 105, South Bearings, have shifted up to 3/8" to the east.

Item 59.14 - Paint/Coating
Paint System is beginning to fail especially along the bottom flanges, along the lower portions of the webs, at the bearings, and at the north end cross bracing. **See Photos 4 & 5.**

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North & South Bridge Seats have minor debris accumulation.

North Bridge Seat, east end adjacent Girder 106 Bearing, scaled 1' diameter x 2" deep area.

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REMARKS

South Bridge Seat

- West end is spalled 14" wide x 8' long x 6" deep with 2 courses of rusted rebar exposed but was hidden behind poison ivy and other vines during this inspection. **See Photo 7.**
- East end behind Girder 106 Bearing is scaled 64" wide x 12" long x 3.5" deep with rusting rebar undermining the bearing up to 0.5". **See Photo 6.**

Item 60.1.c - Backwalls

South Backwall:

- East end, has two minor spalls that were hidden by poison ivy and other vegetation at the time of this inspection. **See Photo 7.**
- West end, spall at the bottom 6" wide x 9" high x 2.5" deep.

North Backwall:

- West end, has minor horizontal cracking and scaling 20" wide x 12" high x 2.5" deep. **See Photo 8.**
- East end, has horizontal cracking and scaling 30" wide x 4" high x 1" deep.

Item 60.1.d - Breastwalls

North Breastwall, Girder 103 to Girder 105 has horizontal cracking with rust staining.

South Breastwall:

- West end, top of the wall, minor scattered hairline cracking with rust staining.
- Under Girder 105 has a vertical crack up to 0.06" wide x full height.
- East end, top of wall, 6' long horizontal crack with rust staining and efflorescence and some wind abrasion. **See Photo 9.**

Item 60.1.e - Wingwalls

Northeast Wingwall has spalling at the first construction joint 4" wide x 16" high x 3.5" deep and random hairline cracks with efflorescence.

Item 60.1.f - Slope Paving/Rip-Rap

North & South Slopes have shifted slightly with minor settlement and vegetative growth under the facias.

TRAFFIC SAFETY

Item 36a - Bridge Railing

Refer to Item 58.7. - Parapets.

Item 36b - Transitions

Transitions consist of steel Thrie-beam guardrail bolted to the concrete parapets with Schedule 40 tubes, on timber posts with timber offset blocks.

Item 36c - Approach Guardrail

Approach guardrails consist of steel W-beam guardrail on the west side and Thrie-beam guardrail on the east side on steel H-posts with plastic offset blocks.

Northwest Approach guardrail has minor scrapes.

Item 36d - Approach Guardrail Ends

All of the approach guardrail continues beyond the limits of the bridge.

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REMARKS

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Elevation
Sketch 3 : Cross Section
Sketch 4 : Girder 103, north end, section loss
Sketch 5 : Girder 104, north end, section loss
Sketch 6 : Girder 105, north end, section loss
Photo 1 : Wearing Surface, south end of the left travel lane has an area of scaling with a pothole exposing the deck surface.
Photo 2 : North Deck Joint has been repaired since the last inspection. Joint header has minor cracking and joint seal has areas of failing adhesion.
Photo 3 : South Approach pavement has cracking, pavement breakup, and random minor cracking in the left travel lane.
Photo 4 : Girder 104, north end, has corrosion to the lower web and bottom flange. End diaphragm and connection plates have corrosion and section loss.
Photo 5 : Girder 105, north end, beam end behind the bearing stiffeners has severe corrosion with section loss and a hole in the lower web.
Photo 6 : South Bridge Seat, east end, is scaled at the backwall, undermining the back edge of the Girder 106 south bearing.
Photo 7 : South Abutment, west wend is overgrown with poison ivy and other vegetation.
Photo 8 : North Backwall, west end has scaling with horizontal cracking.
Photo 9 : South Abutment, east end, top of the wall has horizontal cracking with rust staining and efflorescence.

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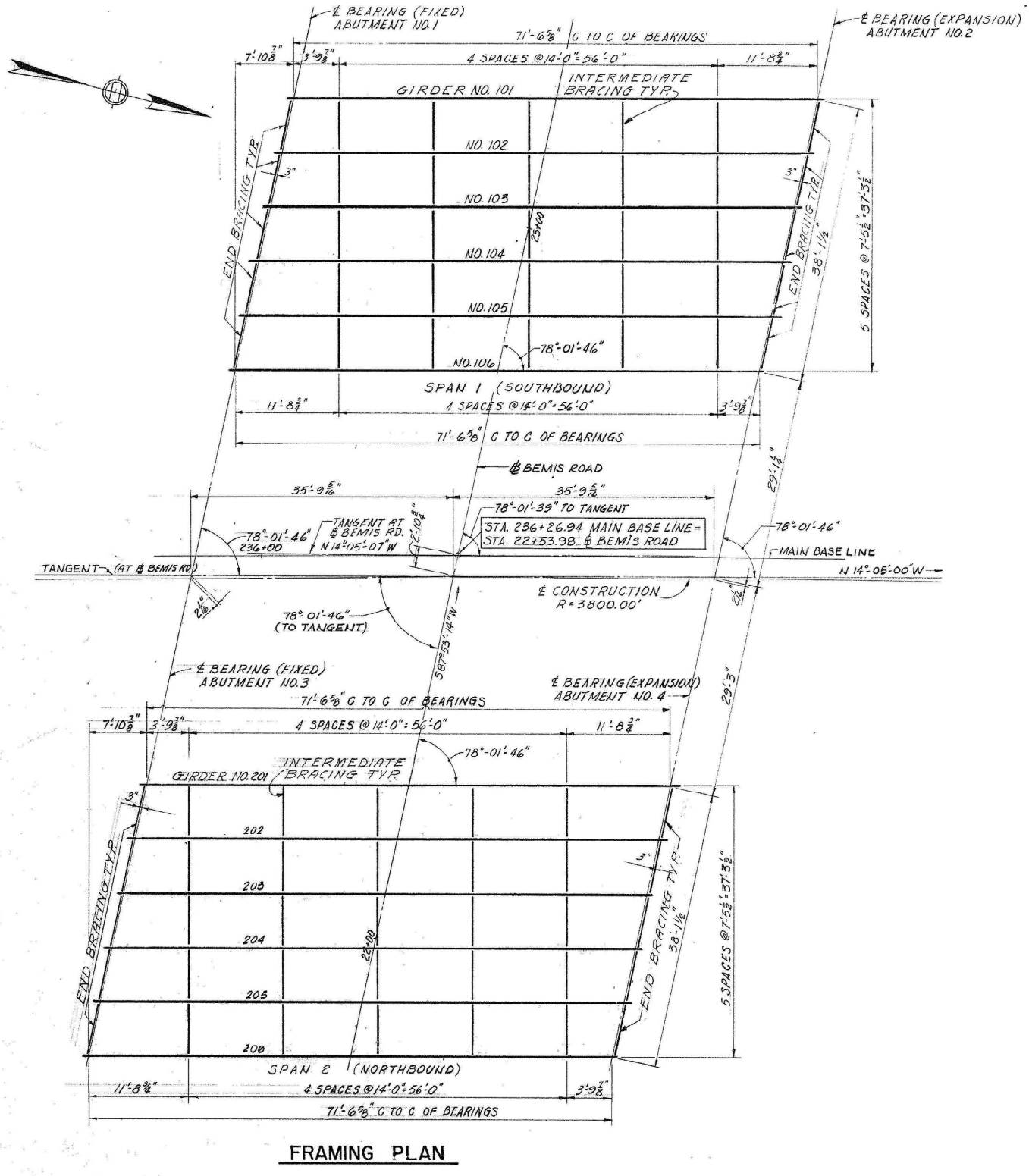
SKETCHES



FRAMING PLAN

Sketch 1: Framing Plan

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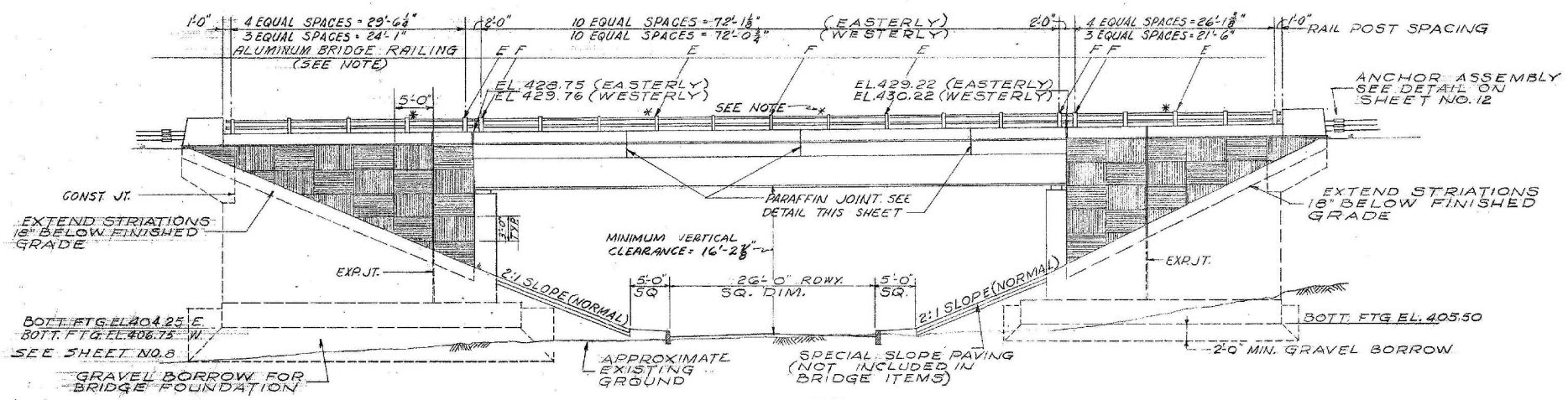
SKETCHES



Sketch 2: Elevation

REM.(2)2-21

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A00807 - 192
Proposal No. 6132l9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
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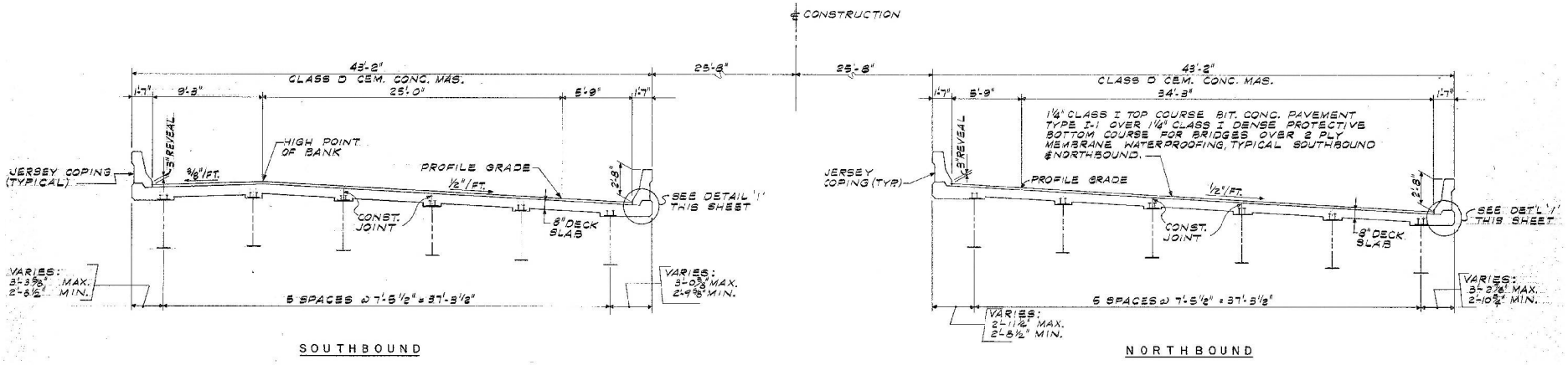
SKETCHES



Sketch 3: Cross Section

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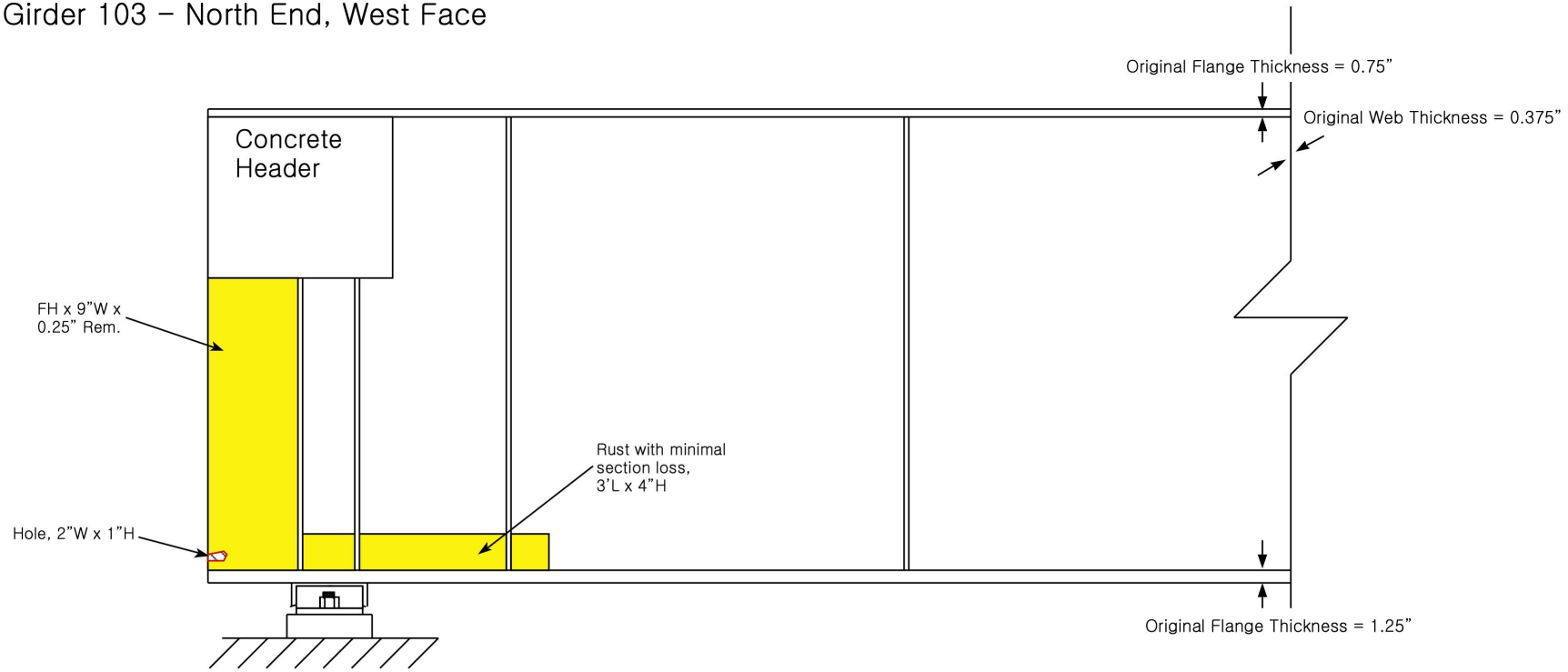
SKETCHES

Girder 103 – North End, West Face



Original Dimensions:
Web Plate: 48” x 3/8”
Bottom Flange Plate: 14” x 1-1/4”
Top Flange Plate: 12” x 3/4”
Bearing Stiffener Plates: 5-1/2” x 9/16”
Intermediate Stiffener Plates: 5” x 3/8”

– Section Loss

– Rust Hole

Sketch 4: Girder 103, north end, section loss

REM.(2)2-21

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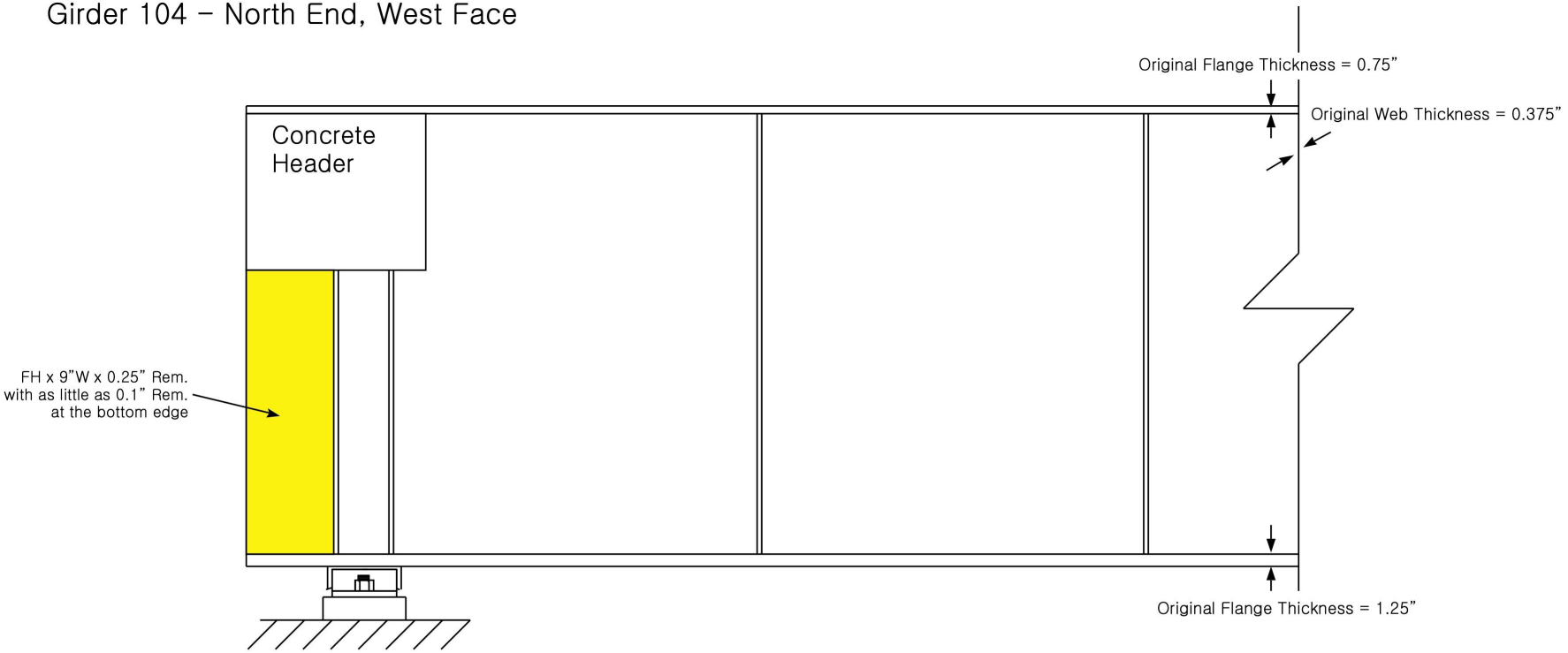
SKETCHES

Girder 104 - North End, West Face



Original Dimensions:
Web Plate: 48" x 3/8"
Bottom Flange Plate: 14" x 1-1/4"
Top Flange Plate: 12" x 3/4"
Bearing Stiffener Plates: 5-1/2" x 9/16"
Intermediate Stiffener Plates: 5" x 3/8"

- Section Loss
- Rust Hole

Sketch 5: Girder 104, north end, section loss

REM.(2)2-21

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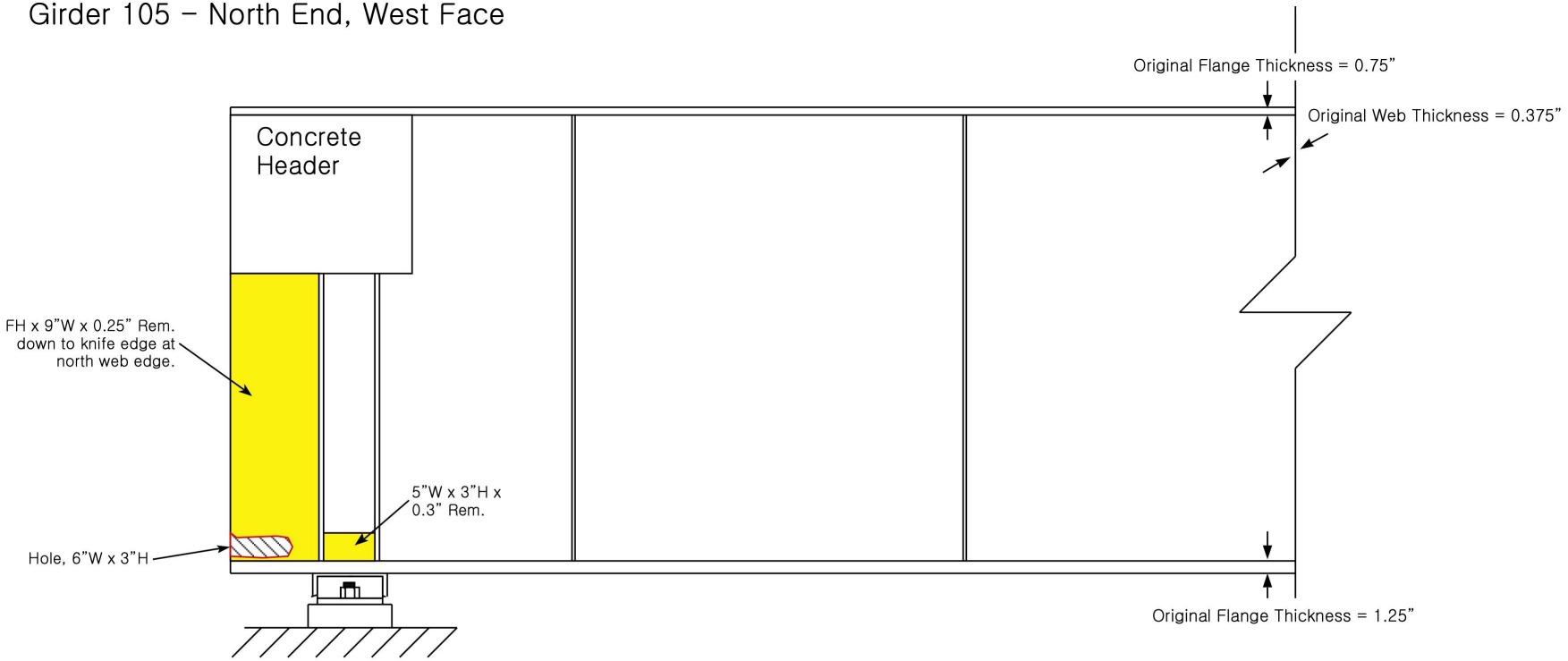
OLYOKE	0YP	H-21-054	H21054-0YP-DOT-NBI	OCT 17, 2023

SKETCHES

Girder 105 - North End, West Face



Original Dimensions:
Web Plate: 48" x 3/8"
Bottom Flange Plate: 14" x 1-1/4"
Top Flange Plate: 12" x 3/4"
Bearing Stiffener Plates: 5-1/2" x 9/16"
Intermediate Stiffener Plates: 5" x 3/8"

- Section Loss
- Rust Hole

Sketch 6: Girder 105, north end, section loss

REM.(2)2-21

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PHOTOS

Photo 1: **Wearing Surface, south end of the left travel lane has an area of scaling with a pothole exposing the deck surface.**

Photo 2: **North Deck Joint has been repaired since the last inspection. Joint header has minor cracking and joint seal has areas of failing adhesion.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YP	H-21-054	H21054-0YP-DOT-NBI	OCT 17, 2023

PHOTOS

Photo 3: **South Approach pavement has cracking, pavement breakup, and random minor cracking in the left travel lane.**

Photo 4: **Girder 104, north end, has corrosion to the lower web and bottom flange. End diaphragm and connection plates have corrosion and section loss.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YP	H-21-054	H21054-0YP-DOT-NBI	OCT 17, 2023

PHOTOS

Photo 5: **Girder 105, north end, beam end behind the bearing stiffeners has severe corrosion with section loss and a hole in the lower web.**

Photo 6: **South Bridge Seat, east end, is scaled at the backwall, undermining the back edge of the Girder 106 south bearing.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	0YP	H-21-054	H21054-0YP-DOT-NBI	OCT 17, 2023

PHOTOS

Photo 7: **South Abutment, west wend is overgrown with poison ivy and other vegetation.**

Photo 8: **North Backwall, west end has scaling with horizontal cracking.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
HOLYOKE	**0YP**	**H-21-054**	**H21054-0YP-DOT-NBI**	**OCT 17, 2023**

PHOTOS

Photo 9: **South Abutment, east end, top of the wall has horizontal cracking with rust staining and efflorescence.**

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Report Date: March 11, 2025

State Information

BDEPT#= H21054 Agency Br.No.

Town= Holyoke L.O. MHD

B.I.N= 0YP AASHTO= 091.4

RANK= 2069 H.I.= 80.6 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	H210540YPDOTNBI
(5) Inventory Route	111000913
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	30840
(6) Features Intersected	**HWY BEMIS RD**
(7) Facility Carried	**I 91 SB**
(9) Location	MM 16.0 ON I-91 SB
(11) Kilometerpoint	0025.749
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 13 MIN 24.52 SEC
(17) Longitude	72 DEG 38 MIN 12.40 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	001
(46) Number of approach spans	0000

(107) Deck Structure Type - Concrete Cast-in-Place Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous Code 6

B) Type of membrane - Built-up Code 1

C) Type of deck protection - Epoxy Coated Reinforcing Code 1

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	1986

(42) Type of Service: On - Highway

Under - Highway Code 11

(28) Lanes: On Structure 02	Under structure 02
(29) Average Daily Traffic	027500
(30) Year of ADT 2018	(109) Truck ADT 05 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0021.8 M
(49) Structure Length	00023.1 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	012.2 M
(52) Deck Width Out to Out	013.2 M
(32) Approach Roadway Width (w/shoulders)	011.3 M

(33) Bridge Median - No median Code 0

(34) Skew 12 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	12.2 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.87 M
(55) Min Lat Underclear RT ref H	01.4 M
(56) Min Lat Underclear LT	00.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N

(111) Pier Protection Code

(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	L
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	67.1
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	40.2
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	6
(68) Deck Geometry	7
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 N
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 10/17/23 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	06/12/12
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/06/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 10/01/97	H20	Type 3	Type 3S2	Type HS
Operating	40.0	67.0	87.0	71.0
Inventory	25.0	36.0	47.0	38.0

Field Posting

Status LEGAL Posting Date 10/30/97

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 3 : No Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
N / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 008

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National Bridge Element Inspection

BDEPT# **H-21-054**
B.I.N. **0YP**
Item 8 **H21054-0YP-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **10/17/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	3,275.000	☐ %	3,265.000	5.000	5.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	10.000	☐ %		5.000	5.000	
Notes :									
> 510	Wearing Surfaces	sq feet	2	3,035.000	☐ %	2,808.000	149.000	77.000	1.000
Notes :									
> > 3210	*Del/Spall/Patch/Pot(Wear Surf)*	sq feet	2	155.000	☐ %		149.000	5.000	1.000
Notes :									
> > 3220	*Crack (Wearing Surface)*	sq feet	2	72.000	☐ %			72.000	
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	411.000	☐ %	219.000	192.000		
Notes :									
> 1000	*Corrosion*	feet	2	192.000	☐ %		192.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	673.000	☐ %	207.000	223.000	223.000	20.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	673.000	☐ %	207.000	223.000	223.000	20.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	30.000	☐ %		23.000	7.000	
Notes :									
> 1000	*Corrosion*	feet	3	30.000	☐ %		23.000	7.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	44.000	☐ %	4.000		20.000	20.000
Notes :									

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National Bridge Element Inspection

BDEPT# **H-21-054**
B.I.N. **0YP**
Item 8 **H21054-0YP-DOT-NBI**
Span Group **1**
Town **Holyoke**
District **2**

Date **10/17/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	40.000	☐ %			20.000	20.000
Notes :									
215	**Re Conc Abutment**	feet	2	45.000	☐ %	20.000		25.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	12.000	☐ %			12.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	13.000	☐ %			13.000	
Notes :									
215	**Re Conc Abutment**	feet	3	45.000	☐ %	25.000		20.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	3.000	☐ %			3.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	17.000	☐ %			17.000	
Notes :									
302	**Compressn Joint Seal**	feet	2	40.000	☐ %	30.000	10.000		
Notes :									
> 2330	*Seal Damage*	feet	2	10.000	☐ %		10.000		
Notes :									
311	**Moveable Bearing**	each	3	6	☐ %		6		
Notes :									
> 1000	*Corrosion*	each	3	6	☐ %		6		
Notes :									
> 515	Steel Protective Coating	sq feet	3	12.000	☐ %			12.000	
Notes :									

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National Bridge Element Inspection

BDEPT#	**H-21-054**	Date	**10/17/2023**
B.I.N.	**0YP**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**H21054-0YP-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Holyoke**	Team Member(s)	**Jonathan Lenares**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > *3440*	*Eff (Stl Protect Coat)*	sq feet	3	12.000	☐ %			12.000	
Notes :									
313	**Fixed Bearing**	each	2	6	☐ %	6			
Notes :									
> 515	Steel Protective Coating	sq feet	2	12.000	☐ %		12.000		
Notes :									
> > *3440*	*Eff (Stl Protect Coat)*	sq feet	2	12.000	☐ %		12.000		
Notes :									
331	**Re Conc Bridge Railing**	feet	2	150.000	☐ %	140.000	5.000	5.000	
Notes :									
> *1130*	*Cracking (RC and Other)*	feet	2	10.000	☐ %		5.000	5.000	
Notes :									

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CITY OF NORTHAMPTON BRIDGES –

INSPECTION REPORTS

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 23

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10A	N-19-065

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19065-10A-DOT-NBI	041.520	A:OPEN	OCT 11, 2022

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 NB		1963	1989	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
COMB I 91 RAMP & GWRR	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	A. Power

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Varied	12°C	G. GILLIGAN

ITEM 58 — 6

DECK

		DEF
1.Wearing Surface	7	-
2.Deck Condition	6	M-P
3.Stay-In-Place Forms	6	M-P
4.Curbs	N	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	N	-
9.Anti Missile Fence	N	-
10.Drainage System	5	M-P
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	N	S
	113	113

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	8	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 5

SUPERSTRUCTURE

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	5	M-P
8.Cover Plates	N	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross-Frames	6	M-P
11.Rivets & Bolts	N	-
12.Welds	4	M-P
13.Member Alignment	6	M-P
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1989

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) Y

ITEM 60 — 6

SUBSTRUCTURE

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	6		M-P
c. Backwalls	N	6		M-P
d. Breastwalls	N	6		M-P
e. Wingwalls	N	6		M-P
f. Slope Paving/Rip-Rap	N	6		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			6	
a. Pedestals	N	N		-
b. Caps	N	7		M-P
c. Columns	N	6		M-P
d. Stems/Webs/Pierwalls	N	7		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 6

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10A	N-19-065	N19065-10A-DOT-NBI	OCT 11, 2022

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	1	7	-
B. Transitions	0	7	-
C. Approach Guardrail	0	6	M-P
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 05/20/2002 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge E	At bridge W	Other Advance E	Other Advance W

CLEARANCE POSTING

Not X

	N ft	N in	S ft	S in	meter
Actual Field Measurement	14	9	14	9	4.49
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge N	At bridge S	Advance N	Advance S

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	P	Y
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	Y	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	Y	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 32

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 04/01/2001

Inspection data at time of existing rating

I 58: **6** I 59: **5** I 60: **6** Date : 08/28/2000

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10A**	**N-19-065**	**N19065-10A-DOT-NBI**	**OCT 11, 2022**

REMARKS

BRIDGE ORIENTATION

Bridge carries I-91 Northbound over the I-91 Northbound On-Ramp and PanAm Railroad.

Per bridge plans, abutments are labeled "East Abutment" & "West Abutment". The 4 spans and 3 piers are numbered east to west. Columns per pier are numbered south to north. Girders are numbered south to north and east to west: Beams 25-30 in Span 1, Beams 31-36 in Span 2, Beams 37-42 in Span 3, and Beams 43-48 in Span 4. Bays are numbered from south to north. **See Sketches 1 - 4.**

GENERAL REMARKS

Access:

Span 1 and Span 4 were inspected on foot. Span 3 was inspected using a bucket truck with traffic control on the I-91 On-Ramp. Span 2 was only inspected visually because a railroad flagger could not be obtained for this inspection.

ITEM 58 - DECK

Item 58.1 - Wearing Surface

Wearing Surface is typically in good condition with scattered hairline cracks, minor wear in the travel lanes, and minor separation between adjacent asphalt pours.

Item 58.2 - Deck Condition

Concrete Deck is mostly hidden by Stay-In-Place (S-I-P) Forms except along the deck overhangs.

Deck Overhangs have scattered transverse hairline cracks with efflorescence that travel down from the parapet construction joints.

Portions of the deck overhangs & parapets were replaced prior to the 2018 inspection and have minor scaling, over-pours, honeycombing and widespread areas with formwork left in place.

Deck has minor spalling adjacent to the weepholes.

Item 58.3 - Stay-In-Place Forms

Concrete Deck is mostly hidden by Stay-In-Place (S-I-P) Forms except along the deck overhangs.

S-I-P Forms are typically in satisfactory condition with scattered areas of corrosion and minor damage.

S-I-P Forms adjacent to the full depth deck repairs at the joints are typically in the worst condition with minor to heavy corrosion and section loss at these locations.

Span 1, Bay 2, adjacent to Beam 27, at the east end:

- Two ribs are severely rusted.
- One rib is fully corroded and missing for an 8" length.
- The angle at the top flange is rusted over an 8' length. **See Photo 1.**

Span 2:

- Bay 2, adjacent to Beam 32 at Pier 2, minor deformation to multiple SIP ribs.
- Bay 3, there are three areas with severe rust up to 2' diameter.
- Bay 5, at Pier 1, full width area of severe rust.

Span 3, Bay 2 at Pier 3, full width area of severe rust adjacent to the patched area. **See Photo 2.**

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REMARKS

Item 58.7 - Parapets
Railing consists of 2'-8" high Jersey style concrete parapets on both sides of the bridge.

Throughout the interior face of both parapets, there are scattered shallow spalls, areas of scale and minor impact damage.

Throughout the interior & exterior faces of the parapets, there are scattered areas of minor hairline cracking.

Parapets have been chipped and patched as part of the previous rehabilitation project. Formwork has been left in several places and there are widespread over-pours. **See Photo 3.**

Item 58.10 - Drainage System
At the roadway level the scuppers are typically completely clogged with heavy vegetative growth.
See Photo 4.

On the underside of the bridge the drainage downspout connection fittings have severe corrosion.

Item 58.13 - Deck Joints
Most of the Deck Joints have minor to moderate misalignment to the joint armor. **See Photo 5.**

APPROACHES

Approaches a - Appr. pavement condition
West Approach roadway has multiple transverse cracks up to 18'-0" long.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Superstructure was cleaned and repainted in 1989. Superstructure has scattered areas of peeling paint, minor to moderate rust and minor section loss throughout.

Interior girder ends over the piers have severe corrosion with minor delamination, worst at Pier 3.

Span 1, Beam 27, at the East Abutment:

- South face, there is full height rust staining with minor section loss to the bottom 6" of the web.
- South side, there is severe rust lamination on the underside of the top flange beyond the bearing, with minor rust over the end 4'-0" in front of the bearing.
- North side there is minor rust on the underside of the top flange over the end 1'-0".
- Bottom flange has moderate rust with minor rust lamination.
- The bearing stiffeners have moderate rust with minor section loss.

See Photo 1.

Span 2 (Limited Access):

- Beam 31:
  - North Face, at Pier 2: 3'-0" long area of rust on the top flange with minor rust on the bearing stiffener.
  - South Face, at Pier 2: 5'-0" long area of rust on the top flange with minor section loss & rust on the bearing stiffener.
- Beam 32:
  - at Pier 1, South Face: Light rust with minor section loss to the top flange, bottom flange and bearing stiffener.

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REMARKS

- at Pier 2: End 6'-0" of beam has minor rust & section loss with rust lamination on the underside of the bottom flange

• Beam 33:
- at Pier 1: End 6'-0" of beam has minor rust on the underside of the bottom flange.
- at Pier 2: End 6'-0" of beam has minor rust & section loss with rust lamination on the underside of the bottom flange.

• Beam 35, Underside, at Pier 2: End 6'-0" of beam has minor rust on the underside of the bottom flange.

• Beam 36, West half of Span: Minor rust on the bottom flange throughout with minor rust on the bearing stiffener.

Span 3:

• Beam 38, at Pier 3**:** End 10'-0" of beam has peeling paint and moderate rust with minor section loss on the underside of the bottom flange.

• Beam 39:
- at Pier 2, beam end has full height moderate rust to the web and bearing stiffeners.
- at Pier 3**,** end 10'-0" of beam has peeling paint and moderate flaking rust with minor section loss on the underside of the bottom flange.

• Beam 40, east end over Pier 2: There is painted over previous section loss with 3/16" (original 3/8" thickness) remaining for full-height and some rust holes up to 1" in diameter. **See Photo 6.**

• Beam 41, at Pier 3**:** End 10'-0" of beam has peeling paint and moderate flaking rust with minor section loss on the underside of the bottom flange and the lower web.

• Beam 42, west end over Pier 2: There is painted over section loss at several stiffeners.

Span 4:

• Beam 45, South Face, at Pier 3: Heavy rust to top and bottom flange up to 6'-0" long and light rust to the bearing stiffener and first intermediate stiffener**. See Photo 7.**

• Beam 48, North Face, Full Length: There is minor rust with minor section loss along the bottom flange.

Item 59.7 - Conn Plt's, Gussets & Angles

At scattered diaphragm connection plates, over the piers and at the abutments, there are cracks in the base metal and welds. Due to rust buildup, pigeon debris and access limitations not all cracks were visible but no changes were noted on the visible cracks. **See Chart 1 and Photos 8 & 9.**

Diaphragms have two different types of cracks; these are indicated in Chart 1 as follows:

• Type "A", along the weld between the end diaphragm connection plate and the web stiffener.

• Type "B", along the weld between the end diaphragm connection plate and the top of the bottom flange.

Item 59.9 - Bearing Devices

Scattered Expansion & Fixed Bearings at the abutments & piers have peeling paint, minor to severe rust with laminations, and impacted concrete debris. **See Photo 10.**

Several of the anchor bolt nuts on the fixed and expansion bearings are loose and/or are bent.

Pier 2:

• Beam 31: north and south anchor bolts are bent, and the nuts are not fully tightened.

• Beam 40: the sole plate and bearing plate are shifted 3/4" in front of the masonry plate. **See Photo 11.**

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REMARKS

West Abutment:

- Sole plates at the fixed bearings have shifted up to 1/2" towards the north relative to the masonry plate. **See Photo 12.**
- The anchor bolts are typically bent at these locations.

Item 59.10 - Diaphragms/Cross-Frames

End diaphragm cross-frames have localized areas of severe corrosion with some areas of pitting up to 1/8" deep.

At scattered diaphragm connection plates, over the piers and at the abutments, there are cracks in the base metal and welds, for specific crack locations, types and lengths. **See Chart 1 and Photos 8 & 9.**

Span 2, Pier 2 at Beam 33, there is a 3" long x 1 1/2" wide hole in the lower flange and the exterior edge is bent downward.

Span 3:

- Pier 2 between Beams 38 and 39, the diaphragm is severely rusted at the north half with laminated rust with minor section loss.
- Pier 3:
  - between Beams 37 and 38, the diaphragm is severely rusted and there is a buildup of debris at the north end. **See Photo 13.**
  - between Beams 38 and 39, the diaphragm is severely rusted and there is a buildup of debris at the north end.

Concrete end diaphragms have been chipped and patched, when the deck joints were replaced. The concrete end diaphragms have scattered hairline cracks, scattered spalls and areas of minor honeycombing.

Item 59.12 - Welds

Diaphragms are connected to the beams using welded and bolted connections. At scattered diaphragm connection plates, over the piers and at the abutments, there are cracks in the base metal and welds. Due to rust buildup, pigeon debris and access limitations not all cracks were visible but no changes were noted on the visible cracks. **See Chart 1 and Photos 8 & 9.**

Diaphragms have two different types of cracks; these are indicated in Chart 1 as follows:

- Type "A", along the weld between the end diaphragm connection plate and the web stiffener.
- Type "B", along the weld between the end diaphragm connection plate and the top of the bottom flange.

There are welds between the bottom flange of each beam and the bearing sole plate throughout.

Item 59.13 - Member Alignment

Several bearings are shifted north or south which indicates lateral movement.

There are cracks in the welds of the connection plates and diaphragms.

Item 59.14 - Paint/Coating

Superstructure has scattered areas of paint loss throughout.

Paint system is failing on the parts of the superstructure that are under the deck joints.
See Photos 1, 7, & 10.

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REMARKS

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
East & West Bridge Seats have scattered areas of debris buildup.

East & West Bridge Seats have scattered hairline cracks, isolated cracks up to 1/4" wide, and isolated hollow sounding areas up to 2'-0" wide x 1'-0" long.

Item 60.1.c - Backwalls
East & West Backwalls have scattered areas of diagonal hairline cracks with efflorescence and rust staining, honeycombing, minor scaling, isolated hollow sounding areas, spalls, and areas of leakage from the deck joints above. **See Photo 14.**

West Abutment:
- Bay 3: Bottom of backwall, adjacent to the bridge seat step there is a 3'-0" wide x full height hollow sounding area.
- Bay 4: Bottom of backwall, adjacent to the bridge seat step there is a 6" wide x 1'-6" high hollow sounding area.
- Bay 5: Top of backwall, adjacent to Beam 48, there is a spall 6" diameter x 1" deep with exposed rebar.

East Abutment:
- Bay 1: Back wall not visible due to foam board left in place following bridge rehabilitation.
- North of Beam 30: There are two spalls measuring 1'-6" wide x 1'-3" high x 2" deep and 1'-6" diameter x 2" deep respectively.

Item 60.1.d - Breastwalls
East & West Breastwalls typically have scattered hairline cracks.

West Breastwall there is a large area with minor to moderate surface scaling, approximately 20'-0" long x 2'-0" high.

Item 60.1.e - Wingwalls
Wingwalls typically have areas with hairline mapcracking, horizontal cracks along the construction joints and scattered areas of efflorescence.

Southwest Wingwall on the upper portion of the east face of the wingwall there is a 3'-0" high x 1'-0" wide x 2" deep spall with adjacent area of hairline cracking with efflorescence.

Item 60.1.f - Slope Paving/Rip-Rap
East & West Slopes have areas with minor to heavy vegetation growth.

East granite block slope pavement has heavy vegetation growth throughout, most heavy at the south end where there are several small trees and brush growing up through the blocks next to the column piers

East Abutment to the north & south of the bridge there are abandoned utility poles in the slope paving.

Item 60.1.k - Settlement
There is no evidence of settlement at the abutments, but diagonal cracks towards the ends of the backwalls may suggest minor wingwall movement.

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REMARKS

Item 60.2 - Piers or Bents
Item 60.2.b - Caps
All 3 Pier Caps have large areas of hairline mapcracking, scattered areas with efflorescence, isolated cracks up to 1/8" wide, and isolated areas of debris buildup on top of the caps. **See Photo 15.**

Pier 2, Under Bay 2, West Face & Underside have a 3'-0" long x 10" wide x 10" high hollow sounding area.

Pier 3, Under Bays 1 & 2, Topside have a build-up of heavy construction debris.

Item 60.2.c - Columns
Scattered Columns have hollow sounding areas and hairline to 1/16" wide cracks near the base.

Pier 3, Column 1, south face at top has a 10" wide x 2'-6" high x up to 1 1/2" deep with exposed and rusted rebar. **See Photo 16.**

Pier 3, Column 2, east face at base has a 2'-0" wide x up to 2'-0" high hollow sounding area with a 1/8" wide x 5'-0" high crack.

Item 60.2.d - Stems/Webs/Pierwalls
Pierwall at Pier 2 has graffiti, hairline cracking, and moisture throughout with scattered areas of efflorescence.

Item 60.2.i - Settlement
While there is some minor hairline cracking in the Pier 2 pierwall and several pier columns, no significant settlement is evident.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7 - Parapets.

Item 36b - Transitions
Transitions consist of steel W-beam guardrail bolted to the concrete parapets, on steel H-posts with steel offset blocks.

Northwest transition there is impact damage with a large tear and rust. **See Photo 17.**

Northeast wingwall the chain link fence is not attached to the bridge and is on the ground.

Item 36c - Approach Guardrail
Southeast & Southwest Approaches consist of steel W-beam guardrail on steel H-posts with steel offset blocks.

Northeast & Northwest Approaches consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Approach guardrails throughout have areas of minor collision damage and rust staining.

Northwest Approach guardrail has an area of severe collision damage 20' long. **See Photo 18.**

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REMARKS

Item 36d - Approach Guardrail Ends

Southeast Approach guardrail (leading end) consists of approximately 60' of a flared BCT, W-beam on timber posts and timber offset blocks.

Southwest, Northwest, & Northeast Approach guardrails extend beyond the limits of the bridge.

Sketch / Chart / Photo Log

Sketch 1 : Plan
Sketch 2 : Framing Plan
Sketch 3 : Elevation
Sketch 4 : Cross-Section
Chart 1 : Cracked Weld and Base Metal on Steel End Diaphragms
Photo 1 : Span 1, Beam 27 has severe rust to the beam end bottom flange, web, top flange, bearing stiffener, and S-I-P Forms.
Photo 2 : Span 3, Bay 2 at Pier 3, S-I-P Forms have severe rust adjacent to the patched deck area.
Photo 3 : North Parapet, over Pier 3, has been patched with minor over-pours.
Photo 4 : Span 2, north shoulder, drainage scupper is completely clogged with heavy vegetative growth.
Photo 5 : Deck joint over Pier 1 is moderately misaligned, but is functioning properly.
Photo 6 : Span 3, Beam 40 at Pier 2, has painted over previous section loss and a series of up to 1" diameter rust holes in the upper web.
Photo 7 : Span 4, Beam 45, South Face at Pier 3, has severe rust to top and bottom flange up to 6'-0" long and minor rust to the bearing stiffener and first intermediate stiffener.
Photo 8 : Span 1, Beam 28 at the East Abutment, diaphragm connection plate has a crack at the bottom flange weld. There is no change in this condition from previous inspections.
Photo 9 : Span 4, Beam 47 at the West Abutment, diaphragm connection plate has a crack at the bottom flange weld. There is no change in this condition from previous inspections.
Photo 10 : Pier 2, Beam 39 and Beam 33, Bearings are severely rusted.
Photo 11 : Span 3, Beam 40 at Pier 2, bearing is shifted 3/4" in front of the masonry plate.
Photo 12 : Span 4, Beam 44 at the West Abutment, bearing is shifted slightly north in relation to the masonry plate.
Photo 13 : Span 3, Bay 1 at Pier 3, the diaphragm is rusted with heavy debris build-up at the north end adjacent to Beam 38.
Photo 14 : West Backwall, north end has random cracking with efflorescence.
Photo 15 : Pier 2 Cap, West Face, Bay 2 has random cracking and a hollow area at the bottom edge.
Photo 16 : Pier 3, Column 1, South Face has a spall with exposed rebar at the top of the column.
Photo 17 : Northwest transition has a tear in the guardrail.
Photo 18 : Northwest Approach guardrail has a 20' long area of collision damage.

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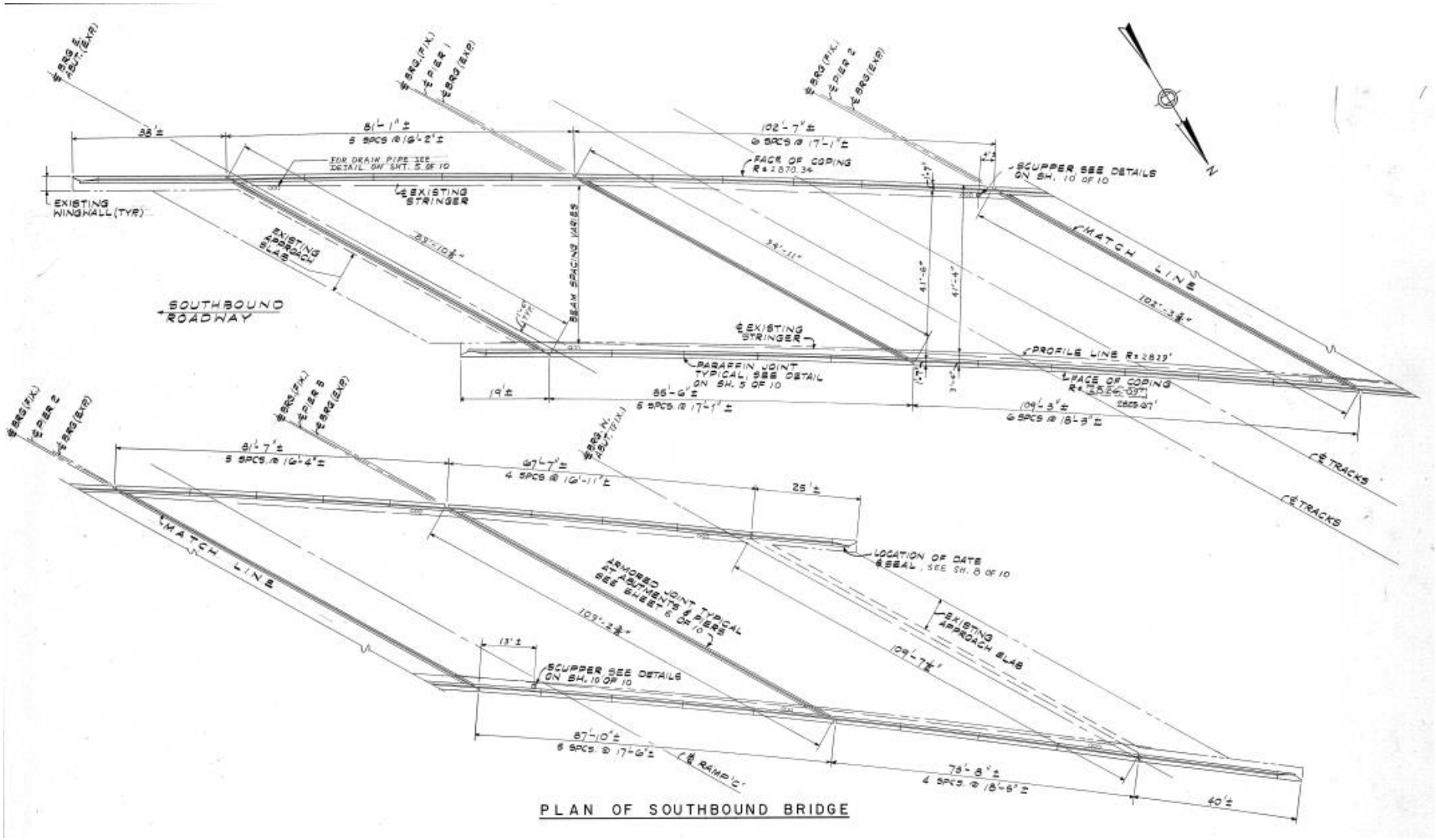
SKETCHES



Sketch 1: Plan

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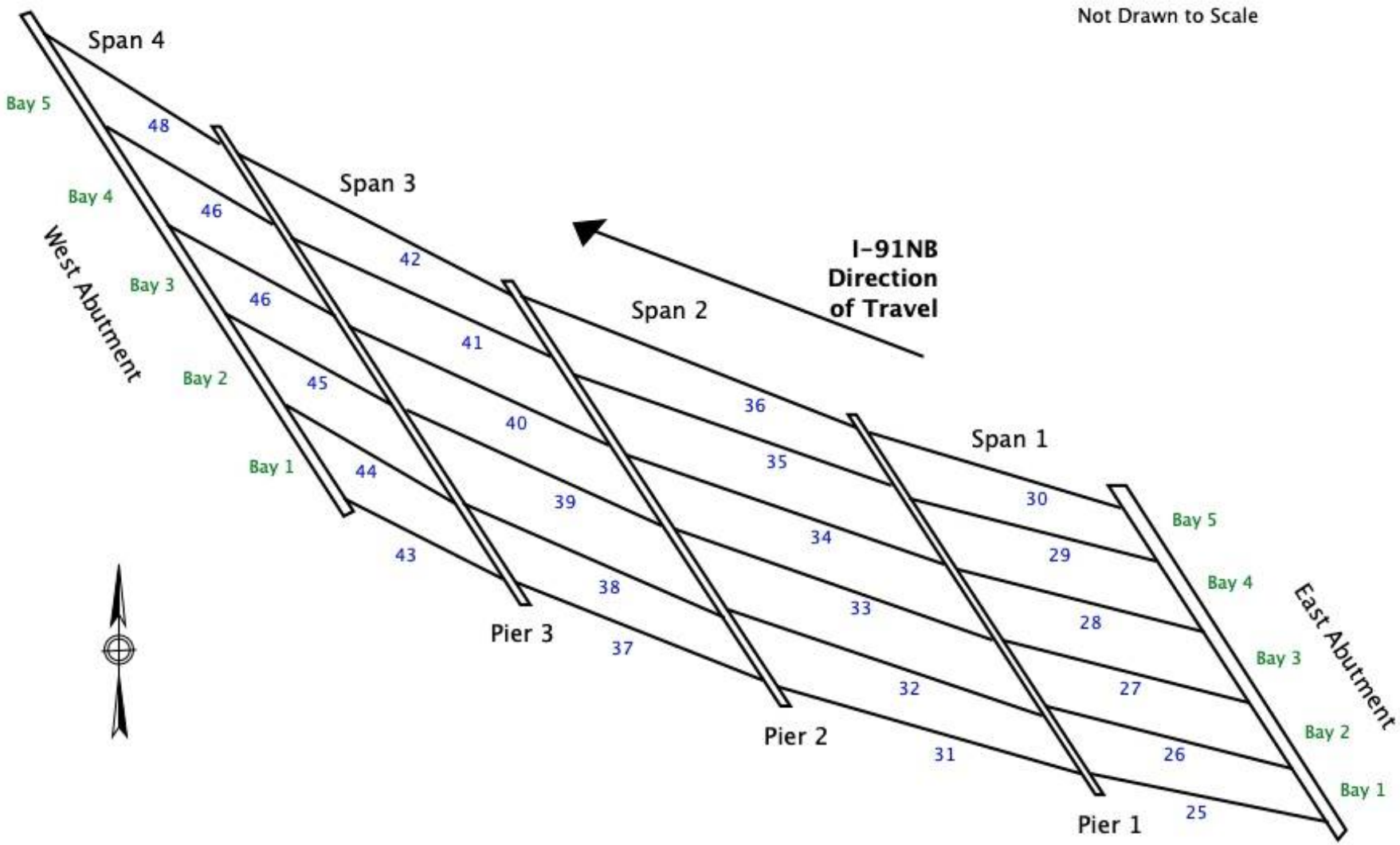
SKETCHES



Beams are labeled in **BLUE**, Bays are labeled in **GREEN**

Sketch 2: Framing Plan

REM.(2)2-21

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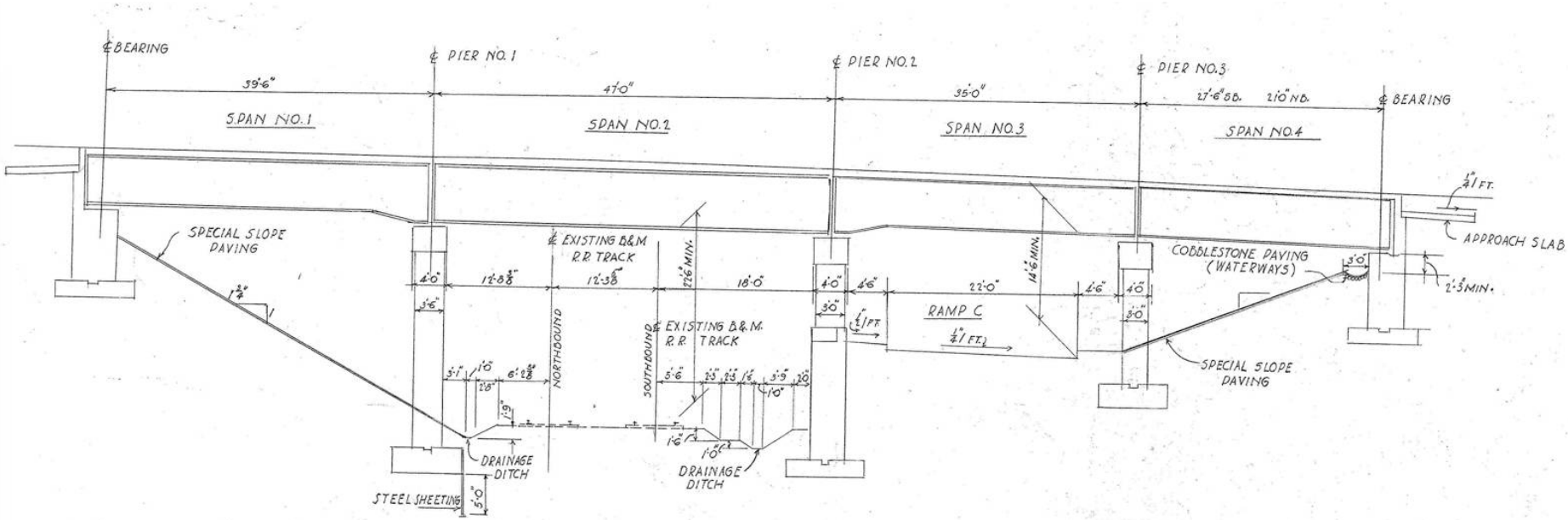

Sketch 3: Elevation

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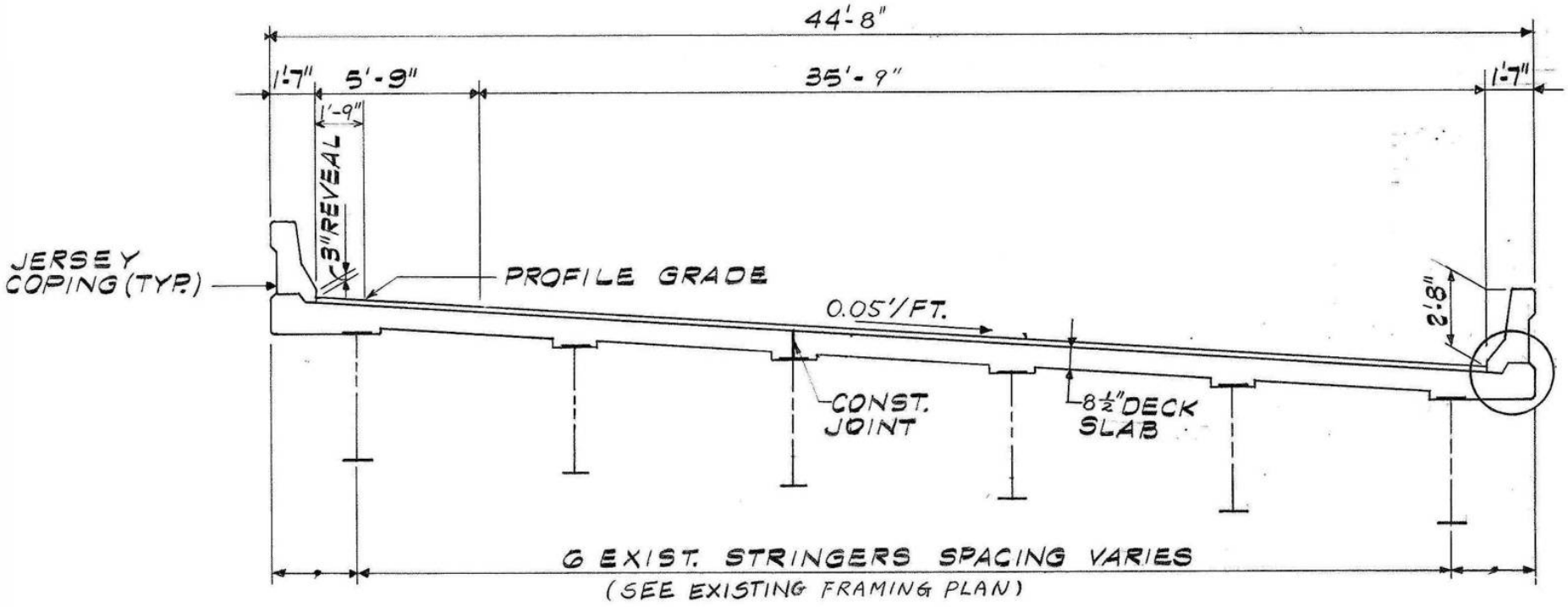

TYPICAL CROSS SECTIONS

Sketch 4: Cross-Section

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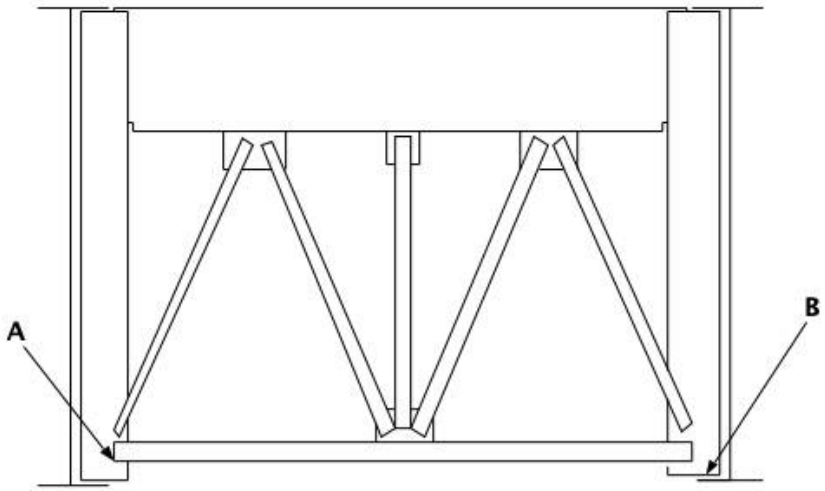
CHARTS



Crack Location **A** = Crack along weld of end diaphragm connection plate to web stiffener plate.
Crack Location **B** = Crack along weld of end diaphragm connection plate to top of bottom flange.

Notes:
There are no significant changes in condition since the previous inspection.
Numerous cracks were not observed due to rust, debris, or accessibility. These cracks have been assumed to have not changed sincee the previous inspection.

NB Bridge - Summary of Crack Locations

Span	Type	Adjacent Beam	Location	Location Relative to Beam	Length
1	A	25	Pier 1	South	1.5"
1	B	29	Pier 1	North	0.88"
1	B	28	E Abutment	North	0.75"
1	B	30	E Abutment	North	0.25"
1	B	30	Pier 1	North	0.75"
2	A	31	Pier 1	South	0.63"
2	A	31	Pier 2	South	1.25"
2	B	34	Pier 2	South	0.25"
2	A	36	Pier 1	North	0.13"
2	B	36	Pier 2	North	0.25"
3	B	37	Pier 2	South	0.75"
3	A	37	Pier 3	South	0.75"
3	B	42	Pier 2	North	0.5"
3	B	40	Pier 2	South	0.75"
3	B	41	Pier 2	South	0.5"
3	A	42	Pier 2	South	0.5"
3	B	42	Pier 3	South	0.5"
4	B	43	Pier 3	South	0.5"
4	B	43	W Abutment	South	1.75"
4	B	44	Pier 3	South	0.5"
4	B	47	W Abutment	South	0.63"
4	A	48	Pier 3	North	0.75"

Chart 1: Cracked Weld and Base Metal on Steel End Diaphragms

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PHOTOS

Photo 1: **Span 1, Beam 27 has severe rust to the beam end bottom flange, web, top flange, bearing stiffener, and S-I-P Forms.**

Photo 2: **Span 3, Bay 2 at Pier 3, S-I-P Forms have severe rust adjacent to the patched deck area.**

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PHOTOS

Photo 3: **North Parapet, over Pier 3, has been patched with minor over-pours.**

Photo 4: **Span 2, north shoulder, drainage scupper is completely clogged with heavy vegetative growth.**

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PHOTOS

Photo 5: **Deck joint over Pier 1 is moderately misaligned, but is functioning properly.**

Photo 6: **Span 3, Beam 40 at Pier 2, has painted over previous section loss and a series of up to 1" diameter rust holes in the upper web.**

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PHOTOS

Photo 7: **Span 4, Beam 45, South Face at Pier 3, has severe rust to top and bottom flange up to 6'-0" long and minor rust to the bearing stiffener and first intermediate stiffener.**

Photo 8: **Span 1, Beam 28 at the East Abutment, diaphragm connection plate has a crack at the bottom flange weld. There is no change in this condition from previous inspections.**

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PHOTOS

Photo 9: **Span 4, Beam 47 at the West Abutment, diaphragm connection plate has a crack at the bottom flange weld. There is no change in this condition from previous inspections.**

Photo 10: **Pier 2, Beam 39 and Beam 33, Bearings are severely rusted.**

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PHOTOS

Photo 11: **Span 3, Beam 40 at Pier 2, bearing is shifted 3/4" in front of the masonry plate.**

Photo 12: **Span 4, Beam 44 at the West Abutment, bearing is shifted slightly north in relation to the masonry plate.**

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PHOTOS

Photo 13: **Span 3, Bay 1 at Pier 3, the diaphragm is rusted with heavy debris build-up at the north end adjacent to Beam 38.**

Photo 14: **West Backwall, north end has random cracking with efflorescence.**

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PHOTOS

Photo 15: **Pier 2 Cap, West Face, Bay 2 has random cracking and a hollow area at the bottom edge.**

Photo 16: **Pier 3, Column 1, South Face has a spall with exposed rebar at the top of the column.**

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PHOTOS

Photo 17: Northwest transition has a tear in the guardrail.

Photo 18: Northwest Approach guardrail has a 20' long area of collision damage.

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Report Date: March 11, 2025

State Information

BDEPT#= N19065 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 10A AASHTO= 077.4

RANK= 1925 H.I.= 91.5 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	N1906510ADOTNBI
(5) Inventory Route	111000911
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**COMB I 91 RAMP & GWRR**
(7) Facility Carried	**I 91 NB**
(9) Location	MM 25.8 ON I-91 NB
(11) Kilometerpoint	0041.520
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 20 MIN 25.66 SEC
(17) Longitude	72 DEG 38 MIN 17.63 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr: Other	Code 000
(45) Number of spans in main unit	004
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Preformed Fabric	Code 2
C) Type of deck protection - Epoxy Coated Reinforcing	Code 1

Age and Service

(27) Year Built	1963
(106) Year Reconstructed	1989
(42) Type of Service: On - Highway	
Under - HWY-RR	Code 14
(28) Lanes: On Structure 02	Under structure 01
(29) Average Daily Traffic	012026
(30) Year of ADT 2016	(109) Truck ADT 05 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0037.7 M
(49) Structure Length	00122.8 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	012.6 M
(52) Deck Width Out to Out	013.6 M
(32) Approach Roadway Width (w/shoulders)	012.6 M
(33) Bridge Median - No median	Code 0
(34) Skew 67 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	12.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.47 M
(55) Min Lat Underclear RT ref H	01.5 M
(56) Min Lat Underclear LT	01.4 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	R
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	6
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	43.6
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	26.1
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	7
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 0 0 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 10/11/22 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 04/01/01	H20	Type 3	Type 3S2	Type HS
Operating	40.0	48.0	55.0	49.0
Inventory	24.0	25.0	28.0	25.0

Field Posting

Status WAIVED Posting Date 05/20/02

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

P / Y	Liftbucket	N / N	Rigging	N / N	Other
P / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	Y / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 032

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National Bridge Element Inspection

BDEPT# **N-19-065**
B.I.N. **10A**
Item 8 **N19065-10A-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **10/11/2022**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Glenn Gilligan**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	17,995.000	☐ %	15,314.000	2,681.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	2,681.000	☐ %		2,681.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	16,719.000	☐ %	16,719.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	2,159.000	☐ %	2,070.000	72.000	17.000	
Notes :									
> 1000	*Corrosion*	feet	2	89.000	☐ %		72.000	17.000	
Notes :									
> 515	Steel Protective Coating	sq feet	2	30,010.000	☐ %		30,010.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	30,010.000	☐ %		30,010.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	210.000	☐ %	135.000	47.000	28.000	
Notes :									
> 1000	*Corrosion*	feet	3	75.000	☐ %		47.000	28.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	2,919.000	☐ %		2,919.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	2,919.000	☐ %		2,919.000		
Notes :									
205	**Re Conc Column**	each	3	20	☐ %	18	1	1	
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-065**
B.I.N. **10A**
Item 8 **N19065-10A-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **10/11/2022**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Glenn Gilligan**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1080	*Delamination/Spall/Patched Area*	each	3	2	☐ %		1	1	
Notes :									
215	**Re Conc Abutment**	feet	2	136.000	☐ %	116.000	19.000	1.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	5.000	☐ %		4.000	1.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	feet	2	10.000	☐ %		10.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	5.000	☐ %		5.000		
Notes :									
215	**Re Conc Abutment**	feet	3	93.000	☐ %	70.000	20.000	3.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	3.000	☐ %			3.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	feet	3	10.000	☐ %		10.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	10.000	☐ %		10.000		
Notes :									
234	**Re Conc Pier Cap**	feet	3	352.000	☐ %	304.000	48.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	3.000	☐ %		3.000		
Notes :									
> 1120	*Efflorescence/Rust Staining*	feet	3	15.000	☐ %		15.000		
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-065**
B.I.N. **10A**
Item 8 **N19065-10A-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **10/11/2022**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Glenn Gilligan**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1130	*Cracking (RC and Other)*	feet	3	30.000	☐ %		30.000		
Notes :									
300	**Strip Seal Exp Joint**	feet	2	425.000	☐ %	425.000			
Notes :									
311	**Moveable Bearing**	each	3	24	☐ %		23	1	
Notes :									
> 1000	*Corrosion*	each	3	23	☐ %		23		
Notes :									
> 2220	*Alignment*	each	3	1	☐ %			1	
Notes :									
> 515	Steel Protective Coating	sq feet	3	48.000	☐ %		48.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	48.000	☐ %		48.000		
Notes :									
313	**Fixed Bearing**	each	2	6	☐ %		6		
Notes :									
> 1000	*Corrosion*	each	2	2	☐ %		2		
Notes :									
> 2220	*Alignment*	each	2	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	2	12.000	☐ %	8.000	4.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	12.000	☐ %	8.000	4.000		
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-065**	Date	**10/11/2022**
B.I.N.	**10A**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19065-10A-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Northampton**	Team Member(s)	**Glenn Gilligan**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
313	**Fixed Bearing**	each	3	18	☐ %		18		
Notes :									
> 1000	*Corrosion*	each	3	18	☐ %		18		
Notes :									
> 515	Steel Protective Coating	sq feet	3	36.000	☐ %		36.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	36.000	☐ %		36.000		
Notes :									
331	**Re Conc Bridge Railing**	feet	2	806.000	☐ %		806.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	806.000	☐ %		806.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 24

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10B	N-19-065

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19065-10B-DOT-NBI	041.520	A:OPEN	OCT 11, 2022

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB		1963	1989	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
COMB I 91 RAMP & GWRR	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	A. Power

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Varied	12°C	G. GILLIGAN

ITEM 58 — DECK — 6

		DEF
1.Wearing Surface	7	-
2.Deck Condition	6	M-P
3.Stay-In-Place Forms	6	M-P
4.Curbs	N	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	N	-
9.Anti Missile Fence	N	-
10.Drainage System	4	S-A
11.Lighting Standards	N	-
12.Utilities	7	-
13.Deck Joints	7	M-P
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	N	S
	81	81

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	8	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 5

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	4	S-P
8.Cover Plates	N	-
9.Bearing Devices	4	M-P
10.Diaphragms/Cross-Frames	6	M-P
11.Rivets & Bolts	N	-
12.Welds	4	S-P
13.Member Alignment	6	M-P
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1989

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 7

	Dive	Cur		DEF
1. Abutments			7	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	6		M-P
d. Breastwalls	N	7		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	7		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			7	
a. Pedestals	N	N		-
b. Caps	N	7		-
c. Columns	N	7		-
d. Stems/Webs/Pierwalls	N	7		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 7

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10B	N-19-065	N19065-10B-DOT-NBI	OCT 11, 2022

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	1	7	-
B. Transitions	0	6	M-P
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge E	At bridge W	Other Advance E	Other Advance W

CLEARANCE POSTING

Not X

	N ft	N in	S ft	S in	meter
Actual Field Measurement	17	0	19	8	5.18
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge N	At bridge S	Advance N	Advance S

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	P	Y
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	Y	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	Y	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 32

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:
Visual and Hands-On

RATING

Rating Report (Y/N): Y

Date: 03/01/1998

Inspection data at time of existing rating

I 58: **7** I 59: **7** I 60: **6** Date : 02/18/1997

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10B**	**N-19-065**	**N19065-10B-DOT-NBI**	**OCT 11, 2022**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound over the I-91 Northbound On-Ramp and PanAm Railroad.

Per bridge plans, abutments are labeled "East Abutment" and "West Abutment". The 4 spans and 3 piers are numbered east to west. Columns per pier are numbered south to north. Girders are numbered south to north and east to west (1 - 24). Bays are numbered from south to north. **See Sketches 1 - 4.**

GENERAL REMARKS
Access:
Span 1 & 4 were inspected on foot. Span 3 was inspected using a bucket truck with traffic control on the I-91 On-Ramp. Span 2 was only inspected visually because a railroad flagger could not be obtained for this inspection.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Wearing Surface is typically in good condition with scattered hairline cracks and minor wear in the wheel paths. **See Photo 1.**

Deck has few minor patches randomly located throughout the wearing surface. **See Photo 1.**

Item 58.2 - Deck Condition
Concrete Deck is mostly hidden by Stay-In-Place Forms except along the deck overhangs and in areas of concrete deck repairs.

Deck Overhangs have scattered transverse hairline cracks with efflorescence that typically travel down from the parapet construction joints.

Item 58.3 - Stay-In-Place Forms
Stay-In-Place (S-I-P) Forms located between the beams in all spans, except in some areas of deck repairs, where the S-I-P Forms are cut out. **See Photo 2.**

S-I-P Forms have scattered areas of light corrosion.

Item 58.7 - Parapets
Railing consists of 2'-8" high Jersey style concrete parapets on both sides of the bridge.

Parapets have scattered areas of hairline cracking and shallow spalls, throughout the interior and exterior faces of the parapets.

Parapets have been patched at the pier joints. **See Photo 3.**

Item 58.10 - Drainage System
At the roadway level the scuppers are typically completely clogged. **See Photo 4.**

On the underside of the bridge the drainage downspout connection fittings have heavy corrosion with section loss and holes.

Some drainpipes have come loose from their anchor points.

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REMARKS

At Pier 2, on the south side of Beam 12, above the cap, a section of the drainpipe is disconnected and is leaking onto the roadway below. **See Photo 5.**

Item 58.12 - Utilities
There is a 6" diameter fiber-optic conduit attached to the North Fascia Beams. At the northwest wingwall, there is a utility anchor bolt with light rust and surrounding vine growth.

Item 58.13 - Deck Joints
Deck Joints are typically filled with dirt and debris. Most of the deck joints have minor to moderate misalignment and scattered minor scrapes to the joint armor. **See Photo 6.**

East Abutment Joint, the joint header is patched near the south end. **See Photo 7.**

Pier 1 Joint:
- The north lane has a 3" gap over a 4'-0" length.
- In the south lane, the joint header is patched with HMA for 2' long. **See Photo 6.**

Pier 3 Joint, South Curb, has light vegetation.

APPROACHES

Approaches a - Appr. pavement condition
West Approach, 10' from the west abutment, in the south lane and south shoulder, there is a 1/8" wide transverse crack measuring 10'-0" long. **See Photo 8.**

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beams have scattered areas of light to moderate surface rust throughout, with heavier surface rust and pitting at the beam ends.

Span 1:
- Beam 1, at East Abutment, behind the bearing, lower web has a rust hole (painted over) measuring 1 1/2" long x 1" high with active rust. **See Photo 9.**
- Beam 6, at the East Abutment:
  - beam end has severe rust along the top flange, bottom flange, and along the bearing stiffeners.
  - there is timber shoring in place between the bottom flange and the bridge seat.
  See Photo 10.

Span 2 (Limited Access):
- Beam 11, at Pier 2, has existing pitting and section loss which has been previously painted over.
- Beam 12, at Pier 1, Bottom Flange, there is heavy corrosion measuring full width to the end 5'.
- Beam 12, at Pier 1 Bearing, North Face, Vertical Web Stiffener, there is severe corrosion.
- Beam 12, at Pier 1, North Face, there is an area of moderate to severe corrosion, pitting, and minor delamination measuring 6'-0" long x 1'-0" high.

Span 3:
- Beam 16, at Pier 2 Bearing, north face, vertical web stiffener has severe corrosion. **See Photo 11.**
- Beam 16, at Pier 3, the underside of the bottom flange has heavy rust measuring full width x up to 10'-0" long. The lower 6" of the north and south faces of the web have light rust with minor loss.
- Beam 18, Bottom Flange, the exterior edge has minor rust for the full length.

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REMARKS

Span 4:

- Beam 22, at Pier 3, the bottom flange has severe rust and minor loss. The lower 4" of the web and the full height of the stiffeners have moderate rust.

Item 59.7 - Conn Plt's, Gussets & Angles

Scattered diaphragm connection plates, over the piers and at the abutments, there are cracks in the base metal and welds. Due to rust build-up and pigeon debris, not all cracks were visible, but no changes were noted on the visible cracks. **See Item 59.12 - Welds.**

Item 59.9 - Bearing Devices

Several Bearings have severe pitting and laminated rust, with the remaining bearings having only light rust. **See Photo 12.**

East Abutment (Expansion):

- Several anchor bolt nuts are not tightened down or missing. **See Photo 13.**
- Beam 2 bearing is excessively contracted with the sole plate overhanging the masonry plate by 1/2". **See Photo 14.**

Pier 1 (Limited Access):

- Several anchor bolt nuts are not tightened down and flush with the bearing.

Pier 3:

- Several anchor bolt nuts are not tightened down and flush with the bearing.
- There are areas that have a build-up of debris. **See Photo 15.**

West Abutment (Fixed):

- Several anchor bolt nuts are not tightened down and flush with the bearing.
- The west abutment bearings typically overhang the sole plates 1/4" to the north.
- The sole plates have shifted up to 3/8" towards the east relative to the masonry plate and the anchor bolts are bent at these locations.
- At the Beam 22 bearing, the north anchor bolt is missing. **See Photo 16.**

Item 59.10 - Diaphragms/Cross-Frames

The end diaphragm cross-frames have localized areas of moderate to severe corrosion with some areas of pitting due to deck joint leakage at the abutments and piers. **See Photo 17.**

At scattered diaphragm connection plates, over the piers and at the abutments, there are cracks in the base metal and welds, for specific crack locations, types, and lengths. **See Item 59.12 - Welds.**

At Beam 10, Bay 4, end diaphragm over Pier 2, there is an area of rust and missing connection bolt. **See Photo 18.**

Concrete end diaphragms were chipped and patched when the deck joints were replaced.

At Pier 1, in Bay 5, the concrete encased diaphragm has light to moderate scaling with moderate rust staining and efflorescence.

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REMARKS

Item 59.12 - Welds
Diaphragms are connected to the beams using welded and bolted connections. At scattered diaphragm connection plates, over the piers and at the abutments, there are cracks in the base metal and welds. Due to rust build-up and pigeon debris, not all cracks were visible, but no changes were noted on the visible cracks.

There are scattered weld cracks. **See Chart 1 and Photos 19 & 20**. There are four different types of cracks; these are indicated in **Chart 1** as follows:

- Type "A", along the weld between the end diaphragm connection plate and the web stiffener.
- Type "B", along the weld between the end diaphragm connection plate and the top of the bottom flange.
- Type "C", along the weld between the end diaphragm connection plate and the bottom of the horizontal angle.
- Type "D", along the weld between the end diaphragm connection plate and the lower chord of the end diaphragm.

Item 59.13 - Member Alignment
The expansion bearings are typically slightly expanded or contracted throughout but appear to be within the allowable limits. Several bearings are shifted, which indicates lateral movement. There are cracks in the welds of the connection plates and diaphragms.

Item 59.14 - Paint/Coating
Superstructure has scattered areas of paint loss throughout. The superstructure paint system is failing below the leaking deck joints. **See Photo 10.**

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
East Bridge Seat has light dirt and construction debris build-up to 1" thick throughout.

Item 60.1.c - Backwalls
East & West Backwalls have scattered hairline cracks and areas of heavy efflorescence staining.

East Abutment:

- Bay 2, at Midheight, there are three spalls measuring up to 1'-0" long x 6" high x 4" deep with exposed and heavily rusted rebar behind formwork. **See Photo 21.**
- Bay 3, at Midheight, there is an area of rust staining measuring 2" long x 8" high.
- Bay 5, at Bottom, there is a spall measuring 2'-0" long x 4" high x 1" deep with an adjacent area of rust staining measuring 2" long x 8" high.

West Abutment:

- Bay 1, there is a spall measuring 6'-6" wide x 8" high x 2 1/2" deep with surrounding heavy efflorescence throughout the bay.
- Bay 4, there is a spall measuring 4" long x 10" high x 4" deep with an adjacent hollow area measuring 8" long x 1'-10" high.
- Bay 5, at Seat Step, there is a spall measuring 1'-4" long x 5" high x 3 1/2" deep.
- North of Beam 24, there is a spall measuring 10" diameter x 1" deep with light efflorescence.

Item 60.1.d - Breastwalls
East Breastwall:

- Breastwall has scattered hairline cracks.

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- Below Beam 5, there is a horizontal crack with an adjacent area of rust staining measuring 6" long x 2'-6" high.

West Breastwall has scattered hairline cracks, some with light efflorescence.

Item 60.1.e - Wingwalls
All four Wingwalls have random minor cracking and vegetative growth.

Item 60.1.f - Slope Paving/Rip-Rap
East Abutment slope paving has light to moderate vegetation growth between pavers below the bridge. Just north and south of the bridge, there is heavy vegetation growth between the pavers.

West Abutment slope paving has heavy vegetation growth below Beams 19 and 20.

Item 60.2 - Piers or Bents
Item 60.2.b - Caps
Pier Caps have random minor cracking and scattered debris.

Item 60.2.c - Columns
Pier 1:
- Column 2, East Face, Near Top, there is an area of light efflorescence measuring 2" long x 2'-0" high.
- Column 6, West Face, Midheight, there is a hollow area measuring 3'-0" high x 1'-10" wide.

Pier 3, Column 4, South Face, has a hollow area measuring 10" wide x 19" high.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7 - Parapets.

Item 36b - Transitions
Transitions consist of steel W-beam guardrail bolted to the concrete parapets, on steel H-posts with steel offset blocks.

Southeast & Northeast transitions have minor impact damage with small rust holes at the concrete parapet connection.

Item 36c - Approach Guardrail
Approach guardrails consist of steel W-beam guardrail on steel H-posts and steel offset blocks.

Approach guardrails have scattered areas of minor impact damage throughout.

Item 36d - Approach Guardrail Ends
Northwest Approach guardrail (leading end) has a tangent end treatment.

Southwest Approach guardrail (leading end) consists of approximately 60' of a flared BCT, W-beam on timber posts and timber offset blocks.

Northeast Approach guardrail (trailing end) has a terminal end boxing glove.

Southeast Approach guardrail travels beyond the limits of the bridge.

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REMARKS

Sketch / Chart / Photo Log

Sketch 1 : Plan
Sketch 2 : Framing Plan
Sketch 3 : Elevation
Sketch 4 : Typical Cross-Section
Chart 1 : Cracked Weld Locations on Steel Diaphragms
Photo 1 : Wearing Surface has minor wear and some random minor patching.
Photo 2 : S-I-P Forms have areas of patching, and scattered areas of minor corrosion.
Photo 3 : Parapets have been patched at the pier joints.
Photo 4 : Span 3, south shoulder, scupper is completely clogged with heavy vegetation.
Photo 5 : At Pier 2, the drainpipe is disconnected, and is leaking onto the roadway below.
Photo 6 : Pier 1 Deck Joint has debris impaction, a patched header, moderate misalignment, and a 3" gap in the north lane.
Photo 7 : East Abutment Joint has a patch near the south end.
Photo 8 : West Approach, 10' from the west abutment has a transverse crack in the south shoulder and lane.
Photo 9 : Beam 1, at East Abutment, behind the bearing, lower web has a rust hole measuring 1 1/2" long x 1" high with active rust.
Photo 10 : Beam 6, at the East Abutment, beam end has severe rust along the top flange, bottom flange, and bearing stiffeners and timber shoring.
Photo 11 : Beam 16, at Pier 2, the vertical web stiffener has severe corrosion.
Photo 12 : Span 1, Beam 6, east bearing has severe rust.
Photo 13 : East abutment, Beam 3 bearing is missing the south anchor nut.
Photo 14 : South Abutment, Beam 2 bearing is excessively contracted.
Photo 15 : Pier 3, at the Beam 22 bearing, has a build-up of debris.
Photo 16 : West abutment, Beam 22 bearing north anchor bolt is missing.
Photo 17 : Pier 3, Bay 3, end diaphragm has severe corrosion.
Photo 18 : Beam 10, Bay 4, end diaphragm over Pier 2, has an area of rust and missing connection bolt.
Photo 19 : Beam 9 at Pier 2, diaphragm has a cracked weld between the connection plate and bottom angle.
Photo 20 : Beam 20 at the West Abutment, diaphragm has a cracked weld between the connection plate and bottom flange.
Photo 21 : East Backwall, Bay 2 has spalls with exposed rebar.

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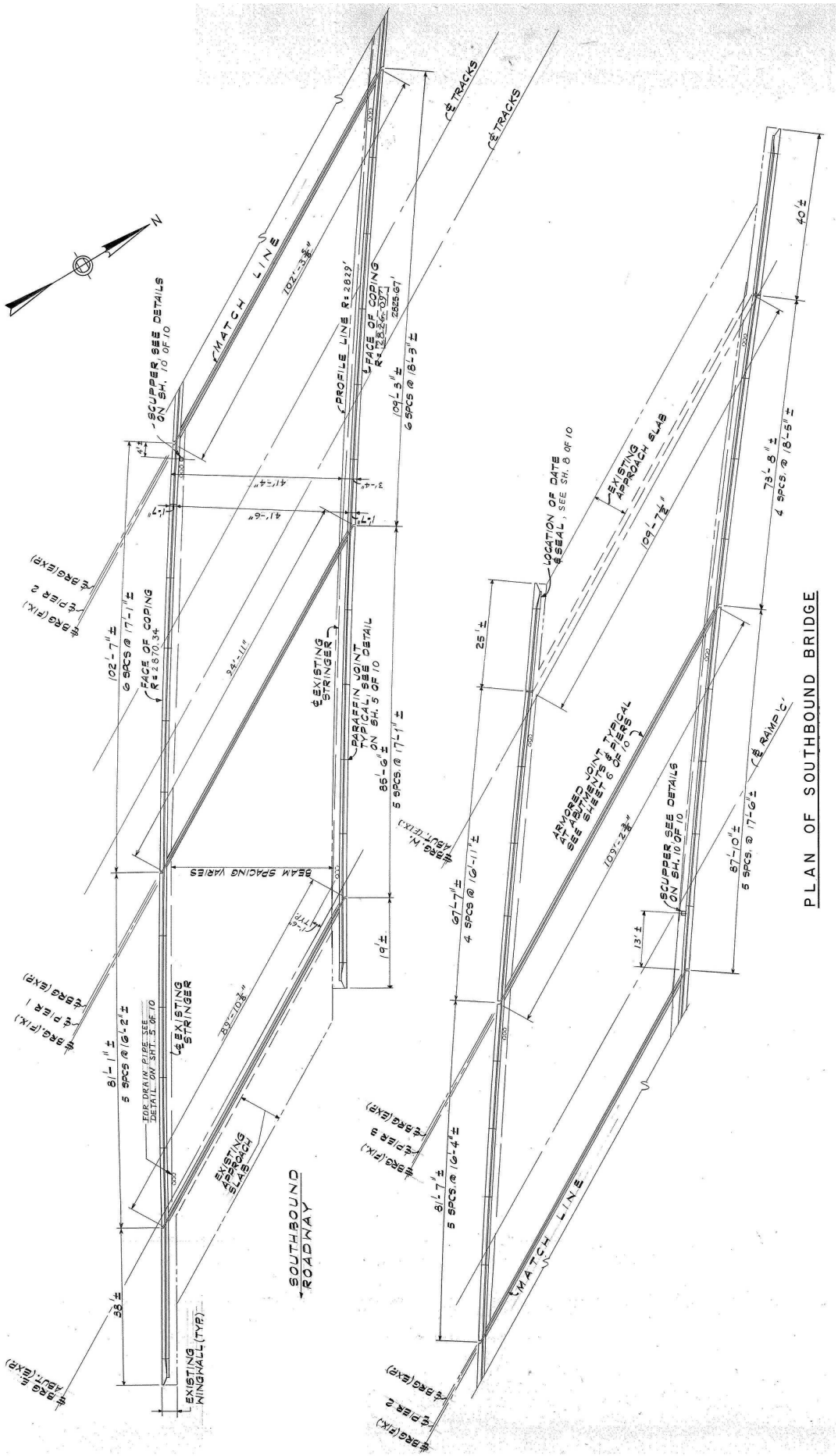
SKETCHES



Sketch 1: Plan

REM.(2)2-21

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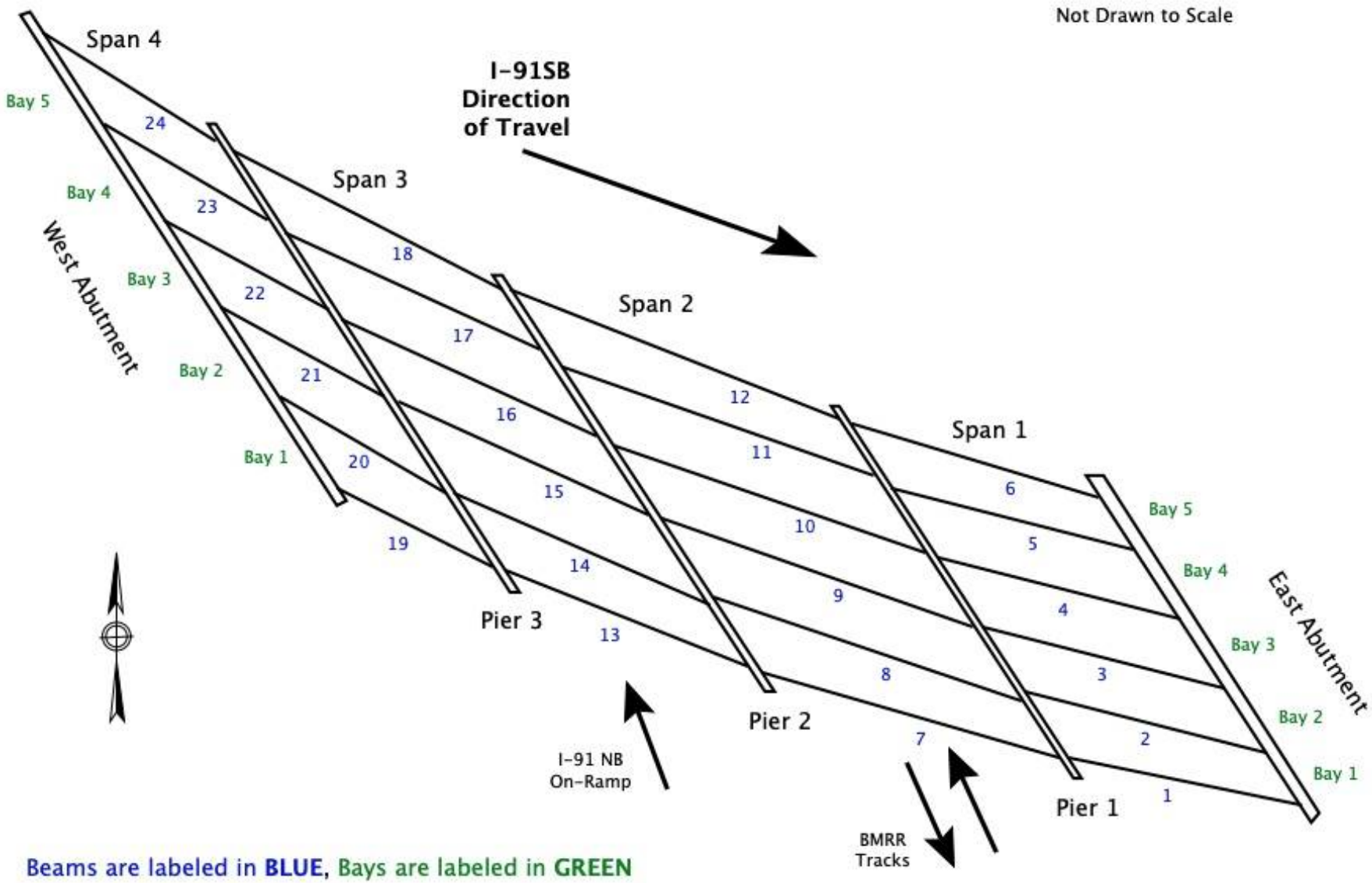
SKETCHES



Beams are labeled in **BLUE**, Bays are labeled in **GREEN**

Sketch 2: Framing Plan

REM.(2)2-21

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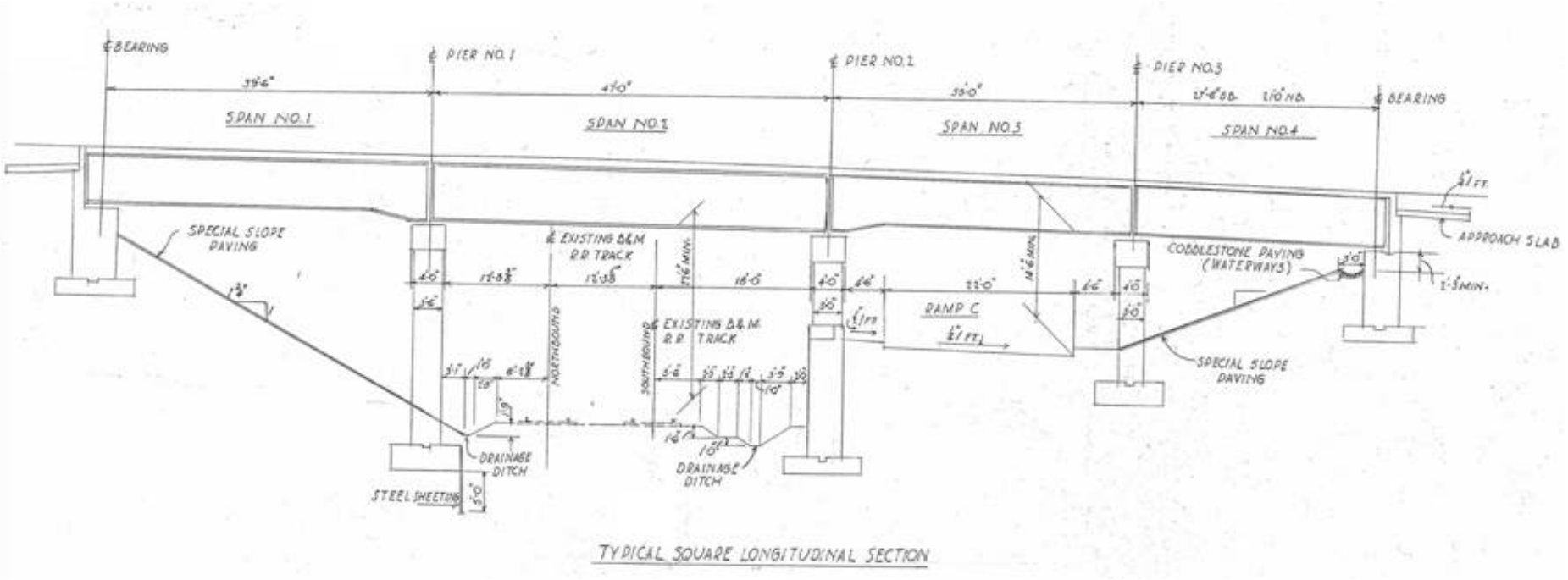
SKETCHES



TYPICAL SQUARE LONGITUDINAL SECTION

Sketch 3: Elevation

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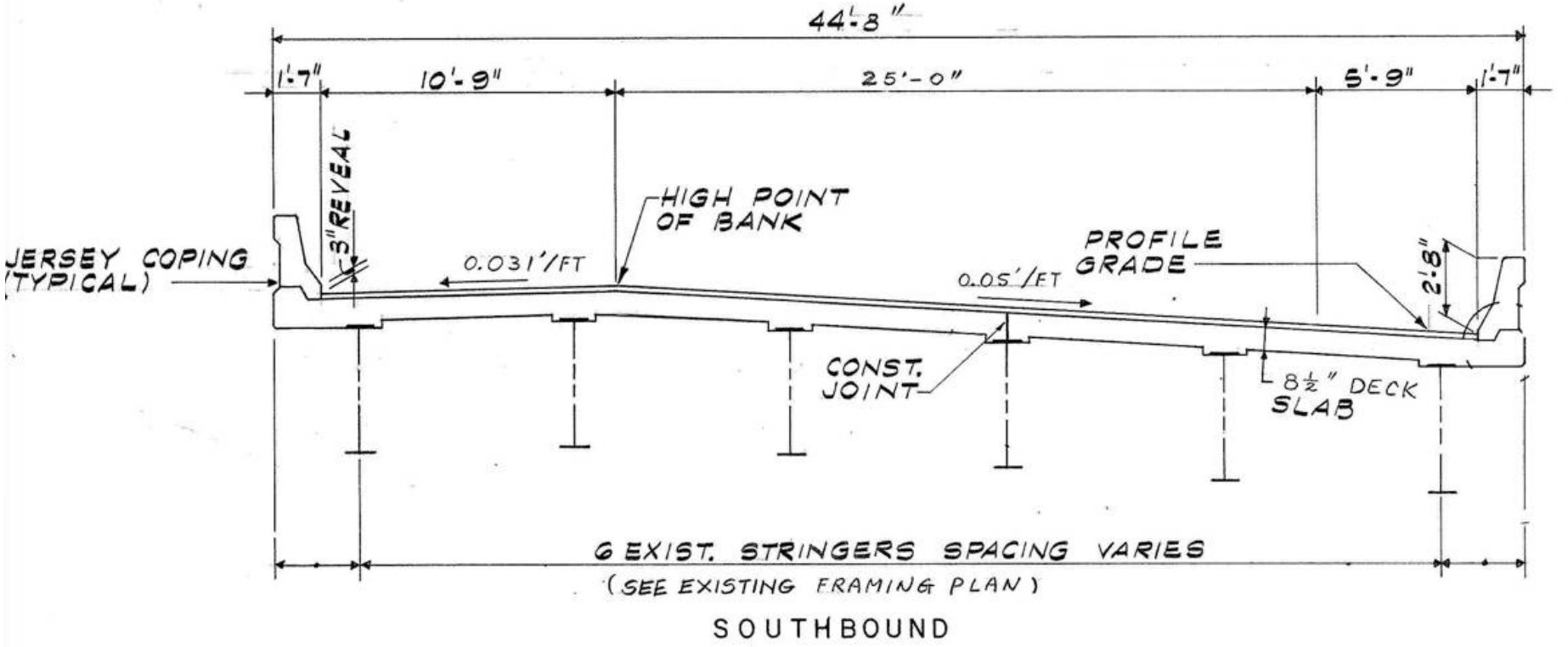
SKETCHES



TYPICAL CROSS SECTIONS

Sketch 4: Typical Cross-Section

REM.(2)2-21

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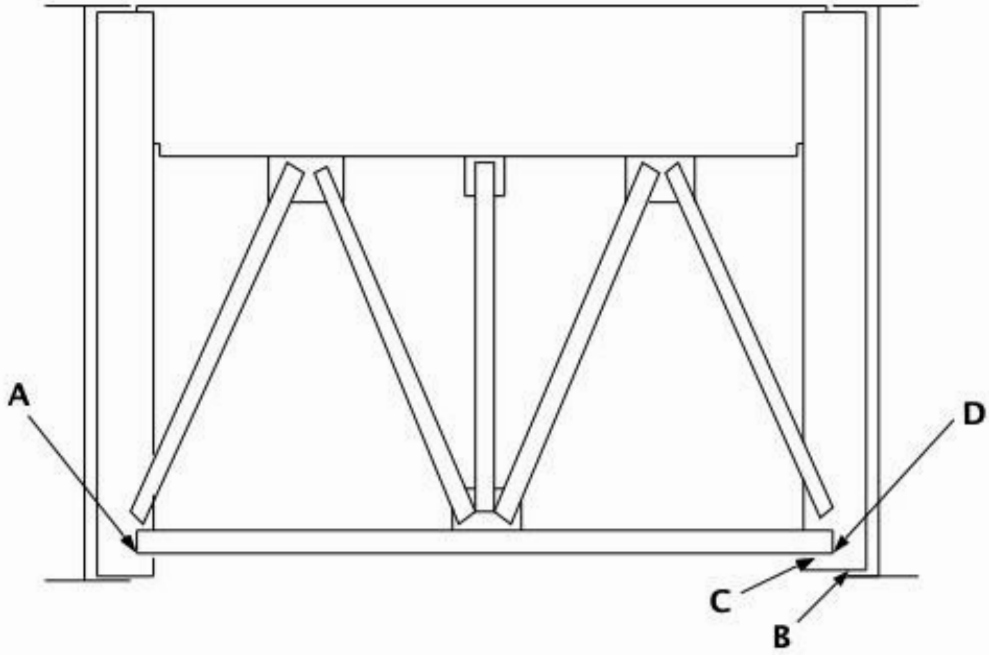
CHARTS



Crack Location **A** = Crack along weld of end diaphragm connection plate to web stiffener plate.
Crack Location **B** = Crack along weld of end diaphragm connection plate to top of bottom flange.
Crack Location **C** = Crack along weld of end diaphragm connection plate to bottom of angle.
Crack Location **D** = Crack along weld of end diaphragm connection plate to side of angle.

Note: Cracks have not changed since the previous inspection.

SB Bridge - Summary of Crack Locations

Span	Type	Adjacent Beam	Location	Location Relative to Beam	Length
1	A	1	Pier 1	North	0.5"
1	D	1	Pier 1	North	2.0"
1	B	4	Pier 1	South	0.38"
1	B	5	Pier 1	South	0.5"
1	B	6	Pier 1	South	1.0"
1	A	7	Pier 1	North	0.5"
2	C	9	Pier 2	North	1.75"
2	B	11	Pier 2	North	0.25"
2	B	12	Pier 1	South	1.25"
3	B	13	Pier 2	North	1.0"
3	B	17	Pier 2	North	0.5"
4	B	19	Pier 3	North	0.56"
4	B	20	W Abutment	North	0.5"

Chart 1: Cracked Weld Locations on Steel Diaphragms

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PHOTOS

Photo 1: **Wearing Surface has minor wear and some random minor patching.**

Photo 2: **S-I-P Forms have areas of patching, and scattered areas of minor corrosion.**

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PHOTOS

Photo 3: **Parapets have been patched at the pier joints.**

Photo 4: **Span 3, south shoulder, scupper is completely clogged with heavy vegetation.**

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PHOTOS

Photo 5: **At Pier 2, the drainpipe is disconnected, and is leaking onto the roadway below.**

Photo 6: **Pier 1 Deck Joint has debris impaction, a patched header, moderate misalignment, and a 3" gap in the north lane.**

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PHOTOS

Photo 7: **East Abutment Joint has a patch near the south end.**

Photo 8: **West Approach, 10' from the west abutment has a transverse crack in the south shoulder and lane.**

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PHOTOS

Photo 9: **Beam 1, at East Abutment, behind the bearing, lower web has a rust hole measuring 1 1/2" long x 1" high with active rust.**

Photo 10: **Beam 6, at the East Abutment, beam end has severe rust along the top flange, bottom flange, and bearing stiffeners and timber shoring.**

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PHOTOS

Photo 11: Beam 16, at Pier 2, the vertical web stiffener has severe corrosion.

Photo 12: Span 1, Beam 6, east bearing has severe rust.

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PHOTOS

Photo 13: East abutment, Beam 3 bearing is missing the south anchor nut.

Photo 14: South Abutment, Beam 2 bearing is excessively contracted.

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PHOTOS

Photo 15: Pier 3, at the Beam 22 bearing, has a build-up of debris.

Photo 16: West abutment, Beam 22 bearing north anchor bolt is missing.

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PHOTOS

Photo 17: Pier 3, Bay 3, end diaphragm has severe corrosion.

Photo 18: Beam 10, Bay 4, end diaphragm over Pier 2, has an area of rust and missing connection bolt.

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PHOTOS

Photo 19: **Beam 9 at Pier 2, diaphragm has a cracked weld between the connection plate and bottom angle.**

Photo 20: **Beam 20 at the West Abutment, diaphragm has a cracked weld between the connection plate and bottom flange.**

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PHOTOS

Photo 21: East Backwall, Bay 2 has spalls with exposed rebar.

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Report Date: March 11, 2025

State Information

BDEPT#= N19065 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 10B AASHTO= 082.7

RANK= 2515 H.I.= 93.5 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	N1906510BDOTNBI
(5) Inventory Route	111000913
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**COMB I 91 RAMP & GWRR**
(7) Facility Carried	**I 91 SB**
(9) Location	MM 25.8 ON I-91 SB
(11) Kilometerpoint	0041.520
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 20 MIN 23.87 SEC
(17) Longitude	72 DEG 38 MIN 16.55 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr: Other	Code 000
(45) Number of spans in main unit	004
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Preformed Fabric	Code 2
C) Type of deck protection - Epoxy Coated Reinforcing	Code 1

Age and Service

(27) Year Built	1963
(106) Year Reconstructed	1989
(42) Type of Service: On - Highway	
Under - HWY-RR	Code 14
(28) Lanes: On Structure 02	Under structure 01
(29) Average Daily Traffic	012026
(30) Year of ADT 2016	(109) Truck ADT 05 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0031.8 M
(49) Structure Length	00107.2 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	012.6 M
(52) Deck Width Out to Out	013.6 M
(32) Approach Roadway Width (w/shoulders)	012.6 M
(33) Bridge Median - No median	Code 0
(34) Skew 67 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	12.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	05.16 M
(55) Min Lat Underclear RT ref H	01.5 M
(56) Min Lat Underclear LT	01.4 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	L
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	6
(59) Superstructure	5
(60) Substructure	7
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	62.2
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	37.3
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	7
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 0 0 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 10/11/22			(91) Frequency 24	MO
(92) Critical Feature Inspection:				(93) CFI DATE
(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 03/01/98	H20	Type 3	Type 3S2	Type HS
Operating	42.0	63.0	82.0	67.0
Inventory	27.0	38.0	47.0	40.0

Field Posting

Status LEGAL Posting Date 04/01/98

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

P / Y	Liftbucket	N / N	Rigging	N / N	Other
P / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	Y / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 032

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National Bridge Element Inspection

BDEPT# **N-19-065**
B.I.N. **10B**
Item 8 **N19065-10B-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **10/11/2022**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Glenn Gilligan**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	15,715.000	☐ %	15,715.000			
Notes :									
> 510	Wearing Surfaces	sq feet	2	14,600.000	☐ %	14,600.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,863.000	☐ %	1,863.000			
Notes :									
> 515	Steel Protective Coating	sq feet	2	25,896.000	☐ %		25,896.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	25,896.000	☐ %		25,896.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	210.000	☐ %	195.000	10.000	5.000	
Notes :									
> 1000	*Corrosion*	feet	3	15.000	☐ %		10.000	5.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	2,919.000	☐ %		2,919.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	2,919.000	☐ %		2,919.000		
Notes :									
205	**Re Conc Column**	each	3	17	☐ %	15	2		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	each	3	1	☐ %		1		
Notes :									
> 1120	*Efflorescence/Rust Staining*	each	3	1	☐ %		1		
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-065**
B.I.N. **10B**
Item 8 **N19065-10B-DOT-NBI**
Span Group **1**
Town **Northampton**
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Date **10/11/2022**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Glenn Gilligan**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
215	**Re Conc Abutment**	feet	2	106.000	☐ %	103.000	3.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	3.000	☐ %		3.000		
Notes :									
215	**Re Conc Abutment**	feet	3	83.000	☐ %	68.000	7.000	8.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	15.000	☐ %		7.000	8.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	292.000	☐ %	287.000	5.000		
Notes :									
> 1120	*Efflorescence/Rust Staining*	feet	3	5.000	☐ %		5.000		
Notes :									
300	**Strip Seal Exp Joint**	feet	2	425.000	☐ %		425.000		
Notes :									
> 2350	*Debris Impaction*	feet	2	420.000	☐ %		420.000		
Notes :									
> 2360	*Adjacent Deck or Header*	feet	2	5.000	☐ %		5.000		
Notes :									
311	**Moveable Bearing**	each	3	24	☐ %		24		
Notes :									
> 1020	*Connection*	each	3	24	☐ %		24		
Notes :									
> 515	Steel Protective Coating	sq feet	3	48.000	☐ %		48.000		
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-065**
B.I.N. **10B**
Item 8 **N19065-10B-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **10/11/2022**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Glenn Gilligan**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	48.000	☐ %		48.000		
Notes :									
313	**Fixed Bearing**	each	2	6	☐ %	2	4		
Notes :									
> 1000	*Corrosion*	each	2	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	2	12.000	☐ %		12.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	12.000	☐ %		12.000		
Notes :									
313	**Fixed Bearing**	each	3	18	☐ %		18		
Notes :									
> 1000	*Corrosion*	each	3	18	☐ %		18		
Notes :									
> 515	Steel Protective Coating	sq feet	3	36.000	☐ %		36.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	36.000	☐ %		36.000		
Notes :									
331	**Re Conc Bridge Railing**	feet	2	700.000	☐ %	690.000	10.000		
Notes :									
> 1090	*Exposed Rebar*	feet	2	10.000	☐ %		10.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10C	N-19-064

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19064-10C-DOT-NBI	041.061	D:OPEN	AUG 8, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 NB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
HWY DAMON RD	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER A. Power
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Sunny	27°C	A. T. LOCHNER

ITEM 58 — 7

DECK

		DEF
1.Wearing Surface	6	-
2.Deck Condition	7	-
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	7	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	7	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	230	260

APPROACHES

		DEF
a. Appr. Pavement Condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 6

SUPERSTRUCTURE

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	6	-
9.Bearing Devices	4	S-A
10.Diaphragms/Cross-Frames	7	-
11.Rivets & Bolts	N	-
12.Welds	5	S-A
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.Timber Shoring	6	-

Year Painted: 1992

COLLISION DAMAGE: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — 5

SUBSTRUCTURE

	Dive	Cur		DEF
1. Abutments			7	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	6		-
d. Breastwalls	N	7		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			5	
a. Pedestals	N	6		-
b. Caps	N	5		M-P
c. Columns	N	5		S-A
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10C	N-19-064	N19064-10C-DOT-NBI	AUG 8, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION: N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	1	7	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not Actual Field Measurement ☐

Posted Clearance

	E ft	E in	W ft	W in	meter
	14	5	14	5	4.39
		0	14	2	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	N	Y	NR	NR
		7		
		7		

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	Y	Y
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 24

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 12/01/1998

Inspection data at time of existing rating

I 58: **7** I 59: **7** I 60: **7** Date : 08/17/1998

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10C**	**N-19-064**	**N19064-10C-DOT-NBI**	**AUG 8, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound Lanes, south to north, over Damon Road which runs east and west.

Per bridge plans, abutments, piers, and spans are numbered south to north. Beams and pier columns are numbered west to east. The 21 beams are numbered from Beam 22 - 42. **See Sketches 1 - 3.**

GENERAL REMARKS
Vertical Clearance Posting:
Measured minimum clearance at the time of this inspection was 15'3" at Beam 35 near midspan, but an ongoing resurfacing project on Damon Road is expected to effect this clearance measurement in the near future.

Bridge has only one vertical clearance posting on Damon Road on the West Side of the sister bridge BIN (10D), which reads 14'2".

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has minor wheel rutting in travel lane.

Over Pier 1 there is a Saw & Seal Joint.

Right wheel path, between the longitudinal HMA joint and the solid white edge line, at the deck joints there is minor scaling.

Span 1, right lane, 2' from the solid white edge line and 4' from the South Deck Joint, small pothole at the longitudinal HMA pavement joint 6" wide x 10" long x 1.5" deep exposing the concrete deck surface.
See Photo 1.

Item 58.2 - Deck Condition
Deck has previous full-depth repair areas at the end of each span, average 4' on each side of the deck joints x full-width of the bridge.

West Deck Overhang, above Pier 2, has an area of cracking with efflorescence.

Deck Underside, Span 2, Bay 3:
- Over Pier 2, a repaired area is cracking with active leakage, rust stains and efflorescence.
- Near the north end, there is a spall, 16" diameter x 2" deep with exposed rebar. **See Photo 2.**

Item 58.4 - Curbs
Granite Curbs have minor chipping along the top edges and some missing joint mortar.

Item 58.7 - Parapets
East & West Parapets have minor hairline cracks.

Item 58.8 - Railing
Railing consists of 30" high concrete parapets with AL-1 mounted on top and Thrie-beam guardrail retrofit mounted on timber spacers that are bolted through the parapets.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10C**	**N-19-064**	**N19064-10C-DOT-NBI**	**AUG 8, 2024**

REMARKS

Item 58.12 - Utilities
Previously reported electrical line in Span 3 is no longer in place, but steel clamps remain at some of the bottom flanges.

Item 58.13 - Deck Joints
Deck Joints are partially impacted with debris.

South Abutment Joint, right edge of right lane, concrete header is cracked. **See Photo 3.**

APPROACHES

Approaches a - Appr. Pavement Condition
South Approach:
- Breakdown lane has transverse cracks up to 0.5" wide.
- Right lane has minor mapcracking in the right wheel path. **See Photo 4.**

North Approach has a 3' long x 1' wide asphalt patch in the right lane.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Span 1 Beams 22 & 28, Span 2 Beams 29 - 35, and Span 3 Beams 36 & 42 are 36WF135 (original web = 0.60" and flange = 0.79" thick).
Span 1 Beams 23 - 27 are 30WF99 (original web = 0.52" and flange = 0.67" thick).
Span 3 Beams 37 - 41 are 33WF118 (original web = 0.55" and flange = 0.74" thick).

Beams Ends under the deck joints have peeling paint and minor rust delamination.

Span 1, at South Abutment:
- Beam 22, south end, section loss to the web & bottom flange. **See Sketch 4 & Photo 5.**
- Beam 28, south end, section loss to the lower web. **See Sketch 5 & Photo 6.**

Span 1, at Pier 1:
- Beam 27, north end, section loss to the web. **See Sketch 6 & Photo 7.**

Span 3, at Pier 2:
- Beam 36, south end, section loss to the web above the repair plate. **See Sketch 7 & Photo 8.**
- Beam 42, south end, section loss to the web end. **See Sketch 8 & Photo 9.**

Steel beam end repairs and/or paint applied to the bridge prior to the 2022 Inspection:
- Span 1, Beam 22, north end has a bolted steel repair.
- Span 1, Beam 24, north end was repainted.
- Span 1, Beam 26, north end has a bolted steel repair.
- Span 1, Beam 28, north end has a bolted steel repair.
- Span 2, Beam 29:
  - South end has a bolted steel repair.
  - North end has a bolted steel repair.
- Span 2, Beam 32, north end was repainted.
- Span 2, Beam 33, north end has a bolted steel repair.
- Span 2, Beam 34, north end has a bolted steel repair.
- Span 2, Beam 35:

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10C**	**N-19-064**	**N19064-10C-DOT-NBI**	**AUG 8, 2024**

REMARKS

- South end has a bolted steel repair.
- North end has a bolted steel repair.
- Bottom flange, 5' long section over Damon Road westbound was repainted.

• Span 3, Beam 36:
- South end has a bolted steel repair.
- North end has been repainted.

• Span 3, Beam 40, south end was repainted.
• **See Sketch 1.**

Item 59.7 - Conn Plt's, Gussets & Angles
Connection plates have few locations with minor corrosion.

Item 59.8 - Cover Plates
Facia Beams 29 & 35 cover plates in Span 2 have minor collision damage. **See Photo 10.**

Item 59.9 - Bearing Devices
Abutment Bearings:
• Fascia bearings have moderate surface rust with minor rust delamination. **See Photos 5 & 6.**
• Interior bearings are generally in good condition with scattered minor surface rust.

Span 1, Beam 24, north end:
• West anchor bolt has been repaired.
• Between the masonry and sole plates there is 0.25" gap at the edges after the repair.

Span 1, Beam 25, north end, both anchor bolts are severely bent. **See Photo 11.**

Span 1, Beam 26, north end, between the masonry and sole plates there is 0.25" gap full width of the bearing and bent anchor bolts. **See Photo 12.**

Span 2, Beam 29, north end:
• Bearing failure has been repaired.
• Exterior keeper has severe painted over section loss. **See Photo 8.**

Span 2, Beam 32, north end, severely contracted sole plate and expanded lubrication plate for the temperature. **See Photo 13.**

Span 2, Beam 34, north end, severely contracted sole plate and expanded lubrication plate for the temperature.

Span 2, Beam 35, north end, severely contracted sole plate for the temperature. **See Photo 14.**

Span 3, Beam 39, south end:
• Between the masonry and sole plates there is 0.3" gap full width of the bearing.
• At the beam end, between the bottom flange and the sole plate there is a gap, up to 1/8".

Span 3, Beam 40, south end:
• Between the masonry and sole plates there is 0.5" gap full width of the bearing. **See Photo 15.**
• At the beam end, between the bottom flange and the sole plate there is a gap, up to 1/4".
• Anchor bolts are bent.

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NORTHAMPTON	**10C**	**N-19-064**	**N19064-10C-DOT-NBI**	**AUG 8, 2024**

REMARKS

Item 59.12 - Welds
Span 2, Beam 29, south end, weld between the steel diaphragm connection plates to the web has a crack at the base of the weld, adjacent to minor collision damage in the cover plate. **See Photo 16.**

Item 59.14 - Paint/Coating
Except for the recently repaired areas, paint coverage at the beam ends on both piers have mostly failed with the exception of the new beam repairs. **See Photos 5 - 9 .**

Top green coat on several beams has peeled away exposing the gray primer.

Item 59.15 - Timber Shoring
Bridge has Timber Shoring in place at Pier 1 in Bay 6 & at Pier 2 in Bay 1. **See Sketch 1.**

SuperStructure Collision Notes
Span 2, Beam 35 above the Westbound traffic lane is bent from collision damage along the exterior side. Minor rust has developed along the impacted area, a portion of which has been repainted.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.c - Backwalls
North & South Backwalls have scattered hairline cracks with efflorescence staining.

South Backwall, Bay 1 has minor scaling.

Item 60.1.d - Breastwalls
South Breastwall:
- Few scattered partial-height vertical hairline cracks, up to 1' long.
- Bay 1 top of the wall has 3.5' long horizontal cracking with rust staining.
- Bay 5 has a 30" long x 4" high x 4" deep spall with cracking and severe efflorescence.

North Breastwall has a few scattered vertical hairline cracks up to full-height, with & without leaching efflorescence.

Item 60.1.f - Slope Paving/Rip-Rap
South slope outer ends have moderate vegetation overgrowth.

Item 60.2 - Piers or Bents
Item 60.2.a - Pedestals
Pier 1:
- Beam 23 pedestal is cracked and delaminated.
- Beam 24 pedestal is cracked and delaminated.

Pier 2:
- Beam 38 pedestal is spalled at the west edge, 2" high x 2" wide x 20" long.
- Beam 40 pedestal is cracked.

Item 60.2.b - Caps
Pier 1 & 2 caps have scattered hairline to 1/8" wide horizontal cracks with and without leaching efflorescence, rust staining, concrete patches, delamination, and spalling.
See Sketches 9 - 12 and Photos 17 & 18.

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REMARKS

Item 60.2.c - Columns
Columns at Pier 1 & 2 have random cracking, delamination, and spalling.
See Sketches 9 - 12 and Photos 19 & 20.

Pier 1, Column 1, southwest face has spalling with broken spiral rebars and one exposed vertical rebar.
See Photo 19.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets and Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of a continuation of the steel Thrie-beam guardrail retrofit.

Transition guardrail at the southeast and southwest ends are 12" x 12" dimensional pressure treated lumber posts with timber offset blocks

Transition guardrail at the northeast & northwest ends are supported by steel posts with plastic offset blocks.

Northeast Approach transition is not connected to the end post. **See Photo 21.**

Item 36c - Approach Guardrail
Approach guardrails consist of steel Thrie-beam guardrail along the median and steel W-beam guardrail along the travel lanes, on steel H-posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends
Northwest Approach guardrail (trailing end) has a terminal end.

Northeast Approach guardrail is attached to another bridge.

Southwest Approach guardrail has a Tangent End Treatment.

Southeast Approach guardrail extends beyond the limits of the bridge.

Sketch / Photo Log
Sketch 1 : Framing Plan with location of timber shoring & beam repairs.
Sketch 2 : Easterly Elevation
Sketch 3 : Cross Section
Sketch 4 : Span 1, Beam 22, south end, section loss.
Sketch 5 : Span 1, Beam 28, south end, section loss.
Sketch 6 : Span 1, Beam 27, north end, section loss.
Sketch 7 : Span 3, Beam 36, south end, section loss.
Sketch 8 : Span 3, Beam 42, south end, section loss.
Sketch 9 : Pier 1, South Face - Defects
Sketch 10 : Pier 1, North Face - Defects
Sketch 11 : Pier 2, South Face - Defects
Sketch 12 : Pier 2, North Face - Defects
Photo 1 : Wearing Surface, Span 1, there is a pothole with exposed deck surface.
Photo 2 : Deck Underside, Span 2, Bay 3, north end has a spall with exposed rebar.

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REMARKS

Photo 3 : South Abutment Deck Joint, right travel lane, has cracking in the header, and is impacted with debris.
Photo 4 : South Approach Pavement, right travel lane has an area of minor map cracking, and breakdown lane has transverse cracking.
Photo 5 : Span 1, Beam 22, south end has section loss to the web and bottom flange. Bearing has moderate rust.
Photo 6 : Span 1, Beam 28, south end has section loss to the lower web.
Photo 7 : Span 1, Beam 27, north end at Pier 1, has section loss to the web.
Photo 8 : Span 3, Beam 36, south end at Pier 2, has section loss above the existing repair plate. Span 2, Beam 29, north end at Pier 2, has painted over section loss to the west keeper.
Photo 9 : Span 3, Beam 42, south end at Pier 2, has section loss to the web end.
Photo 10 : Beam 29, over Damon Road, numerous scrape marks.
Photo 11 : Span 1, Beam 25 at Pier 1, northwest anchor is severely bent. Northeast anchor similar.
Photo 12 : Span 1, Beam 26, north end at Pier 1, has loss of bearing area/bent anchor.
Photo 13 : Span 3, Beam 32, north end at Pier 2, sole plate is severely contracted for the weather conditions.
Photo 14 : Span 2, Beam 35, north end at Pier 2, sole plate is severely contracted for the weather conditions.
Photo 15 : Span 3, Beam 40, south end at Pier 2, there is a 0.5" gap between the sole plate and masonry plate, and a 0.25" gap between the sole plate and bottom flange.
Photo 16 : Span 2, Beam 29, south end, there is a crack in the weld between the web and the diaphragm connection plate, which is adjacent to an area of minor collision damage to the cover plate.
Photo 17 : Pier 1 Cap, south face, west end has spalling along the top and bottom edges.
Photo 18 : Pier 2 Cap, north face, over Column 2, has spalling along the bottom edge.
Photo 19 : Pier 1, Column 1, southwest face has severe spalling with broken horizontal rebars and an exposed vertical rebar.
Photo 20 : Pier 2, Column 2, north face has full height spalling with exposed spiral rebar.
Photo 21 : Northeast Approach transition is not attached to the concrete endpost.

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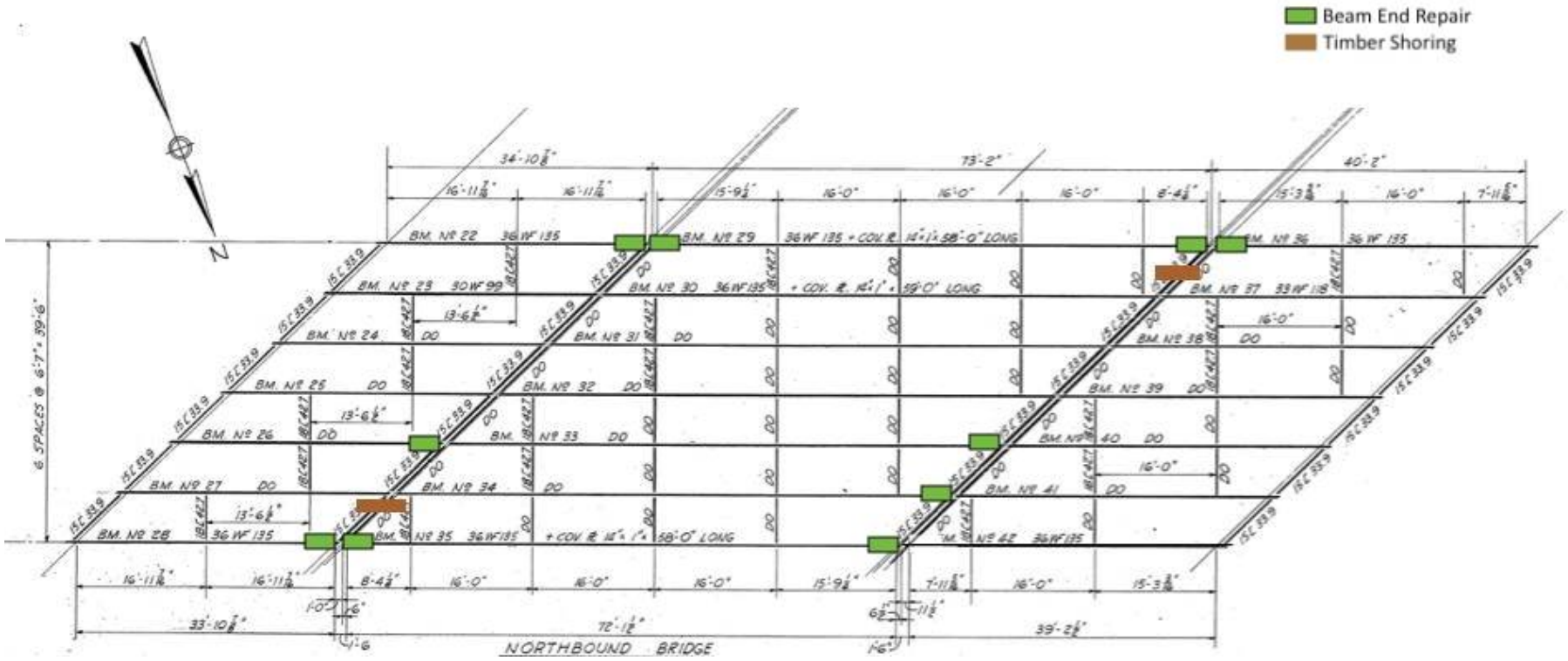
SKETCHES



Sketch 1: Framing Plan with location of timber shoring & beam repairs.

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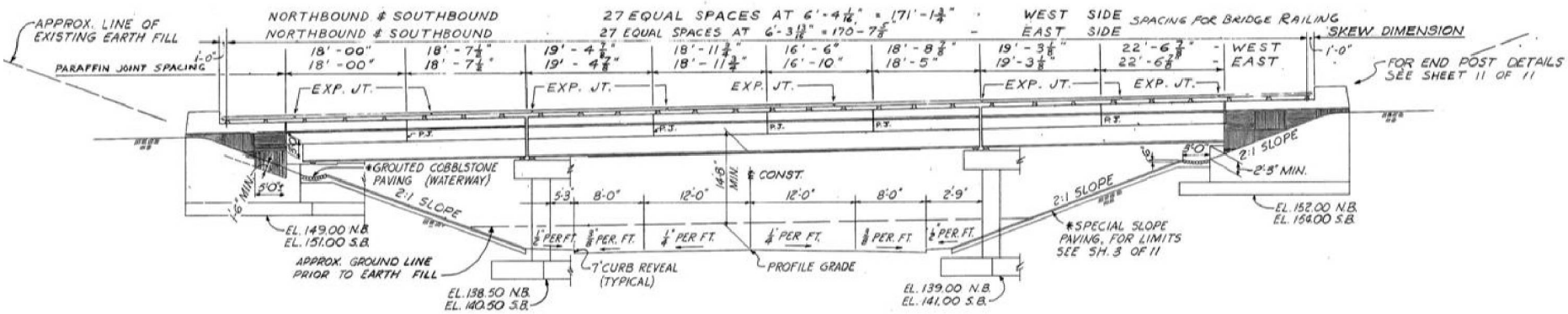

Sketch 2: Easterly Elevation

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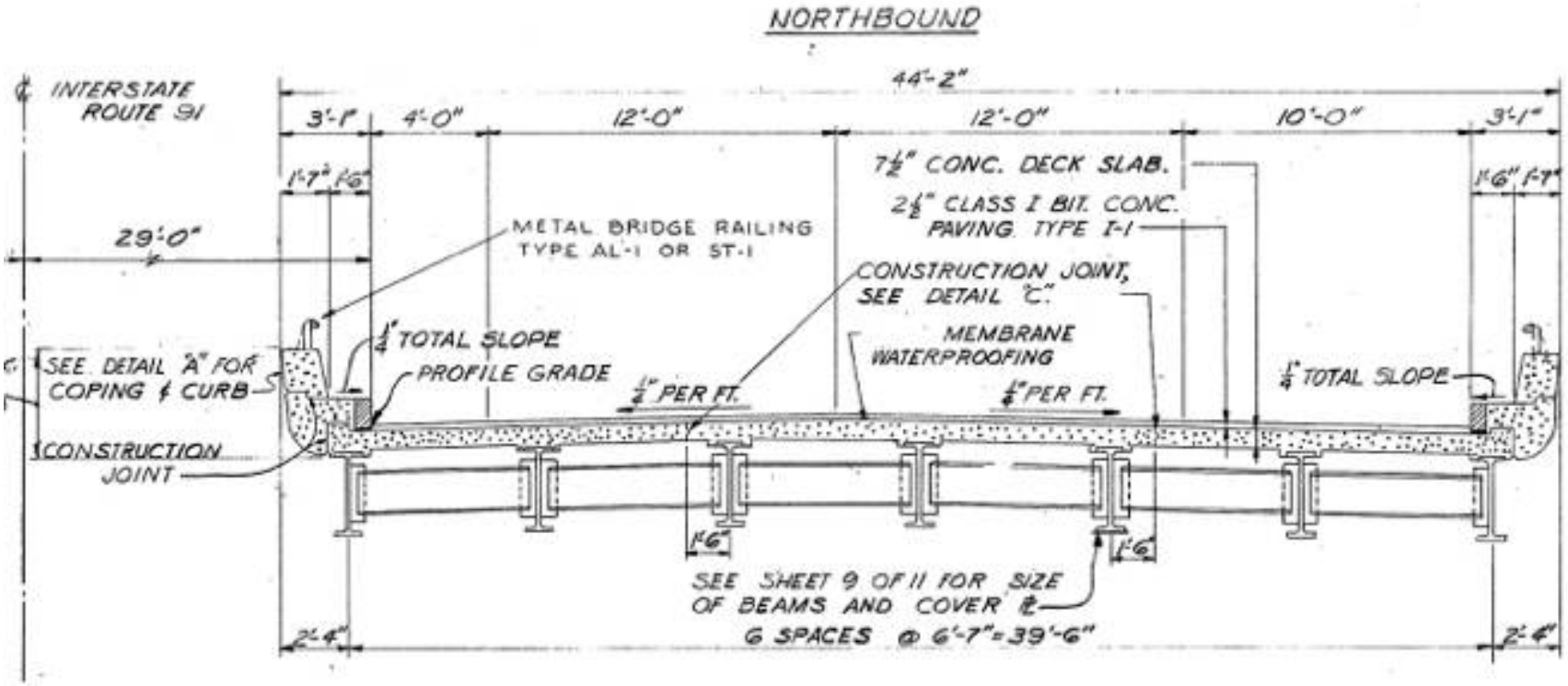

Sketch 3: Cross Section

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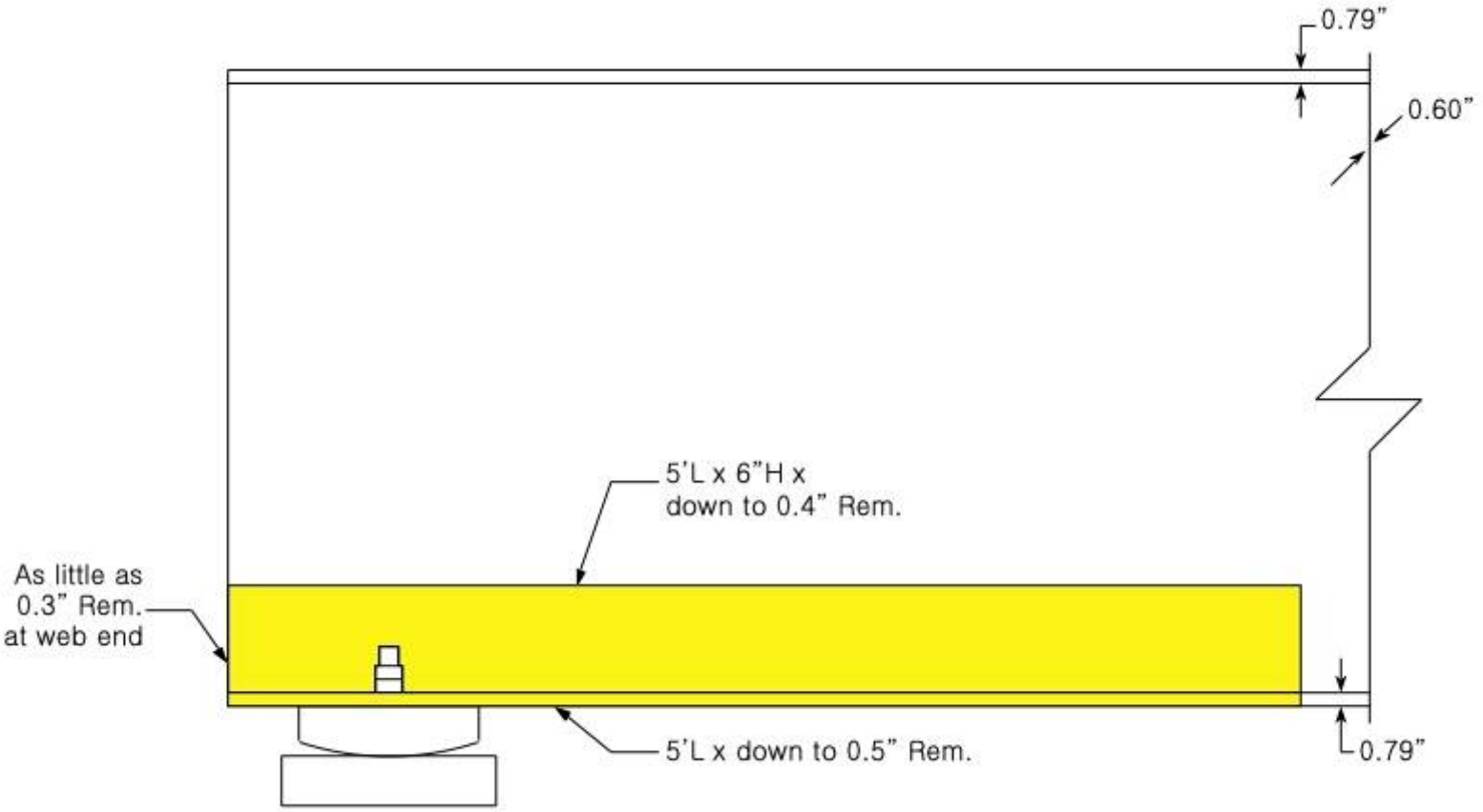

Beam 22, South End, East Face
36WF135

= Section Loss

= Change from Previous Inspection

Sketch 4: Span 1, Beam 22, south end, section loss.

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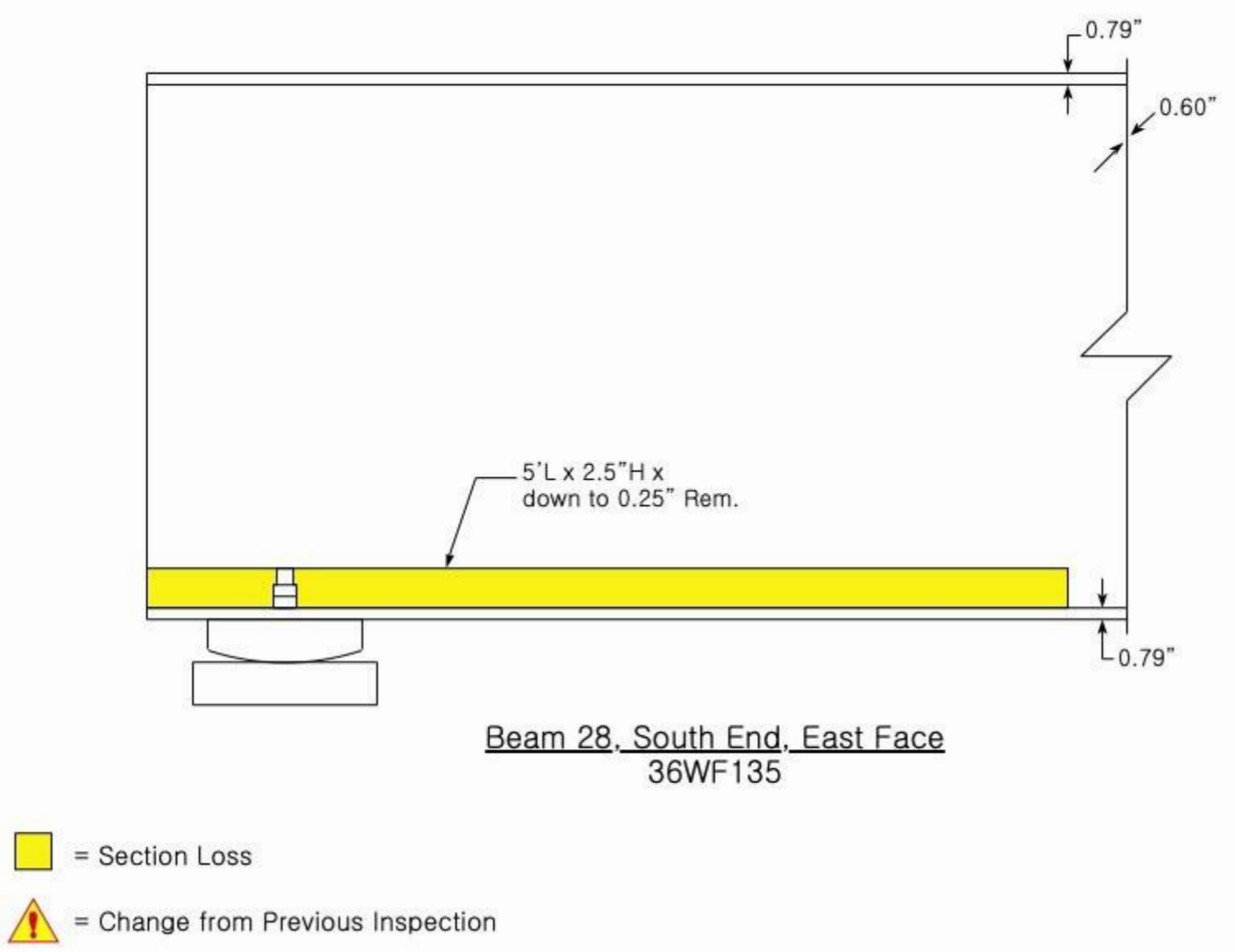

Sketch 5: **Span 1, Beam 28, south end, section loss.**

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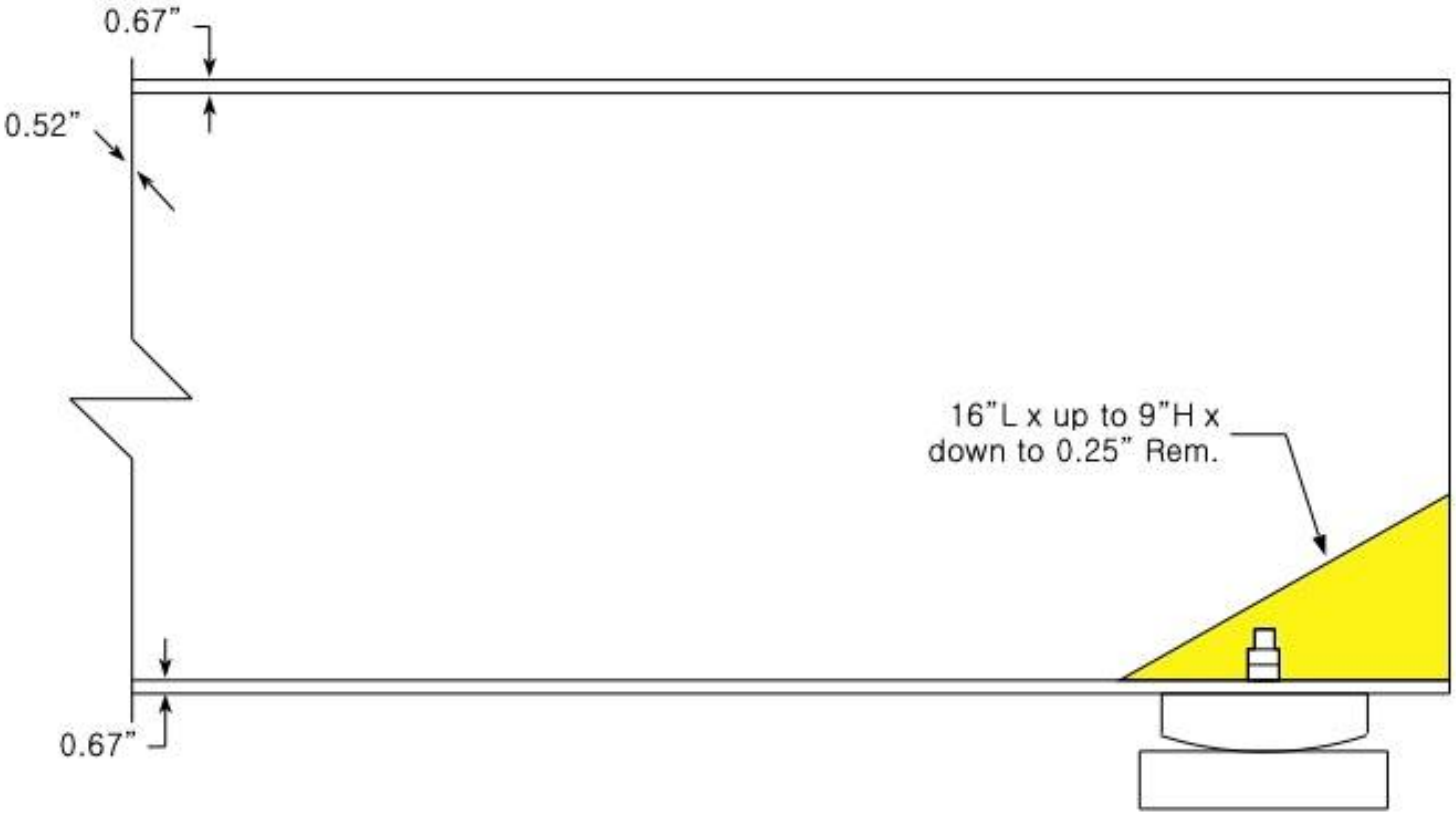

Beam 27, North End, East Face
30WF99

= Section Loss

= Change from Previous Inspection

Sketch 6: **Span 1, Beam 27, north end, section loss.**

REM.(2)2-21

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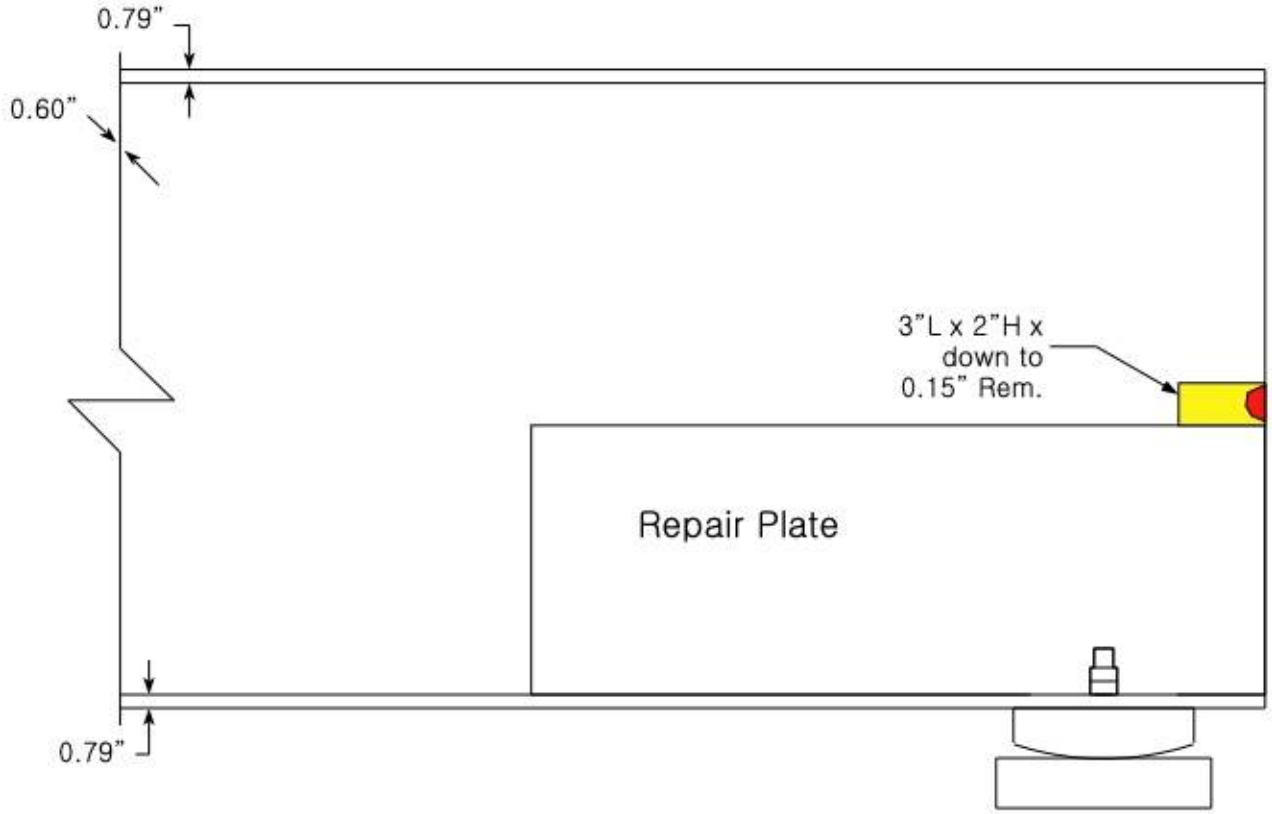

Beam 36, South End, West Face
36WF135

= Section Loss

= Advanced Section Loss

= Change from Previous Inspection

Sketch 7: Span 3, Beam 36, south end, section loss.

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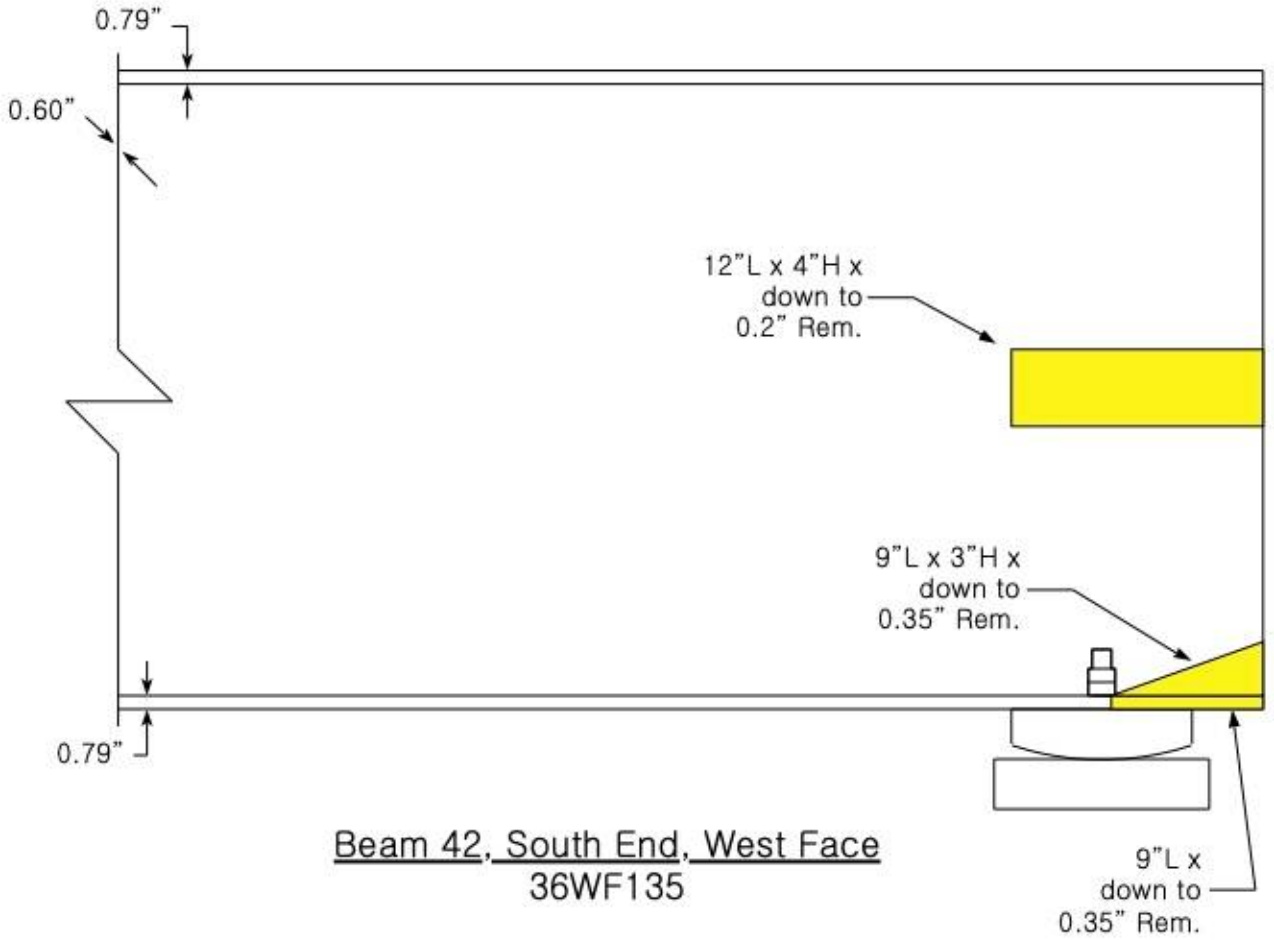

Beam 42, South End, West Face
36WF135

= Section Loss

= Advanced Section Loss

= Change from Previous Inspection

Sketch 8: Span 3, Beam 42, south end, section loss.

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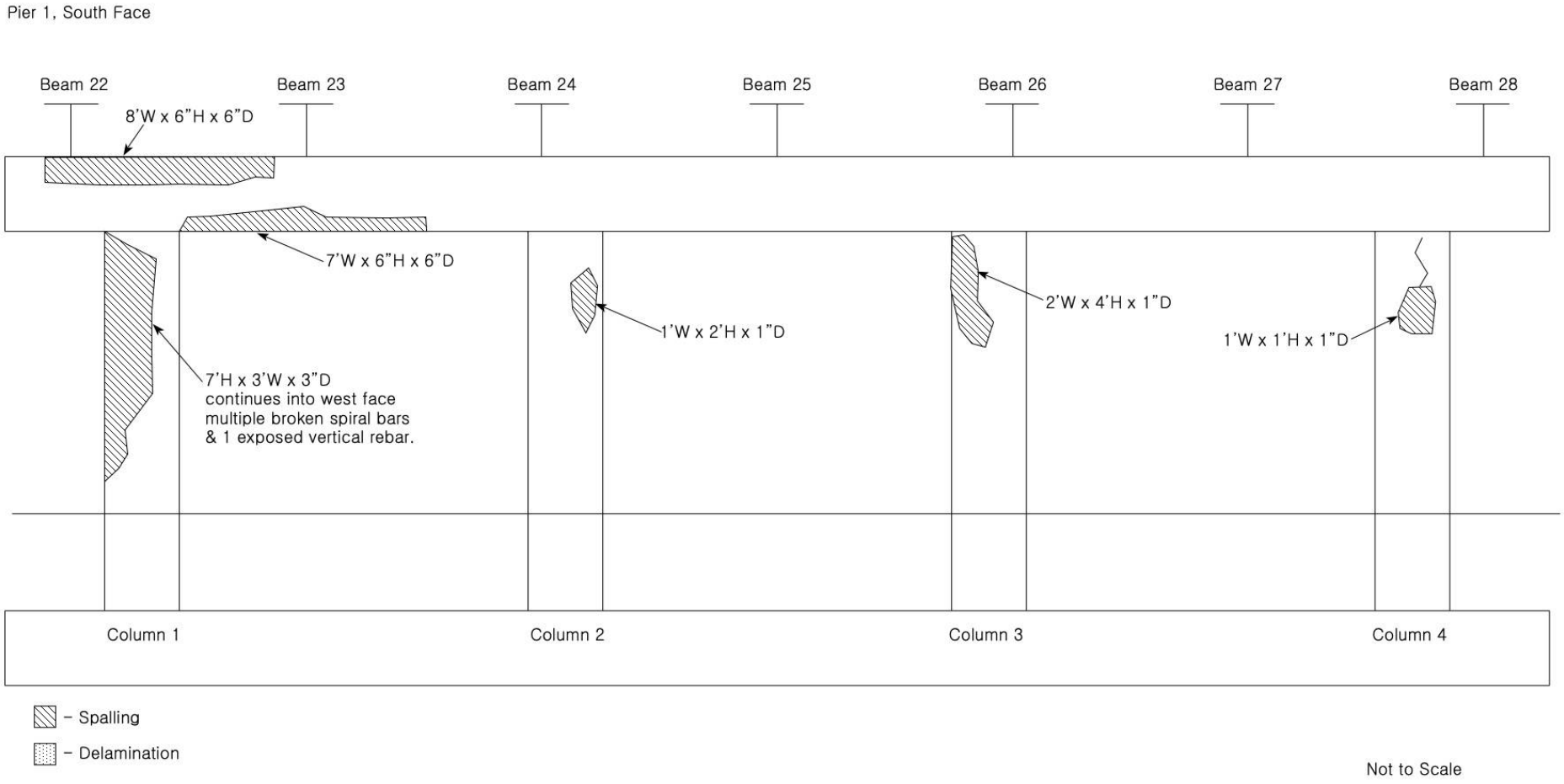

Sketch 9: Pier 1, South Face - Defects

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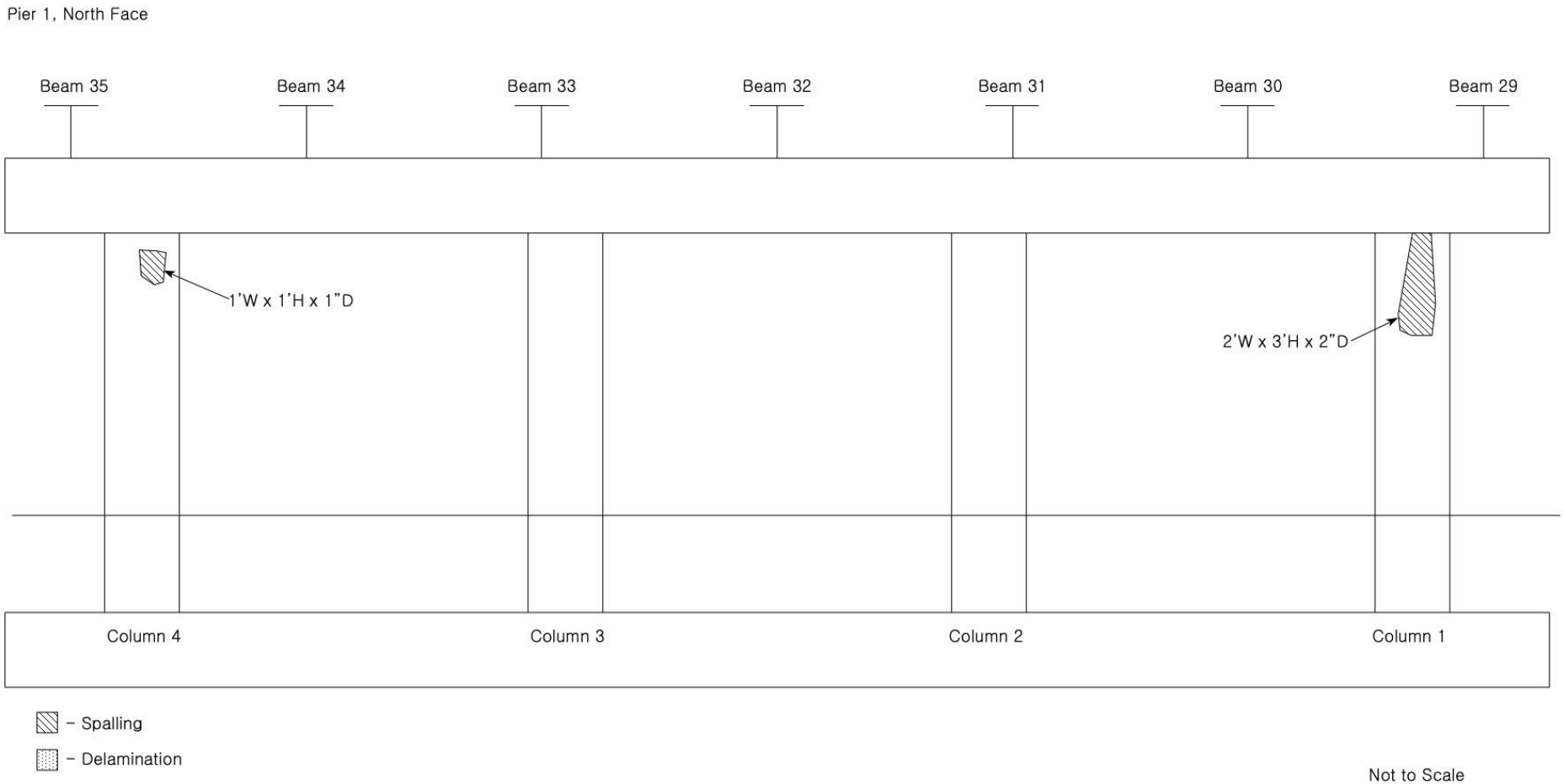
SKETCHES



Sketch 10: Pier 1, North Face - Defects

REM.(2)2-21

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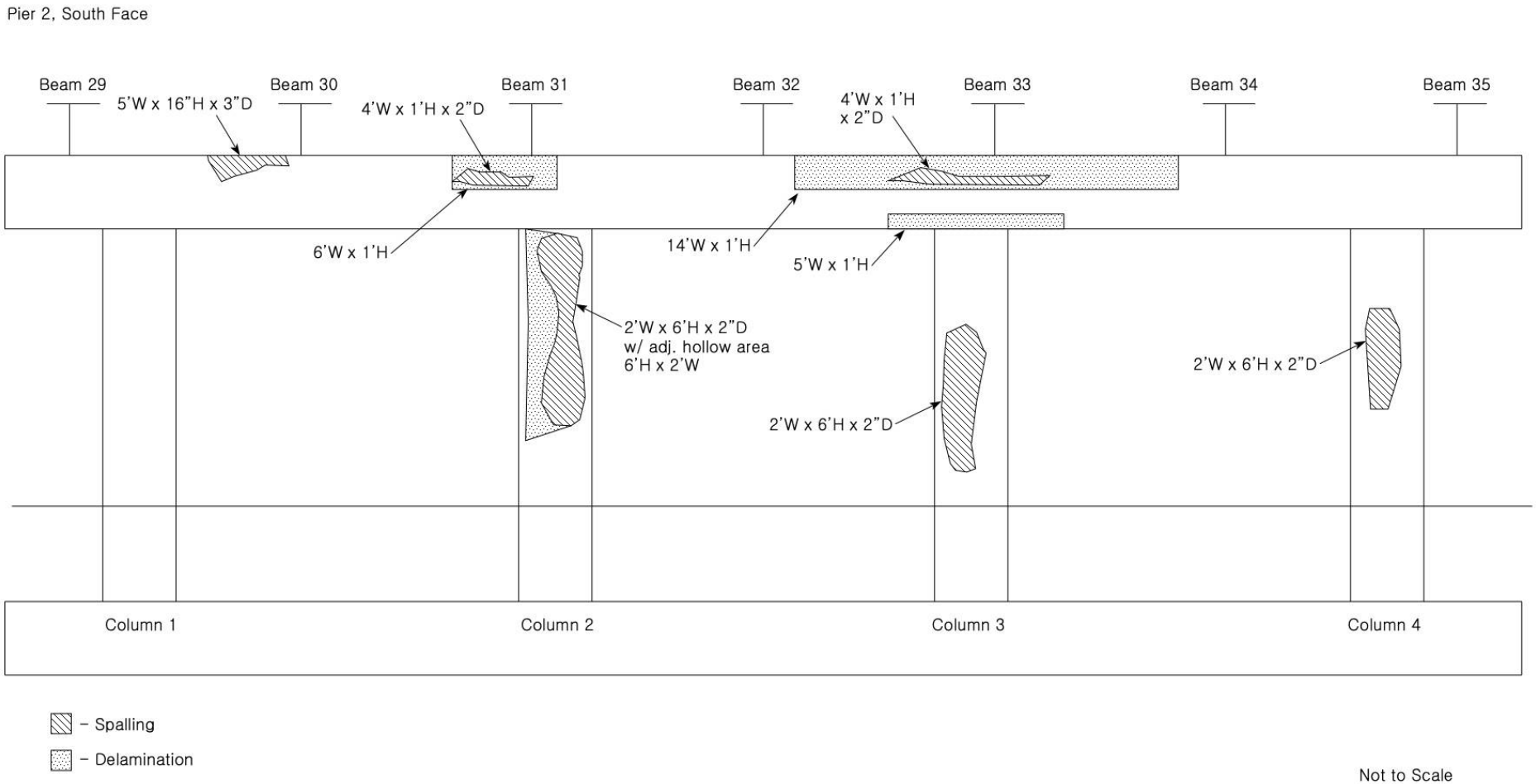

Sketch 11: Pier 2, South Face - Defects

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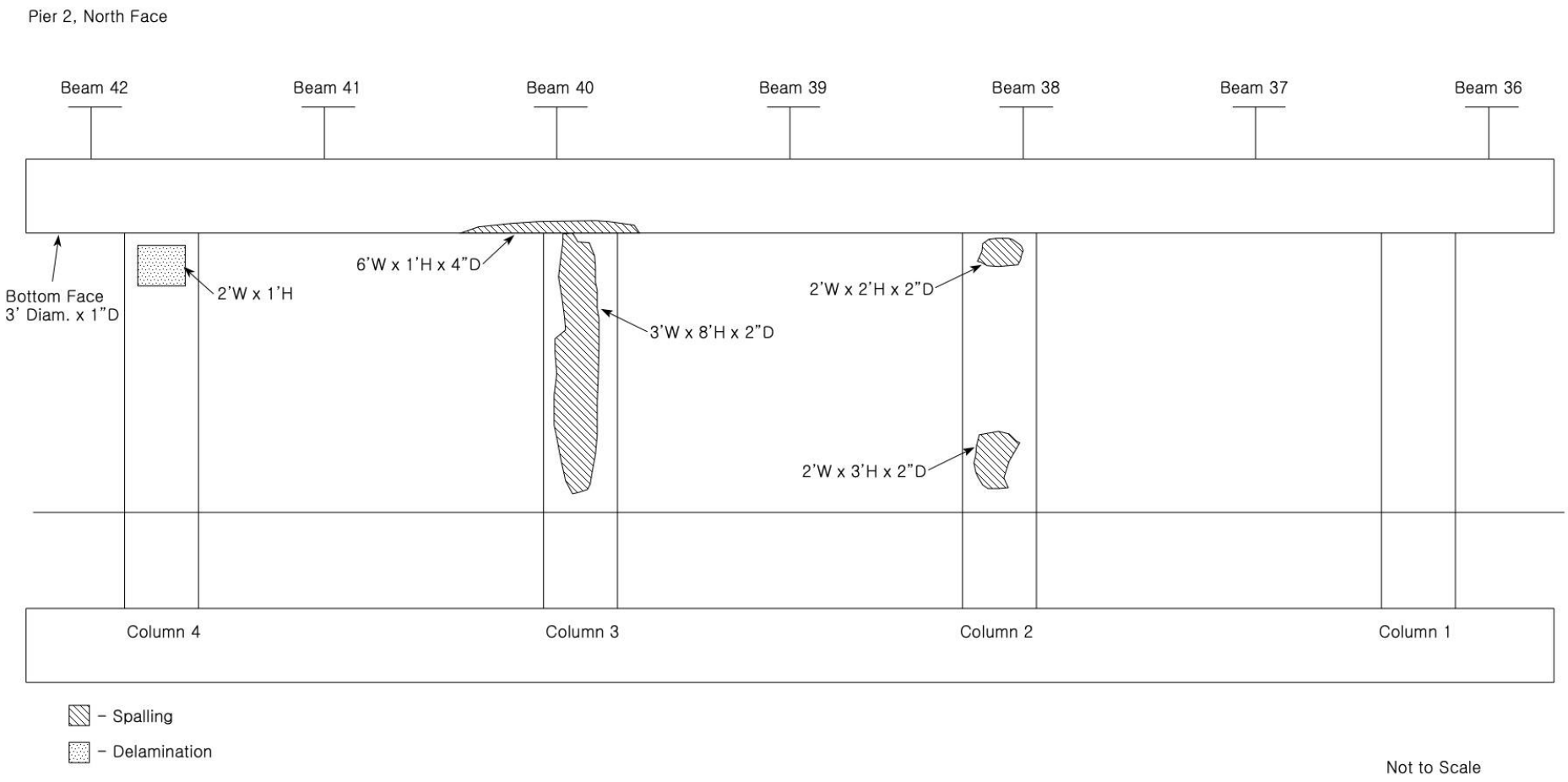
SKETCHES



Sketch 12: Pier 2, North Face - Defects

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PHOTOS

Photo 1: **Wearing Surface, Span 1, there is a pothole with exposed deck surface.**

Photo 2: **Deck Underside, Span 2, Bay 3, north end has a spall with exposed rebar.**

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PHOTOS

Photo 3: **South Abutment Deck Joint, right travel lane, has cracking in the header, and is impacted with debris.**

Photo 4: **South Approach Pavement, right travel lane has an area of minor map cracking, and breakdown lane has transverse cracking.**

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PHOTOS

Photo 5: **Span 1, Beam 22, south end has section loss to the web and bottom flange. Bearing has moderate rust.**

Photo 6: **Span 1, Beam 28, south end has section loss to the lower web.**

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PHOTOS

Photo 7: **Span 1, Beam 27, north end at Pier 1, has section loss to the web.**

Photo 8: **Span 3, Beam 36, south end at Pier 2, has section loss above the existing repair plate. Span 2, Beam 29, north end at Pier 2, has painted over section loss to the west keeper.**

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PHOTOS

Photo 9: **Span 3, Beam 42, south end at Pier 2, has section loss to the web end.**

Photo 10: **Beam 29, over Damon Road, numerous scrape marks.**

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PHOTOS

Photo 11: **Span 1, Beam 25 at Pier 1, northwest anchor is severely bent. Northeast anchor similar.**

Photo 12: **Span 1, Beam 26, north end at Pier 1, has loss of bearing area/bent anchor.**

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PHOTOS

Photo 13: **Span 3, Beam 32, north end at Pier 2, sole plate is severely contracted for the weather conditions.**

Photo 14: **Span 2, Beam 35, north end at Pier 2, sole plate is severely contracted for the weather conditions.**

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PHOTOS

Photo 15: **Span 3, Beam 40, south end at Pier 2, there is a 0.5" gap between the sole plate and masonry plate, and a 0.25" gap between the sole plate and bottom flange.**

Photo 16: **Span 2, Beam 29, south end, there is a crack in the weld between the web and the diaphragm connection plate, which is adjacent to an area of minor collision damage to the cover plate.**

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PHOTOS

Photo 17: **Pier 1 Cap, south face, west end has spalling along the top and bottom edges.**

Photo 18: **Pier 2 Cap, north face, over Column 2, has spalling along the bottom edge.**

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PHOTOS

Photo 19: **Pier 1, Column 1, southwest face has severe spalling with broken horizontal rebars and an exposed vertical rebar.**

Photo 20: **Pier 2, Column 2, north face has full height spalling with exposed spiral rebar.**

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PHOTOS

Photo 21: **Northeast Approach transition is not attached to the concrete endpost.**

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Report Date: June 24, 2025

State Information

BDEPT#= N19064 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 10C AASHTO= 080.4

RANK= 1680 H.I.= 78.2 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	N1906410CDOTNBI
(5) Inventory Route	111000911
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**HWY DAMON RD**
(7) Facility Carried	**I 91 NB**
(9) Location	MM 25.5 ON I-91 NB
(11) Kilometerpoint	0041.061
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 20 MIN 19.43 SEC
(17) Longitude	72 DEG 38 MIN 00.79 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr: Other	Code 000
(45) Number of spans in main unit	003
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Built-up	Code 1
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 02	Under structure 02
(29) Average Daily Traffic	014078
(30) Year of ADT 2023	(109) Truck ADT 11 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0022.0 M
(49) Structure Length	00046.4 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	011.6 M
(52) Deck Width Out to Out	013.5 M
(32) Approach Roadway Width (w/shoulders)	011.6 M
(33) Bridge Median - No median	Code 0
(34) Skew 46 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	11.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.39 M
(55) Min Lat Underclear RT ref H	00.0 M
(56) Min Lat Underclear LT	00.9 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	R
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	Y
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	55.2
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	33.1
(70) Bridge Posting	5
(41) Structure - Open with shoring	D

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	6
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 0 0 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 08/08/24			(91) Frequency 24	MO
(92) Critical Feature Inspection:				(93) CFI DATE
(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	08/16/17
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	06/27/17

Rating Loads

Report Date 12/01/98	H20	Type 3	Type 3S2	Type HS
Operating	32.0	50.0	75.0	58.0
Inventory	22.0	31.0	42.0	34.0

Field Posting

Status LEGAL Posting Date 01/14/99

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
Y / Y	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 024

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National Bridge Element Inspection

BDEPT# **N-19-064**
B.I.N. **10C**
Item 8 **N19064-10C-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **08/08/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Andrew T. Lochner**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	6,718.000	☐ %	6,380.000	338.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	338.000	☐ %		338.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	5,779.000	☐ %	5,779.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,197.000	☐ %	371.000	819.000	7.000	
Notes :									
> 1000	*Corrosion*	feet	2	826.000	☐ %		819.000	7.000	
Notes :									
> 515	Steel Protective Coating	sq feet	2	10,414.000	☐ %		10,414.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	10,414.000	☐ %		10,414.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	140.000	☐ %	12.000	120.000	8.000	
Notes :									
> 1000	*Corrosion*	feet	3	128.000	☐ %		120.000	8.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,218.000	☐ %	104.000		1,114.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,114.000	☐ %			1,114.000	
Notes :									
205	**Re Conc Column**	each	2	4	☐ %	2		1	1
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-064**
B.I.N. **10C**
Item 8 **N19064-10C-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **08/08/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Andrew T. Lochner**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1080	*Delamination/Spall/Patched Area*	each	2	2	☐ %			1	1
Notes :									
205	**Re Conc Column**	each	3	4	☐ %		3	1	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	each	3	4	☐ %		3	1	
Notes :									
215	**Re Conc Abutment**	feet	3	124.000	☐ %	118.000	6.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	6.000	☐ %		6.000		
Notes :									
234	**Re Conc Pier Cap**	feet	2	62.000	☐ %	58.000	1.000	3.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	4.000	☐ %		1.000	3.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	62.000	☐ %	31.000	24.000	7.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	31.000	☐ %		24.000	7.000	
Notes :									
300	**Strip Seal Exp Joint**	feet	2	164.000	☐ %	161.000	3.000		
Notes :									
> 2360	*Adjacent Deck or Header*	feet	2	3.000	☐ %		3.000		
Notes :									
311	**Moveable Bearing**	each	3	21	☐ %	4	16		1
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-064**
B.I.N. **10C**
Item 8 **N19064-10C-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **08/08/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Andrew T. Lochner**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1000	*Corrosion*	each	3	16	☐ %		16		
Notes :									
> 2220	*Alignment*	each	3	1	☐ %				1
Notes :									
> 515	Steel Protective Coating	sq feet	3	42.000	☐ %		42.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	42.000	☐ %		42.000		
Notes :									
313	**Fixed Bearing**	each	2	14	☐ %	10	4		
Notes :									
> 1000	*Corrosion*	each	2	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	2	28.000	☐ %		28.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	28.000	☐ %		28.000		
Notes :									
313	**Fixed Bearing**	each	3	7	☐ %		7		
Notes :									
> 1000	*Corrosion*	each	3	7	☐ %		7		
Notes :									
> 515	Steel Protective Coating	sq feet	3	14.000	☐ %		14.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	14.000	☐ %		14.000		
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-064**	Date	**08/08/2024**
B.I.N.	**10C**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19064-10C-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Northampton**	Team Member(s)	**Andrew T. Lochner**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
330	**Metal Bridge Railing**	feet	2	304.000	☐ %	304.000			
Notes :									
331	**Re Conc Bridge Railing**	feet	3	304.000	☐ %	182.000	122.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	122.000	☐ %		122.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10D	N-19-064

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19064-10D-DOT-NBI	041.061	D:OPEN	AUG 8, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
HWY DAMON RD	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER A. Power
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Overcast	20°C	A. T. LOCHNER

ITEM 58 — DECK — 7

		DEF
1.Wearing Surface	6	M-A
2.Deck Condition	7	-
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	6	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	5	S-A
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	250	250

APPROACHES

		DEF
a. Appr. Pavement Condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 6

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	7	-
9.Bearing Devices	6	M-P
10.Diaphragms/Cross-Frames	6	-
11.Rivets & Bolts	N	-
12.Welds	5	S-A
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.Timber Shoring	6	-

Year Painted: 1992

COLLISION DAMAGE: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 5

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	7		-
d. Breastwalls	N	6		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	7		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			5	
a. Pedestals	N	7		-
b. Caps	N	6		-
c. Columns	N	5		M-P
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10D	N-19-064	N19064-10D-DOT-NBI	AUG 8, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION: N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — TRAFFIC SAFETY

	36	COND	DEF
A. Bridge Railing	1	6	-
B. Transitions	0	7	-
C. Approach Guardrail	0	6	-
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 10/17/2019 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not Actual Field Measurement ☐

Posted Clearance

	E ft	E in	W ft	W in	meter
	14	5	14	5	4.39
	14	2	14	2	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	N	Y	NR	NR
		7 7		

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	Y	Y
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 18

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 07/01/2019

Inspection data at time of existing rating

I 58: **7** I 59: **5** I 60: **5** Date : 08/29/2018

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE (For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10D**	**N-19-064**	**N19064-10D-DOT-NBI**	**AUG 8, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound, north to south, over Damon Road which runs east and west.

Per bridge plans, abutments, piers, and spans are numbered south to north. Beams and pier columns are numbered west to east. Bays are numbered west to east 1 - 6 in each span. The 21 beams are numbered from Beam 1 - 21. **See Sketches 1 - 3.**

GENERAL REMARKS
Vertical Clearance Posting:
Bridge has only one clearance posting on Damon Road on the West Side of the bridge, reading 14'2".

Measured minimum clearance at the time of this inspection was 14'-10" at Beam 8 near midspan, but an ongoing paving project on Damon Road is expected to effect this clearance measurement in the near future.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has random saw cut patches and minor wheel rutting.

Right wheel path, between the longitudinal HMA joint and the solid white edge line, at the deck joints there is minor scaling with areas of MHA patching. **See Photo 1.**

Span 1, right lane, has a minor pothole 8" long x 4" wide x 2" deep.

Over Pier 1 there is a saw and seal joint with adjacent transverse cracking.

Span 3, right lane, 10' from the North Abutment, there is a pothole, 6" wide x 6" long x 3" deep, which exposes waterproofing and deck material. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Underside:
- Above Pier 2 & Beam 14, has scaling, 18" long x 7" wide x up to 2" deep.
- Repair patches over Pier 1 have a few minor cracks, delaminations, and cover spalls. **See Photo 2.**
- Span 2, Bay 3, near north end, is a spall, 1' wide x 1' long x 1" deep.

Item 58.4 - Curbs
Granite curbs have minor chipping along the top edges, with some rust staining and mortar loss in the joints.

East Curb at Pier 1 is cracked, broken and dislodged.

Item 58.8 - Railing
Railing consists of 30" high concrete parapets with AL-1 mounted on top and Thrie-beam retrofit mounted on timber spacers that are bolted through the parapets.

Northeast corner of the bridge has minor vegetative growth.

Southwest corner of the bridge has minor vegetative growth.

Item 58.13 - Deck Joints
Deck joints are strip seals except for over the North abutment where there is a partial plug joint in the Breakdown and Right Lanes and a pourable joint in the left lane.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10D**	**N-19-064**	**N19064-10D-DOT-NBI**	**AUG 8, 2024**

REMARKS

Deck Joints are partially filled with debris (sand) in breakdown lane.

South Abutment Joint, right lane, there is a 4' long section cracked concrete header with loose and cracked angle iron. Deck joint is leaking at this location. **See Photo 3.**

Pier 2 Joint, right lane:
- There is missing steel angle and concrete header which has been patched with HMA, 8' long. **See Photo 4.**
- There is a section of loose steel angle iron that moves under traffic, 6' long.
- Deck joint it leaking at this location.

APPROACHES

Approaches a - Appr. Pavement Condition
South Approach, breakdown lane, two 6" core holes were left unfilled, and are now filled with dirt and debris.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Span 1 Beams 1 & 7, Span 2 Beams 8 - 14, and Span 3 Beams 15 & 21 are 36WF135 (original web = 0.60" and flange = 0.79" thick).
Span 1 Beams 2 - 6 are 30WF99 (original web = 0.52" and flange = 0.67" thick).
Span 3 Beams 16 - 20 are 33WF118 (original web = 0.55" and flange = 0.74" thick).

Beams Ends under the deck joints have peeling paint and minor rust delamination.

Span 1, South Abutment:
- Beam 1, bottom flange has section loss beyond the bearing with 0.5" remaining.
- Beam 7, bottom flange and lower web have section loss. **See Sketch 4 & Photo 5.**

Span 1, Beam 2, 12' from Pier 1, west leg of bottom flange is bent due to apparent collision damage, 10" long x 1/2" high. **See Photo 6.**

Span 1, at Pier 1:
- Beam 2, lower web end has section loss. **See Sketch 5 & Photo 7.**
- Beam 3, lower web end has section loss. **See Sketch 6.**

Span 2, at Pier 2:
- Beam 10, lower web has section loss. **See Sketch 7 & Photo 8.**

Span 3, at North Abutment:
- Beam 15, bottom flange and lower web have section loss. **See Sketch 8 & Photo 9.**
- Beam 20, bottom flange has section loss at the bearing with 0.4" remaining.
- Beam 21, bottom flange and lower web have section loss. **See Sketch 9 & Photo 10.**

Steel beam end repairs recently applied to the beams:
- Span 1, Beam 1 north end has steel repairs.
- Span 1, Beam 7, north end has steel repairs.
- Span 2, Beam 8:

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- South end has steel repairs.
- North end has steel repairs.

• Span 2, Beam 14:
- South end has steel repairs.
- North end has steel repairs.

• Span 3, Beam 15, south end has steel repairs.
• Span 3, Beam 17, south end has steel repairs. **See Photo 8.**
• Span 3, Beam 21, south end has steel repairs.
• **See Sketch 1.**

Item 59.7 - Conn Plt's, Gussets & Angles
Over both Piers, the connection plates have severe rust accumulation and minor section loss.

Item 59.8 - Cover Plates
Span 2, Beam 8, 9, 10, & 14 cover plates have a few scrape marks over Damon Road. **See Photo 11.**

Item 59.9 - Bearing Devices
Fascia Bearings at the Piers have been painted.

Abutment Bearings have moderate to severe rust, delaminations, and impacted rust between the sole plate and the masonry plates.

Interior bearings have some previous pitting and the rust is reforming.

Beam 14, north end:
• East keeper, to 0.25" section remaining.
• Sole plate overhangs the front edge of the masonry plate by 1" despite moderate temperatures. **See Photo 12.**

Beam 20, south end, there is 0.5" of pack rust between the bottom flange and the sole plate, deforming the bottom flange. **See Photo 13.**

Item 59.10 - Diaphragms/Cross-Frames
Steel diaphragms are in fair condition with forming rust.

Item 59.12 - Welds
Repair welds (from previous collision damage 7/98) that affix the connection clips to the diaphragms on Beam 8 to the first and second diaphragms of Span 2 are of poor quality with multiple overlaps and incomplete welding bonds.

Span 2, Beam 14, south end, two southernmost diaphragms, weld between the steel diaphragm connection plate and the web has a crack at the base of the weld, adjacent to minor collision damage in the cover plate. **See Photos 14 & 15.**

Item 59.14 - Paint/Coating
Paint System is breaking down at the beam ends with rust and corrosion spreading. **See Photos 7 - 10.**

Item 59.15 - Timber Shoring
Timber Shoring is in place at either pier in the following locations:
• Pier 1:
- Bay 1 has timber blocks between the concrete end diaphragm and the Pier Cap as well as

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timber blocks between the bottom flange of Beam 9 and the Pier Cap.
See Sketch 1.
- Bay 6 has timber blocks between the concrete end diaphragm and the Pier Cap as well as timber blocks between the bottom flange of Beam 13 and the Pier Cap.
See Sketch 1.

• Pier 2:
- Bay 1 has timber blocks between the concrete end diaphragm and the Pier Cap as well as timber blocks between the bottom flange of Beam 9 and the Pier Cap.
See Sketch 1 & Photo 16.

SuperStructure Collision Notes
Beam 8 sustained minor impact damage in July of 1998. The beam was repaired and the cracks in the welds connecting the diaphragm connection plates to the web of the beam were rewelded.

Beams 8, 9, 10, and 14 have minor nicks, gouges, and scrape marks on the bottom flanges.

SuperStructure Load Vibration Notes
Bridge has minor load vibration under heavy live loads.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
South Bridge Seat, Bay 1 has a horizontal hairline crack, 4' across.

Item 60.1.c - Backwalls
North & South Backwalls have scattered efflorescence staining.

Item 60.1.d - Breastwalls
South Breastwall has a few scattered vertical and horizontal hairline cracks.

North Breastwall:
• Scattered vertical hairline cracks.
• Bay 1 minor rust staining.

Item 60.1.f - Slope Paving/Rip-Rap
North & South Slopes have minor vegetative overgrowth.

Item 60.2 - Piers or Bents
Item 60.2.a - Pedestals
Span 1, Beam 3 Pedestal**,** at Pier 1, is delaminated 15" wide x 4" high.

Item 60.2.b - Caps
Pier 1 & 2 caps have scattered hairline to 1/8" wide horizontal cracks with and without leaching efflorescence, rust staining, concrete patches, delamination, and spalling.
See Sketches 10 - 13 and Photos 17 & 18.

Item 60.2.c - Columns
Pier 1 & 2 columns have scattered hairline to 1/8" wide horizontal cracks with and without leaching efflorescence, rust staining, concrete patches, delamination, and spalling.
See Sketches 10 - 13 and Photos 19 & 20.

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TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Leading transitions consist of nested steel W-beam guardrail bolted to the concrete end posts with 12" x 12" wood posts and offset blocks.

Trailing transitions consist of steel W-beam guardrail on steel H-posts with composite offset blocks.

Item 36c - Approach Guardrail
All four approach guardrail has a combination of W-beam & Thrie-beam on steel H-posts with plastic offset blocks.

Steel W-beam guardrail has a few minor dents and scrapes.

Item 36d - Approach Guardrail Ends
Northeast Approach guardrail has a Tangent End Treatment.

Northwest Approach guardrail travels to the next bridge.

Southwest Approach guardrail travels beyond the limits of the bridge.

Southeast Approach guardrail (trailing end) has a terminal end.

Sketch / Photo Log

Sketch 1 : Framing Plan with Locations of Timber Shoring & Steel Repairs
Sketch 2 : Easterly Elevation. Northbound shown (southbound similar).
Sketch 3 : Cross Section
Sketch 4 : Span 1, Beam 7, south end, section loss.
Sketch 5 : Span 1, Beam 2, north end, section loss.
Sketch 6 : Span 1, Beam 3, north end, section loss.
Sketch 7 : Span 2, Beam 10, north end, section loss.
Sketch 8 : Span 3, Beam 15, north end, section loss.
Sketch 9 : Span 3, Beam 21, north end, section loss.
Sketch 10 : Pier 1, South Face - Defects.
Sketch 11 : Pier 1, North Face - Defects.
Sketch 12 : Pier 2, South Face - Defects.
Sketch 13 : Pier 2, North Face - Defects.
Photo 1 : Wearing Surface, Span 3, right travel lane has scaling and patching along the right wheel path, and a 6" diameter spall that exposes the waterproofing and deck surface.
Photo 2 : Deck Underside over Pier 1, Bay 2 concrete repairs have some cracking, minor delaminations, and minor cover spalls.
Photo 3 : South Abutment Joint, right lane, there is a 4' long section cracked concrete header with loose and cracked angle iron. Joint leaks at this location.
Photo 4 : Pier 2 Joint, right lane has missing steel angle and concrete header patched with HMA, a section of loose steel angle iron, and joint leakage.
Photo 5 : Beam 7, south end, has section loss.
Photo 6 : Span 1, Beam 2, near midspan, bottom flange is bent.
Photo 7 : Span 1, Beam 2, north end at Pier 1, has section loss to the web end. Beam 3 similar.

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Photo 8 : Span 2, Beam 10, north end at Pier 2, has section loss to the lower web. Span 3, Beam 17 has a repair at the south end.
Photo 9 : Span 3, Beam 15, north end at North Abutment, lower web has section loss.
Photo 10 : Span 3, Beam 21, north end at North Abutment, lower web and bottom flange have section loss.
Photo 11 : Span 2, Beam 9, south end has scrape marks on the bottom flange cover plate.
Photo 12 : Span 2, Beam 14, north end at Pier 2, bearing sole plate overhangs the front edge of the masonry plate by up to 1" despite moderate temperatures.
Photo 13 : Span 3, Beam 20, south end at Pier 2, bearing has packrust between the bottom flange and the sole plate.
Photo 14 : Span 2, Beam 14, south end, weld from the diaphragm connection plate to the beam web is cracked.
Photo 15 : Span 2, Beam 14, south end, close view of weld crack.
Photo 16 : Timber Shoring in place at Pier 2, Bay 1.
Photo 17 : Pier 1 Cap, south face, spalling at the east end.
Photo 18 : Pier 2 Cap, south face, spalling at the east end.
Photo 19 : Pier 1, Column 2, south face has a spall with exposed spiral rebar.
Photo 20 : Pier 2, Column 3, south face has a spall with exposed spiral rebar.

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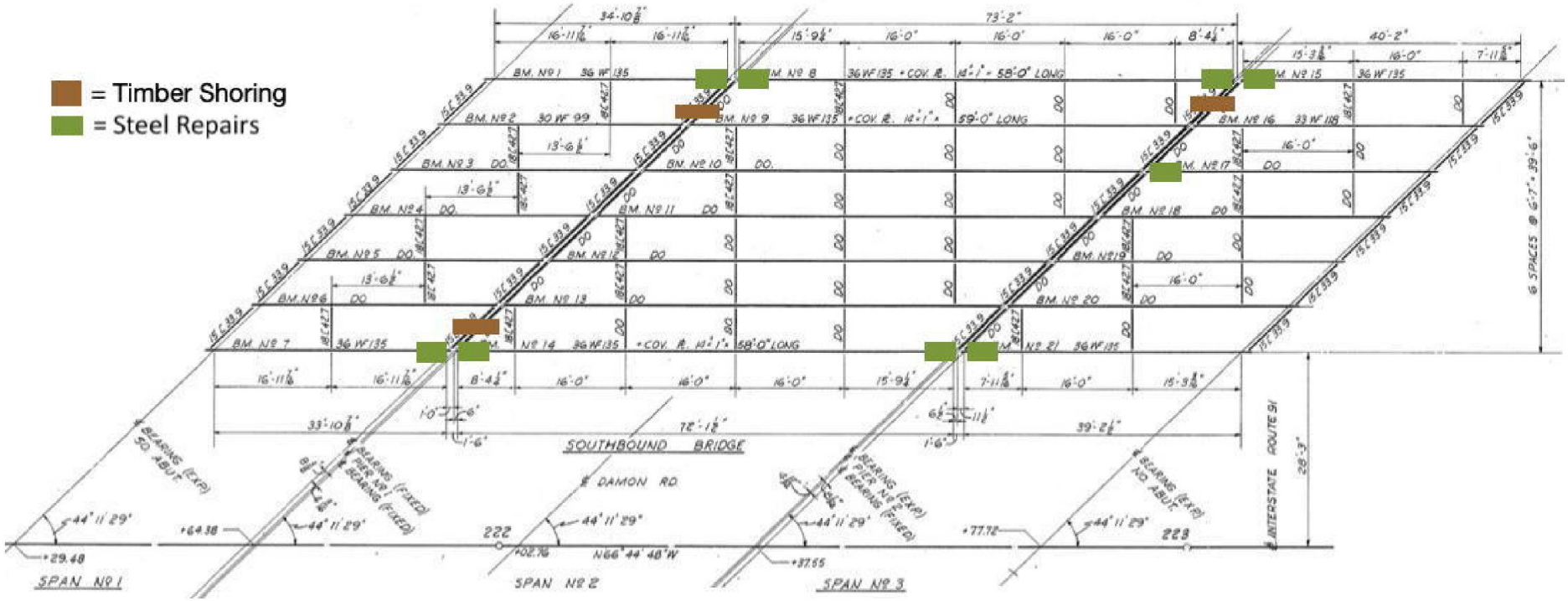

Sketch 1: Framing Plan with Locations of Timber Shoring & Steel Repairs

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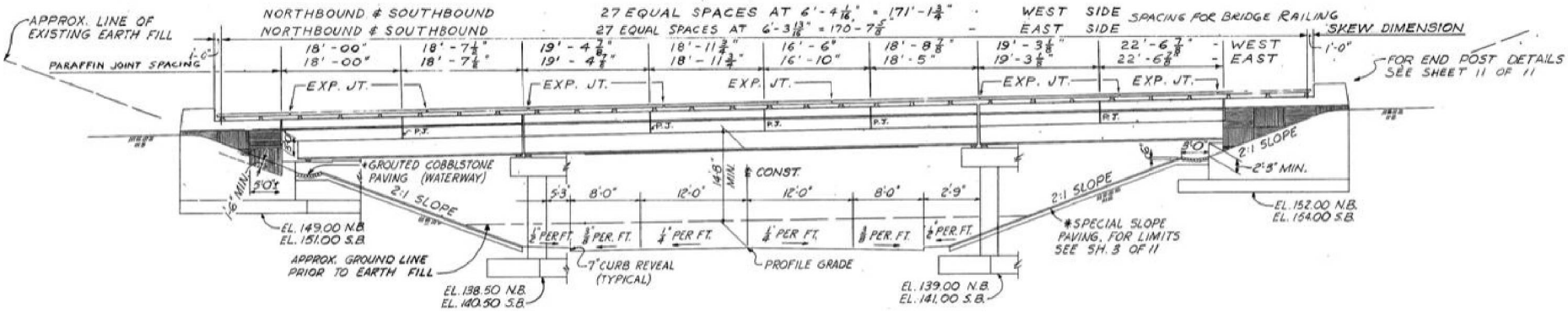

Sketch 2: Easterly Elevation. Northbound shown (southbound similar).

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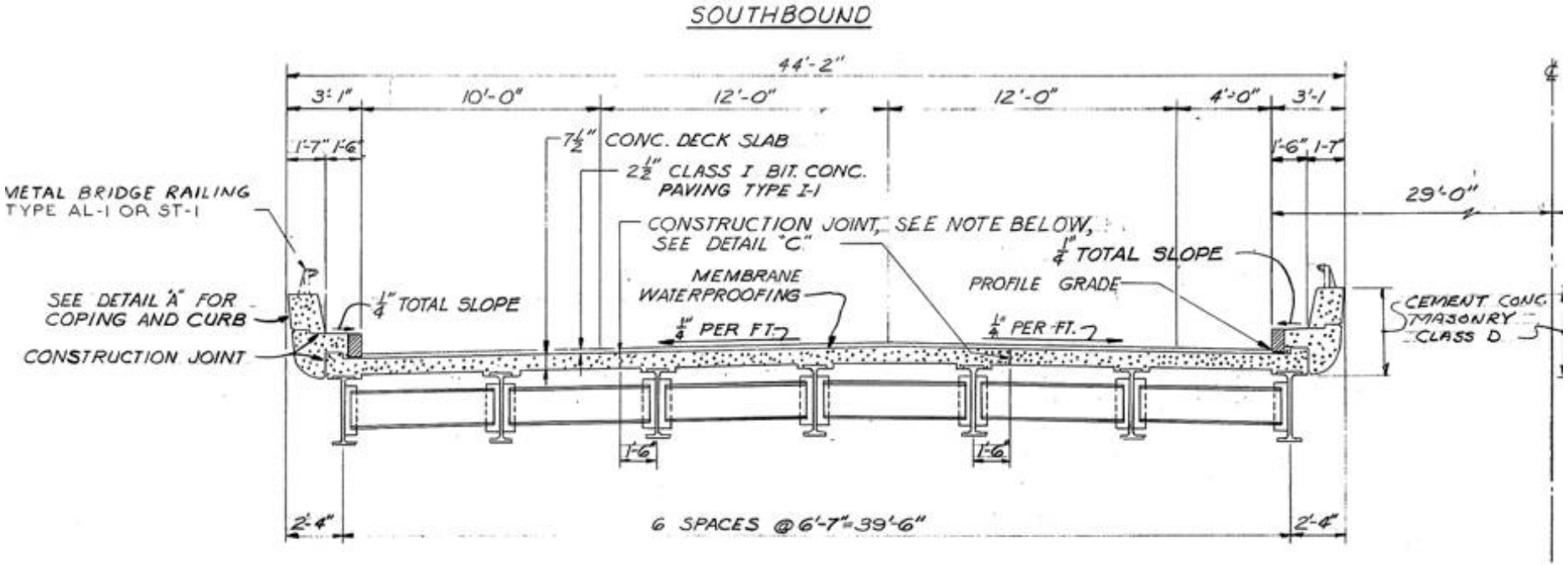

Sketch 3: Cross Section

REM.(2)2-21

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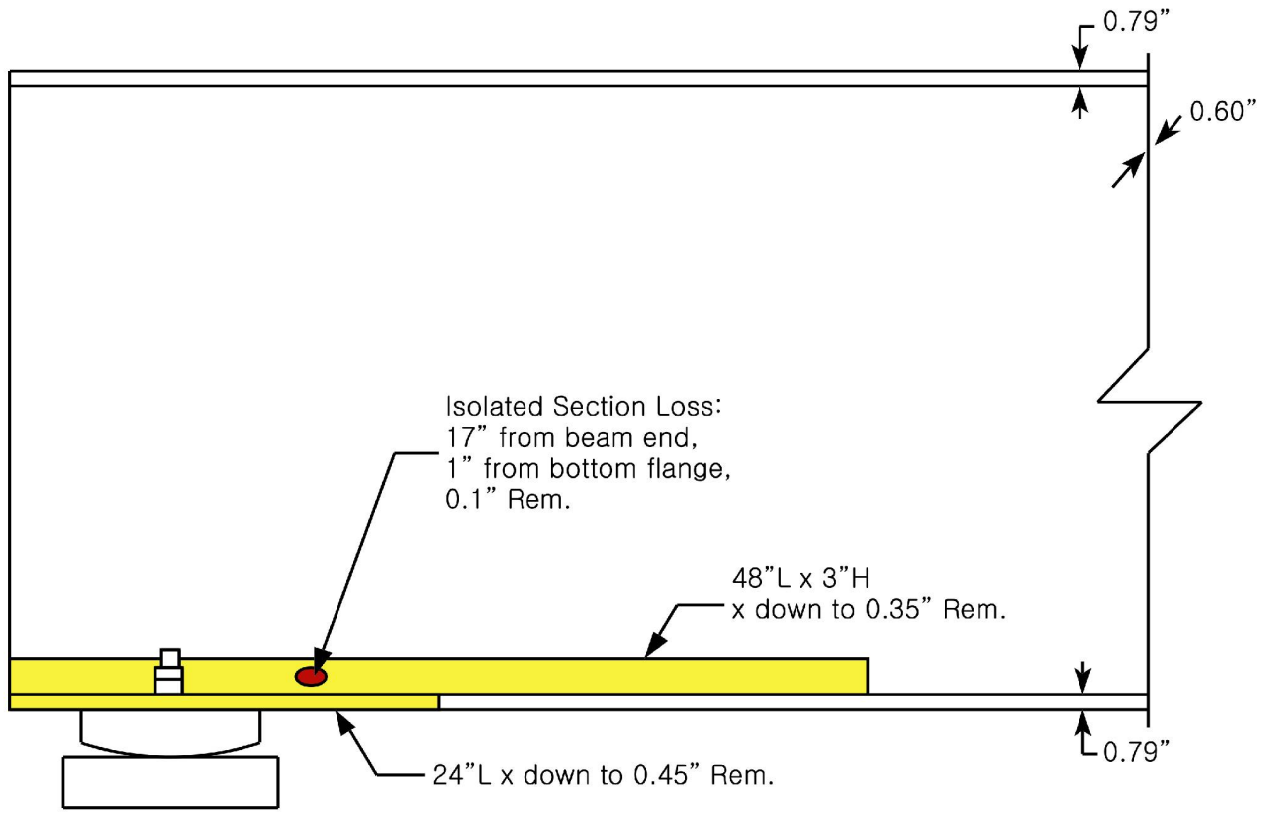

Beam 7, South End, East Face
36WF135

= Section Loss

= Advanced Section Loss

= Change from Previous Inspection

Sketch 4: Span 1, Beam 7, south end, section loss.

REM.(2)2-21

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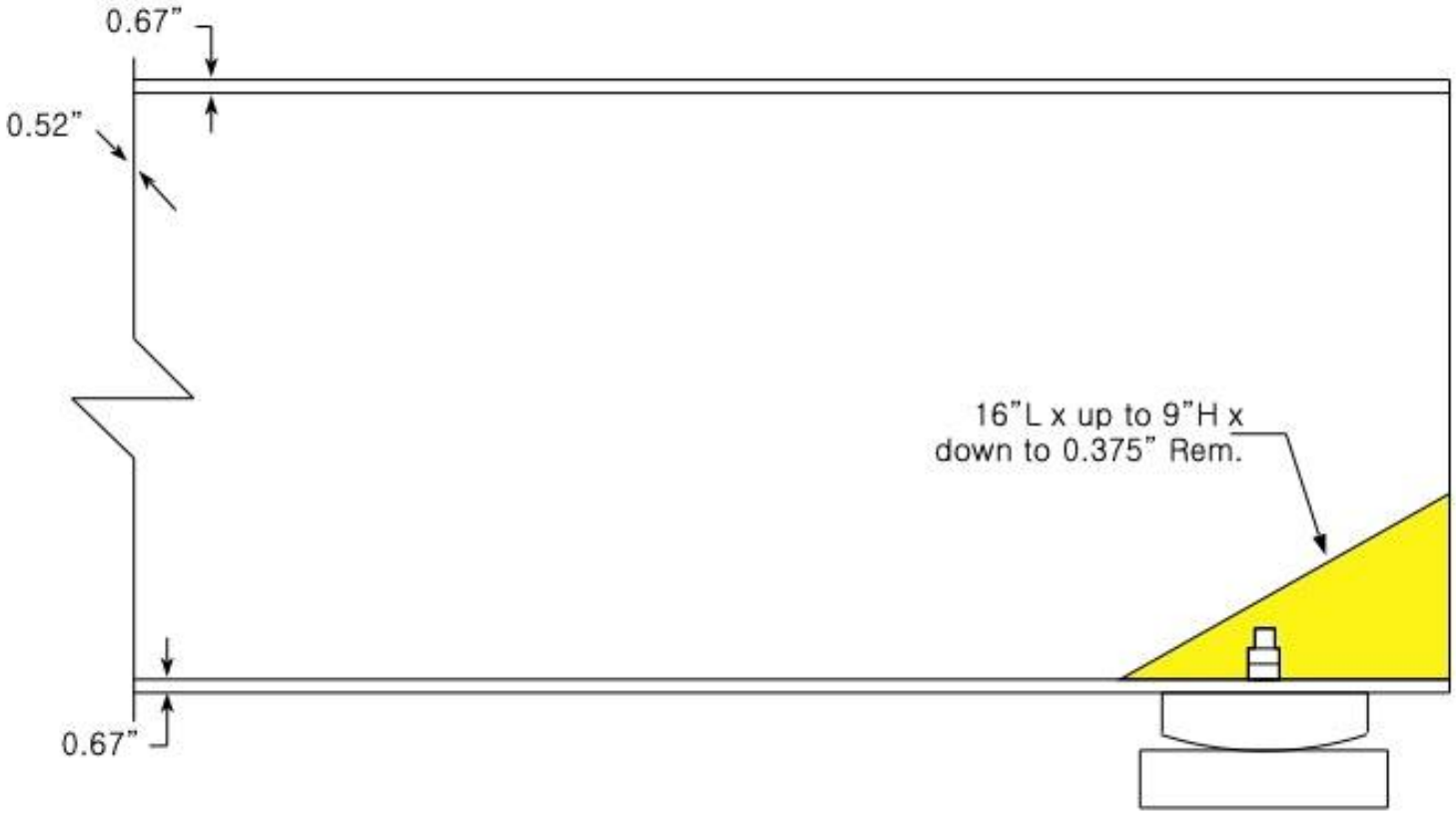

Beam 2, North End, East Face
30WF99

= Section Loss

= Change from Previous Inspection

Sketch 5: Span 1, Beam 2, north end, section loss.

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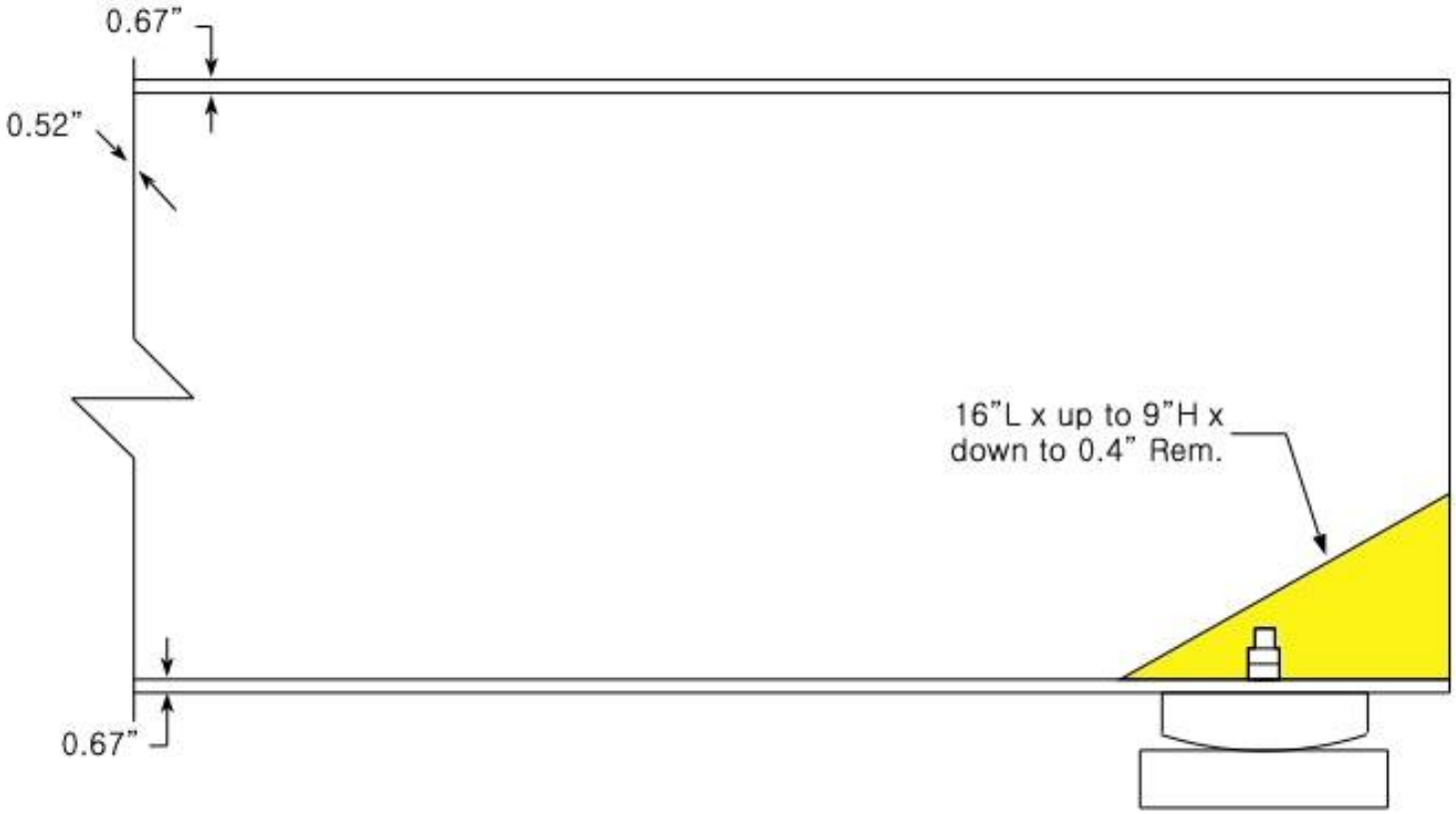

Beam 3, North End, East Face
30WF99

= Section Loss

= Change from Previous Inspection

Sketch 6: **Span 1, Beam 3, north end, section loss.**

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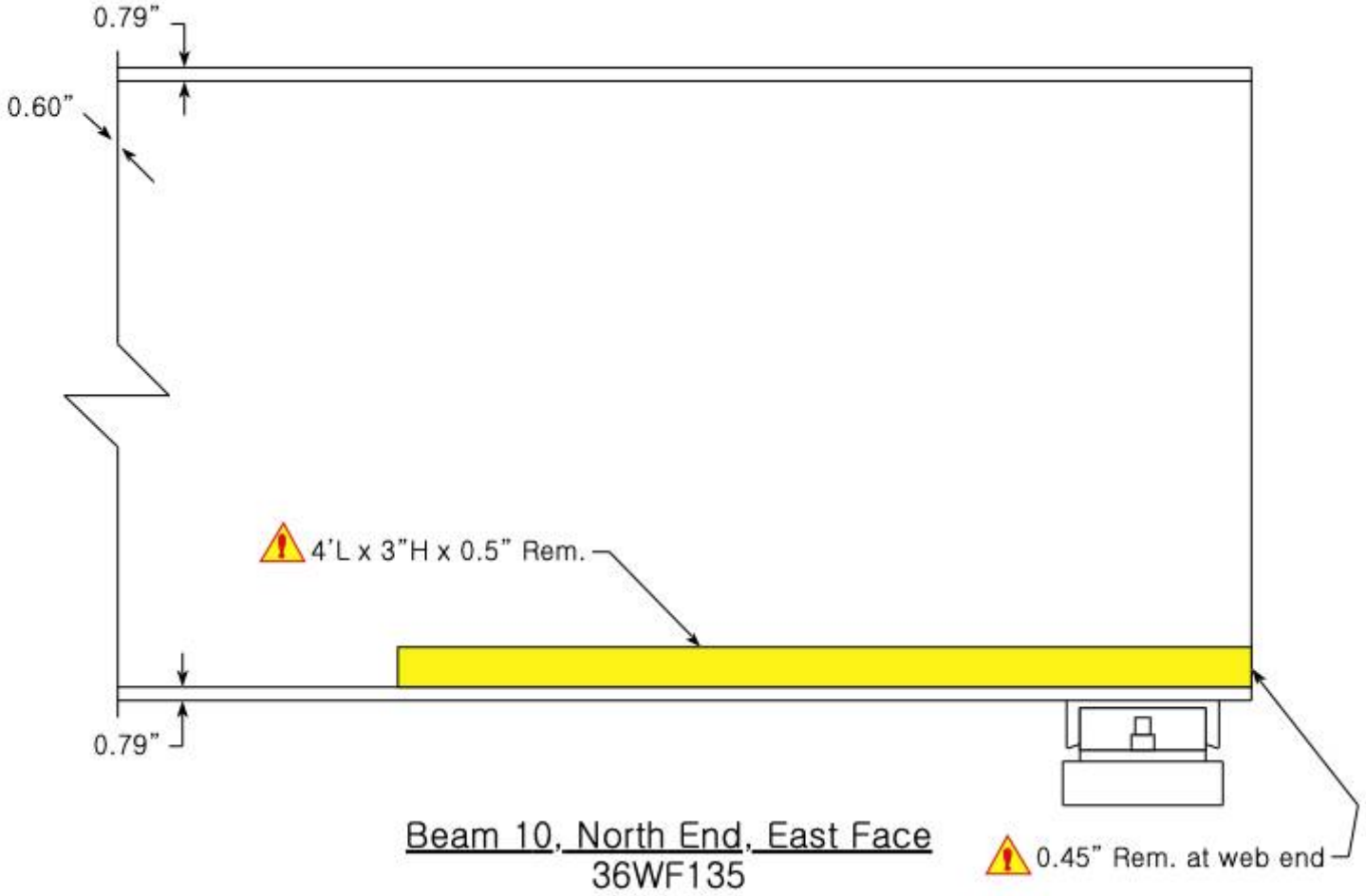

= Section Loss

= Change from Previous Inspection

Sketch 7: **Span 2, Beam 10, north end, section loss.**

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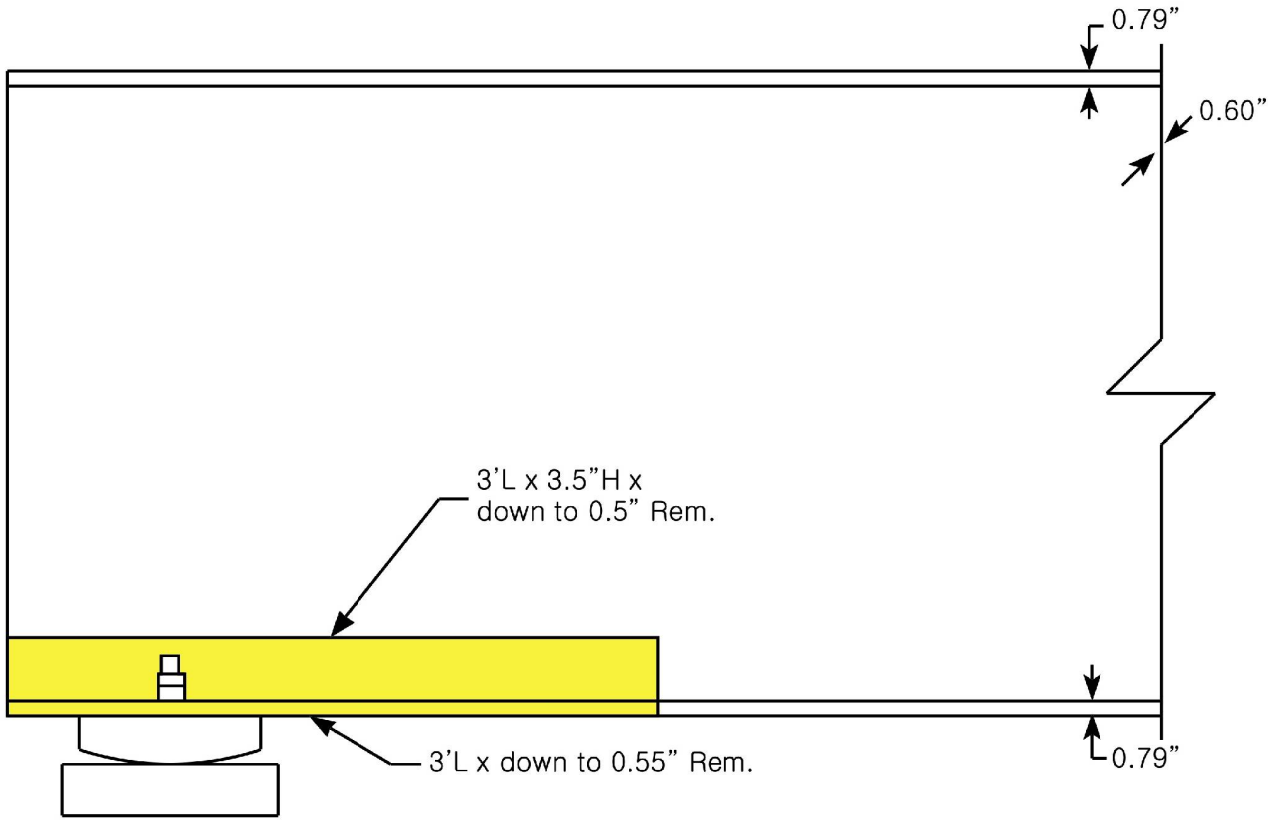

Beam 15, North End, West Face
36WF135

= Section Loss

= Advanced Section Loss

= Change from Previous Inspection

Sketch 8: Span 3, Beam 15, north end, section loss.

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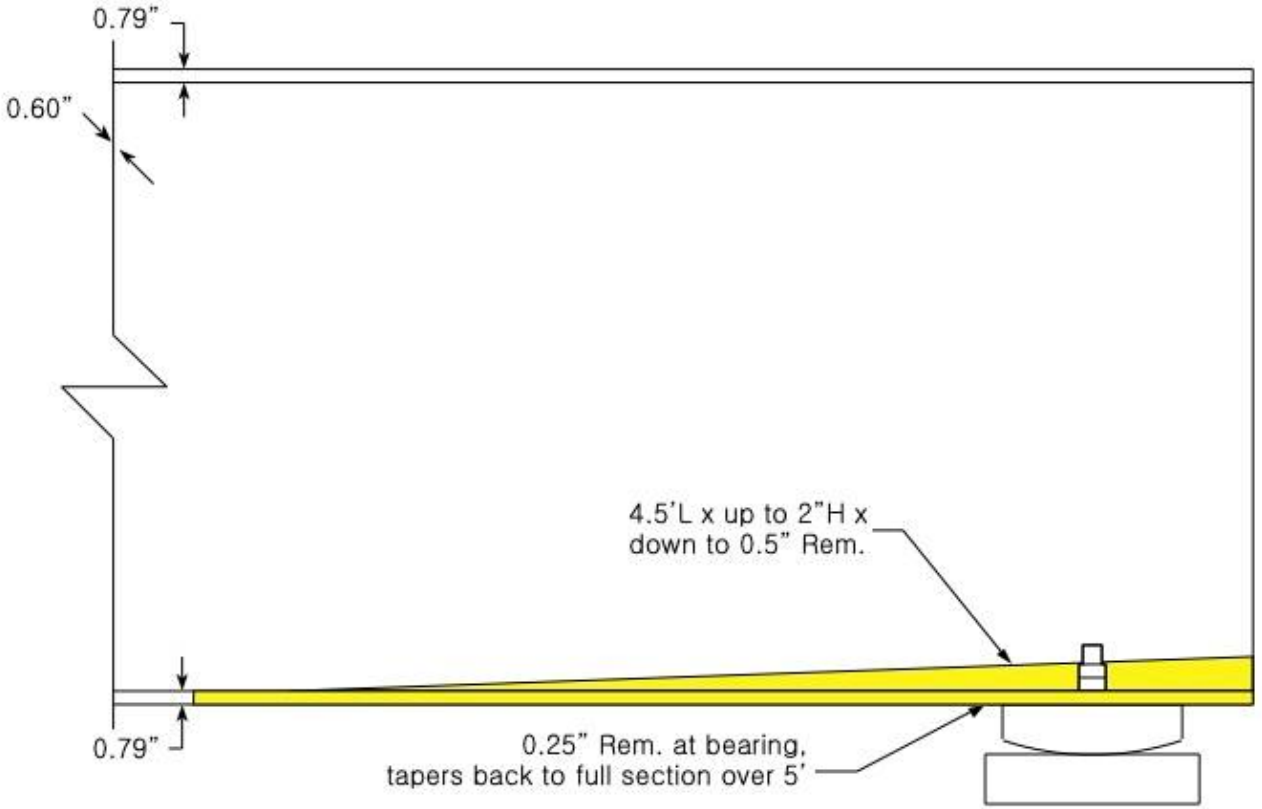

Beam 21, North End, East Face
36WF135

= Section Loss

= Advanced Section Loss

= Change from Previous Inspection

Sketch 9: **Span 3, Beam 21, north end, section loss.**

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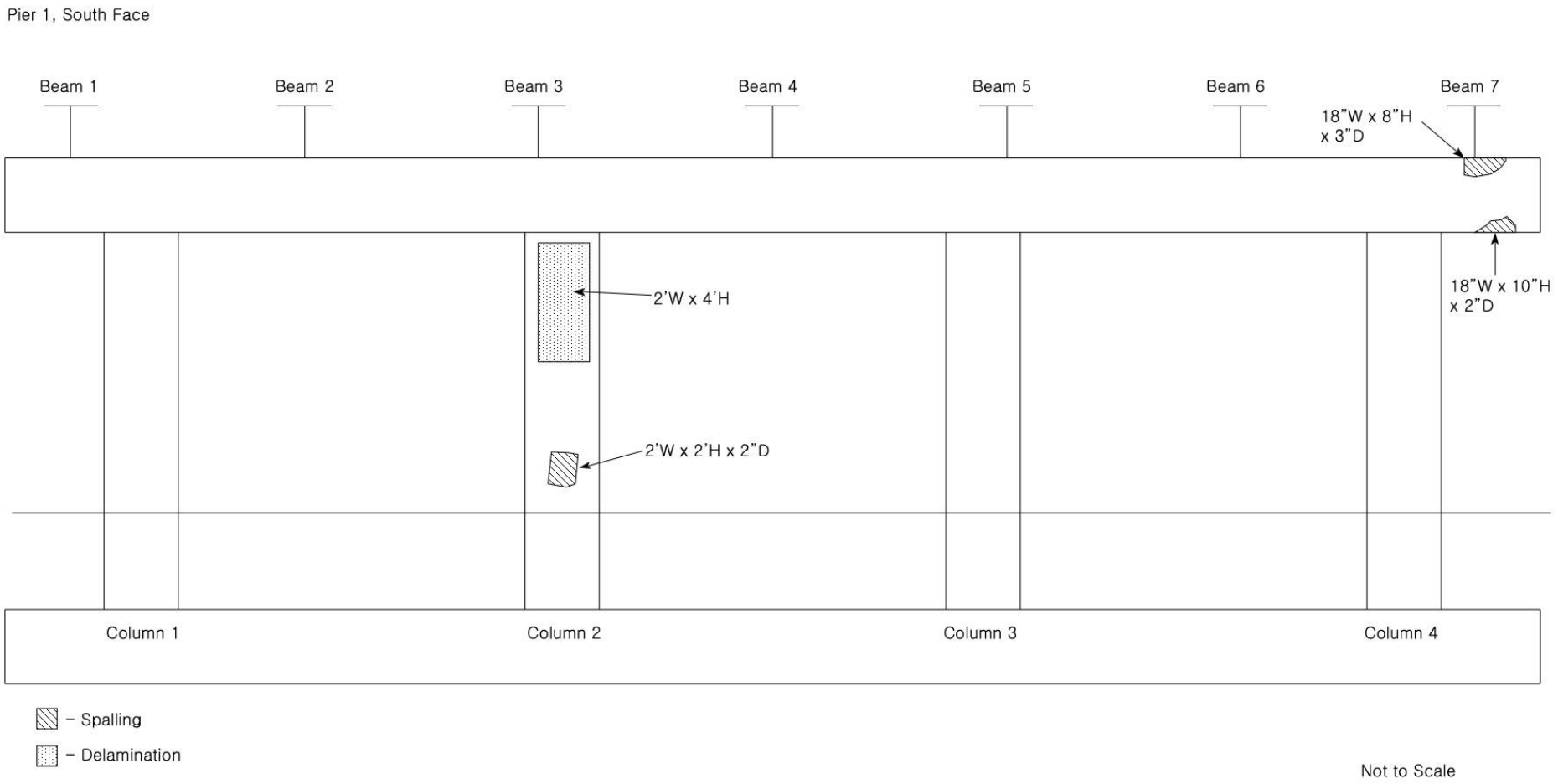

Sketch 10: Pier 1, South Face - Defects.

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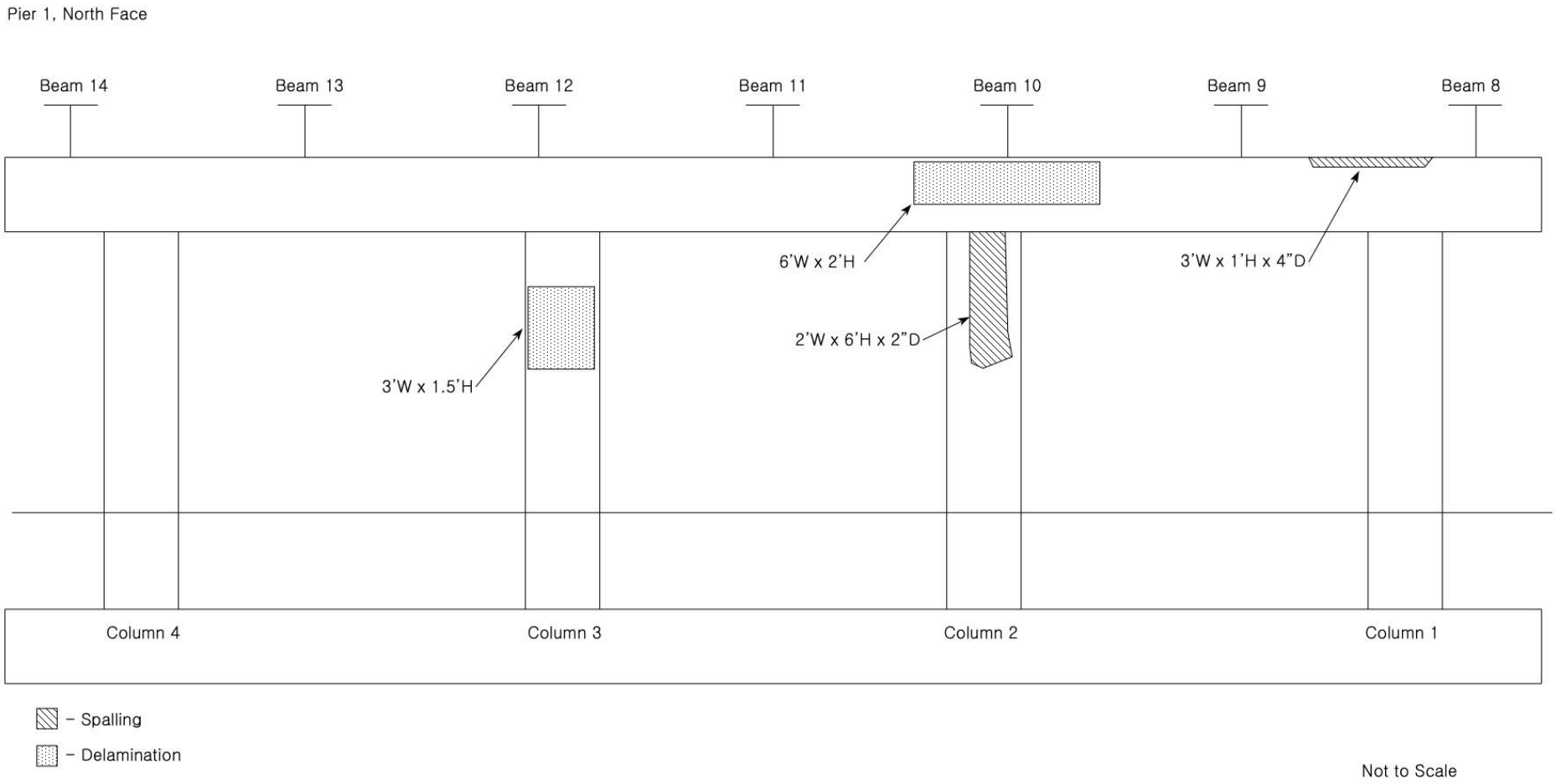

Sketch 11: Pier 1, North Face - Defects.

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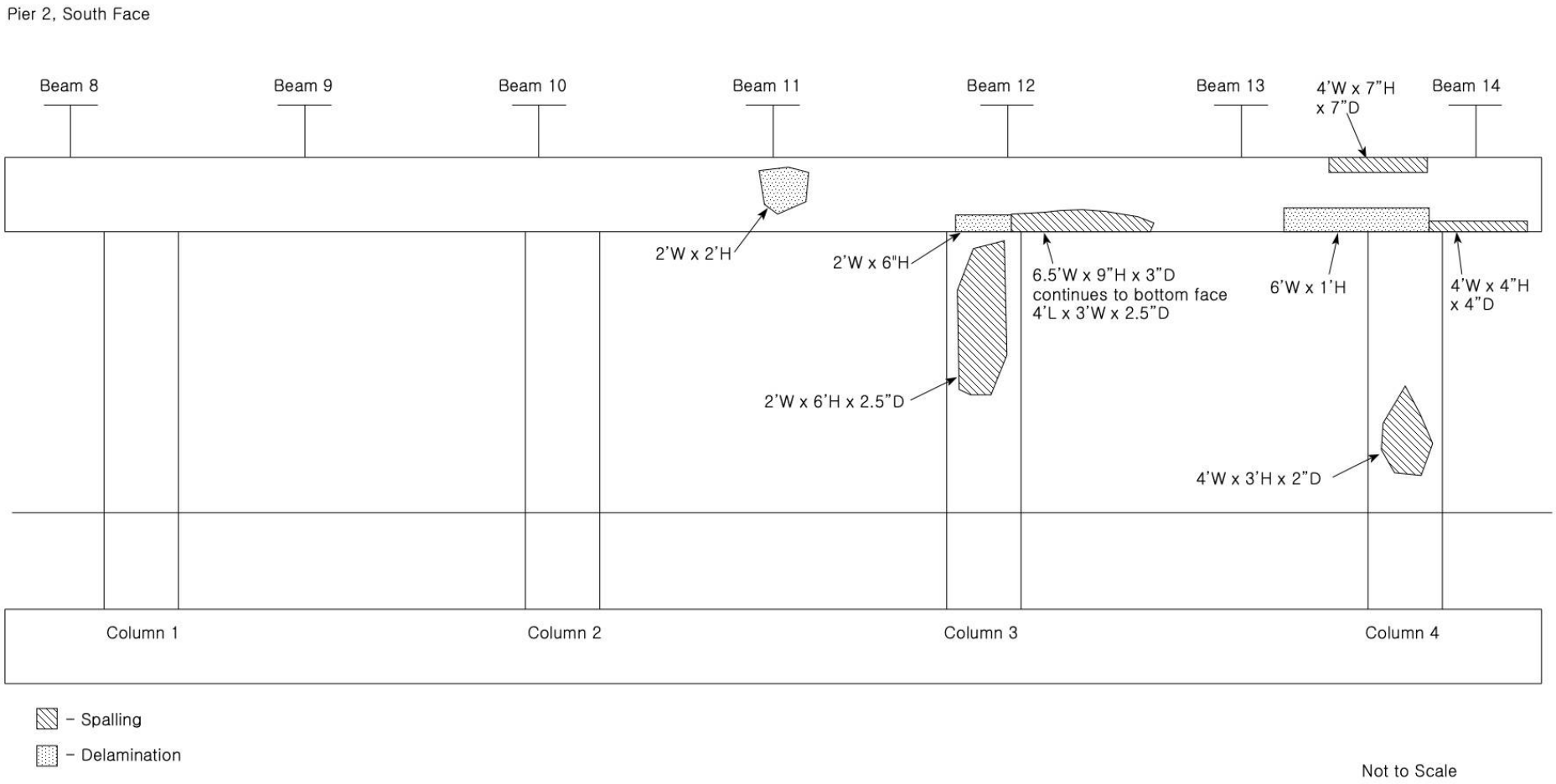

Sketch 12: Pier 2, South Face - Defects.

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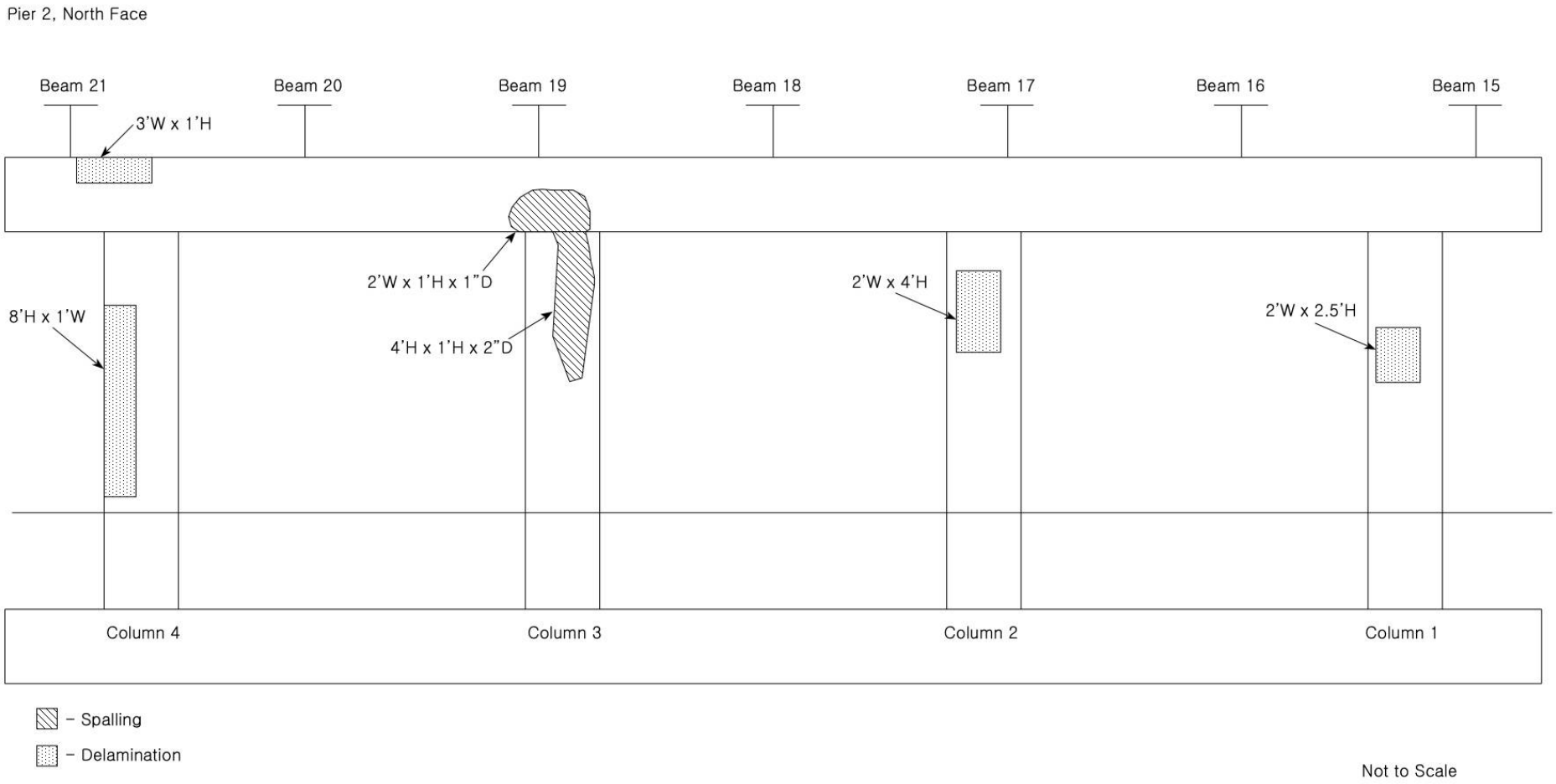

Sketch 13: Pier 2, North Face - Defects.

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PHOTOS

Photo 1: **Wearing Surface, Span 3, right travel lane has scaling and patching along the right wheel path, and a 6" diameter spall that exposes the waterproofing and deck surface.**

Photo 2: **Deck Underside over Pier 1, Bay 2 concrete repairs have some cracking, minor delaminations, and minor cover spalls.**

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PHOTOS

Photo 3: **South Abutment Joint, right lane, there is a 4' long section cracked concrete header with loose and cracked angle iron. Joint leaks at this location.**

Photo 4: **Pier 2 Joint, right lane has missing steel angle and concrete header patched with HMA, a section of loose steel angle iron, and joint leakage.**

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PHOTOS

Photo 5: Beam 7, south end, has section loss.

Photo 6: Span 1, Beam 2, near midspan, bottom flange is bent.

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PHOTOS

Photo 7: **Span 1, Beam 2, north end at Pier 1, has section loss to the web end. Beam 3 similar.**

Photo 8: **Span 2, Beam 10, north end at Pier 2, has section loss to the lower web. Span 3, Beam 17 has a repair at the south end.**

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PHOTOS

Photo 9: **Span 3, Beam 15, north end at North Abutment, lower web has section loss.**

Photo 10: **Span 3, Beam 21, north end at North Abutment, lower web and bottom flange have section loss.**

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PHOTOS

Photo 11: **Span 2, Beam 9, south end has scrape marks on the bottom flange cover plate.**

Photo 12: **Span 2, Beam 14, north end at Pier 2, bearing sole plate overhangs the front edge of the masonry plate by up to 1" despite moderate temperatures.**

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PHOTOS

Photo 13: **Span 3, Beam 20, south end at Pier 2, bearing has packrust between the bottom flange and the sole plate.**

Photo 14: **Span 2, Beam 14, south end, weld from the diaphragm connection plate to the beam web is cracked.**

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PHOTOS

Photo 15: Span 2, Beam 14, south end, close view of weld crack.

Photo 16: Timber Shoring in place at Pier 2, Bay 1.

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PHOTOS

Photo 17: Pier 1 Cap, south face, spalling at the east end.

Photo 18: Pier 2 Cap, south face, spalling at the east end.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10D	N-19-064	N19064-10D-DOT-NBI	AUG 8, 2024

PHOTOS

Photo 19: Pier 1, Column 2, south face has a spall with exposed spiral rebar.

Photo 20: Pier 2, Column 3, south face has a spall with exposed spiral rebar.

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Report Date: June 24, 2025

State Information

BDEPT#= N19064 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 10D AASHTO= 080.4

RANK= 2162 H.I.= 88.5 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	N1906410DDOTNBI
(5) Inventory Route	111000913
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**HWY DAMON RD**
(7) Facility Carried	**I 91 SB**
(9) Location	MM 25.5 ON I-91 SB
(11) Kilometerpoint	0041.061
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 20 MIN 18.97 SEC
(17) Longitude	72 DEG 38 MIN 02.48 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr:	
Other	Code 000
(45) Number of spans in main unit	003
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Built-up	Code 1
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 02	Under structure 02
(29) Average Daily Traffic	013969
(30) Year of ADT 2023	(109) Truck ADT 05 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0022.0 M
(49) Structure Length	00046.4 M
(50) Curb or sidewalk: Left 00.5 M	Right 00.5 M
(51) Bridge Roadway Width Curb to Curb	011.6 M
(52) Deck Width Out to Out	013.5 M
(32) Approach Roadway Width (w/shoulders)	011.6 M
(33) Bridge Median - No median	Code 0
(34) Skew 46 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	11.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.39 M
(55) Min Lat Underclear RT ref H	00.0 M
(56) Min Lat Underclear LT	00.9 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	L
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	Y
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	54.4
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	32.6
(70) Bridge Posting	0
(41) Structure - Open with shoring	D

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	6
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	7
(36) Traffic Safety Features	1 0 0 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 08/08/24			(91) Frequency 24 MO	
(92) Critical Feature Inspection:				(93) CFI DATE
(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	10/23/23
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	07/07/98

Rating Loads

Report Date 07/01/19	H20	Type 3	Type 3S2	Type HS
Operating	39.0	50.0	76.0	58.0
Inventory	24.0	31.0	43.0	34.0

Field Posting

Status WAIVED Posting Date 10/17/19

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
Y / Y	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 018

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National Bridge Element Inspection

BDEPT#	**N-19-064**	Date	**08/08/2024**
B.I.N.	**10D**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19064-10D-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Northampton**	Team Member(s)	**Andrew T. Lochner**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	6,718.000	☐ %	1,638.999	5,079.000		
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	5,079.000	☐ %		5,079.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	5,779.000	☐ %	5,728.000	50.000	1.000	
Notes :									
> > 3210	*Del/Spall/Patch/Pot(Wear Surf)*	sq feet	2	51.000	☐ %		50.000	1.000	
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,197.000	☐ %	1,067.000	130.000		
Notes :									
> 1000	*Corrosion*	feet	2	130.000	☐ %		130.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	10,414.000	☐ %	175.000	10,239.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	10,414.000	☐ %	175.000	10,239.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	140.000	☐ %	25.000	115.000		
Notes :									
> 1000	*Corrosion*	feet	3	115.000	☐ %		115.000		
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,218.000	☐ %	220.000		998.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,218.000	☐ %	220.000		998.000	
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-064**	Date	**08/08/2024**
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Item 8	**N19064-10D-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Northampton**	Team Member(s)	**Andrew T. Lochner**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
205	**Re Conc Column**	each	2	4	☐ %		3	1	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	each	2	2	☐ %		1	1	
Notes :									
> 1130	*Cracking (RC and Other)*	each	2	2	☐ %		2		
Notes :									
205	**Re Conc Column**	each	3	4	☐ %		2	2	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	each	3	4	☐ %		2	2	
Notes :									
215	**Re Conc Abutment**	feet	3	124.000	☐ %	120.000	4.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	4.000	☐ %		4.000		
Notes :									
234	**Re Conc Pier Cap**	feet	2	62.000	☐ %	50.000	8.000	4.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	4.000	☐ %		4.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	8.000	☐ %		4.000	4.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	62.000	☐ %	52.000	10.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	10.000	☐ %		10.000		
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-064**
B.I.N. **10D**
Item 8 **N19064-10D-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **08/08/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Andrew T. Lochner**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
306	**Other Joint**	feet	2	164.000	☐ %	148.000		16.000	
Notes :									
> 2310	*Leakage*	feet	2	16.000	☐ %			16.000	
Notes :									
311	**Moveable Bearing**	each	3	21	☐ %	14	5	2	
Notes :									
> 1000	*Corrosion*	each	3	7	☐ %		5	2	
Notes :									
> 515	Steel Protective Coating	sq feet	3	42.000	☐ %	4.000	38.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	42.000	☐ %	4.000	38.000		
Notes :									
313	**Fixed Bearing**	each	2	14	☐ %	10	4		
Notes :									
> 1000	*Corrosion*	each	2	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	2	28.000	☐ %	8.000	20.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	28.000	☐ %	8.000	20.000		
Notes :									
313	**Fixed Bearing**	each	3	7	☐ %		6	1	
Notes :									
> 1000	*Corrosion*	each	3	7	☐ %		6	1	
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-064**	Date	**08/08/2024**
B.I.N.	**10D**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19064-10D-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Northampton**	Team Member(s)	**Andrew T. Lochner**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 515	Steel Protective Coating	sq feet	3	14.000	☐ %	6.000	8.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	14.000	☐ %	6.000	8.000		
Notes :									
330	**Metal Bridge Railing**	feet	2	304.000	☐ %	304.000			
Notes :									
331	**Re Conc Bridge Railing**	feet	3	304.000	☐ %	273.000	31.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	31.000	☐ %		31.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 16

STRUCTURES INSPECTION FIELD REPORT

ROUTINE & SPECIAL MEMBER INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10E	N-19-066

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19066-10E-DOT-NBI	042.003	A:OPEN	APR 2, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB OFF RAMP		1963	1993	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
US 5 /ST10/N KING ST	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	A. Power

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	7°C	G. GNIADEK

ITEM 58 — DECK — 7

		DEF
1.Wearing Surface	7	-
2.Deck Condition	7	-
3.Stay-In-Place Forms	7	-
4.Curbs	N	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	N	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	100	100

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 6

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	-
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	7	-
8.Cover Plates	6	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross Frames	7	-
11.Rivets & Bolts	7	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1993

COLLISION DAMAGE: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 4

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	6		M-P
c. Backwalls	N	6		-
d. Breastwalls	N	6		M-P
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	N		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			4	
a. Pedestals	N	7		-
b. Caps	N	5		M-P
c. Columns	N	4		S-A
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 4

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10E	N-19-066	N19066-10E-DOT-NBI	APR 2, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	6	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	0	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not Actual Field Measurement Posted Clearance

	E ft	E in	W ft	W in	meter
	14	2	14	1	4.29
	14	0	14	0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	Y	Y	Y	Y
	7 / 7	7 / 7	7 / 7	7 / 7

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 12

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#:

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 04/01/2013

Inspection data at time of existing rating

I 58: **7** I 59: **7** I 60: **5** Date : 04/12/2012

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON:

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

STRUCTURES INSPECTION FIELD REPORT

ROUTINE & SPECIAL MEMBER INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10E	N-19-066

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	90-ROUTINE INSP. DATE	93*-SPEC. MEMB. INSP. DATE
NORTHAMPTON	N19066-10E-DOT-NBI	042.003	Apr 2, 2024	Apr 2, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	*YR REHAB'D (NON 106)
I 91 SB OFF RAMP		1963	1993	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
US 5 /ST10/N KING ST	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	A. Power

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	7°C	G. GNIADEK

WEIGHT POSTING — *Not Applicable* X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 EJDMT Date: 00/00/0000

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility

At bridge N	At bridge S	Advance N	Advance S

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#:

RATING

Rating Report (Y/N): Y Date: 04/01/2013

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON:

Inspection data at time of existing rating

I 58: 7 I 59: 7 I 60: 5 I 62: - Date : 04/12/2012

SPECIAL MEMBER(S):

	MEMBER	CRACK (Y/N):	WELD'S CONDITION (0-9)	LOCATION OF CORROSION, SECTION LOSS (%), CRACKS, COLLISION DAMAGE, STRESS CONCENTRATION, ETC.	CONDITION PREVIOUS (0-9)	CONDITION PRESENT (0-9)	INV. RATING OF MEMBER FROM RATING ANALYSIS H-20	3	3S2	Deficiencies
A	Item 60.2.c - Columns	N		See remarks in comments section.	5	4	Not Rated			S-A
B										
C										
D										
E										

List of field tests performed:

	I-58	I-59	I-60	I-62
(Overall Previous Condition)	7	7	5	-
(Overall Current Condition)	7	6	4	-

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/ Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10E**	**N-19-066**	**N19066-10E-DOT-NBI**	**APR 2, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound Exit 20 Off-Ramp, north to south, over US 5/State 10 (North King St).

Per bridge plans, the 4 beams per span are numbered west to east and then south to north. The 3 bays per span are numbered west to east. Spans and piers are numbered south to north. The columns per pier are numbered west to east. **See Sketch 1.**

GENERAL REMARKS
Height Clearance Posting:
Lowest clearance is under the west side (Beam 5) of the bridge, at the crown of the road: **14'-1".**

All of the Clearance Signs for 14'-0", are in the proper places, but clearance signs should be posted for 13'-11".

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has minor wear in the wheel paths and a few areas of minor cracking. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Underside has Stay-In- Place (S-I-P) Forms in all bays. **See Photo 2.**

Deck Overhangs have a few minor transverse cracks that extend from the exterior faces of the parapets.

Item 58.3 - Stay-In-Place Forms
Deck has Stay-In-Place (S-I-P) Forms in all bays. **See Photo 2.**

Item 58.7 - Parapets
Railing consists of 32" high Jersey style concrete parapets.

Parapets have full-height vertical hairline to 1/16" wide cracks, which reflect through to each side. **See Photo 3.**

Item 58.13 - Deck Joints
Deck Joints have minor to moderate roadway debris impaction. **See Photo 4.**

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beam lower web ends over the piers have some minor pitting and areas of surface rust with minor rust delamination. **See Photo 5.**

Beams have random areas of peeling or cracked paint with bleeding rust particularly at the beam ends and on the webs of the fascia beams. **See Photo 5.**

Span 1, Beam 4, east face of the web has severe peeling paint, and moderate surface rust on the web. **See Photo 6.**

Span 3, Beam 10, at the south end, has a 3.5' long area of moderate rust delamination with 1/2" remaining on the west bottom flange and 3/8" remaining on the lower web at the beam end. **See Photo 7.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10E**	**N-19-066**	**N19066-10E-DOT-NBI**	**APR 2, 2024**

REMARKS

Item 59.8 - Cover Plates

Span 2:

- Cover Plate undersides have several scrape marks from oversized vehicles. **See Photo 2.**
- **Beam 5:**
  - 26' from the north end, east edge of the cover plate has two locations of minor gauges over a 3' length, up to 14" long x 3/4" deep. **See Photo 8.**
  - 50' from the north end, west edge of the cover plate has an area of minor collision damage 14" long x up to 1/4" upward deflection.
- **Beam 6,** 26' from the north end, east edge has minor collision damage with insignificant gauges.
- **Beam 7,** 26' from the north end, east edge has minor collision damage with insignificant gauges.
- **Beam 8:**
  - 26' from the north end, east edge has minor collision damage with insignificant gauges.
  - 50' from the north end, west edge has minor collision damage with insignificant gauges.

Item 59.9 - Bearing Devices

Some Bearings have minor to moderate surface rust and impacted rust between the sole plates and masonry plates. **See Photo 9.**

South Abutment, Beam 1 Bearing, west anchor bolt nut is not fully engaged.

Pier 1:

- Beam 1, west anchor bolt nut is missing. **See Photo 9.**
- Beam 2 & 3, east anchor bolt nut is missing.

Pier 2, Beam 11 Bearing, east anchor bolt completely missing.

North Abutment, Beam 10 Bearing, east anchor bolt nut is not fully engaged.

Hardened concrete has lodged between Beams 8 & 12 on Pier 2 affecting the movement of the beams. **See Photo 5.**

Item 59.10 - Diaphragms/Cross Frames

Concrete end diaphragms for the strip seal deck joints have been poured twice.

Item 59.14 - Paint/Coating

Paint System at the beam ends is typically cracked and peeling around the edges of the bottom flanges and on the lower portions of the webs. **See Photos 5 & 9.**

Span 1, Beam 4, east face of the web has severe peeling paint. **See Photo 6.**

SuperStructure Collision Notes

See Item 59.8 - Cover Plates for remarks.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments

Item 60.1.b - Bridge Seats

South Bridge Seat, below Bay 2 & Beam 3, is cracked & delaminated, 6.5' wide x 2' long. **See Photo 10.**

North Bridge Seat, below Bay 1 & 2 is cracked & delaminated, up to 9' wide x 2' long and spalled, up to 7' wide x full seat x up to 5" deep. **See Photo 11.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10E**	**N-19-066**	**N19066-10E-DOT-NBI**	**APR 2, 2024**

REMARKS

Item 60.1.c - Backwalls
North & South Backwalls have minor scaling and scattered hairline vertical cracks with & without efflorescence and rust staining.

South Backwall, at the interface with the Southeast Wingwall, has hairline mapcracking with efflorescence staining and bleeding rust.

North Backwall, near the Northwest Wingwall, has hairline mapcracking with efflorescence staining and bleeding rust.

Item 60.1.d - Breastwalls
South Breastwall:
- Below Bay 2 & Beam 3, top of wall has a 1/2" wide x 6.5' long horizontal crack, delamination, 6.5' wide x up to 8" high, and spalling up to 3' wide x up to 8" high x up to 3" deep. **See Photo 10.**
- Bay 3, top of wall has a 1/8" wide x 2.5' long horizontal crack.
- Below Bay 3 & Beam 4, half way down breastwall, has a 2.5' long x hairline to 1/8" wide horizontal crack that runs to the Southeast Wingwall.

North Breastwall:
- Below Bay 1 & Bay 2, top of wall is spalled, 7' long x up to 9" high x various depths into the seat, with one exposed horizontal rebar that is rusted and debonded. **See Photo 11.**
- Below Beam 9, the top of wall has a 1/16" wide horizontal crack that extends 3' from the west end of the abutment.

Item 60.1.e - Wingwalls
Southwest Wingwall has a 1/16" wide circular crack with leaching efflorescence.

Item 60.1.f - Slope Paving/Rip-Rap
Paving stones have some vegetation growing between stones.

Item 60.2 - Piers or Bents
Item 60.2.b - Caps
Pier 1:
- South Face, below Beam 2, has a horizontal crack, 5' long x 1/8" wide.
- North Face:
  - Bay 1 has a horizontal crack, 1/4" wide x 7' long.
  - Bay 2 has a horizontal crack, 1/8" wide x 5' long.
  - Below Beam 7 is a horizontal crack, 1/16" wide x 3' long.
- Underside Face:
  - Scattered hairline to 1/16" wide longitudinal cracks.
  - Spall east of Column 2, 2' diameter x 1" deep.

Pier 2:
- South Face, below Bay 1, has a 1/8" wide x 14' long horizontal crack with bleeding rust at the top and a 5' long 1/16" wide crack near the bottom.
- North Face:
  - Bay 1 has a hairline to 1/16" wide cracking with bleeding rust.
  - Below Beam 10, the lower corner has a spall with exposed rebar that extends onto the underside, 2.6' long x 1.3' wide x up to 4" deep, and a 1/16" wide horizontal crack that extends westerly from the spall.
- Underside Face:
  - Several delaminated areas.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10E**	**N-19-066**	**N19066-10E-DOT-NBI**	**APR 2, 2024**

REMARKS

- Bay 1 has hairline mapcracking.
- Under Beam 10, has a spall with exposed rebar, 3' long x 2' wide x 4" deep. **See Photo 12.**
- Under Beam 11, has a spall with exposed rebar, 3' long x 16" wide x 3" deep.

Item 60.2.c - Columns

Pier 1:

- **Column 1:**
  - Top North Face is cracked, delaminated, 1.5' wide x 3.5' high, with spalls up to 6" diameter x 1" deep.
  - South Face is cracked, delaminated, 2' wide x 4' high.
- **Column 2:**
  - North Face is cracked, delaminated, 4' wide x 4' high.
  - South Face is cracked, delaminated, 1' wide x 2' high.
- **Column 3,** top North Face is spalled 3' wide x 3.5' high x 2" deep with exposed spiral rebar cage. **See Photo 13.**

Pier 2:

- **Column 1:**
  - Widespread spalling with exposed spiral rebar cage and hollow sounding concrete between the spiral rebars all remaining surface concrete is cracked and delaminated. **See Photo 14.**
  - South Face:
    - Spalled 8' high x 2.5' wide x 2.5" deep with exposed spiral rebar cage
    - Near top, 5 consecutive broken spiral rebars over a 17" height.
    - Near top, exposed vertical rebar 1' high.
  - East Face:
    - Spalled 10' high x 3' wide x 2.5" deep with exposed spiral rebar.
    - Small void at mid-height, 1" diameter x 4" penetration.
  - North face:
    - Spalled 6' high x 1.5" wide x 2.5" deep with exposed spiral rebar.
- **Column 2:**
  - South face is cracked and delaminated at bottom and top of column, up to 3' wide x 4' high.
  - Northeast Face, at mid-height, is spalled with exposed rebar, 14" wide x 2.5' high x 2" deep.
  - Area just above this spall is cracked and delaminated, 1.5' wide x 3' high.

TRAFFIC SAFETY

Item 36a - Bridge Railing

Refer to Item 58.7. - Parapets.

Item 36b - Transitions

Transitions consists of nested steel W-Beam guardrail bolted to the parapets, on steel H-posts with steel offset blocks.

Item 36c - Approach Guardrail

Approach guardrails consist of steel W-beam on steel H-posts with steel offset blocks.

Northwest Approach guardrail has minor collision damage.

Item 36d - Approach Guardrail Ends

Northwest Approach guardrail (leading end) has Tangent End Treatment.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10E**	**N-19-066**	**N19066-10E-DOT-NBI**	**APR 2, 2024**

REMARKS

Northeast Approach guardrail (leading end) has a terminal end with timber posts.

Southeast & Southwest Approach guardrails (trailing ends) have terminal ends with timber posts.

Sketch / Photo Log

Sketch 1 : Framing Plan with minimum vertical clearance.
Photo 1 : Approaches & Wearing Surface are in good condition. All Deck Joints have minor debris impaction.
Photo 2 : Deck Underside has S-I-P forms in all bays. Beams cover plates have multiple scrapes over the travel lanes.
Photo 3 : Parapet outer faces have vertical hairline cracks.
Photo 4 : Pier 2 Joint has full width debris impaction.
Photo 5 : Beam ends have peeling paint and surface rust. Pier 2, east end, there is concrete lodged between Beam 8 & Beam 12, potentially restricting movement.
Photo 6 : Span 1, Beam 4, east face of web, has severe peeling paint and moderate surface rust.
Photo 7 : Span 3, Beam 10, at Pier 2 has section loss to the web and bottom flange.
Photo 8 : Span 2, Beam 5, cover plate east edge has collision damage, 26' from the north end.
Photo 9 : Bearings have moderate rust throughout. Beam 1, Bearing at Pier 1, is missing the west anchor bolt nut.
Photo 10 : South Bridge Seat & Breastwall, at Bay 2 & Beam 3, has cracking, delaminations, and spalling.
Photo 11 : North Bridge Seat & Breastwall, below Bay 1 & 2, are severely cracked, delaminated and spalled.
Photo 12 : Pier 2 Cap, bottom face, has cracking and spalling between Columns 1 & 2.
Photo 13 : Pier 1, Column 3, top North Face is spalled with exposed rebar cage.
Photo 14 : Pier 2, Column 1, has severe spalling with exposed deteriorated spiral rebars, hollow sounding internal concrete, and one exposed vertical rebar.

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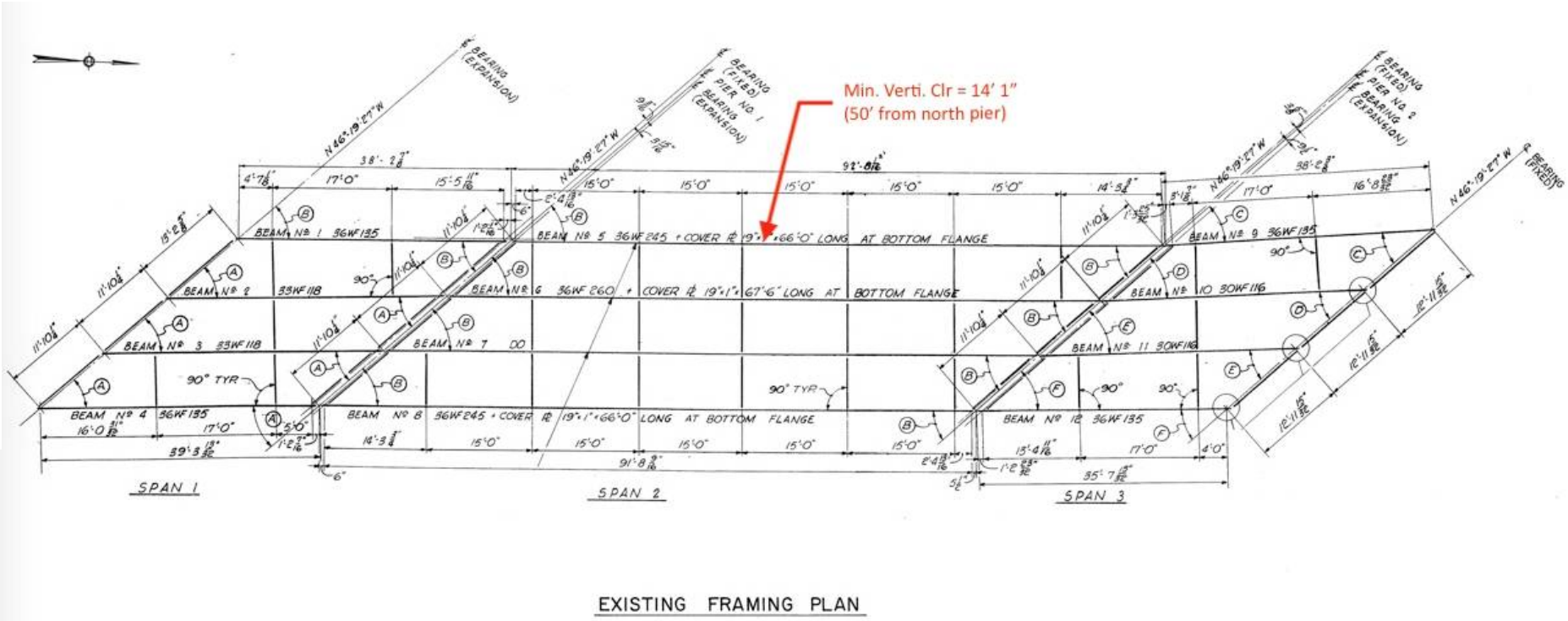
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	10E	N-19-066	N19066-10E-DOT-NBI	APR 2, 2024

SKETCHES



EXISTING FRAMING PLAN

Sketch 1: Framing Plan with minimum vertical clearance.

REM.(2)2-21

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10E	N-19-066	N19066-10E-DOT-NBI	APR 2, 2024

PHOTOS

Photo 1: **Approaches & Wearing Surface are in good condition. All Deck Joints have minor debris impaction.**

Photo 2: **Deck Underside has S-I-P forms in all bays. Beams cover plates have multiple scrapes over the travel lanes.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10E	N-19-066	N19066-10E-DOT-NBI	APR 2, 2024

PHOTOS

Photo 3: Parapet outer faces have vertical hairline cracks.

Photo 4: Pier 2 Joint has full width debris impaction.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10E	N-19-066	N19066-10E-DOT-NBI	APR 2, 2024

PHOTOS

Photo 5: **Beam ends have peeling paint and surface rust. Pier 2, east end, there is concrete lodged between Beam 8 & Beam 12, potentially restricting movement.**

Photo 6: **Span 1, Beam 4, east face of web, has severe peeling paint and moderate surface rust.**

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NORTHAMPTON	10E	N-19-066	N19066-10E-DOT-NBI	APR 2, 2024

PHOTOS

Photo 7: **Span 3, Beam 10, at Pier 2 has section loss to the web and bottom flange.**

Photo 8: **Span 2, Beam 5, cover plate east edge has collision damage, 26' from the north end.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10E	N-19-066	N19066-10E-DOT-NBI	APR 2, 2024

PHOTOS

Photo 9: **Bearings have moderate rust throughout. Beam 1, Bearing at Pier 1, is missing the west anchor bolt nut.**

Photo 10: **South Bridge Seat & Breastwall, at Bay 2 & Beam 3, has cracking, delaminations, and spalling.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**10E**	**N-19-066**	**N19066-10E-DOT-NBI**	**APR 2, 2024**

PHOTOS

Photo 11: **North Bridge Seat & Breastwall, below Bay 1 & 2, are severely cracked, delaminated and spalled.**

Photo 12: **Pier 2 Cap, bottom face, has cracking and spalling between Columns 1 & 2.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	10E	N-19-066	N19066-10E-DOT-NBI	APR 2, 2024

PHOTOS

Photo 13: **Pier 1, Column 3, top North Face is spalled with exposed rebar cage.**

Photo 14: **Pier 2, Column 1, has severe spalling with exposed deteriorated spiral rebars, hollow sounding internal concrete, and one exposed vertical rebar.**

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Report Date: March 11, 2025

State Information

BDEPT#= N19066 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 10E AASHTO= 067.3

RANK= 3021 H.I.= 84.5 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	N1906610EDOTNBI
(5) Inventory Route	117000913
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**US 5 /ST10/N KING ST**
(7) Facility Carried	**I 91 SB OFF RAMP**
(9) Location	EXIT 26 SOUTHBOUND I-91
(11) Kilometerpoint	0042.003
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 20 MIN 27.35 SEC
(17) Longitude	72 DEG 38 MIN 24.47 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	003
(46) Number of approach spans	0000

(107) Deck Structure Type - Concrete Cast-in-Place Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous Code 6

B) Type of membrane - Preformed Fabric Code 2

C) Type of deck protection - Epoxy Coated Reinforcing Code 1

Age and Service

(27) Year Built	1963
(106) Year Reconstructed	1993

(42) Type of Service: On - Highway

Under - Highway Code 11

(28) Lanes: On Structure	01	Under structure	04
(29) Average Daily Traffic			003497
(30) Year of ADT	2022	(109) Truck ADT	06 %
(19) Bypass, detour length			003 KM

Geometric Data

(48) Length of maximum span	0028.0 M
(49) Structure Length	00051.1 M
(50) Curb or sidewalk: Left 00.0 M Right	00.0 M
(51) Bridge Roadway Width Curb to Curb	007.6 M
(52) Deck Width Out to Out	008.6 M
(32) Approach Roadway Width (w/shoulders)	007.6 M

(33) Bridge Median - No median Code 0

(34) Skew 39 DEG (35) Structure Flared N

(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	07.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.29 M
(55) Min Lat Underclear RT ref H	02.0 M
(56) Min Lat Underclear LT	02.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N

(111) Pier Protection Code

(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	N
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	0
(101) Parallel Structure	N
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	N
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	6
(60) Substructure	4
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	83.6
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	49.9
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	4
(68) Deck Geometry	7
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	7
(36) Traffic Safety Features	0 0 0 0
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 04/02/24 (91) Frequency 12 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	Y	12	MO C)	04/02/24
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 04/01/13	H20	Type 3	Type 3S2	Type HS
Operating	43.0	72.0	88.0	75.0
Inventory	28.0	38.0	46.0	40.0

Field Posting

Status LEGAL Posting Date 05/28/13

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
P / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 012

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National Bridge Element Inspection

BDEPT# **N-19-066**
B.I.N. **10E**
Item 8 **N19066-10E-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **04/02/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Gregory Gniadek**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	4,732.000	☐ %	4,496.000	236.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	236.000	☐ %		236.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	4,200.000	☐ %	4,180.000	20.000		
Notes :									
> > 3220	*Crack (Wearing Surface)*	sq feet	2	20.000	☐ %		20.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	557.000	☐ %	437.000	120.000		
Notes :									
> 1000	*Corrosion*	feet	2	120.000	☐ %		120.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	5,498.000	☐ %	4,314.000	1,184.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	1,184.000	☐ %		1,184.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	120.000	☐ %			120.000	
Notes :									
> 1000	*Corrosion*	feet	3	120.000	☐ %			120.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,184.000	☐ %			1,184.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,184.000	☐ %			1,184.000	
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-066**
B.I.N. **10E**
Item 8 **N19066-10E-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **04/02/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Gregory Gniadek**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
205	**Re Conc Column**	each	3	6	☐ %	2	3		1
Notes :									
> 1080	*Delamination/Spall/Patched Area*	each	3	4	☐ %		3		1
Notes :									
215	**Re Conc Abutment**	feet	3	90.000	☐ %	71.000	8.000	11.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	19.000	☐ %		8.000	11.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	82.000	☐ %	44.000	30.000	8.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	38.000	☐ %		30.000	8.000	
Notes :									
300	**Strip Seal Exp Joint**	feet	1	129.000	☐ %	129.000			
Notes :									
311	**Moveable Bearing**	each	3	12	☐ %	8	4		
Notes :									
> 1000	*Corrosion*	each	3	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	3	24.000	☐ %	16.000	8.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	8.000	☐ %		8.000		
Notes :									
313	**Fixed Bearing**	each	3	12	☐ %	8	4		
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-066**	Date	**04/02/2024**
B.I.N.	**10E**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19066-10E-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Northampton**	Team Member(s)	**Gregory Gniadek**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1000	*Corrosion*	each	3	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	3	24.000	☐ %	16.000	8.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	8.000	☐ %		8.000		
Notes :									
331	**Re Conc Bridge Railing**	feet	2	334.000	☐ %	242.000	92.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	92.000	☐ %		92.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 17

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	104	N-19-061

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19061-104-DOT-NBI	039.106	A:OPEN	JAN 12, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 NB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
HWY OLD FERRY RD	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER J. Roy
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	clear	5°C	T. MAZZAFERRO

ITEM 58 — DECK: 7

		DEF
1.Wearing Surface	7	-
2.Deck Condition	7	-
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	7	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	230	230

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N): N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE: 5

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	S-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	7	-
8.Cover Plates	6	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross Frames	7	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1993

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE: 5

	Dive	Cur		DEF
1. Abutments			5	
a. Pedestals	N	N		-
b. Bridge Seats	N	5		M-P
c. Backwalls	N	6		-
d. Breastwalls	N	5		M-P
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	7		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION: N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	6	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	0	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	14	10	14	8	4.47
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	P	Y
Ladder	Y	Y
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	N
RR Flagger	N	N
Police	Y	N
Other:		
	N	N

TOTAL HOURS 12

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 09/01/1991

Inspection data at time of existing rating

I 58: **7** I 59: **5** I 60: **7** Date : 03/26/1990

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE (For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**104**	**N-19-061**	**N19061-104-DOT-NBI**	**JAN 12, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound Lanes, south to north, over Old Ferry Road which travels east and west.

Per bridge plans, the seven steel beams (8 - 14) and bays (1 - 6) are numbered west to east.
See Sketches 1 - 3.

GENERAL REMARKS
Vertical Clearance:
East Approach on Old Ferry Road has a posting for underclearance of 14'-2" for the southbound sister bridge.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has a Saw & Seal Joint at the north end.

Item 58.2 - Deck Condition
Deck Underside has a few scattered, full-depth repair patches.

All bays have a few areas of moisture with hairline cracks and minor leaching efflorescence.

Deck Underside:
- **Bay 2,** over the North Slope has a 3' wide x 3' long delamination.
- **Bay 3,** over eastbound Old Ferry Rd., adjacent Beam 3, the haunch is delaminated 5' long with rust staining.
- **Bay 4,** over westbound Old Ferry Rd. 2' diameter delamination with rust staining and efflorescence.

Deck drains are PVC, held in place by deteriorating C-clamps. Water is leaking around the downspouts, there is corrosion on adjacent beams.

Item 58.4 - Curbs
Granite Curbs have some mortar loss in the joints.

Item 58.7 - Parapets
West Parapet exterior face has a 0.1" wide x 30' long horizontal crack with bleeding rust just below the top edge over Old Ferry Road. **See Photo 1.**

Item 58.8 - Railing
AL-1 Railing is bolted to the top of the 30" high concrete parapets, but are not attached to the concrete endposts.

Steel Thrie-beam guardrail on timber blockouts are bolted through the parapets and run continuously through the approaches.

Item 58.13 - Deck Joints
South Deck Joint, has minimal sand impaction.

Both Joints have signs of leakage from below.

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NORTHAMPTON	**104**	**N-19-061**	**N19061-104-DOT-NBI**	**JAN 12, 2024**

REMARKS

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Steel beams are 36WF182 (original web = 0.725" and flange = 1.18" thick).

Interior Steel Beams have peeling paint with minor surface rust.

The four Fascia Beam ends have severe rust delamination with measurable section loss.

Beam 8, both lower north & south ends, have moderate to severe rust delamination with measurable section loss. **See Sketches 4 & 5 and Photo 2.**

Beam 14, both lower north & south ends, has moderate rust delamination with measurable section loss. **See Sketches 6 & 7 and Photos 3 & 4.**

Item 59.8 - Cover Plates
Undersides of Cover Plates have peeling paint with minor surface rust.

Item 59.9 - Bearing Devices
Fascia Bearings have severe rust delamination. **See Photos 2 - 4.**

Interior Bearings have minor rust delamination.

Item 59.14 - Paint/Coating
Paint System has random areas of peeling paint with minor to moderate surface rust. **See Photos 1 - 4.**

SuperStructure Load Vibration Notes
Bridge has minor vibration can be felt as heavier vehicles cross the bridge.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
South Bridge Seat:

- **West end**, at breastwall interface, is spalled with exposed & debonded rebars, 4' wide x 2' 6" long x up to 10" deep.
- **Bay 1 to Bay 4**, at breastwall interface, delaminated 26' wide x 1' long.

North Bridge Seat:

- **West end**, at wingwall interface, is spalled with exposed & debonded rebars, 3' wide x 2' 6" long x up to 5" deep undermining Bearing 8 by 1". **See Photo 5.**
- **Bay 1** has scaling, 2' wide x 2' 6" long x up to 6" deep.

Item 60.1.c - Backwalls
South Backwall:

- **Bay 1** has minor scaling, 6" wide x 1' high x 1/2" deep.
- **Behind Beam 14**, previously reported scaling has been patched. Formwork was left in place. **See Photo 6.**

Item 60.1.d - Breastwalls
South Breastwall:

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**104**	**N-19-061**	**N19061-104-DOT-NBI**	**JAN 12, 2024**

REMARKS

- **West end,** at bridge seat interface, is spalled with exposed rebars, 4' wide x 1' 4" high x up to 6" deep.
- **Bays 1 - 4,** 6" below the bridge seat, horizontal crack, 21' long x up to 1/2" wide. **See Photo 7.**
- **Bay 2** has a delamination along the crack, 10' long x 6" high.
- **East end,** horizontal cracking 0.25" wide x 4' long.

North Breastwall,

- **Bay 1,** at bridge seat interface, is scaling with exposed rebar, 2' wide x 9" high x up to 6" deep.
- **Bays 2 & 3** have full-height hairline vertical cracks.

Item 60.1.e - Wingwalls
Northwest Wingwall, at bridge seat interface, is spalled with exposed rebars, 2' wide x 4" high x 2" deep.

Item 60.1.k - Settlement
North Breastwall, Bays 2 & 3 have full-height hairline vertical cracks.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions are part of the continuous steel Thrie-beam guardrail mounted on steel posts with plastic offset blocks.

Item 36c - Approach Guardrail
Approach guardrail in the median is continuous Thrie-beam guardrail mounted on steel posts with plastic offset blocks.

Approach guardrail in the shoulder is continuous W-beam guardrail mounted on steel posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends
Southwest Approach guardrail (leading end) has a Tangent End Treatment.

Northwest Approach guardrail (trailing end to one-way traffic) has a terminal end.

Southeast Approach guardrail is attached to another bridge.

Northeast Approach guardrail extends beyond the limits of the bridge.

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Easterly Elevation
Sketch 3 : Cross Section
Sketch 4 : Beam 8, south end, section loss - No Changes Noted.
Sketch 5 : Beam 8, north end, section loss - No Changes Noted.
Sketch 6 : Beam 14, south end, section loss - No Changes Noted.
Sketch 7 : Beam 14, north end, section loss - No Changes Noted.
Photo 1 : West Parapet has horizontal cracking with rust staining to the exterior.
Photo 2 : Beam 8, north end, has section loss.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**104**	**N-19-061**	**N19061-104-DOT-NBI**	**JAN 12, 2024**

REMARKS

Photo 3 : Beam 14, south end, has section loss.
Photo 4 : Beam 14, north end, has section loss.
Photo 5 : North Bridge Seat is scaled and undermining Bearing 8.
Photo 6 : South Backwall, behind Beam 14, previously reported scaling has been repaired, formwork was left in place.
Photo 7 : South Breastwall, Bays 1 - 4, has severe horizontal cracking.

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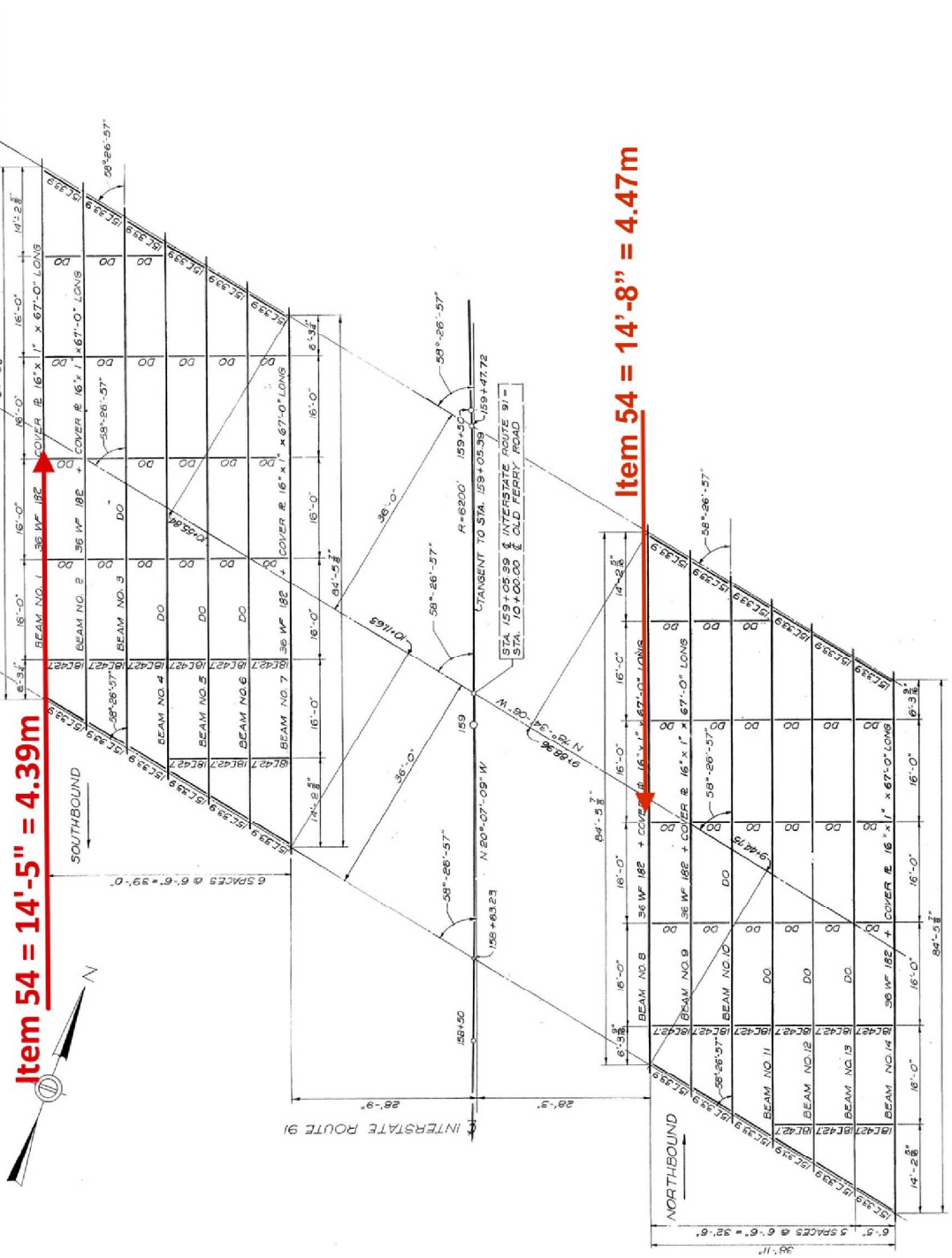
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

SKETCHES



Sketch 1: Framing Plan

REM.(2)2-21

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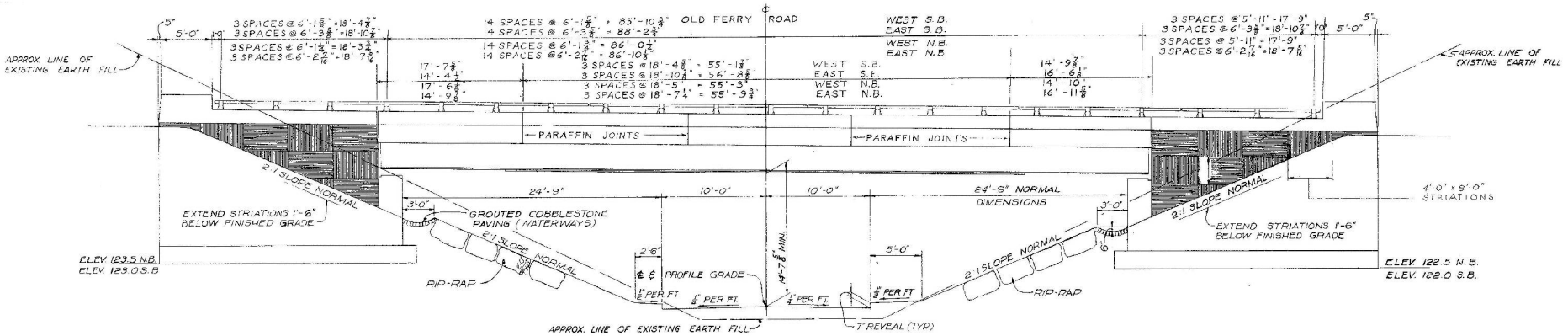
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

SKETCHES



Sketch 2: Easterly Elevation

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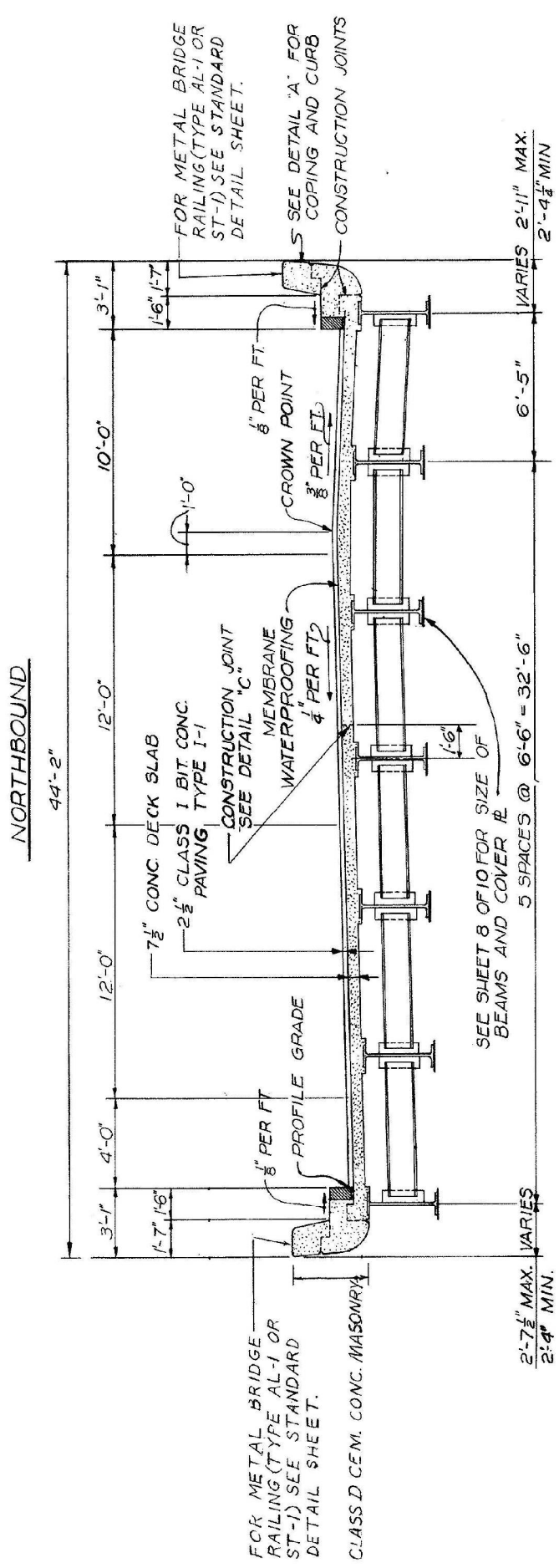
A00808 - 158

Proposal No. 6132190-132950

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

SKETCHES



Sketch 3: Cross Section

REM.(2)2-21

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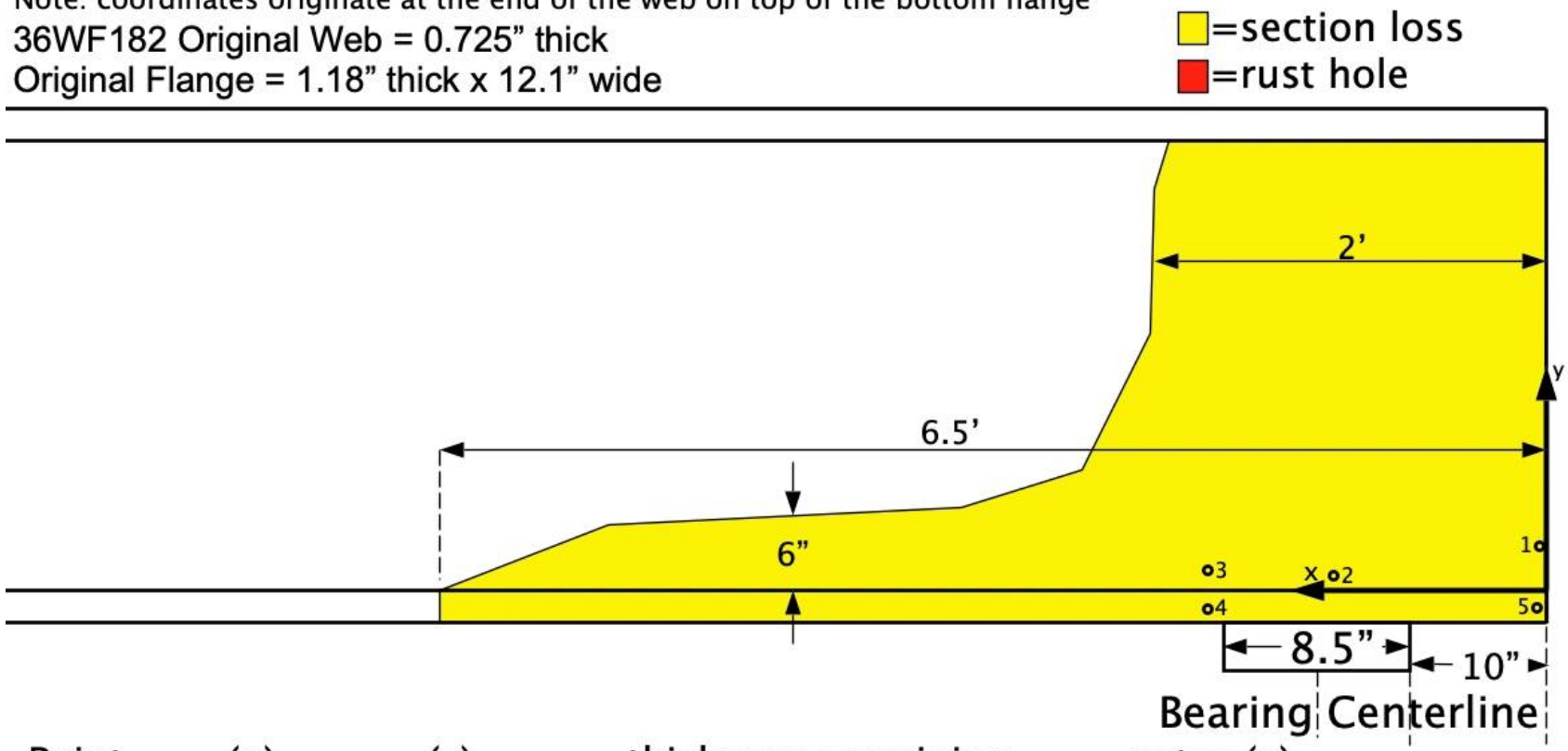
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange
36WF182 Original Web = 0.725" thick
Original Flange = 1.18" thick x 12.1" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	0"	2.5"	0.5"	
2	14"	0.75"	0.4"	
3	21"	1"	0.45"	
4	20.5"	NA	0.9"	12" wide
5	0"	NA	0.8"	12" wide

Sketch 4: Beam 8, south end, section loss - No Changes Noted.

REM.(2)2-21

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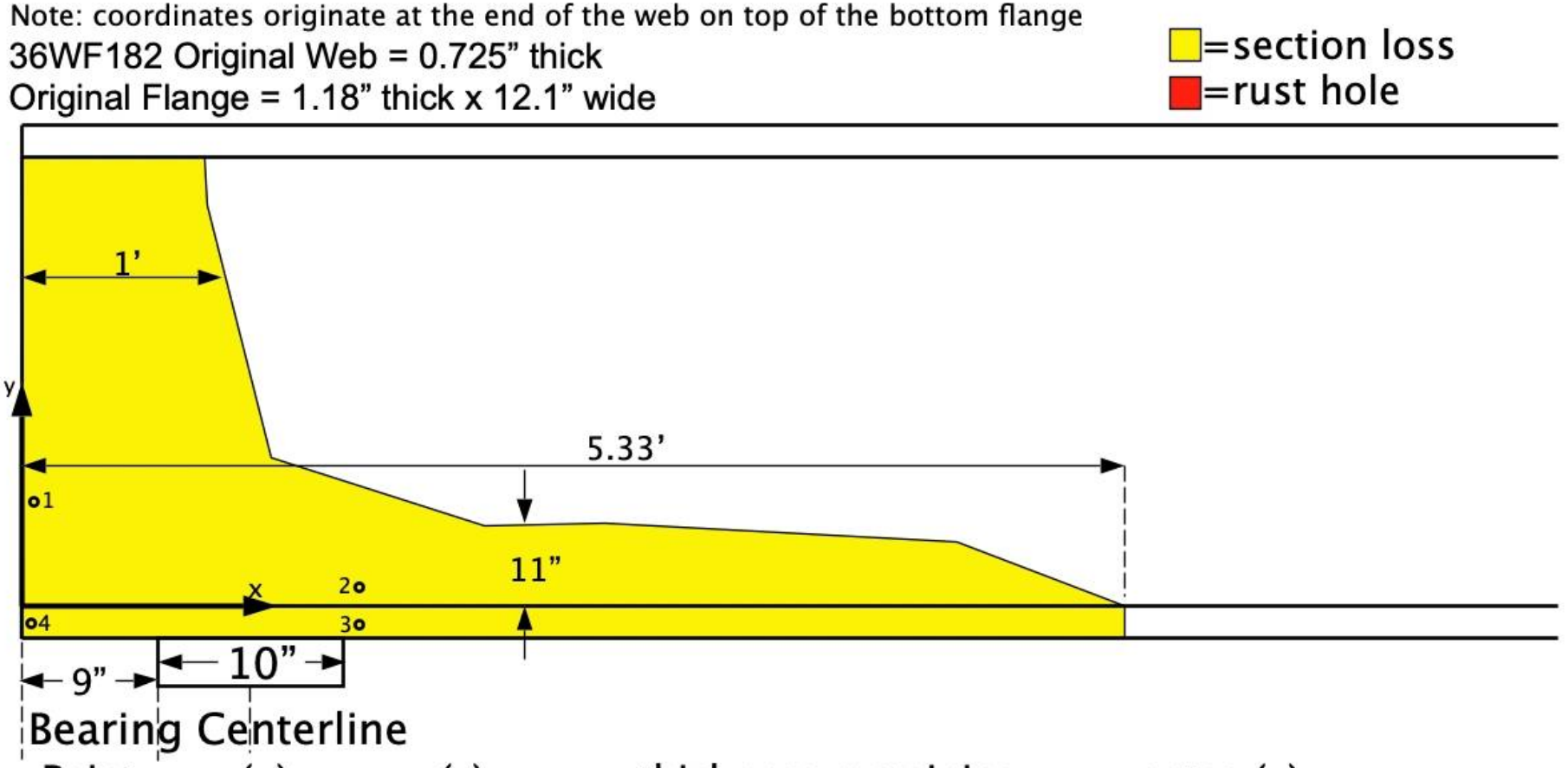
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange

36WF182 Original Web = 0.725" thick

Original Flange = 1.18" thick x 12.1" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	0	11"	0.2"	
2	21"	0.75"	0.2"	
3	21"	NA	0.9"	opposite flange to 0.8"
4	0"	NA	0.8"	12" wide

Sketch 5: **Beam 8, north end, section loss - No Changes Noted.**

REM.(2)2-21

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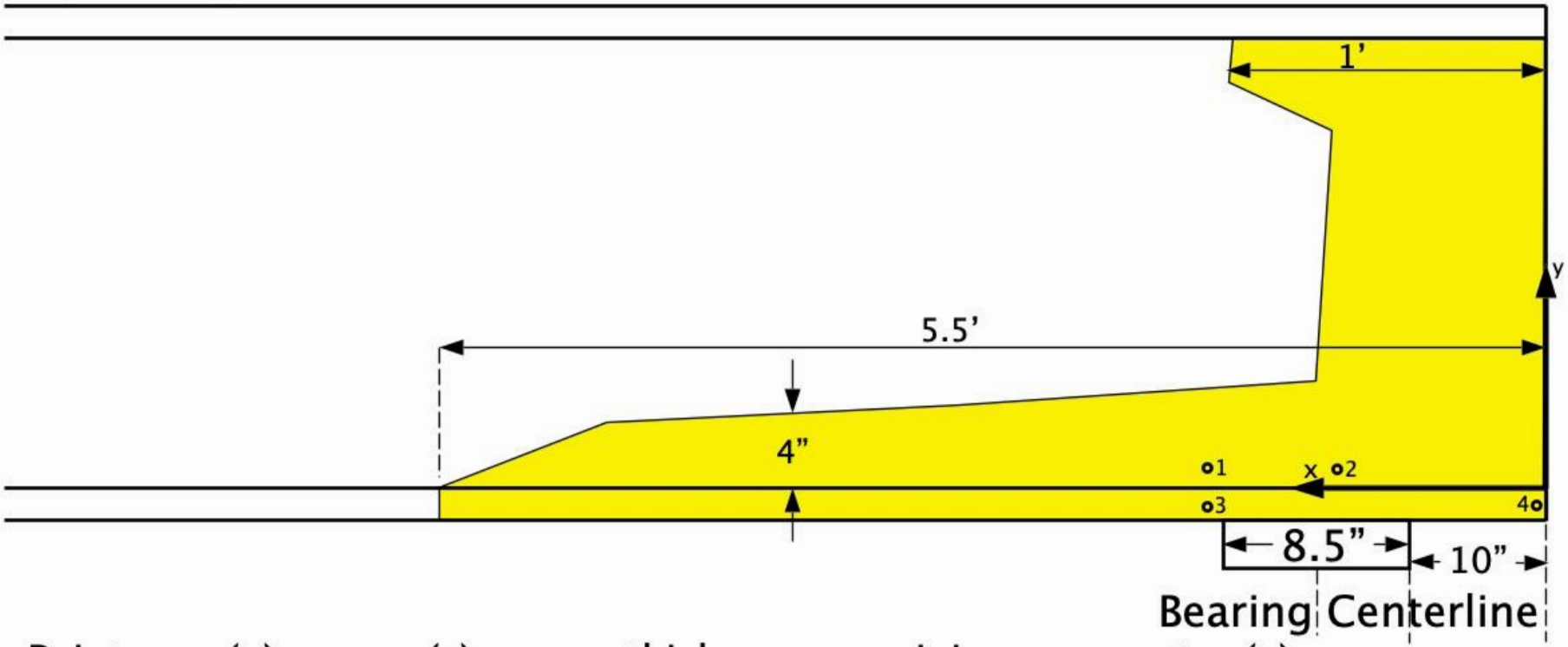
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange
36WF182 Original Web = 0.725" thick
Original Flange = 1.18" thick x 12.1" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	20.5"	1"	0.4"	
2	14"	1"	0.4"	
3	20.5"	NA	1"	12" wide
4	0"	NA	0.8"	12" wide

Sketch 6: Beam 14, south end, section loss - No Changes Noted.

REM.(2)2-21

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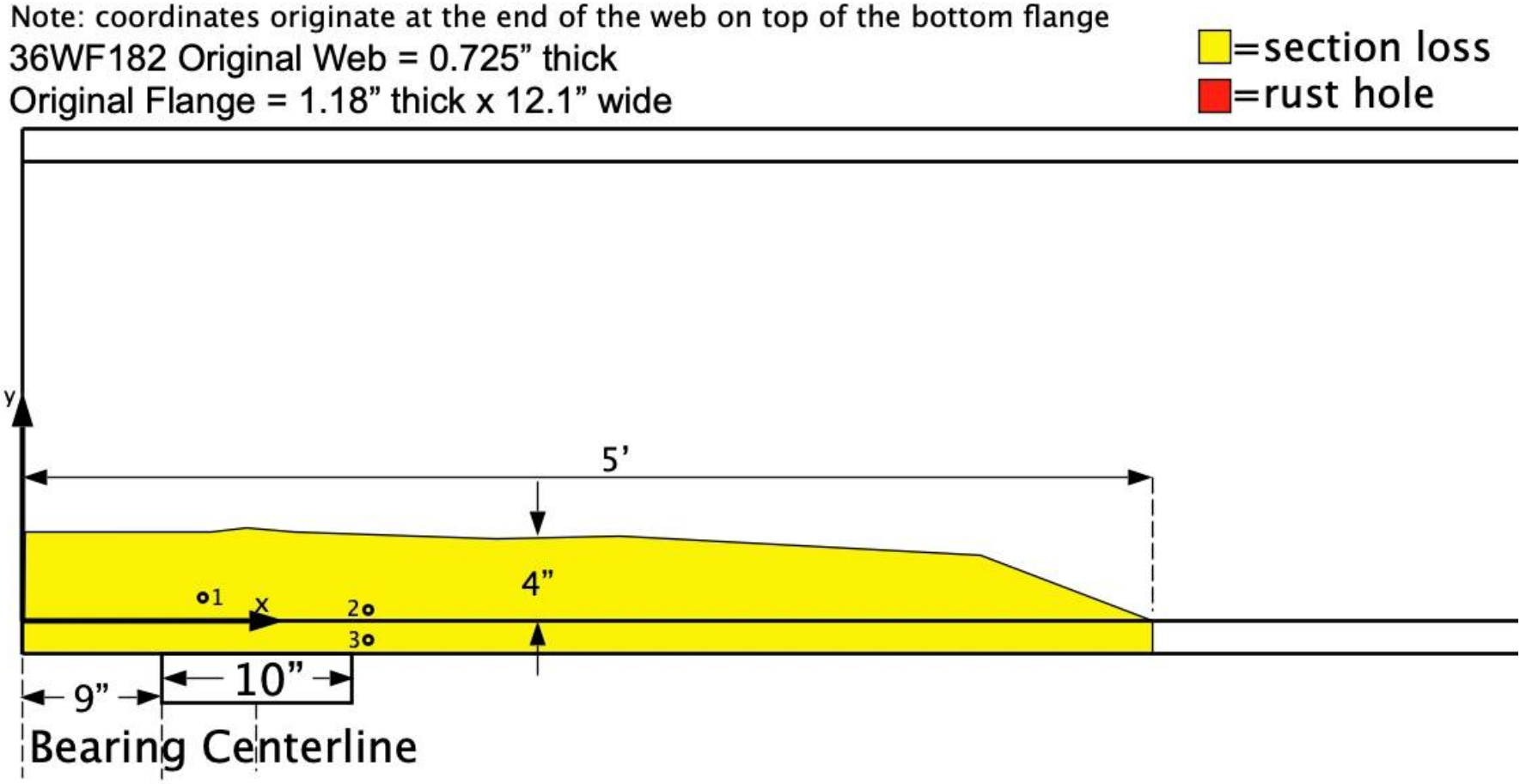
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange

36WF182 Original Web = 0.725" thick

Original Flange = 1.18" thick x 12.1" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	14"	1"	0.3"	
2	20"	0.75"	0.25"	
3	21"	NA	0.9"	12" wide

Sketch 7: Beam 14, north end, section loss - No Changes Noted.

REM.(2)2-21

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

PHOTOS

Photo 1: **West Parapet has horizontal cracking with rust staining to the exterior.**

Photo 2: **Beam 8, north end, has section loss.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

PHOTOS

Photo 3: Beam 14, south end, has section loss.

Photo 4: Beam 14, north end, has section loss.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	104	N-19-061	N19061-104-DOT-NBI	JAN 12, 2024

PHOTOS

Photo 5: **North Bridge Seat is scaled and undermining Bearing 8.**

Photo 6: **South Backwall, behind Beam 14, previously reported scaling has been repaired, formwork was left in place.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**104**	**N-19-061**	**N19061-104-DOT-NBI**	**JAN 12, 2024**

PHOTOS

Photo 7: South Breastwall, Bays 1 - 4, has severe horizontal cracking.

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Report Date: March 11, 2025

State Information

BDEPT#= N19061 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 104 AASHTO= 075.8

RANK= 967 H.I.= 70.5 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	N19061104DOTNBI
(5) Inventory Route	111000911
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**HWY OLD FERRY RD**
(7) Facility Carried	**I 91 NB**
(9) Location	MM 24.3 ON I-91 NB
(11) Kilometerpoint	0039.106
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 19 MIN 39.63 SEC
(17) Longitude	72 DEG 37 MIN 00.11 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No.	#

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr: Other	Code 000
(45) Number of spans in main unit	001
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Preformed Fabric	Code 2
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 02	Under structure 02
(29) Average Daily Traffic	036140
(30) Year of ADT 2018	(109) Truck ADT 05 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0025.8 M
(49) Structure Length	00026.8 M
(50) Curb or sidewalk: Left 00.5 M	Right 00.5 M
(51) Bridge Roadway Width Curb to Curb	011.6 M
(52) Deck Width Out to Out	013.5 M
(32) Approach Roadway Width (w/shoulders)	011.6 M
(33) Bridge Median - No median	Code 0
(34) Skew 32 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	11.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.47 M
(55) Min Lat Underclear RT ref H	00.8 M
(56) Min Lat Underclear LT	00.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	R
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	5
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mo	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	53.5
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	32.0
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	6
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 0
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 01/12/24 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 09/03/91	H20	Type 3	Type 3S2	Type HS
Operating	33.0	60.0	81.0	59.0
Inventory	23.0	34.0	42.0	35.0

Field Posting

Status LEGAL Posting Date 02/13/92

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

P / Y	Liftbucket	N / N	Rigging	N / N	Other
Y / Y	Ladder	N / N	Staging		
N / N	Boat	Y / N	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / N	Police		

Inspection Hours: 012

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National Bridge Element Inspection

BDEPT# **N-19-061**
B.I.N. **104**
Item 8 **N19061-104-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **01/12/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **James Roy**
Team Member(s) **Tony Mazzaferro**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	3,882.000	☐ %	3,882.000			
Notes :									
> 510	Wearing Surfaces	sq feet	2	3,340.000	☐ %	3,340.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	571.000	☐ %		557.000	14.000	
Notes :									
> 1000	*Corrosion*	feet	2	571.000	☐ %		557.000	14.000	
Notes :									
> 515	Steel Protective Coating	sq feet	2	5,053.000	☐ %		5,000.000		53.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	5,053.000	☐ %		5,000.000		53.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	35.000	☐ %		25.000	10.000	
Notes :									
> 1000	*Corrosion*	feet	3	35.000	☐ %		25.000	10.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	310.000	☐ %		200.000	89.000	21.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	310.000	☐ %		200.000	89.000	21.000
Notes :									
215	**Re Conc Abutment**	feet	2	52.000	☐ %	45.000	5.000	2.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	2.000	☐ %			2.000	
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-061**	Date	**01/12/2024**
B.I.N.	**104**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19061-104-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1130	*Cracking (RC and Other)*	feet	2	5.000	☐ %		5.000		
Notes :									
215	**Re Conc Abutment**	feet	3	52.000	☐ %	21.000	5.000	26.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	10.000	☐ %		5.000	5.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	21.000	☐ %			21.000	
Notes :									
302	**Compressn Joint Seal**	feet	2	48.000	☐ %		48.000		
Notes :									
> 2310	*Leakage*	feet	2	48.000	☐ %		48.000		
Notes :									
311	**Moveable Bearing**	each	3	7	☐ %		5	2	
Notes :									
> 1000	*Corrosion*	each	3	7	☐ %		5	2	
Notes :									
> 515	Steel Protective Coating	sq feet	3	14.000	☐ %		10.000		4.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	14.000	☐ %		10.000		4.000
Notes :									
313	**Fixed Bearing**	each	2	7	☐ %	4	1		2
Notes :									
> 1000	*Corrosion*	each	2	3	☐ %		1		2
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-061**	Date	**01/12/2024**
B.I.N.	**104**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19061-104-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 515	Steel Protective Coating	sq feet	2	14.000	☐ %	4.000	6.000		4.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	14.000	☐ %	4.000	6.000		4.000
Notes :									
333	**Other Bridge Railing**	feet	2	270.000	☐ %	216.000		54.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	54.000	☐ %			54.000	
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 15

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	105	N-19-061

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19061-105-DOT-NBI	039.106	A:OPEN	JAN 12, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
HWY OLD FERRY RD	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER J. Roy
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	clear	5°C	T. MAZZAFERRO

ITEM 58 — DECK — 6

		DEF
1.Wearing Surface	7	-
2.Deck Condition	6	-
3.Stay in Place Forms	N	-
4.Curbs	7	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	7	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	6	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	230	230

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 5

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	N	-
8.Cover Plates	7	-
9.Bearing Devices	6	-
10.Diaphragms/Cross Frames	7	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1993

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 6

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	6		M-P
c. Backwalls	N	6		M-P
d. Breastwalls	N	6		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	7		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 6

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	6	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	0	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not Actual Field Measurement

Posted Clearance

	E ft	E in	W ft	W in	meter
	15	2	14	5	4.39
	14	2	14	2	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	Y 7 7	Y 7 7	NR	NR

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	P	Y
Ladder	Y	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 12

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#:

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 05/01/2007

Inspection data at time of existing rating

I 58: **7** I 59: **6** I 60: **6** Date : 01/11/2006

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON:

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**105**	**N-19-061**	**N19061-105-DOT-NBI**	**JAN 12, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound Lanes, north to south, over Old Ferry Road which travels east and west.

Per bridge plans, the seven steel beams (1 - 7) and six bays (1 - 6) are numbered west to east.
See Sketches 1 - 3.

GENERAL REMARKS
Vertical Clearance:
Minimum vertical under clearance is 14' - 5".

Bridge has posting signs on both sides of the bridge for 14' - 2" that act as both the "Advance" & "At Bridge" signs because they are located at the nearest intersection to the bridge. These vertical clearance signs are approximately 30 yards from each side of this bridge.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has a Saw & Seal Joint at the north end.

Item 58.2 - Deck Condition
Deck Underside has numerous patches and some minor deterioration:

- Bay 3, at the end diaphragm, a patch has scaling, 1' wide x 15" long x 2.25" deep with rusting rebar.
- Bay 4, over diaphragms 4 & 5, there are three 1' diameter delaminations and a spall 14" diameter x 2" deep.
- Bay 5, over diaphragms 4 & 5, there is a 1' diameter delamination with cracking and minor abrasion.
- East Overhang, over Old Ferry Road, has few minor pop-out cover spalls. **See Photo 1.**

Item 58.7 - Parapets
Parapets above each of the wingwalls have full-height vertical hairline cracks.

West Parapet, over Old Ferry Road, has horizontal cracking up to 0.03" wide.

Item 58.8 - Railing
AL-1 Railing is bolted to the top of the 30" high concrete parapets, but are not attached to the concrete end-posts.

Steel Thrie-beam guardrail on timber offset blocks are bolted through the parapets and run continuously through the approaches.

Item 58.13 - Deck Joints
North Deck Joint, has a crooked alignment and is minimally impacted with sand.

Both Joints have signs of leakage from below.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
The seven steel beams are 36 WF 182 (original web = 0.725" and flange = 1.18" thick).

Interior Beams are in good condition.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**105**	**N-19-061**	**N19061-105-DOT-NBI**	**JAN 12, 2024**

REMARKS

Beam 1, lower south end and midspan, has moderate to severe rust delamination with measurable section loss. **See Sketches 4 & 5 and Photo 2.**

Beam 7, both lower north & south ends, has moderate rust delamination with measurable section loss. **See Sketches 6 & 7 and Photos 3 & 4.**

Item 59.9 - Bearing Devices
All four Fascia Bearings have moderate rust delamination. **See Photos 2 - 4.**

Item 59.14 - Paint/Coating
Four exterior corners of the fascia beams have moderate surface rust. **See Photos 2 - 4.**

SuperStructure Load Vibration Notes
Bridge has minor vibrations can be felt under heavy live loading.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North Bridge Seat:

- Moderate debris build-up throughout.
- West end, at the breastwall interface, is scaled with exposed rebar, 8" wide x 2' 6" long x 3" deep.
- Adjacent Beam 1 Bearing, scaling 18" diameter x 3" deep.
  See Photo 5.

Item 60.1.c - Backwalls
North & South Backwalls have scattered hairline cracks with leaching efflorescence and few areas of rust staining.

South Backwall, west end and behind Beam 1, formwork left in place. **See Photo 2.**

Item 60.1.d - Breastwalls
South Breastwall, Bays 2 & 3, have hairline up to 0.1" wide x 9' long horizontal cracks just below the bridge seat.

North Breastwall:

- Bays 2, 3, 4, & 6 have hairline vertical cracks.
- Top west end, at the bridge seat interface is spalled, 8" wide x 6" high x 3" deep.

Item 60.1.k - Settlement
North Breastwall has several vertical hairline cracks.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions are part of the continuous steel Thrie-beam guardrail mounted on timber posts with timber spacers.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**105**	**N-19-061**	**N19061-105-DOT-NBI**	**JAN 12, 2024**

REMARKS

Item 36c - Approach Guardrail

Approach guardrail in the median is continuous Thrie-beam guardrail mounted on steel posts with plastic offset blocks.

Approach guardrail in the shoulder is continuous W-beam guardrail mounted on steel posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends

Southeast Approach guardrail (trailing end to one-way traffic) has a terminal end.

Southwest Approach guardrail travels beyond the limits of the bridge.

Northeast Approach guardrail (leading end) has a standard Tangent End Treatment.

Northwest Approach guardrail travels beyond the limits of the bridge.

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Northbound Easterly Elevation, Southbound Easterly Elevation similar.
Sketch 3 : Cross Section
Sketch 4 : Beam 1, south end, section loss - No Changes Noted.
Sketch 5 : Beam 1, midspan, section loss - No Changes Noted.
Sketch 6 : Beam 7, south end, section loss - No Changes Noted.
Sketch 7 : Beam 7, north end, section loss - No Changes Noted.
Photo 1 : East Deck Overhang has few minor cover spalls.
Photo 2 : Beam 1, south end, has section loss.
Photo 3 : Beam 7, north end, has section loss.
Photo 4 : Beam 7, south end, has section loss.
Photo 5 : North Abutment, west end, has scaling with rusting rebar.

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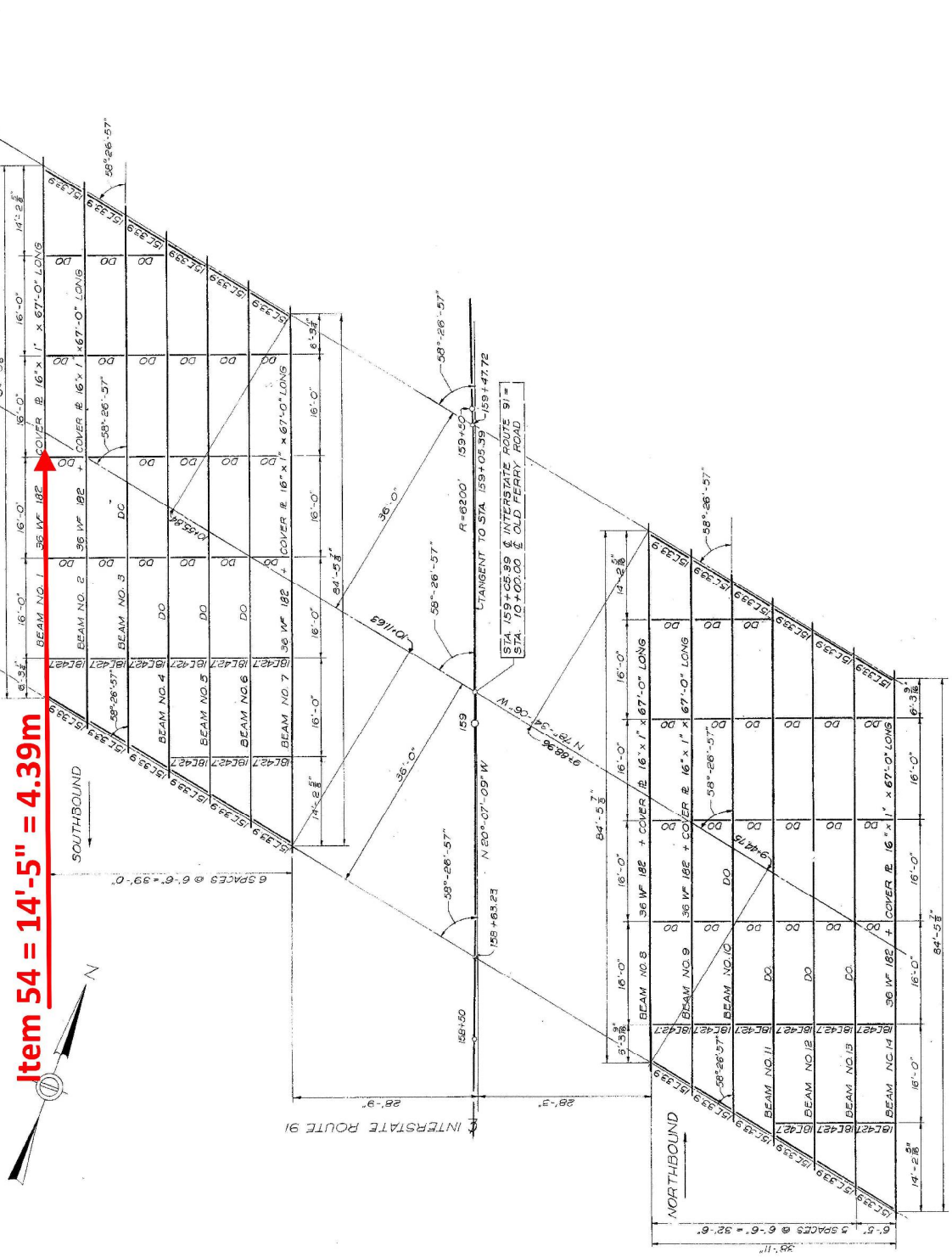
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

SKETCHES



Sketch 1: Framing Plan

REM.(2)2-21

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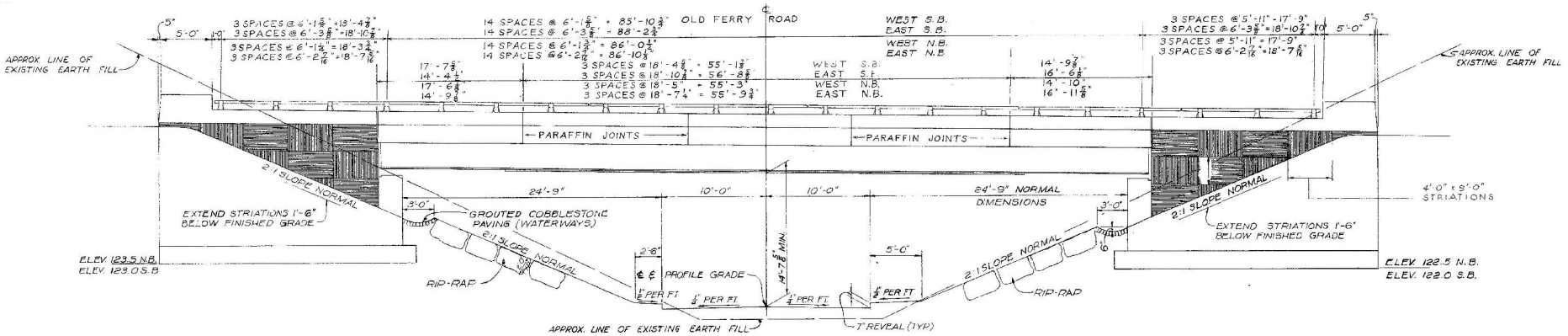
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

SKETCHES



Sketch 2: Northbound Easterly Elevation, Southbound Easterly Elevation similar.

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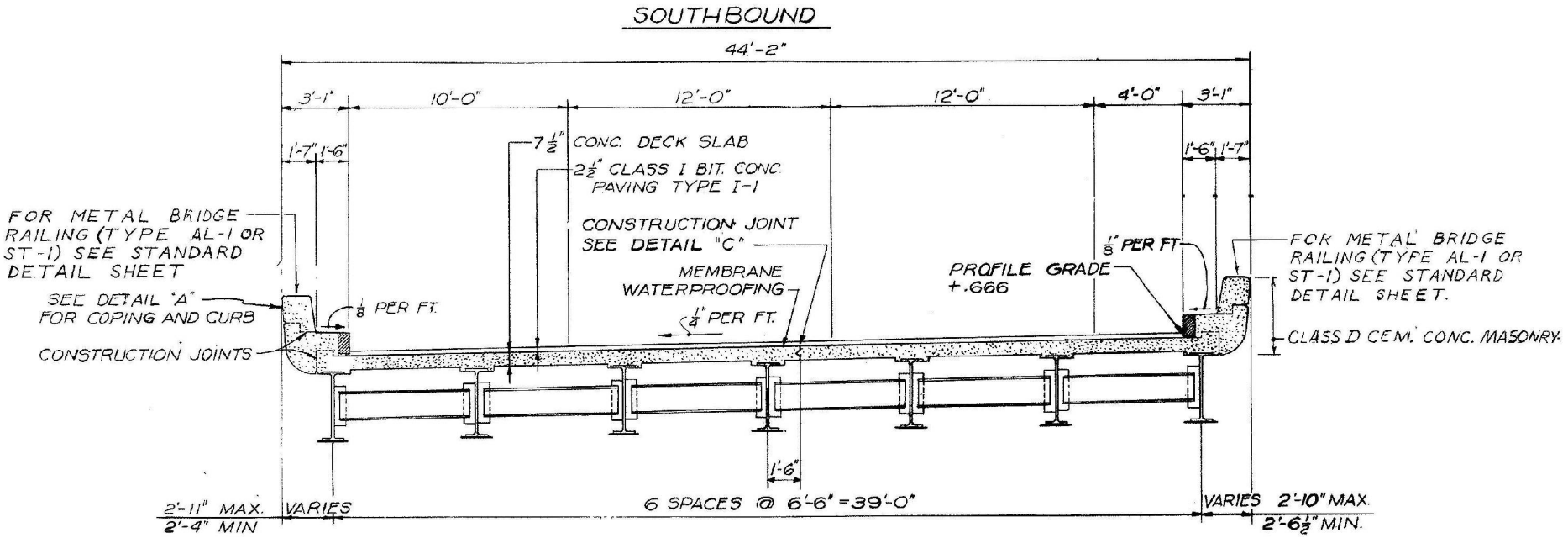
A00808 - 178

Proposal No. 6132I9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

SKETCHES



Sketch 3: Cross Section

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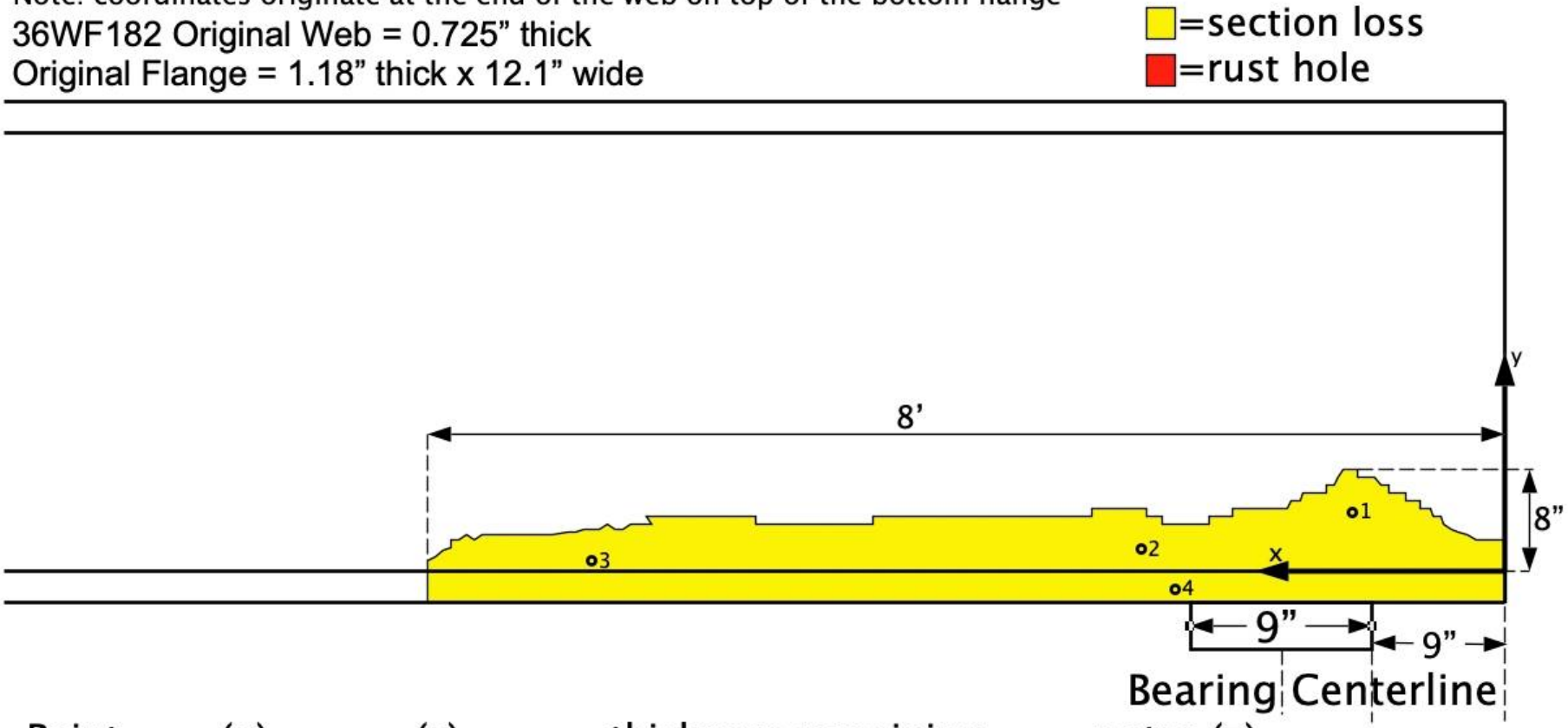
A00808 - 179
Proposal No. 6132219-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange
36WF182 Original Web = 0.725" thick
Original Flange = 1.18" thick x 12.1" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	1'	6"	0.35"	
2	26"	1.5"	0.4	
3	7'	1"	0.4"	
4	19"	NA	1"	12" wide

Sketch 4: Beam 1, south end, section loss - No Changes Noted.

REM.(2)2-21

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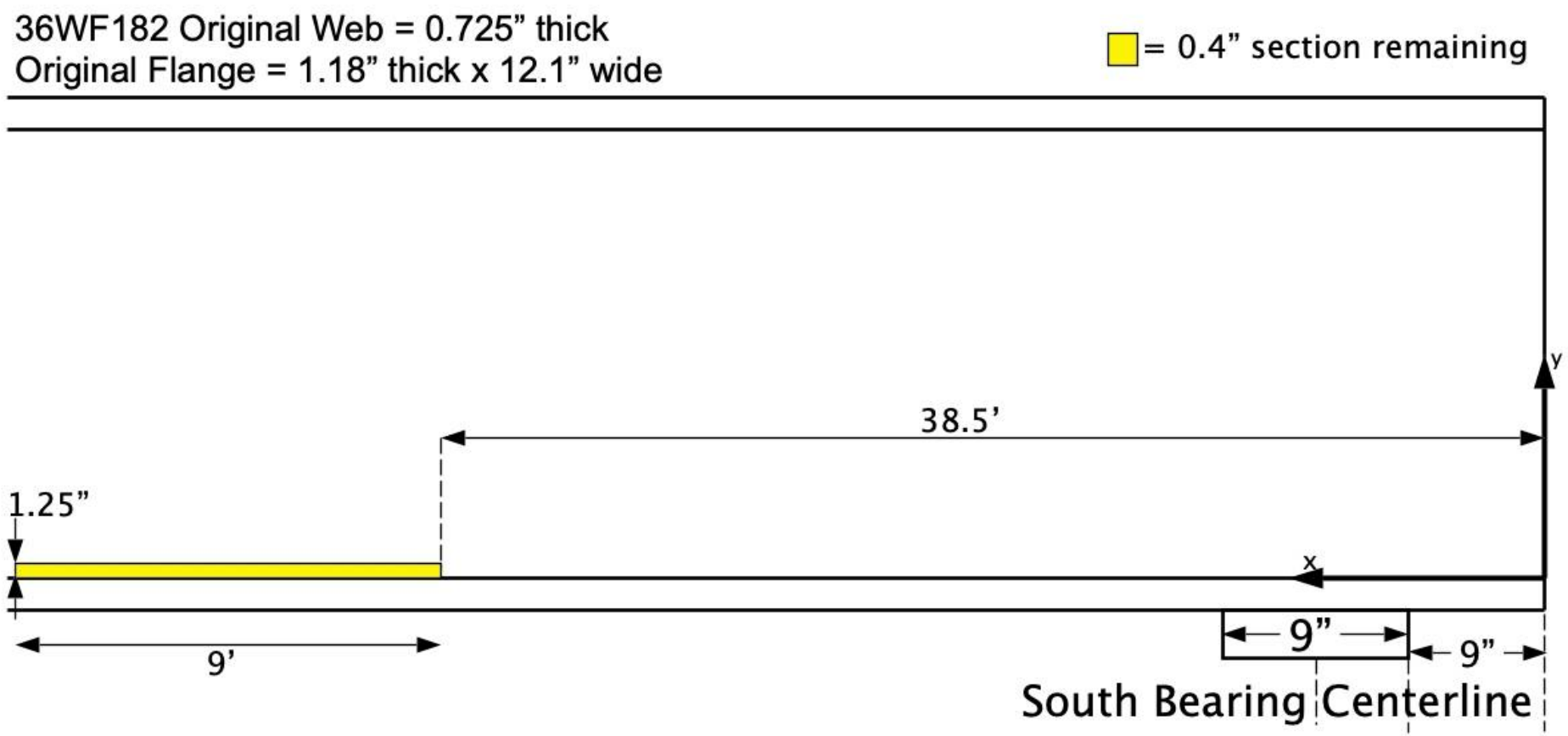
ORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

SKETCHES



Sketch 5: **Beam 1, midspan, section loss - No Changes Noted.**

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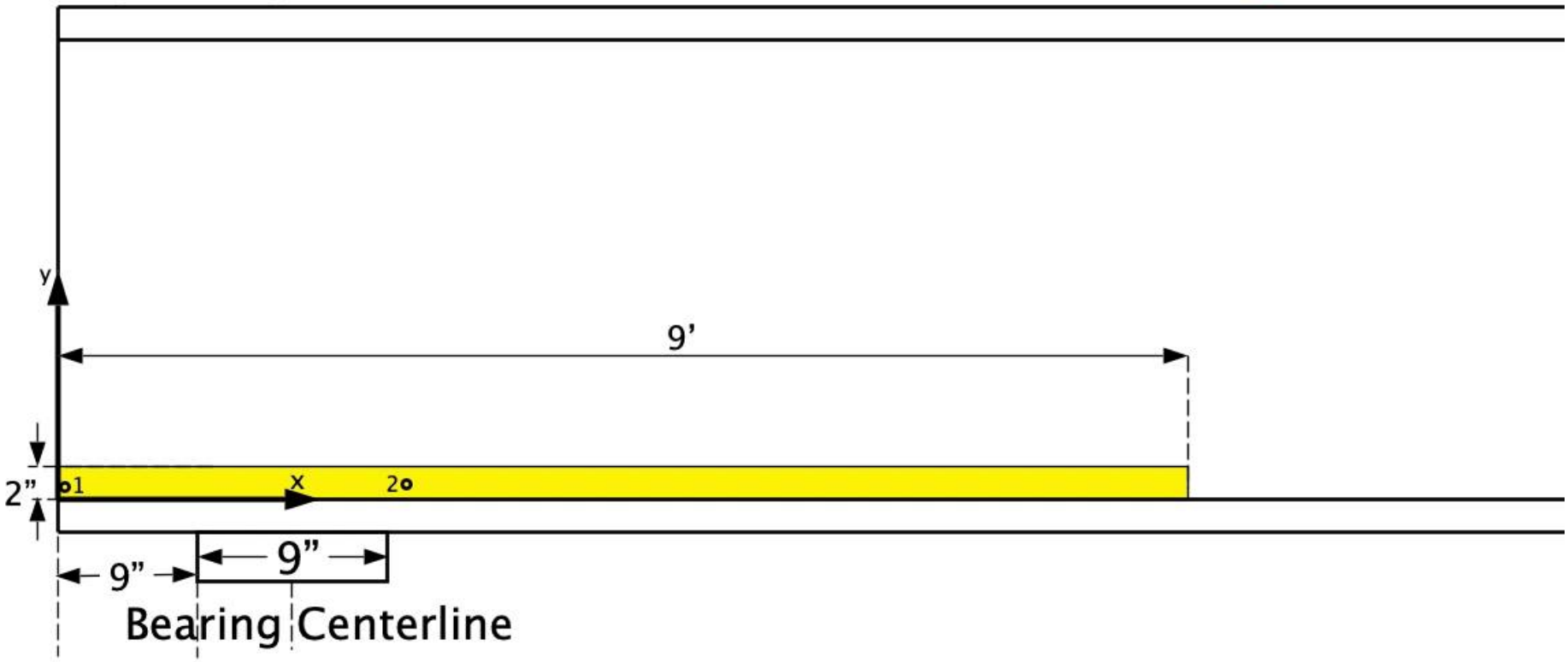
ORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange
36WF182 Original Web = 0.725" thick
Original Flange = 1.18" thick x 12.1" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	0	1"	0.4	
2	19"	0.75"	0.35"	

Sketch 6: **Beam 7, south end, section loss - No Changes Noted.**

REM.(2)2-21

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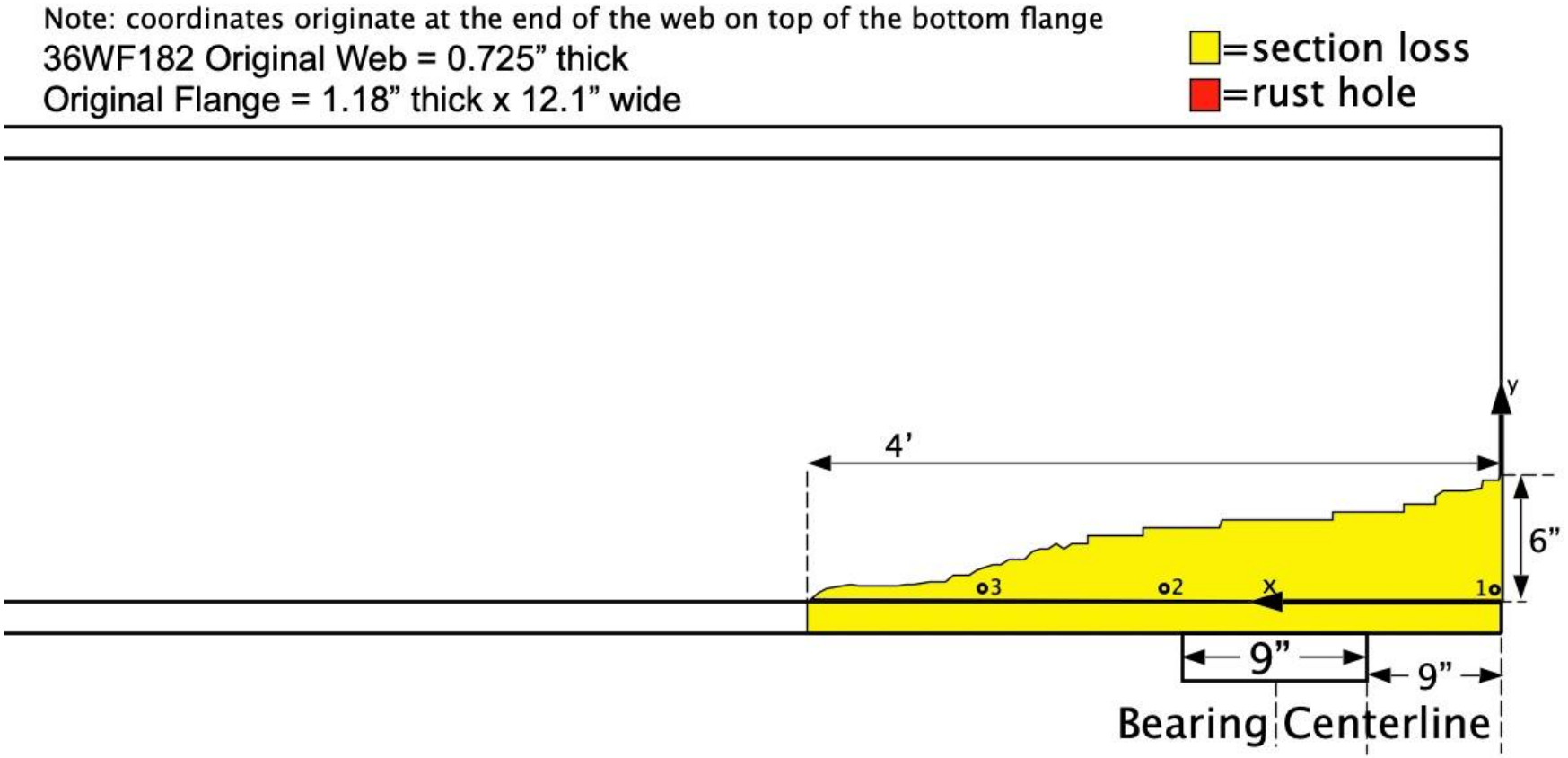
ORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

SKETCHES

Note: coordinates originate at the end of the web on top of the bottom flange
36WF182 Original Web = 0.725" thick
Original Flange = 1.18" thick x 12.1" wide



Point	(x)	(y)	thickness remaining	notes (z)
1	0	3"	0.35	
2	20.5"	1"	0.3"	
3	38"	1"	0.5"	
4	20.5"	NA	1"	12" wide

Sketch 7: Beam 7, north end, section loss - No Changes Noted.

REM.(2)2-21

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NORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

PHOTOS

Photo 1: **East Deck Overhang has few minor cover spalls.**

Photo 2: **Beam 1, south end, has section loss.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	105	N-19-061	N19061-105-DOT-NBI	JAN 12, 2024

PHOTOS

Photo 3: Beam 7, north end, has section loss.

Photo 4: Beam 7, south end, has section loss.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**105**	**N-19-061**	**N19061-105-DOT-NBI**	**JAN 12, 2024**

PHOTOS

Photo 5: North Abutment, west end, has scaling with rusting rebar.

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Report Date: March 11, 2025

State Information

BDEPT#= N19061 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 105 AASHTO= 075.9

RANK= 992 H.I.= 71.7 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	N19061105DOTNBI
(5) Inventory Route	111000913
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**HWY OLD FERRY RD**
(7) Facility Carried	**I 91 SB**
(9) Location	MM 24.3 ON I-91 SB
(11) Kilometerpoint	0039.106
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 19 MIN 39.81 SEC
(17) Longitude	72 DEG 37 MIN 01.53 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr: Other	Code 000
(45) Number of spans in main unit	001
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Preformed Fabric	Code 2
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 02	Under structure 02
(29) Average Daily Traffic	036140
(30) Year of ADT 2018 (109) Truck ADT	00 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0025.8 M
(49) Structure Length	00026.8 M
(50) Curb or sidewalk: Left 00.5 M	Right 00.5 M
(51) Bridge Roadway Width Curb to Curb	011.6 M
(52) Deck Width Out to Out	013.5 M
(32) Approach Roadway Width (w/shoulders)	011.6 M
(33) Bridge Median - No median	Code 0
(34) Skew 32 DEG (35) Structure Flared	N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	11.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.39 M
(55) Min Lat Underclear RT ref H	00.8 M
(56) Min Lat Underclear LT	00.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	L
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	6
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	56.3
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	33.7
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	6
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 0
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 01/12/24 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	05/19/14

Rating Loads

Report Date 05/01/07	H20	Type 3	Type 3S2	Type HS
Operating	33.0	60.0	84.0	60.0
Inventory	23.0	35.0	44.0	37.0

Field Posting

Status LEGAL Posting Date 06/27/07

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

P / Y	Liftbucket	N / N	Rigging	N / N	Other
Y / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 012

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National Bridge Element Inspection

BDEPT#	**N-19-061**	Date	**01/12/2024**
B.I.N.	**105**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19061-105-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	3,882.000	☐ %	3,882.000			
Notes :									
> 510	Wearing Surfaces	sq feet	2	3,340.000	☐ %	3,340.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	571.000	☐ %		551.000	20.000	
Notes :									
> 1000	*Corrosion*	feet	2	571.000	☐ %		551.000	20.000	
Notes :									
> 515	Steel Protective Coating	sq feet	2	5,053.000	☐ %		5,000.000		53.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	5,053.000	☐ %		5,000.000		53.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	35.000	☐ %		25.000	10.000	
Notes :									
> 1000	*Corrosion*	feet	3	35.000	☐ %		25.000	10.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	310.000	☐ %		200.000	89.000	21.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	310.000	☐ %		200.000	89.000	21.000
Notes :									
215	**Re Conc Abutment**	feet	2	52.000	☐ %	44.000	4.000	4.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	4.000	☐ %			4.000	
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-061**	Date	**01/12/2024**
B.I.N.	**105**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19061-105-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1130	*Cracking (RC and Other)*	feet	2	4.000	☐ %		4.000		
Notes :									
215	**Re Conc Abutment**	feet	3	52.000	☐ %	40.000	12.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	12.000	☐ %		12.000		
Notes :									
302	**Compressn Joint Seal**	feet	2	48.000	☐ %		48.000		
Notes :									
> 2310	*Leakage*	feet	2	48.000	☐ %		48.000		
Notes :									
311	**Moveable Bearing**	each	3	7	☐ %		5	2	
Notes :									
> 1000	*Corrosion*	each	3	7	☐ %		5	2	
Notes :									
> 515	Steel Protective Coating	sq feet	3	14.000	☐ %		10.000		4.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	14.000	☐ %		10.000		4.000
Notes :									
313	**Fixed Bearing**	each	2	7	☐ %		5	2	
Notes :									
> 1000	*Corrosion*	each	2	7	☐ %		5	2	
Notes :									
> 515	Steel Protective Coating	sq feet	2	14.000	☐ %	2.000	8.000		4.000
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-061**	Date	**01/12/2024**
B.I.N.	**105**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19061-105-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > *3440*	*Eff (Stl Protect Coat)*	sq feet	2	12.000	☐ %		8.000		4.000
Notes :									
333	**Other Bridge Railing**	feet	2	260.000	☐ %	206.000	54.000		
Notes :									
> *1120*	*Efflorescence/Rust Staining*	feet	2	54.000	☐ %		54.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 23

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	106	N-19-062

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19062-106-DOT-NBI	039.911	D:OPEN	JUN 11, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 NB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
ST 9 BRIDGE ST	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER G. Gilligan
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Clear	18°C	S. J. AUSEVICH

ITEM 58 — DECK — 6

		DEF
1.Wearing Surface	7	-
2.Deck Condition	6	-
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	6	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	7	-
13.Deck Joints	6	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	240	240

APPROACHES

		DEF
a. Appr. Pavement Condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 6

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	-
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	7	-
8.Cover Plates	7	-
9.Bearing Devices	6	M-P
10.Diaphragms/Cross-Frames	7	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1992

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 6

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	6		-
d. Breastwalls	N	6		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	7		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			6	
a. Pedestals	N	6		-
b. Caps	N	6		M-P
c. Columns	N	6		M-P
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 6

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (**X**)

ITEM 61 (Dive Report): **N** *ITEM 61 (This Report):* **N**

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	6	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable **X**

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 06/03/2019 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not ( )

	E ft	E in	W ft	W in	meter
Actual Field Measurement	14	5	15	3	4.39
Posted Clearance	14	0	14	0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	Y 8 8	Y 8 8	NR	NR

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 16

PLANS (Y/N): **Y**

(V.C.R.) (Y/N): **N**

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): **Y**

Date: 01/01/2019

Inspection data at time of existing rating

I 58: **6** I 59: **5** I 60: **5** Date : 06/11/2018

Recommend for Rating or Rerating (Y/N): **N**

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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NORTHAMPTON	**106**	**N-19-062**	**N19062-106-DOT-NBI**	**JUN 11, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound, south to north, over State 9 (Bridge Street) which travels east and west.

Per bridge plans, beams are numbered west to east and south to north, Beam 29 in Span 1 to Beam 56 in Span 4. Bays are numbered west to east per each span. Spans and piers are numbered south to north. The 3 columns per pier are numbered west to east. **See Sketches 1 - 3.**

GENERAL REMARKS
Vertical Posting Signs:
Over State 9 Westbound, minimum clearance was measured to be 15' 3" at the south end of Beam 43. Bridge has a "14 FT 0 IN" sign affixed to the east parapet of this bridge.

Over State 9 Eastbound, minimum clearance was measured to be 14' 6" at the south end of Beam 36. Bridge has a "14 FT 0 IN" sign affixed to the west parapet of the adjacent structure N-19-062 (107). **See Photo 1.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has minor wheel rutting in wheel paths.

Item 58.2 - Deck Condition
Deck Underside:
Span 2:
- Bay 1, north end has a transverse cracks with leaching efflorescence, and patches.
- Bay 5, 9' north of the South Bearing is cracked, delaminated, and spalled, 3' wide x 16" long x 1/2" deep. **See Photo 2.**
- Bay 6, 9' north of the South Bearing is cracked, delaminated, and spalled, 22" wide x 16" long x 1/2" deep. **See Photo 2.**

Deck Overhangs, under the joints there are patched areas, which are typically are scaled and leaking. **See Photo 3.**

Item 58.4 - Curbs
Granite Curbs have some chipping along the edges, with minor mortar loss in the joints. Spans 1, 2, & 4 have 6' sections replaced. **See Photo 4.**

Item 58.7 - Parapets
Concrete Parapets have random patching and steel Thrie-beam guardrail on timber posts have been retrofit and bolted through the parapet walls. **See Photo 4.**

Parapets have hairline cracking with efflorescence.

Item 58.8 - Railing
Railing consists of AL-1 railing mounted on top of the 30" high concrete parapets, with Thrie beam guardrail on wood block offsets bolted through the concrete parapets. **See Photo 4.**

Parapets have hairline cracking with efflorescence.

Item 58.12 - Utilities
Fiber optical conduit is attached to the West Fascia Beams.

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NORTHAMPTON	**106**	**N-19-062**	**N19062-106-DOT-NBI**	**JUN 11, 2024**

REMARKS

Item 58.13 - Deck Joints
Strip Seal Deck Joints typically have a minor build-up of sand & debris, especially along the shoulders. **See Photo 5.**

Previous report dated 6/22/2022 stated that: "Deck Joints are leaking at the deck overhangs."

APPROACHES

Approaches a - Appr. Pavement Condition
North Approach has a few minor 1/16" transverse cracks.

Approaches b - Appr. Roadway Settlement
North Approach has minor settlement.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
End Span Fascia Beams (29, 35, 50 and 56) are 30WF99 (original web = 0.52" and flange = 0.67" thick).
End Span Interior Beams (30 - 34 and 51 - 55) are 24WF76 (original web = 0.44" and flange = 0.68" thick).
Span 2 Beams (36 - 42) are 30WF99 (original web = 0.52" and flange = 0.67" thick) with 9" wide x 0.5" thick x 37' long cover plates.
Span 3 Beams (43 - 49) are 30WF99 (original web = 0.52" and flange = 0.67" thick) with 9" wide x 0.75" thick x 41' long cover plates.

Beams ends have a number of repairs. Most recent repairs were completed in 2020. **See Sketch 4.**

Beams typically have areas of minor to moderate surface rust, especially at the unrepaired beam ends and the bottom flanges, where the paint system is breaking down. **See Photo 6.**

Span 1:
- **Beam 29:**
  - South end, has a bolted steel repair.
  - North end, has a previous welded repair in the lower web, with rust and steel lamination at the upper web**. See Photo 7.**
  - **There is a drilled 3" diameter hole in web to stop propagation of crack.**
- **Beam 31,** north end, web has moderate rust with steel lamination over the bearing.
- **Beam 35,** north end, web and lower flange have moderate rust with lamination. **See Photo 8.**

Span 2:
- **Beam 36:**
  - South end, has a bolted steel repair. **See Photo 9.**
  - North end, has a previous bolted repair.
- **Beam 42:**
  - South end, has a bolted steel repair. **See Photo 10.**
  - North end, has moderate rust along the web end and bottom flange. **See Photo 11.**

Span 3:
- **Beam 43:**
  - South end, has a bolted steel repair. **See Photo 12.**
  - North end, has a bolted steel repair. Behind staging.
- **Beam 49**, south end for 2', web has 0.4" remaining & east flange 0.5" to original section. **See Photo 13.**

Span 4:

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REMARKS

- **Beam 50:**
  - South end, has a recent bolted steel repair.
  - North end, has a recent bolted steel repair.
- **Beam 56**, north end, has a recent bolted steel repair.

Some of the timber cribbing has been left in place or partially removed. **See Sketch 4.**

Item 59.8 - Cover Plates
Cover Plates have some minor random scrape marks over the roadways.

Item 59.9 - Bearing Devices
Some Fascia Bearings were cleaned and painted as part of the most recent beam end repairs.
See Sketch 4 & Photos 9 & 10.

Remaining Fascia Bearings have moderate to severe surface rust with rust delamination and pack rust between plates. **See Photo 11.**

Beam 31, north end has severe pack rust.

Beams 38 & 40, north ends have severe rust delamination with minor pack rusting.

Beam 29, north end**,** has no anchor bolts holding down the repaired beam.

Item 59.10 - Diaphragms/Cross-Frames
Steel diaphragms have isolated areas of paint failure with minor surface rust.

Span 1, Bay 3, adjacent to Beam 31, concrete end diaphragm has been repaired. **See Photo 14.**

Span 2, Bay 5, over Pier 1 has been repaired.

Item 59.14 - Paint/Coating
Lower webs & bottom flanges have scattered areas of peeling paint.

Un-repaired and older repaired beam ends have peeling paint. **See Photo 11.**

Bearing devices have paint failure.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North Bridge Seat, under Beam 56, has minor scaling around the bearing, up to 1" deep.

Item 60.1.c - Backwalls
North & South Backwalls have scattered hairline cracks with minor rust and efflorescence staining.

South Backwall:
- Bay 2 had two delaminations, 1.5' wide x 1' high each that have been repaired. **See Photo 15.**
- Bay 5 has a delamination, 3.5' wide x 1' high. **See Photo 16.**

North Backwall, base of wall behind Beam 56 has minor scaling, 2' wide x 4" high x 1" deep.

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NORTHAMPTON	**106**	**N-19-062**	**N19062-106-DOT-NBI**	**JUN 11, 2024**

REMARKS

Item 60.1.d - Breastwalls
North & South Breastwalls have scattered hairline vertical cracks, up to full-height.

North Breastwall, under Beam 56, is cracked and delaminated with efflorescence and rust staining, 3.5' wide x 8" high. **See Photo 17.**

Item 60.1.f - Slope Paving/Rip-Rap
Slope Paving is in good condition. **See Photo 18.**

Item 60.2 - Piers or Bents
Piers 1& 2 have been rehabbed.

Pier 3 is under construction/rehabilitation.

Item 60.2.a - Pedestals
Some Pedestals have hairline cracks with efflorescence and rust stains.

Item 60.2.b - Caps
Pier Caps 1 & 2 have been repaired.

Pier Cap 3 is under construction/rehabilitation. **See Photos 19 & 20**.

Item 60.2.c - Columns
Piers 1 & 2 Columns have been repaired.

Pier 3 Columns are under construction/rehabilitation. **See Photos 19 & 20.**

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of double panel steel Thrie-beam guardrail on steel posts with plastic offsets that is bolted to the concrete endposts.

Item 36c - Approach Guardrail
Northwest & Southwest Approach guardrail (median) consist of steel Thrie-beam guardrail on steel posts with plastic offsets.

Northeast & Southeast Approach guardrail consist of steel W-beam guardrail on steel posts with plastic offsets.

Item 36d - Approach Guardrail Ends
Northwest Approach (trailing end) has terminal end.

Northeast Approach guardrail (trailing) is continuous to the next structure.

Southeast Approach guardrail (leading) have Tangent End Treatment.

Southwest Approach has an impact attenuator. **See Photo 21.**

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NORTHAMPTON	**106**	**N-19-062**	**N19062-106-DOT-NBI**	**JUN 11, 2024**

REMARKS

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Elevation
Sketch 3 : Cross Section
Sketch 4 : Steel Bolted Repairs on Beam Ends & Timber Cribbing Locations
Sketch 5 : Pier 3 - Defects on 6-23-2022 inspection. Pier 3 is under construction/rehabilitation during this inspection.
Photo 1 : At Bridge Vertical Clearance posting sign for State 9 Eastbound is attached to the West parapet of I-91 Southbound.
Photo 2 : Deck Underside, Span 2, near Pier 1, has a spall in Bay 5 and a spall in Bay 6.
Photo 3 : Deck Overhangs have patches over the piers, which are cracked, scaled, and leaking.
Photo 4 : Bridge has Thrie-beam guardrail retrofit bolted through the original concrete parapets. 6' lengths of granite curb replaced in Spans 1, 2, & 4. Minor wheel path rutting.
Photo 5 : Deck Joints have minor sand impaction.
Photo 6 : Beams have random areas of minor to moderate surface rust, especially at beam ends, & bottom flanges where paint is breaking down.
Photo 7 : Span 1, Beam 29, north end has a welded repair with moderate rust and steel lamination in the upper web. Note 3" fabricated hole in lower web to deter crack propagation or for lifting.
Photo 8 : Span 1, Beam 35, north end has moderate rust with steel lamination at the lower web and bottom flange.
Photo 9 : Beam 36, south end has been repaired.
Photo 10 : Beam 42, south end has been repaired.
Photo 11 : Beam 42, north end, moderate to severe rusting along the web & bottom flange. Bearing has severe pack rust.
Photo 12 : Beam 43, south end, steel repairs.
Photo 13 : Beam 49, south end, bottom flange 0.5" & web 0.4" remaining for 2'
Photo 14 : Span 1, Bay 3 concrete end diaphragm has been repaired.
Photo 15 : South Backwall, Bay 2 had two delaminations 1.5' wide x 1' high that have been repaired.
Photo 16 : Bay 5, has a delamination 3.5' wide x 1' high.
Photo 17 : North Breastwall, east end has cracking with efflorescence and rust staining.
Photo 18 : Slope Paving has been repaired.
Photo 19 : Pier 1 & 2, Caps & Columns have been repaired.
Photo 20 : Pier 3, Caps & Columns are under construction.
Photo 21 : Southwest Approach end treatment is an impact attenuator (tangent end).

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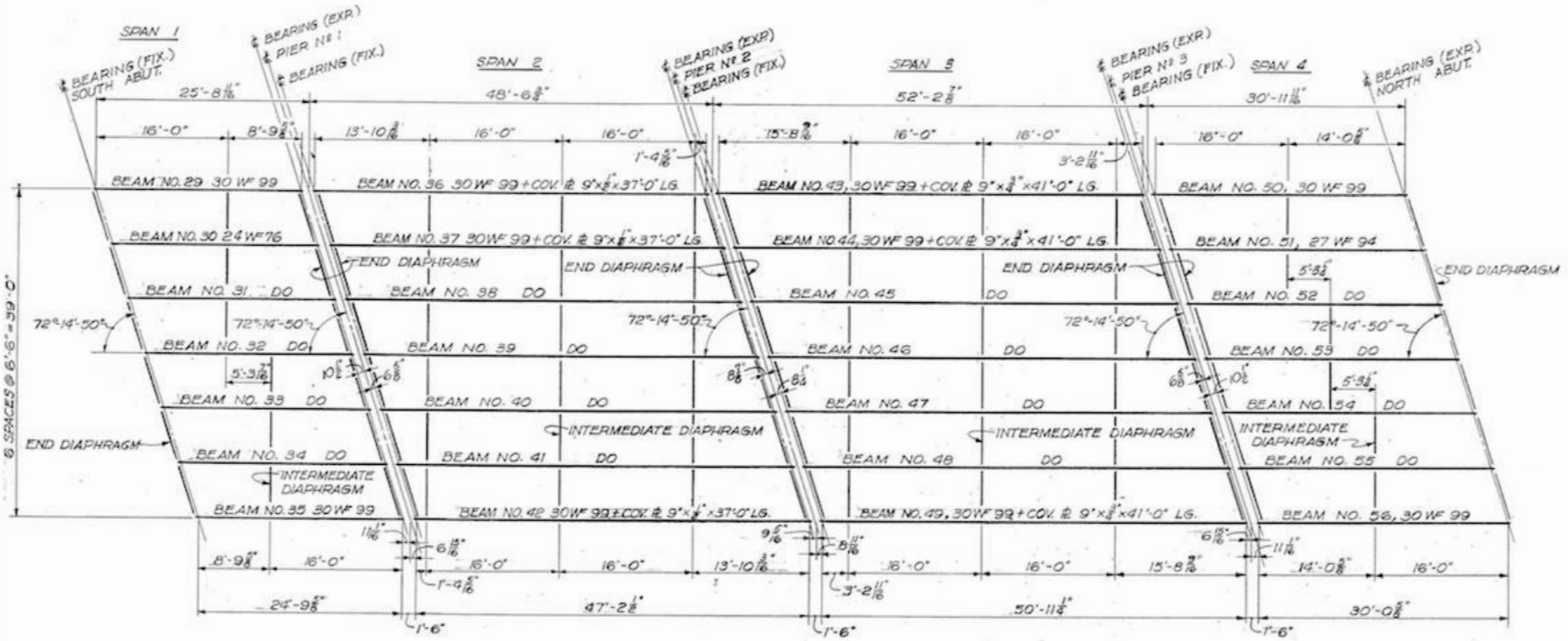
ORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

SKETCHES



FRAMING PLAN NORTHBOUND

Sketch 1: Framing Plan

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Proposal No. 6132l9-132950

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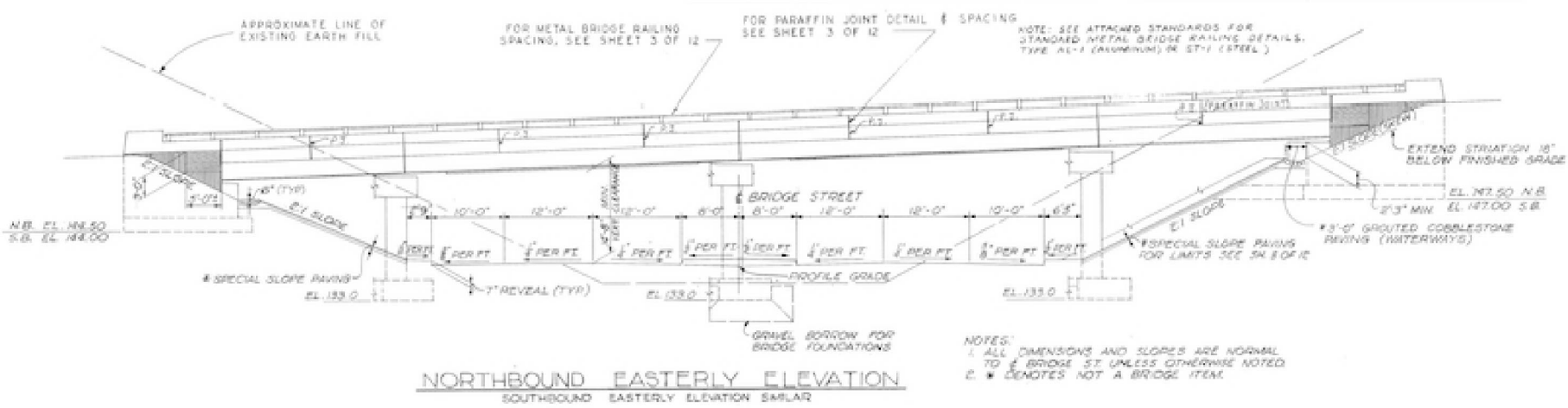
ORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

SKETCHES



NORTHBOUND EASTERLY ELEVATION

SOUTHBOUND EASTERLY ELEVATION SIMILAR

Sketch 2: Elevation

REM.(2)2-21

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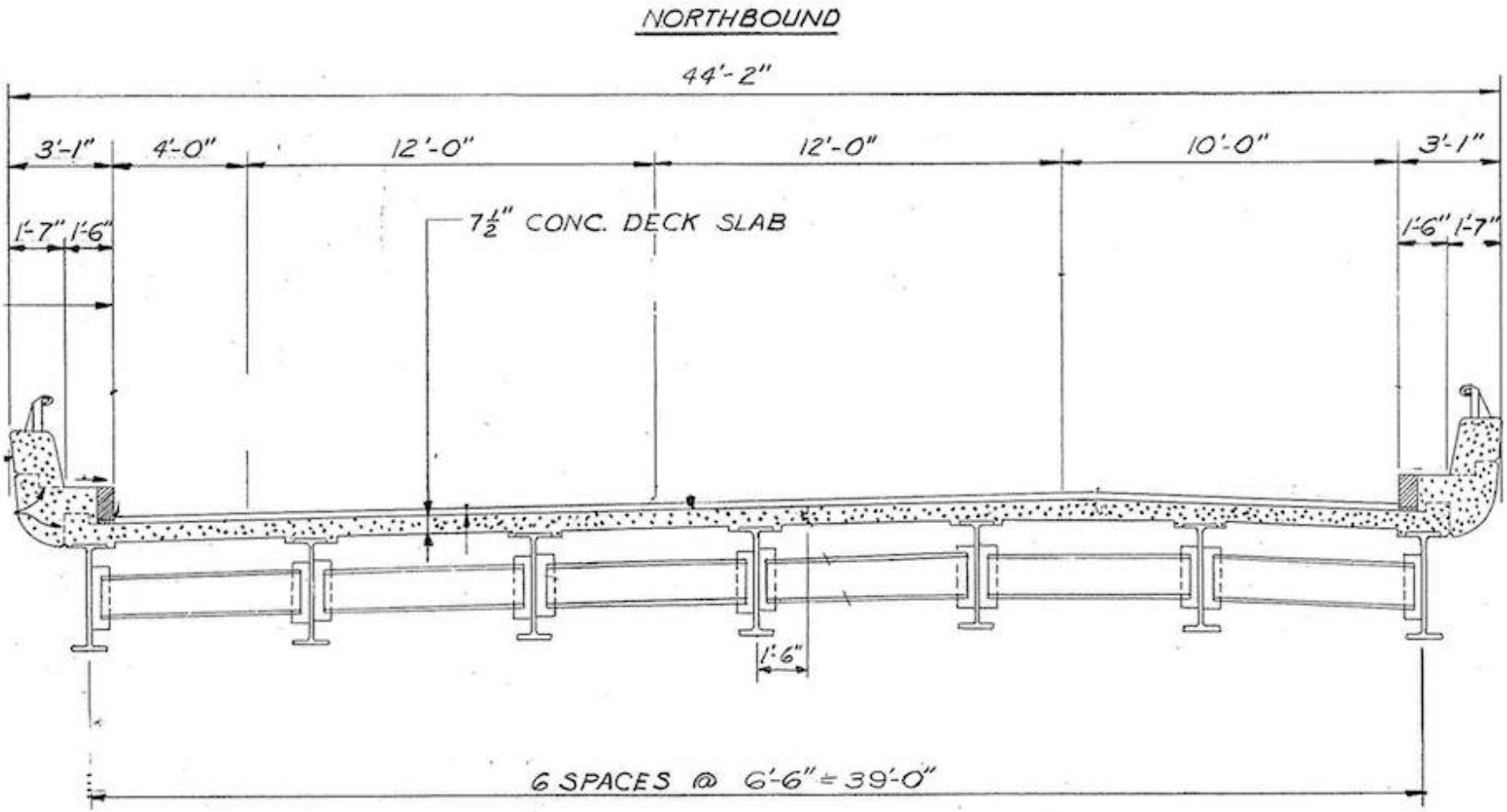
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

SKETCHES



TYPICAL CROSS SECTION

Sketch 3: Cross Section

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Proposal No. 6132219-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

SKETCHES

FRAMING PLAN NORTHBOUND

Sketch 4: Steel Bolted Repairs on Beam Ends & Timber Cribbing Locations

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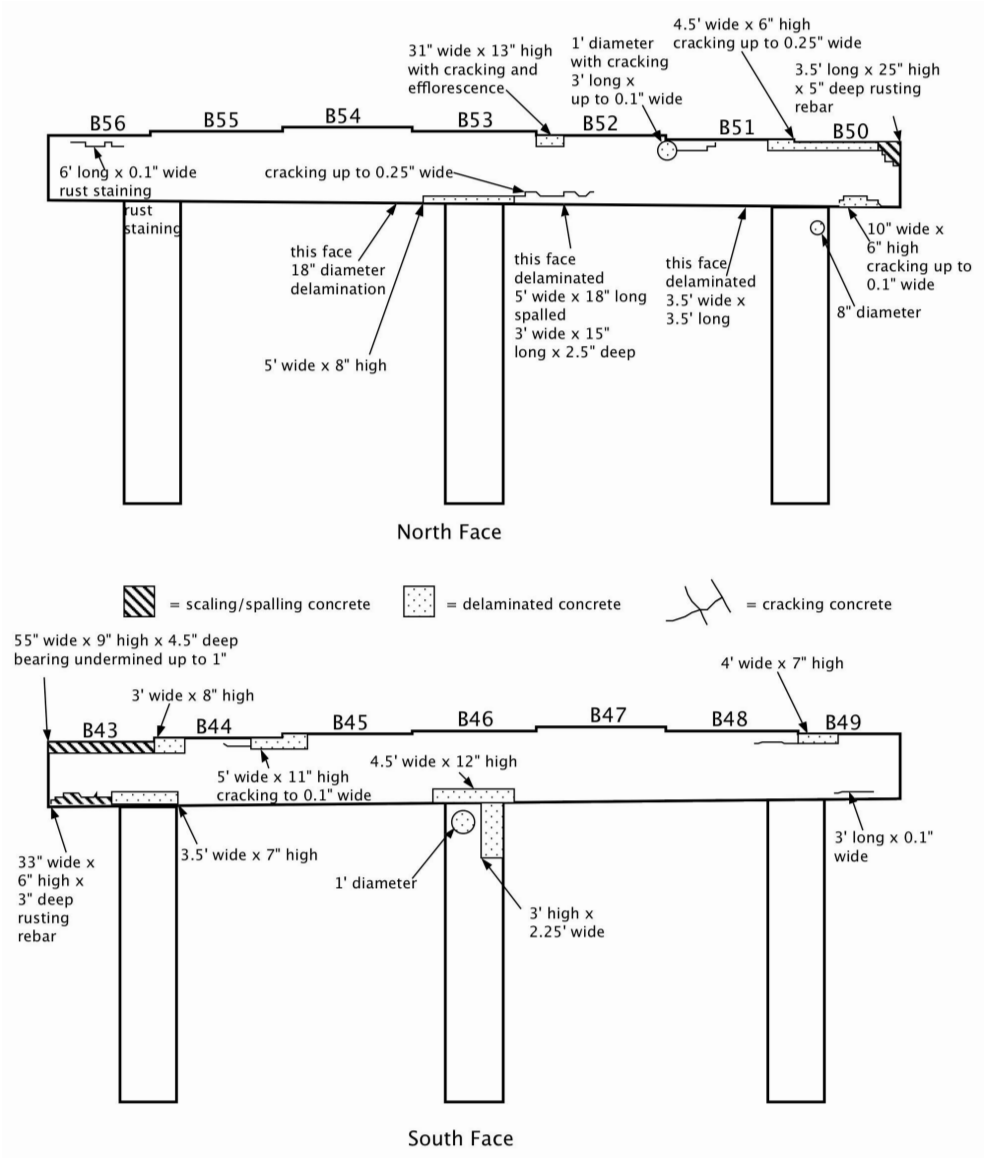
A00808 - 201
Proposal No. 6132l9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

SKETCHES



Sketch 5: **Pier 3 - Defects on 6-23-2022 inspection. Pier 3 is under construction/ rehabilitation during this inspection.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 1: **At Bridge Vertical Clearance posting sign for State 9 Eastbound is attached to the West parapet of I-91 Southbound.**

Photo 2: **Deck Underside, Span 2, near Pier 1, has a spall in Bay 5 and a spall in Bay 6.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 3: **Deck Overhangs have patches over the piers, which are cracked, scaled, and leaking.**

Photo 4: **Bridge has Thrie-beam guardrail retrofit bolted through the original concrete parapets. 6' lengths of granite curb replaced in Spans 1, 2, & 4. Minor wheel path rutting.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 5: Deck Joints have minor sand impaction.

Photo 6: Beams have random areas of minor to moderate surface rust, especially at beam ends, & bottom flanges where paint is breaking down.

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NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 7: **Span 1, Beam 29, north end has a welded repair with moderate rust and steel lamination in the upper web. Note 3" fabricated hole in lower web to deter crack propagation or for lifting.**

Photo 8: **Span 1, Beam 35, north end has moderate rust with steel lamination at the lower web and bottom flange.**

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NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 9: **Beam 36, south end has been repaired.**

Photo 10: **Beam 42, south end has been repaired.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 11: **Beam 42, north end, moderate to severe rusting along the web & bottom flange. Bearing has severe pack rust.**

Photo 12: **Beam 43, south end, steel repairs.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 13: Beam 49, south end, bottom flange 0.5" & web 0.4" remaining for 2'

Photo 14: Span 1, Bay 3 concrete end diaphragm has been repaired.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 15: **South Backwall, Bay 2 had two delaminations 1.5' wide x 1' high that have been repaired.**

Photo 16: **Bay 5, has a delamination 3.5' wide x 1' high.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 17: **North Breastwall, east end has cracking with efflorescence and rust staining.**

Photo 18: **Slope Paving has been repaired.**

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NORTHAMPTON	106	N-19-062	N19062-106-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 19: Pier 1 & 2, Caps & Columns have been repaired.

Photo 20: Pier 3, Caps & Columns are under construction.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**106**	**N-19-062**	**N19062-106-DOT-NBI**	**JUN 11, 2024**

PHOTOS

Photo 21: **Southwest Approach end treatment is an impact attenuator (tangent end).**

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Report Date: March 11, 2025

State Information

BDEPT#= N19062 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 106 AASHTO= 088.6

RANK= 700 H.I.= 70.3 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	N19062106DOTNBI
(5) Inventory Route	111000911
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**ST 9 BRIDGE ST**
(7) Facility Carried	**I 91 NB**
(9) Location	MM 24.8 ON I-91 NB
(11) Kilometerpoint	0039.911
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 19 MIN 59.48 SEC
(17) Longitude	72 DEG 37 MIN 16.28 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr:	
Other	Code 000
(45) Number of spans in main unit	004
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Preformed Fabric	Code 2
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 02	Under structure 04
(29) Average Daily Traffic	023875
(30) Year of ADT 2017	(109) Truck ADT 12 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0015.5 M
(49) Structure Length	00049.3 M
(50) Curb or sidewalk: Left 00.5 M	Right 00.5 M
(51) Bridge Roadway Width Curb to Curb	011.6 M
(52) Deck Width Out to Out	013.5 M
(32) Approach Roadway Width (w/shoulders)	011.6 M
(33) Bridge Median - No median	Code 0
(34) Skew 18 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	11.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.39 M
(55) Min Lat Underclear RT ref H	00.9 M
(56) Min Lat Underclear LT	00.9 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	R
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	Y
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	6
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	57.8
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	34.6
(70) Bridge Posting	5
(41) Structure - Open with shoring	D

Appraisal

	Code
(67) Structural Evaluation	6
(68) Deck Geometry	5
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 06/11/24			(91) Frequency 24	MO
(92) Critical Feature Inspection:				(93) CFI DATE
(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	03/21/19
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 01/01/19	H20	Type 3	Type 3S2	Type HS
Operating	40.0	56.0	85.0	61.0
Inventory	26.0	32.0	49.0	35.0

Field Posting

Status WAIVED Posting Date 06/03/19

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
P / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 016

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National Bridge Element Inspection

BDEPT# **N-19-062**
B.I.N. **106**
Item 8 **N19062-106-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **06/11/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Glenn Gilligan**
Team Member(s) **Stephen J. Ausevich**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	7,149.000	☐ %	7,143.000	6.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	6.000	☐ %		6.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	6,150.000	☐ %	6,150.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	893.000	☐ %		893.000		
Notes :									
> 1000	*Corrosion*	feet	2	893.000	☐ %		893.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	6,581.000	☐ %		6,581.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	6,581.000	☐ %		6,581.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	210.000	☐ %		194.000	16.000	
Notes :									
> 1000	*Corrosion*	feet	3	210.000	☐ %		194.000	16.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,548.000	☐ %		1,448.000		100.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,548.000	☐ %		1,448.000		100.000
Notes :									
205	**Re Conc Column**	each	3	9	☐ %	6		3	
Notes :									

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National Bridge Element Inspection

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B.I.N. **106**
Item 8 **N19062-106-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **06/11/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Glenn Gilligan**
Team Member(s) **Stephen J. Ausevich**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1080	*Delamination/Spall/Patched Area*	each	3	3	☐ %			3	
Notes :									
215	**Re Conc Abutment**	feet	2	99.000	☐ %	87.000	9.000	3.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	12.000	☐ %		9.000	3.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	135.000	☐ %	100.000		35.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	5.000	☐ %			5.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	30.000	☐ %			30.000	
Notes :									
300	**Strip Seal Exp Joint**	feet	2	120.000	☐ %	120.000			
Notes :									
311	**Moveable Bearing**	each	2	7	☐ %		5	2	
Notes :									
> 1020	*Connection*	each	2	7	☐ %		5	2	
Notes :									
> 515	Steel Protective Coating	sq feet	2	14.000	☐ %		10.000		4.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	14.000	☐ %		10.000		4.000
Notes :									
311	**Moveable Bearing**	each	3	21	☐ %		13	8	
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-062**
B.I.N. **106**
Item 8 **N19062-106-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **06/11/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Glenn Gilligan**
Team Member(s) **Stephen J. Ausevich**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1000	*Corrosion*	each	3	21	☐ %		13	8	
Notes :									
> 515	Steel Protective Coating	sq feet	3	42.000	☐ %			26.000	16.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	42.000	☐ %			26.000	16.000
Notes :									
313	**Fixed Bearing**	each	2	7	☐ %		5	2	
Notes :									
> 1000	*Corrosion*	each	2	7	☐ %		5	2	
Notes :									
> 515	Steel Protective Coating	sq feet	2	14.000	☐ %			10.000	4.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	14.000	☐ %			10.000	4.000
Notes :									
313	**Fixed Bearing**	each	3	21	☐ %		15	6	
Notes :									
> 1000	*Corrosion*	each	3	21	☐ %		15	6	
Notes :									
> 515	Steel Protective Coating	sq feet	3	42.000	☐ %			30.000	12.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	42.000	☐ %			30.000	12.000
Notes :									
330	**Metal Bridge Railing**	feet	2	324.000	☐ %	324.000			
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-062**	Date	**06/11/2024**
B.I.N.	**106**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19062-106-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Glenn Gilligan**
Town	**Northampton**	Team Member(s)	**Stephen J. Ausevich**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
331	**Re Conc Bridge Railing**	feet	2	324.000	☐ %	309.000		15.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	feet	2	15.000	☐ %			15.000	
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 16

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	107	N-19-062

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19062-107-DOT-NBI	039.911	D:OPEN	JUN 11, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
ST 9 BRIDGE ST	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER S. J. Ausevich
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	P. Cloudy	20°C	G. GILLIGAN

ITEM 58 — DECK — 6

		DEF
1.Wearing Surface	7	-
2.Deck Condition	6	-
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	6	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	240	240

APPROACHES

		DEF
a. Appr. Pavement Condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 6

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	7	-
8.Cover Plates	6	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross Frames	7	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1992

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 7

	Dive	Cur		DEF
1. Abutments			7	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	6		-
d. Breastwalls	N	7		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	7		-
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			7	
a. Pedestals	N	6		-
b. Caps	N	7		-
c. Columns	N	7		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 7

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	107	N-19-062	N19062-107-DOT-NBI	JUN 11, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — TRAFFIC SAFETY

	36	COND	DEF
A. Bridge Railing	0	6	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	0	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 06/03/2019 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not Actual Field Measurement

Posted Clearance

	E ft	E in	W ft	W in	meter
Actual Field Measurement	14	3	15	3	4.34
Posted Clearance	14	0	14	0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	Y	Y	NR	NR
	8 / 8	8 / 8		

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 16

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#:

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 01/01/2019

Inspection data at time of existing rating

I 58: **6** I 59: **5** I 60: **5** Date : 06/11/2018

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON:

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	107	N-19-062	N19062-107-DOT-NBI	JUN 11, 2024

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound, north to south, over State 9 (Bridge St), which travels east and west.

Per bridge plans, beams are numbered west to east and south to north. Bays are numbered west to east per each span. Spans and piers are numbered south to north. The 3 columns per pier are numbered west to east. **See Sketches 1 - 3.**

GENERAL REMARKS
Access:
Due to heavy traffic volume at this location, night inspection is recommended.

Vertical Posting Signs:
Over State 9 Eastbound, minimum clearance was measured to be 14' 2-1/8" at south end of Beam 8. Bridge has a "14 FT 0 IN" sign affixed to the west parapet of this bridge. **See Photo 1.**

Over State 9 Westbound, minimum clearance was measured to be 15' 2-1/2" at the south end of Beam 15. Bridge has a "14 FT 0 IN" sign affixed to the east parapet of the adjacent structure N-19-062 (106).

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has minor wheel rutting.

Item 58.2 - Deck Condition
Deck Underside:
Span 1
- Bay 1, over the South Abutment, has a spall, 8" wide x 15" long x 2" deep.
- Bay 5, over the South Abutment, has a spall, 8" wide x 9" long x 2" deep.

Span 2
- Bay 5, over the eastbound sidewalk, there is a spall, 14" long x 8" wide x 2" deep.
- Loose concrete was removed during this inspection.

Deck Overhangs have patches over the piers which are cracked, leaking and starting to break up. **See Photo 2.**

Item 58.4 - Curbs
Granite Curbs have some chipping along the edges, with minor mortar loss in the joints.

Item 58.7 - Parapets
Parapets have Steel Thrie-beam guardrail on timber posts retrofit and bolted through the walls. Parapets have areas of patching. **See Photo 3.**

Item 58.8 - Railing
Railing consists of AL-1 railing mounted on top of the 30" high concrete parapets.

Railing has minor scrapes and dents.

Item 58.13 - Deck Joints
Strip Seal Deck Joints over piers have minor sand & debris impaction particularly along the shoulders. **See Photo 4.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**107**	**N-19-062**	**N19062-107-DOT-NBI**	**JUN 11, 2024**

REMARKS

APPROACHES

Approaches a - Appr. Pavement Condition
North & South Approach Pavements have minor wheel rutting.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beams 1, 7, 22 and 28 are 30WF99 (original web = 0.52" and flange = 0.67" thick).
Beams 2 - 6 and 23 - 27 are 24WF76 (original web = 0.44" and flange = 0.68" thick).
Beams 8 - 14 are 30WF99 (original web = 0.52" and flange = 0.67" thick) with 9" wide x 0.5" thick x 37' long cover plates.
Beams 15 - 21 are 30WF99 (original web = 0.52" and flange = 0.67" thick) with 9" wide x 0.75" thick x 41' long cover plates.

Beams ends have a number of repairs. Most recent repairs were completed in 2020. **See Sketch 4.**

Beams typically have areas of minor to moderate surface rust, especially at the unrepaired beam ends and the bottom flanges, where the paint system is breaking down. **See Photo 5.**

Span 1:
- **Beam 1:**
  - South end has a recent bolted steel repair.
  - North end has a previous weld repair in the lower web with moderate rust at the web end. **See Photo 6.**
- **Beam 3**, north end has a previous bolted repair that has been painted green.
- **Beam 7:**
  - South end has a recent bolted steel repair.
  - North end has a recent bolted steel repair.

Span 2:
- **Beam 8:**
  - South end has a recent bolted steel repair. **See Photo 6.**
  - North end has a recent bolted steel repair.
- **Beam 10**, south end has a recent bolted steel repair.
- **Beam 14**:
  - South end:
    - has a recent bolted steel repair
    - top flange has section loss, 2.0' long x 0.4" remaining.
  - North end:
    - top flange has section loss, 1.0' long x 0.6" remaining.
    - bottom flange has section loss, 1.0' long x 0.5" remaining.

Span 3:
- **Beam 15**:
  - North end, bottom flange has section loss, 0.5' long x 0.1" remaining.
  - South end, lower web has section loss, 3" high x 8" long with a 2.5" long x 1" high rust hole at the end of web. **See Photo 7.**
- **Beam 21**, south end:
  - Bottom flange has section loss, 2.0' long x 0.5" remaining with 100% section loss behind the bearing. **See Photo 8.**
  - Lower web has section loss, 3" high x 24" long x as little as 0.25" remaining.

Span 4:

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REMARKS

- **Beam 22**, north end has a recent bolted steel repair.
- **Beam 28**, north end, bottom flange has section loss, 0.5' long x 0.4" remaining.

Some of the timber cribbing has been left in place. **See Sketch 4.**

Item 59.8 - Cover Plates
Underside of some Cover Plates have scattered areas minor surface rust.

Item 59.9 - Bearing Devices
Some Fascia Bearings were cleaned and painted, where the beam ends were repaired with bolted plates.
See Sketch 4 & Photo 6.

Remaining Fascia Beams have severe surface rust with laminating steel and pack rust between plates.
See Photo 7.

Span 4, anchor bolts at the north ends of Beams 26 - 28 are bent towards the south.

Item 59.14 - Paint/Coating
Fascia Beams have moderate rust along lower webs and bottom flanges. **See Photos 5 - 8.**

Paint System is beginning to fail, particularly along the bottom of the bottom flanges.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
South Bridge Seat, below Bays 1 & 2, have a 10' long x 1/4" wide transverse crack.

Item 60.1.c - Backwalls
North & South Backwalls have scattered hairline cracks with efflorescence and rust staining.

South Backwall:
- Bay 5 has a 1' diameter delamination
- Bay 6 has a cover spall, 1' diameter x 1" deep and a 1' diameter delamination.

North Backwall, Bay 3 has water staining with efflorescence.

Item 60.1.d - Breastwalls
North & South Breastwalls have scattered vertical hairline cracks with and without leaching efflorescence.

South Breastwall, Bay 1 has minor horizontal cracking with rust staining

Item 60.2 - Piers or Bents
Item 60.2.a - Pedestals
Pedestals have minor hairline cracks.

Item 60.2.b - Caps
Pier Caps 1 & 2 have been repaired since last inspection, Pier Cap 3 is currently under construction.
See Photos 9 - 11.

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REMARKS

Item 60.2.c - Columns
Piers 1 & 2 have been repaired since last inspection, Pier 3 is currently under construction.
See Photos 9 - 11.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of double panel steel Thrie-beam guardrail on steel posts with plastic offsets that is bolted to the concrete endposts.

Item 36c - Approach Guardrail
Northeast & Southeast Approach guardrails (median) consist of steel Thrie-beam guardrail on steel posts with plastic offsets.

Northwest & Southwest Approach guardrail consist of steel W-beam guardrail on steel posts with plastic offsets.

Item 36d - Approach Guardrail Ends
Southeast Approach guardrail (trailing end) has a terminal end.

Southwest Approach guardrail (trailing end) travels beyond the limits of the bridge.

Northwest Approach guardrail (leading) attaches to another bridge.

Northeast Approach guardrail (leading) has a Tangent End Treatment.

Sketch / Photo Log

Sketch 1 :	Framing Plan
Sketch 2 :	Elevation
Sketch 3 :	Cross Section
Sketch 4 :	Recent Steel Bolted Repairs on Beam Ends & Timber Cribbing Locations Remaining Pier 1 Cribbing removed since last inspection, others remain.
Photo 1 :	At bridge clearance posting sign for State 9 Eastbound is attached to the west parapet of I-91 Southbound.
Photo 2 :	Deck Overhangs at the piers have patches with small spalls, cracks and leakage.
Photo 3 :	Parapets have a Thrie-beam guardrail retrofit bolted to the original concrete parapets.
Photo 4 :	Deck Joints have minor debris impaction along either shoulder.
Photo 5 :	Beams have areas of surface rust along the bottom flanges.
Photo 6 :	At Pier 1, Beam 1 has a welded repair and moderate surface rust, and Beam 8 has a bolted repair.
Photo 7 :	Span 3, Beam 15, south end lower web has section loss with a 2.5" long x 1" high rust hole at the web end.
Photo 8 :	Span 3, Beam 21, south end, bottom flange and lower web have section loss with up to 100% section loss to the bottom flange behind the bearing.
Photo 9 :	Pier 1 previous timber cribbing has been removed since last inspection. Pier 1, Cap and Columns have been repaired since last inspection.
Photo 10 :	Pier 2, Cap and Columns have been repaired since last inspection.
Photo 11 :	Pier 3 is currently under construction.

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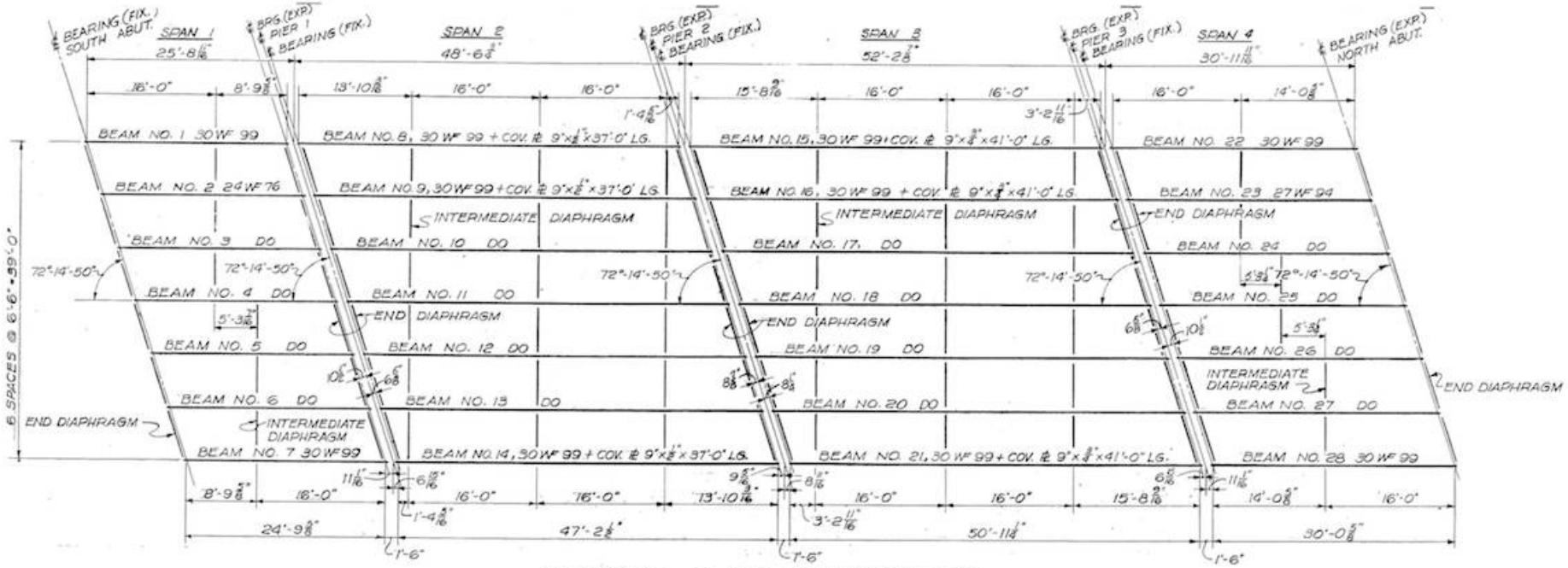
SKETCHES



FRAMING PLAN SOUTHBOUND

Sketch 1: Framing Plan

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Proposal No. 6132I9-132950

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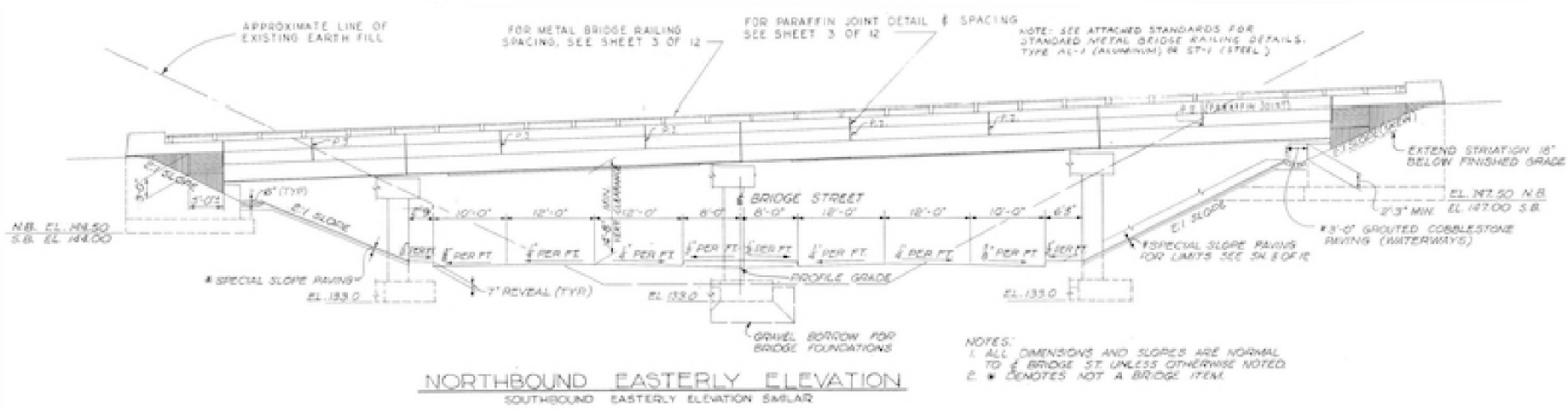
SKETCHES



NORTHBOUND EASTERLY ELEVATION

SOUTHBOUND EASTERLY ELEVATION SIMILAR

Sketch 2: Elevation

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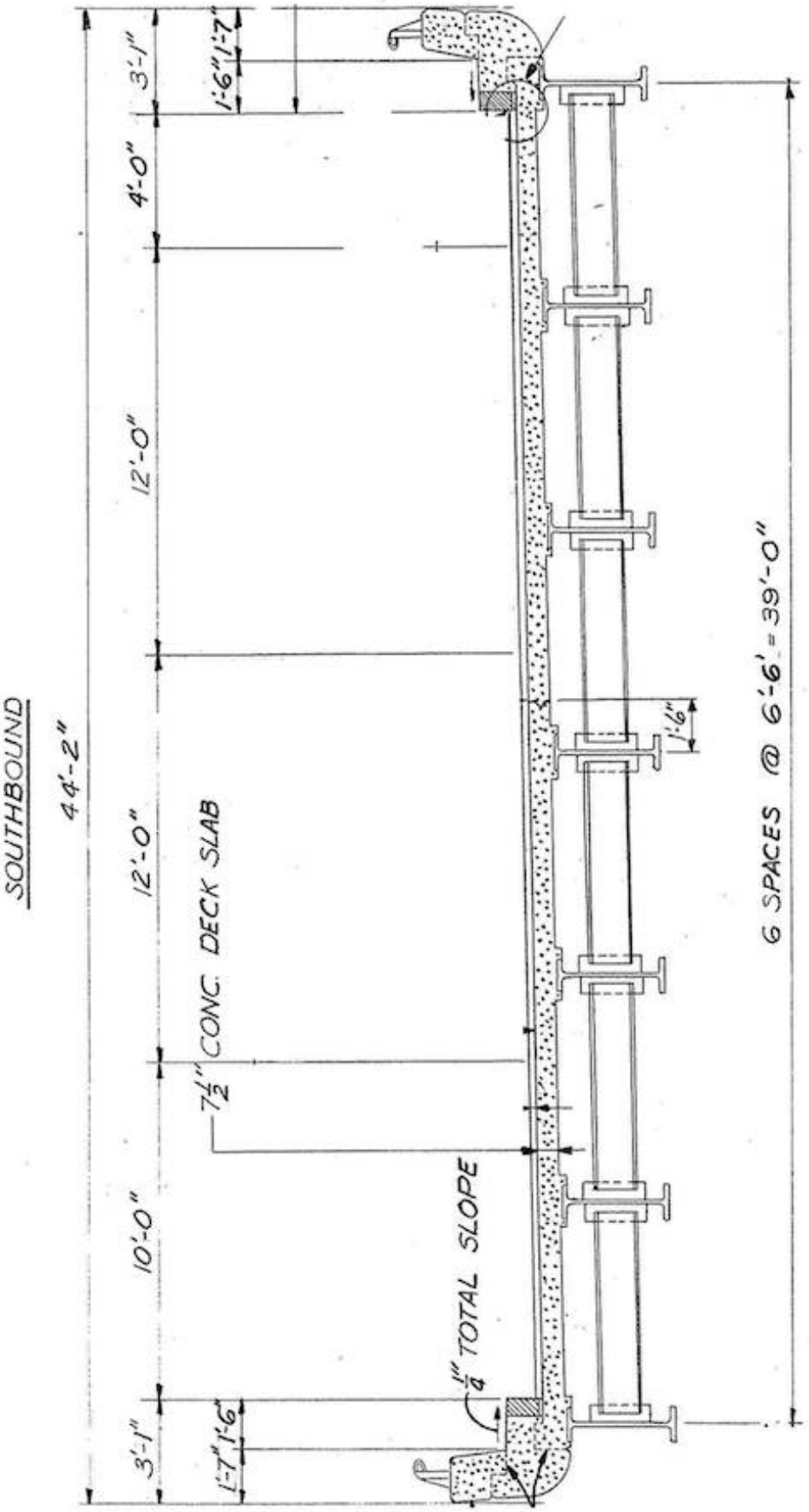
SKETCHES



TYPICAL CROSS SECTION

Sketch 3: Cross Section

REM.(2)2-21

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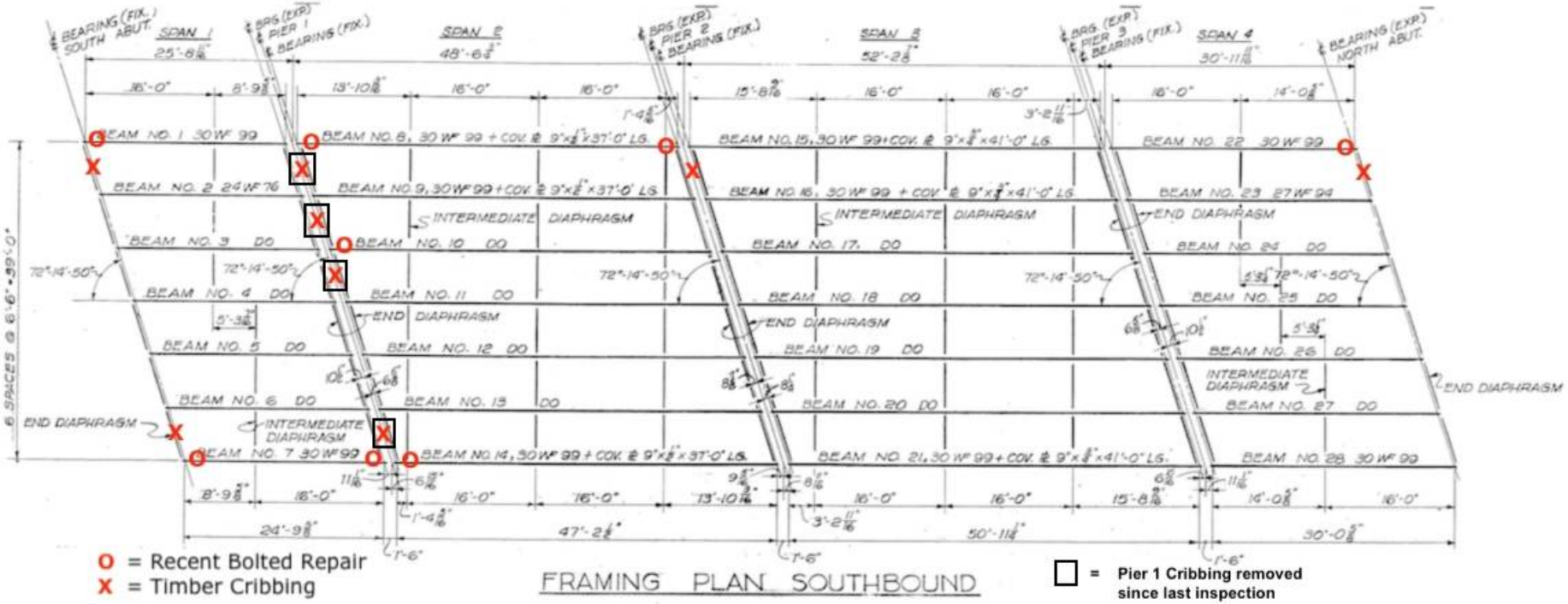
SKETCHES



Sketch 4: **Recent Steel Bolted Repairs on Beam Ends & Timber Cribbing Locations Remaining Pier 1 Cribbing removed since last inspection, others remain.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
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PHOTOS

Photo 1: **At bridge clearance posting sign for State 9 Eastbound is attached to the west parapet of I-91 Southbound.**

Photo 2: **Deck Overhangs at the piers have patches with small spalls, cracks and leakage.**

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PHOTOS

Photo 3: **Parapets have a Thrie-beam guardrail retrofit bolted to the original concrete parapets.**

Photo 4: **Deck Joints have minor debris impaction along either shoulder.**

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NORTHAMPTON	107	N-19-062	N19062-107-DOT-NBI	JUN 11, 2024

PHOTOS

Photo 5: **Beams have areas of surface rust along the bottom flanges.**

Photo 6: **At Pier 1, Beam 1 has a welded repair and moderate surface rust, and Beam 8 has a bolted repair.**

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PHOTOS

Photo 7: **Span 3, Beam 15, south end lower web has section loss with a 2.5" long x 1" high rust hole at the web end.**

Photo 8: **Span 3, Beam 21, south end, bottom flange and lower web have section loss with up to 100% section loss to the bottom flange behind the bearing.**

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PHOTOS

Photo 9: **Pier 1 previous timber cribbing has been removed since last inspection. Pier 1, Cap and Columns have been repaired since last inspection.**

Photo 10: **Pier 2, Cap and Columns have been repaired since last inspection.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
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PHOTOS

Photo 11: Pier 3 is currently under construction.

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Report Date: March 11, 2025

State Information

BDEPT#= N19062 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 107 AASHTO= 088.2

RANK= 939 H.I.= 73.9 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	N19062107DOTNBI
(5) Inventory Route	111000913
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**ST 9 BRIDGE ST**
(7) Facility Carried	**I 91 SB**
(9) Location	MM 24.8 ON I-91 SB
(11) Kilometerpoint	0039.911
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 19 MIN 58.67 SEC
(17) Longitude	72 DEG 37 MIN 17.01 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	004
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Preformed Fabric	Code 2
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 02	Under structure 04
(29) Average Daily Traffic	018273
(30) Year of ADT 2017 (109) Truck ADT	12 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0015.5 M
(49) Structure Length	00049.3 M
(50) Curb or sidewalk: Left 00.5 M	Right 00.5 M
(51) Bridge Roadway Width Curb to Curb	011.6 M
(52) Deck Width Out to Out	013.5 M
(32) Approach Roadway Width (w/shoulders)	011.6 M
(33) Bridge Median - No median	Code 0
(34) Skew 18 DEG (35) Structure Flared	N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	11.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.34 M
(55) Min Lat Underclear RT ref H	00.9 M
(56) Min Lat Underclear LT	00.9 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	L
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	Y
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	6
(59) Superstructure	6
(60) Substructure	7
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	58.8
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	35.2
(70) Bridge Posting	5
(41) Structure - Open with shoring	D

Appraisal

	Code
(67) Structural Evaluation	6
(68) Deck Geometry	5
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 0
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 06/11/24 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	03/21/19
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 01/01/19	H20	Type 3	Type 3S2	Type HS
Operating	40.0	56.0	85.0	62.0
Inventory	26.0	33.0	50.0	36.0

Field Posting

Status WAIVED Posting Date 06/03/19

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
P / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 016

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National Bridge Element Inspection

BDEPT#	**N-19-062**	Date	**06/11/2024**
B.I.N.	**107**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19062-107-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Stephen J. Ausevich**
Town	**Northampton**	Team Member(s)	**Glenn Gilligan**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	7,149.000	☐ %	7,147.000		2.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	2.000	☐ %			2.000	
Notes :									
> 510	Wearing Surfaces	sq feet	2	6,150.000	☐ %	6,150.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	893.000	☐ %		893.000		
Notes :									
> 1000	*Corrosion*	feet	2	893.000	☐ %		893.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	6,581.000	☐ %		6,581.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	6,581.000	☐ %		6,581.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	210.000	☐ %	122.000	84.000	4.000	
Notes :									
> 1000	*Corrosion*	feet	3	88.000	☐ %		84.000	4.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,548.000	☐ %	48.000	1,228.000	260.000	12.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,548.000	☐ %	48.000	1,228.000	260.000	12.000
Notes :									
205	**Re Conc Column**	each	3	9	☐ %	9			
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-062**	Date	**06/11/2024**
B.I.N.	**107**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19062-107-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Stephen J. Ausevich**
Town	**Northampton**	Team Member(s)	**Glenn Gilligan**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
215	**Re Conc Abutment**	feet	2	99.000	☐ %	80.000	2.000	17.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	3.000	☐ %		2.000	1.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	feet	2	6.000	☐ %			6.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	10.000	☐ %			10.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	135.000	☐ %	135.000			
Notes :									
300	**Strip Seal Exp Joint**	feet	2	120.000	☐ %	120.000			
Notes :									
311	**Moveable Bearing**	each	2	7	☐ %		3	4	
Notes :									
> 1000	*Corrosion*	each	2	4	☐ %		3	1	
Notes :									
> 1020	*Connection*	each	2	3	☐ %			3	
Notes :									
> 515	Steel Protective Coating	sq feet	2	14.000	☐ %	2.000	12.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	14.000	☐ %	2.000	12.000		
Notes :									
311	**Moveable Bearing**	each	3	21	☐ %		15	6	
Notes :									

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National Bridge Element Inspection

BDEPT# **N-19-062**
B.I.N. **107**
Item 8 **N19062-107-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **06/11/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Stephen J. Ausevich**
Team Member(s) **Glenn Gilligan**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1000	*Corrosion*	each	3	21	☐ %		15	6	
Notes :									
> 515	Steel Protective Coating	sq feet	3	42.000	☐ %	4.000		30.000	8.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	42.000	☐ %	4.000		30.000	8.000
Notes :									
313	**Fixed Bearing**	each	2	7	☐ %		5	2	
Notes :									
> 1000	*Corrosion*	each	2	7	☐ %		5	2	
Notes :									
> 515	Steel Protective Coating	sq feet	2	14.000	☐ %	4.000		10.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	14.000	☐ %	4.000		10.000	
Notes :									
313	**Fixed Bearing**	each	3	21	☐ %		13	8	
Notes :									
> 1000	*Corrosion*	each	3	21	☐ %		13	8	
Notes :									
> 515	Steel Protective Coating	sq feet	3	42.000	☐ %	6.000	10.000	26.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	42.000	☐ %	6.000	10.000	26.000	
Notes :									
330	**Metal Bridge Railing**	feet	2	324.000	☐ %	324.000			
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-062**	Date	**06/11/2024**
B.I.N.	**107**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19062-107-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Stephen J. Ausevich**
Town	**Northampton**	Team Member(s)	**Glenn Gilligan**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
331	**Re Conc Bridge Railing**	feet	2	324.000	☐ %	309.000		15.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	feet	2	15.000	☐ %			15.000	
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 14

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	108	N-19-063

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19063-108-DOT-NBI	040.055	A:OPEN	APR 18, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 NB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	M. Barrett
OTHER NORWOTTUCK RA TR	Urban Interstate		

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER J. Roy
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Drizzle	8°C	T. MAZZAFERRO

ITEM 58 — DECK — 6

		DEF
1.Wearing Surface	5	S-A
2.Deck Condition	6	-
3.Stay in Place Forms	N	-
4.Curbs	7	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	7	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	7	-
13.Deck Joints	5	M-P
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	225	225

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 5

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	S-A
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	7	-
8.Cover Plates	6	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross-Frames	7	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	4	M-P
15.	N	-

Year Painted	1965

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 7

	Dive	Cur		DEF
1. Abutments			7	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	7		-
d. Breastwalls	N	7		-
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 7

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	108	N-19-063	N19063-108-DOT-NBI	APR 18, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	7	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	0	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	20	6	20	2	6.14
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	P	Y
Ladder	Y	Y
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	N	N
RR Flagger	N	N
Police	N	N
Other:		
	N	N

TOTAL HOURS 12

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 10/01/1991

Inspection data at time of existing rating

I 58: **7** I 59: **6** I 60: **7** Date :08/20/1990

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**108**	**N-19-063**	**N19063-108-DOT-NBI**	**APR 18, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound, south to north, over the Norwottuck Rail Trail which travels east and west.

Per bridge plans, beams are numbered west to east (8 - 14), bays are numbered from west to east (1 - 6), abutments are labeled south and north. **See Sketches 1 & 2.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has a 4.5' long x 2.5' wide area of mapcracking and patches at the north end of the travel lane.

Wearing Surface though out has several HMA patches.

Travel Lane, midspan, a patch has 2 potholes with exposed deck, both 20"Φ x 3-4" deep. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Underside has many areas of full depth patches.

Deck Underside
- Bay 3 over rail trail, there is a spall, 1' long x 3" wide x 1" deep.
- Bay 6, has small PVC weep pipes that extends below the bottom flanges of the beams. Other weep pipes drain directly onto the bridge seats. **See Photo 2.**

Deck Underside
- **West Overhang**
  - At North Abutment, has an up to full depth spall, 15" wide x 8" long. Bridge Seat below this area has debris. Evidence of leakage of the above joint in this area onto Beam 8 deterioration.
  - At South Abutment, there is deteriorated formwork exposing scaling 1'Φ x 3" deep with no visible rebar. **See Photo 3.**

Item 58.4 - Curbs
Granite Curbs have rust stains, scrapes, and some minor chipping.

Item 58.7 - Parapets
Concrete Parapets have older repaired/patched areas.

Steel Thrie beam guardrail on timber posts have been retrofit and bolted through the parapet walls.
See Photo 1.

Concrete Parapets have scattered areas of hairline vertical cracks and areas of hairline map cracking.

Item 58.8 - Railing
Railing consists of steel Thrie beam guardrail on timber posts, bolted through the parapet walls.

Parapets have AL-1 aluminum rail bolted to the top. **See Photo 1.**

Item 58.12 - Utilities
6" diameter fiberglass conduit is bolted to the exterior web face of Beam 8.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**108**	**N-19-063**	**N19063-108-DOT-NBI**	**APR 18, 2024**

REMARKS

Item 58.13 - Deck Joints
South Abutment Deck Joint has one broken section of joint steel. Broken section was firmly held in place at the time of inspection. **See Photo 4.**

North Abutment Deck Joint, west end, shows evidence of leakage through deck spall onto Beam 8 and Bridge Seat below.

APPROACHES

Approaches a - Appr. pavement condition
North & South Approach roadways have minor mat separation and a few minor random transverse cracks.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beams consist of 36WF194 (original web = 0.765" and flange = 1.26" thick).

Beam 8 (West Fascia):
- South end:
  - Last 20" of the lower web has corrosion with section loss, 3" high x 0.307" - 0.402" remaining.
  - Last 5' of the west bottom flange has 1.00" remaining. **See Photo 5.**
- North end:
  - **16" long x up to 2" high rust hole/crack in the lower web.**
  - At 12" above the bottom flange, has corrosion with the web having 0.44" remaining.
  - Last 5' of the west bottom flange has 1.00" remaining.
  See Sketch 3 and Photos 2, 6, & 7.

Beam 14 (East Fascia):
- South end:
  - Last 12" of the lower web has corrosion with section loss, 4" high x 0.245" - 0.382" remaining.
  - Last 4' of the east bottom flange has 1.00" remaining.
  See Photo 8.
- North end:
  - Last 9" of the lower web has corrosion with section loss, 2" high x 0.68" remaining.
  - Last 3' of the east bottom flange has 1.00" remaining.

Interior Beams & Bearings have minor to moderate surface rust at both abutments.

Item 59.7 - Conn Plt's, Gussets & Angles
Steel diaphragm connection plates have isolated areas of peeling paint.

Item 59.8 - Cover Plates
Partial-length Cover Plates, along the bottom of the beams, have areas of minor to moderate surface rust.

Item 59.9 - Bearing Devices
South Abutment Expansion Bearings have severe rust, delaminated rust, and pack rust between all three plates (masonry/sliding/sole) and between the keeper angles and the plates. **See Photo 9.**

North Abutment Fixed Bearings:
- Fascia bearings have severe rust, delaminated rust, and pack rust under the sole plates.
  See Photo 6.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**108**	**N-19-063**	**N19063-108-DOT-NBI**	**APR 18, 2024**

REMARKS

- Interior bearings have several anchor bolts bent or tilted towards the backwall.

Item 59.10 - Diaphragms/Cross-Frames
End Diaphragms (concrete encased steel channels) at South Abutment have older concrete repairs.

Intermediate Diaphragms (steel channels) have isolated areas of peeling paint.

Item 59.14 - Paint/Coating
Beam, bearings, & diaphragms have moderate to severe peeling paint with areas of severe surface rust. **See Photos 2, 6, 7, & 8.**

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North Bridge Seat has moderate to heavy accumulation of debris at Beam 8.

Item 60.1.c - Backwalls
North & South Backwalls, Bay 1, have areas of caking efflorescence.

North Backwall, west end, has evidence of severe leakage from joint above.

Item 60.1.d - Breastwalls
South Breastwall, Bays 2 - 4, have 3' long x hairline horizontal cracks just below the Bridge Seat.

Item 60.1.e - Wingwalls
Southeast Wingwall, adjacent to breastwall
- Has a small area of scaling, 3' long x 18" high x 3" deep, without visible rebar
- Diagonal cracking with leaching efflorescence, 3' long x 1/2" wide. **See Photo 10.**

Southwest Wingwall has an area of cracking with leaching efflorescence.

Item 60.1.f - Slope Paving/Rip-Rap
North & South granite block slope has vegetation growing throughout the blocks.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of double panel steel Thrie-beam guardrail on timber posts with timber offsets that is bolted to the concrete endposts.

Item 36c - Approach Guardrail
East Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

West Approach guardrails consist of steel Thrie Beam guardrail on steel H-posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends
Northeast Approach guardrail (trailing end) is a terminal end.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**108**	**N-19-063**	**N19063-108-DOT-NBI**	**APR 18, 2024**

REMARKS

Northwest Approach guardrail (trailing end) is a buried end.

Southeast Approach guardrail (leading end) is attached to another bridge.

Southeast Approach guardrail (leading end) is Break Away Terminal End.

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Cross Section
Sketch 3 : Beam 8 North, Defects
Photo 1 : Wearing Surface has multiple patches, and 2 potholes with exposed deck. Steel Thrie Beam guardrail on timber posts are bolted through the parapets.
Photo 2 : Deck Underside, Bay 6, has small PVC weep pipes that extends below the bottom flanges of the beams. Beam 8, hole in web.
Photo 3 : Deck Underside, West Overhang, South Abutment, deteriorated formwork and failing patch.
Photo 4 : South Abutment Deck Joint has one bent section.
Photo 5 : Beam 8, last 20" of the south lower web & bottom flange have section loss.
Photo 6 : Beam 8, north lower web end has 16" long x up to 1" high, rust hole/cracked area.
Photo 7 : Beam 8, north lower web, edge of cracked area shows section loss but not propagation.
Photo 8 : Beam 14, south end, last 12" of the lower web & last 4' of the east bottom flange have section loss.
Photo 9 : Bearings, Beam 14, south abutment, typical pack rust.
Photo 10 : Southeast Wingwall has scaling and a diagonal crack.

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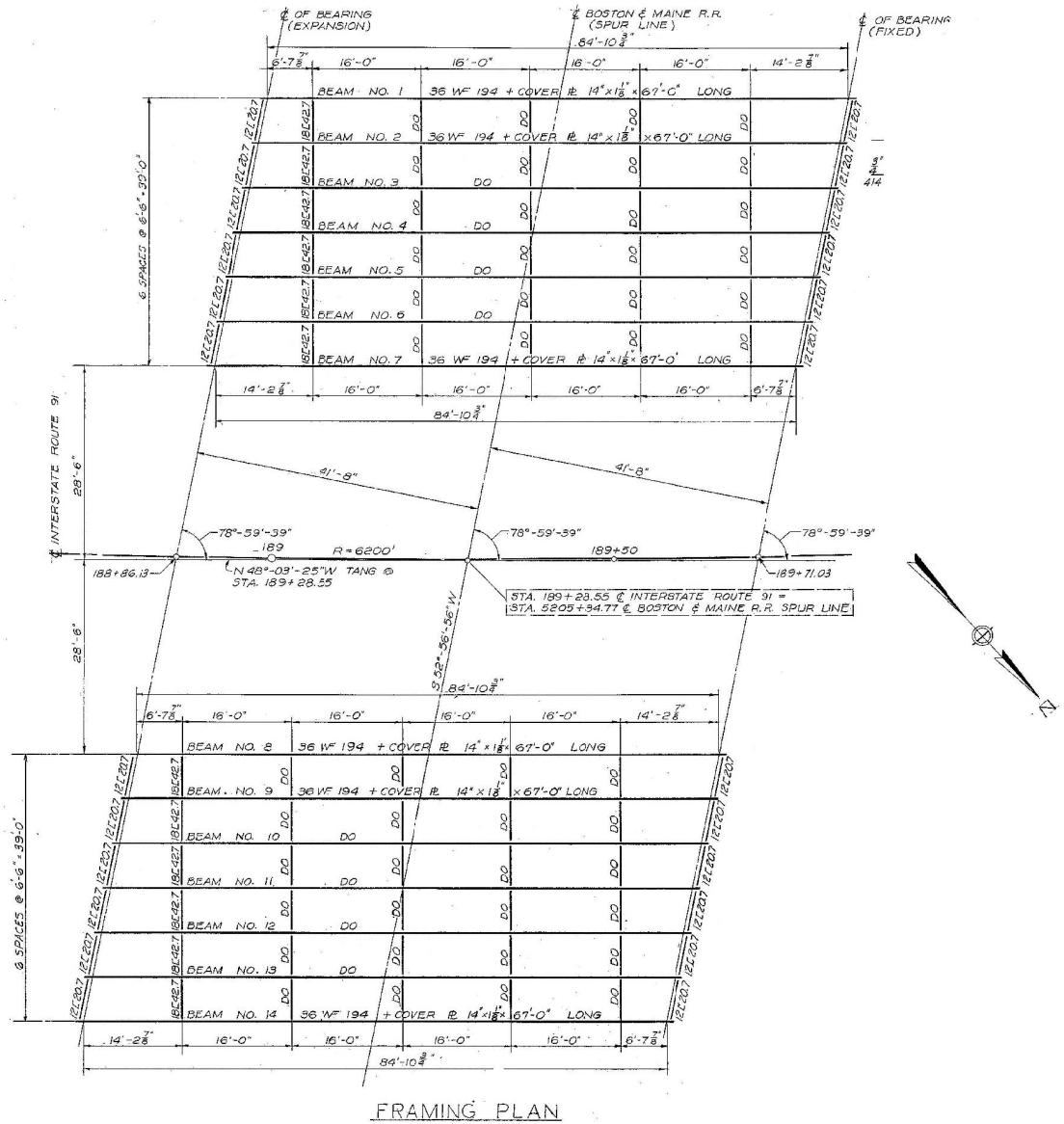
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	108	N-19-063	N19063-108-DOT-NBI	APR 18, 2024

SKETCHES



FRAMING PLAN

Sketch 1: Framing Plan

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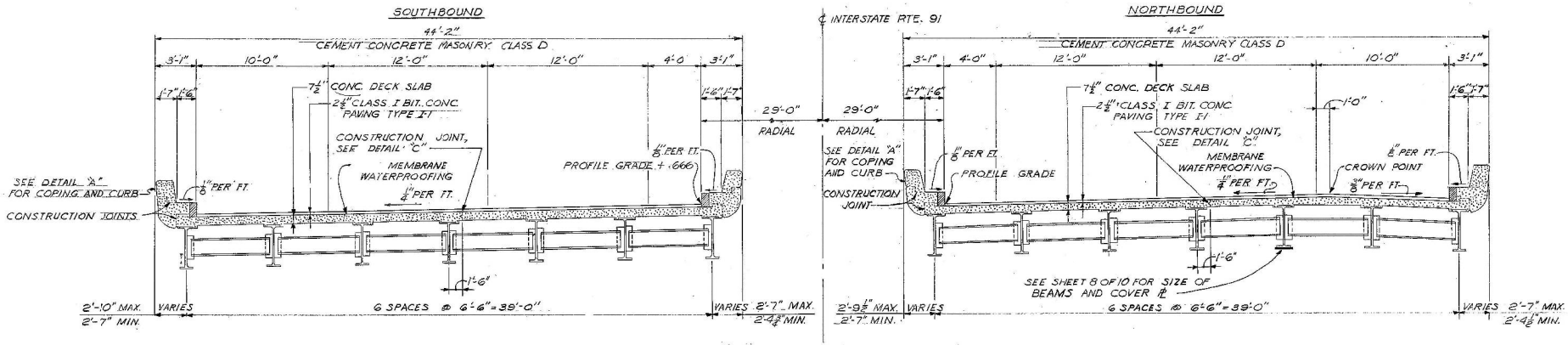
Proposal No. 6132l9-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	108	N-19-063	N19063-108-DOT-NBI	APR 18, 2024

SKETCHES



TYPICAL CROSS SECTION

Sketch 2: Cross Section

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A00808 - 247

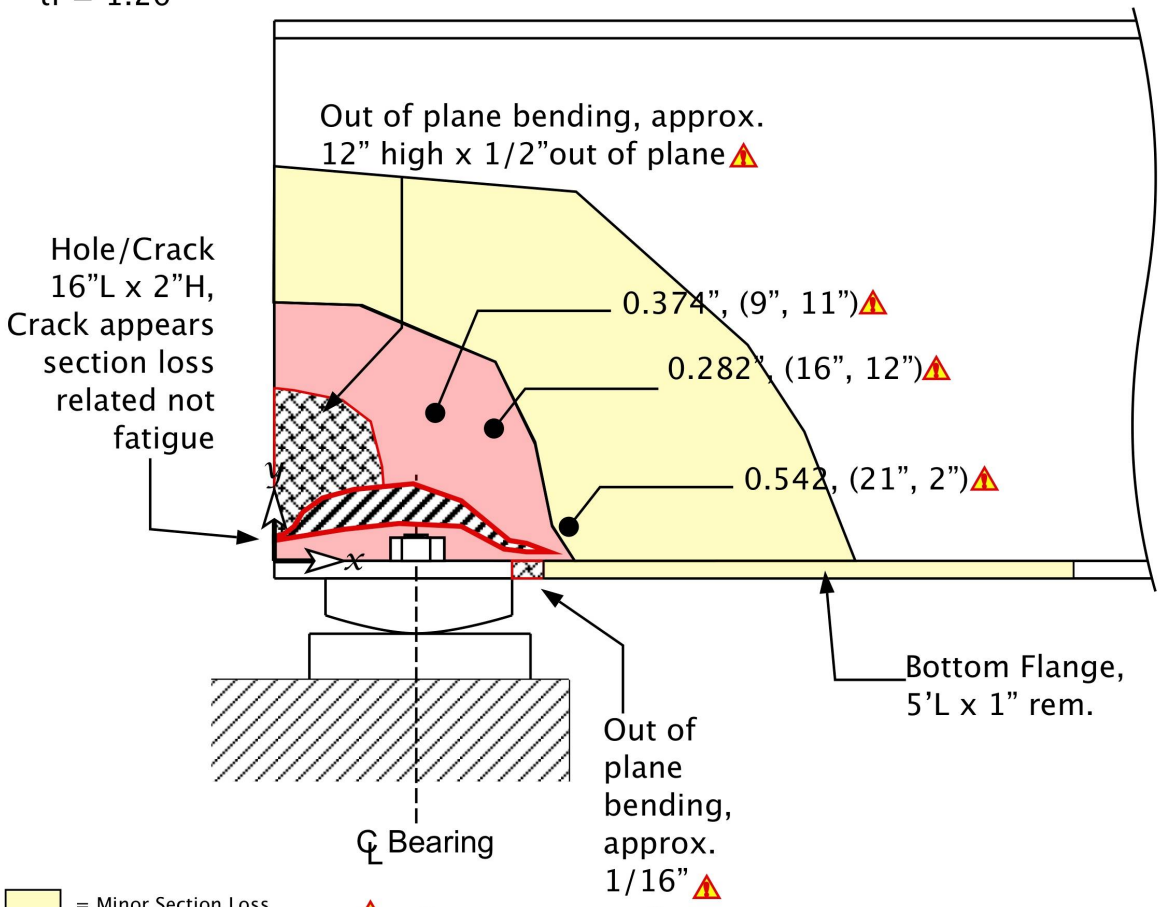
Proposal No. 6132219-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	108	N-19-063	N19063-108-DOT-NBI	APR 18, 2024

SKETCHES

36WF194
tw = 0.765”
tf = 1.26”

N-19-063 (108)
Beam 8 North End



Sketch 3: Beam 8 North, Defects

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	108	N-19-063	N19063-108-DOT-NBI	APR 18, 2024

PHOTOS

Photo 1: **Wearing Surface has multiple patches, and 2 potholes with exposed deck. Steel Thrie Beam guardrail on timber posts are bolted through the parapets.**

Photo 2: **Deck Underside, Bay 6, has small PVC weep pipes that extends below the bottom flanges of the beams. Beam 8, hole in web.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	108	N-19-063	N19063-108-DOT-NBI	APR 18, 2024

PHOTOS

Photo 3: **Deck Underside, West Overhang, South Abutment, deteriorated formwork and failing patch.**

Photo 4: **South Abutment Deck Joint has one bent section.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	108	N-19-063	N19063-108-DOT-NBI	APR 18, 2024

PHOTOS

Photo 5: **Beam 8, last 20" of the south lower web & bottom flange have section loss.**

Photo 6: **Beam 8, north lower web end has 16" long x up to 1" high, rust hole/ cracked area.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	108	N-19-063	N19063-108-DOT-NBI	APR 18, 2024

PHOTOS

Photo 7: **Beam 8, north lower web, edge of cracked area shows section loss but not propagation.**

Photo 8: **Beam 14, south end, last 12" of the lower web & last 4' of the east bottom flange have section loss.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	108	N-19-063	N19063-108-DOT-NBI	APR 18, 2024

PHOTOS

Photo 9: Bearings, Beam 14, south abutment, typical pack rust.

Photo 10: Southeast Wingwall has scaling and a diagonal crack.

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Report Date: March 11, 2025

State Information

BDEPT#= N19063 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 108 AASHTO= 081.9

RANK= 1808 H.I.= 72.4 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	N19063108DOTNBI
(5) Inventory Route	111000911
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**OTHER NORWOTTUCK RA TR**
(7) Facility Carried	**I 91 NB**
(9) Location	MM 24.8 ON I-91 NB
(11) Kilometerpoint	0040.055
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 20 MIN 04.33 SEC
(17) Longitude	72 DEG 37 MIN 22.95 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	001
(46) Number of approach spans	0000

(107) Deck Structure Type - Concrete Cast-in-Place Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous Code 6

B) Type of membrane - Built-up Code 1

C) Type of deck protection - None Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000

(42) Type of Service: On - Highway

Under - Pedestrian Code 13

(28) Lanes: On Structure 02	Under structure 00
(29) Average Daily Traffic	016917
(30) Year of ADT 2019 (109) Truck ADT	09 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0025.9 M
(49) Structure Length	00027.4 M
(50) Curb or sidewalk: Left 00.5 M	Right 00.5 M
(51) Bridge Roadway Width Curb to Curb	011.6 M
(52) Deck Width Out to Out	013.5 M
(32) Approach Roadway Width (w/shoulders)	011.6 M

(33) Bridge Median - No median Code 0

(34) Skew 11 DEG (35) Structure Flared N

(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	11.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref N	06.14 M
(55) Min Lat Underclear RT ref N	00.0 M
(56) Min Lat Underclear LT	00.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N

(111) Pier Protection Code

(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	R
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	6
(59) Superstructure	5
(60) Substructure	7
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	53.0
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	31.6
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	6
(69) Underclearances, vert. and horiz.	N
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 0
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 04/18/24 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	11/05/16

Rating Loads

Report Date 10/01/91	H20	Type 3	Type 3S2	Type HS
Operating	32.0	59.0	81.0	58.0
Inventory	22.0	33.0	42.0	35.0

Field Posting

Status LEGAL Posting Date 02/13/92

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

P / Y	Liftbucket	N / N	Rigging	N / N	Other
Y / Y	Ladder	N / N	Staging		
N / N	Boat	N / N	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		N / N	Police		

Inspection Hours: 012

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National Bridge Element Inspection

BDEPT#	**N-19-063**	Date	**04/18/2024**
B.I.N.	**108**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19063-108-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	3,967.000	☐ %	1,984.000	1,983.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	1,983.000	☐ %		1,983.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	3,413.000	☐ %	3,411.000			2.000
Notes :									
> > 3210	*Del/Spall/Patch/Pot(Wear Surf)*	sq feet	2	2.000	☐ %				2.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	569.000	☐ %		569.000		
Notes :									
> 1000	*Corrosion*	feet	2	569.000	☐ %		569.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	5,053.000	☐ %		5,053.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	5,053.000	☐ %		5,053.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	35.000	☐ %		17.000	18.000	
Notes :									
> 1000	*Corrosion*	feet	3	34.000	☐ %		17.000	17.000	
Notes :									
> 1900	*Distortion*	feet	3	1.000	☐ %			1.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	311.000	☐ %		160.000	151.000	
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-063**	Date	**04/18/2024**
B.I.N.	**108**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19063-108-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	311.000	☐ %		160.000	151.000	
Notes :									
215	**Re Conc Abutment**	feet	2	45.000	☐ %	45.000			
Notes :									
215	**Re Conc Abutment**	feet	3	45.000	☐ %	45.000			
Notes :									
301	**Pourable Joint Seal**	feet	2	39.000	☐ %	39.000			
Notes :									
311	**Moveable Bearing**	each	3	7	☐ %		7		
Notes :									
> 1000	*Corrosion*	each	3	7	☐ %		7		
Notes :									
> 515	Steel Protective Coating	sq feet	3	14.000	☐ %		14.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	14.000	☐ %		14.000		
Notes :									
313	**Fixed Bearing**	each	2	7	☐ %	5	2		
Notes :									
> 1000	*Corrosion*	each	2	2	☐ %		2		
Notes :									
> 515	Steel Protective Coating	sq feet	2	14.000	☐ %	10.000	4.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	4.000	☐ %		4.000		
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-063**	Date	**04/18/2024**
B.I.N.	**108**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19063-108-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
330	**Metal Bridge Railing**	feet	2	180.000	☐ %	180.000			
Notes :									
331	**Re Conc Bridge Railing**	feet	2	180.000	☐ %		180.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	180.000	☐ %		180.000		
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 15

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	109	N-19-063

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHAMPTON	N19063-109-DOT-NBI	040.055	A:OPEN	APR 2, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91 SB		1965	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
OTHER NORTWOTTUCK RA TR	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER J. Roy
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	10°C	T. MAZZAFERRO

ITEM 58 — DECK — 7

		DEF
1.Wearing Surface	7	-
2.Deck Condition	7	-
3.Stay in Place Forms	N	-
4.Curbs	7	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	7	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	7	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	260	260

APPROACHES

		DEF
a. Appr. pavement condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 6

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	6	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross-Frames	7	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	4	M-P
15.	N	-

Year Painted	1965

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: **(Y/N)** N

Any Cracks: **(Y/N)** N

ITEM 60 — SUBSTRUCTURE — 7

	Dive	Cur		DEF
1. Abutments			7	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	6		-
d. Breastwalls	N	7		-
e. Wingwalls	N	7		-
f. Slope Paving/Rip-Rap	N	7		-
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 7

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	109	N-19-063	N19063-109-DOT-NBI	APR 2, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	7	-
B. Transitions	0	7	-
C. Approach Guardrail	0	7	-
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	20	5	19	9	6.01
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	N
Ladder	Y	Y
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	N	N
RR Flagger	N	N
Police	N	N
Other:		
	N	N

TOTAL HOURS 8

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 10/01/1991

Inspection data at time of existing rating

I 58: **5** I 59: **6** I 60: **7** Date : 08/20/1990

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**109**	**N-19-063**	**N19063-109-DOT-NBI**	**APR 2, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Southbound, north to south, over the Norwottuck Rail Trail which travels east and west.

Per bridge plans, beams are numbered west to east (1 - 7), bays are numbered from west to east (1 - 6), abutments are labeled south and north. **See Sketches 1 & 2.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface is in good condition. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Underside in many areas has full depth patches that have been done since the 2018 inspection. **See Photo 2.**

Deck Underside, northwest corner, drains pipes extend down below Beam 1.

Item 58.4 - Curbs
Granite Curbs have rust stains, scrapes, and some minor chipping.

Item 58.7 - Parapets
Concrete Parapets have repairs.

Steel Thrie beam guardrail on timber posts have been retrofitted and bolted through the parapet walls. **See Photo 3.**

Item 58.8 - Railing
Railing consists of Thrie beam guardrail on timber posts have been bolted through the parapet walls. **See Photo 3.**

Concrete Parapets have AL-1 aluminum railing mounted on top.

APPROACHES

Approaches a - Appr. pavement condition
North & South Approach roadways have minor longitudinal and transverse cracking. **See Photos 4 & 5.**

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beams consist of 36WF194 (original web = 0.765" and flange = 1.26" thick).

Bottom flange cover plates have areas of minor to moderate surface rust.

Beam ends at both abutments have moderate to severe surface rust

Beam 1 (West Fascia):

- South end:
  - Last 24" x 2" high of the lower web has corrosion with section loss, 0.341" - 0.539" remaining.
  - West bottom flange in front of the bearing has 1.125" remaining. **See Photo 6.**
- North end:

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NORTHAMPTON	**109**	**N-19-063**	**N19063-109-DOT-NBI**	**APR 2, 2024**

REMARKS

- Last 24" x 2" high of the lower web has corrosion with section loss, 0.374" remaining.
- West bottom flange, just in front of the bearing has 0.825" remaining. **See Photo 7.**
- East bottom flange, just in front of the bearing has 0.690" remaining Full Width x 2" long.

Beam 7 (East Fascia):

• South end:
- Last 26" x 2" high of the lower web has corrosion with section loss, 0.440" - 0.448" remaining.
- East bottom flange in front of the bearing has 1.18" remaining and an area of pitting, 3"Φ x 0.59" remaining. **See Photo 8.**

• North end:
- Last 24" x 2" high of the lower web has corrosion with section loss, 0.468 - 0.568" remaining.
- East bottom flange in front of the bearing has 1.25" remaining. **See Photo 9.**

Interior Beams & Bearings have minor to moderate surface rust at both abutments.

Item 59.7 - Conn Plt's, Gussets & Angles
Steel diaphragm connection plates have some isolated areas of peeling paint.

South Abutment vertical stiffeners just below the concrete encased end diaphragms, have surface rust with minor section loss.

Item 59.8 - Cover Plates
Partial-length Cover Plates along the beam bottom flanges have areas of minor to moderate surface rust. **See Photo 2.**

Item 59.9 - Bearing Devices
South Abutment Expansion Bearings have severe rust, delaminated rust, and pack rust between all three plates (masonry/sliding/sole) and between the keeper angles and the plates. **See Photo 10.**

North Abutment Fixed Bearings:
• Fascia bearings have severe rust, delaminated rust, and pack rust under the sole plates.
• Interior bearings have several anchor bolts bent or tilted towards the backwall.
• Interior bearings are partially buried under concrete debris. **See Photo 11.**

Item 59.10 - Diaphragms/Cross-Frames
End Diaphragms (concrete encased steel channels) at the South Abutment have repairs .

Intermediate Diaphragms (steel channels) have isolated areas of peeling paint.

Item 59.14 - Paint/Coating
Beams, bearings, & diaphragms have moderate peeling paint with minor to severe surface rust. **See Photos 2, 6, 7, 8, 9, 10, & 11.**

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
South Bridge Seat, Bay 1, has a spall along the drain trough, 2 ' long x 6" high x 1" deep.

Bay 2, 4, & 5 have concrete repair debris left on bridge seats.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**109**	**N-19-063**	**N19063-109-DOT-NBI**	**APR 2, 2024**

REMARKS

Item 60.1.c - Backwalls
North Backwall:

- Bay 1, has hairline mapcracking with efflorescence, full-length x 4' high.
- Adjacent to Beam 7, has hairline mapcracking and efflorescence, 1.5' wide x 2.5' high.

South Backwall:

- Bay 1 has a construction joint with full height minor spalling.

Item 60.1.d - Breastwalls
South Breastwall has graffiti covering most defects.

South Breastwall:

- Under Bays 1 & 3, has hairline horizontal cracks, averaging 4' long.
- Under Bays 4 & 5, has a 1/16" wide x 8' long horizontal crack. **See Photo 12.**
- Under Beam 7, has a 1/16" wide x 4.5' long horizontal crack.

Item 60.1.f - Slope Paving/Rip-Rap
North & South Slopes have soil and vegetation encroaching at edges. **See Photo 13.**

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of nested steel Thrie beam guardrail on timber posts with timber offsets that are bolted to the concrete endposts. **See Photo 3.**

Item 36c - Approach Guardrail
East Approach guardrails consist of steel Thrie Beam guardrail on steel H-posts with plastic offset blocks. **See Photo 1.**

West Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends
Northwest Approach guardrail beyond limits of bridge.

Northeast Approach guardrail beyond limits of bridge.

Southeast Approach (trailing end) has a Tangent End Treatment.

Southwest Approach guardrail is attaches to another bridge.

Sketch / Photo Log
Sketch 1 : Framing Plan
Sketch 2 : Cross Section
Photo 1 : Wearing Surface is in good condition.
Photo 2 : Deck Underside have full depth patches. Cover Plates have surface rust.
Photo 3 : Steel Thrie beam guardrail on wood posts have been retrofitted and bolted to parapet walls.
Photo 4 : North Approach roadway has minor transverse & longitudinal cracks.
Photo 5 : South Approach roadway has minor transverse & longitudinal cracking.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**109**	**N-19-063**	**N19063-109-DOT-NBI**	**APR 2, 2024**

REMARKS

Photo 6 : Beam 1, south end, west face, lower web & bottom flange have section loss.
Photo 7 : Beam 1, north end, west face, lower web & bottom flange have section loss.
Photo 8 : Beam 7, south end, east face, web & bottom flange have section loss.
Photo 9 : Beam 7, north end, east face, lower web & bottom flange have section loss.
Photo 10 : Bearings, Beam 2 south end has pack rust.
Photo 11 : Bearings, Beam 5, north end is buried in construction debris.
Photo 12 : South Breastwall, under Bay 4 & 5 has horizontal crack under.
Photo 13 : North Slope has encroaching soil and vegetation at the edges.

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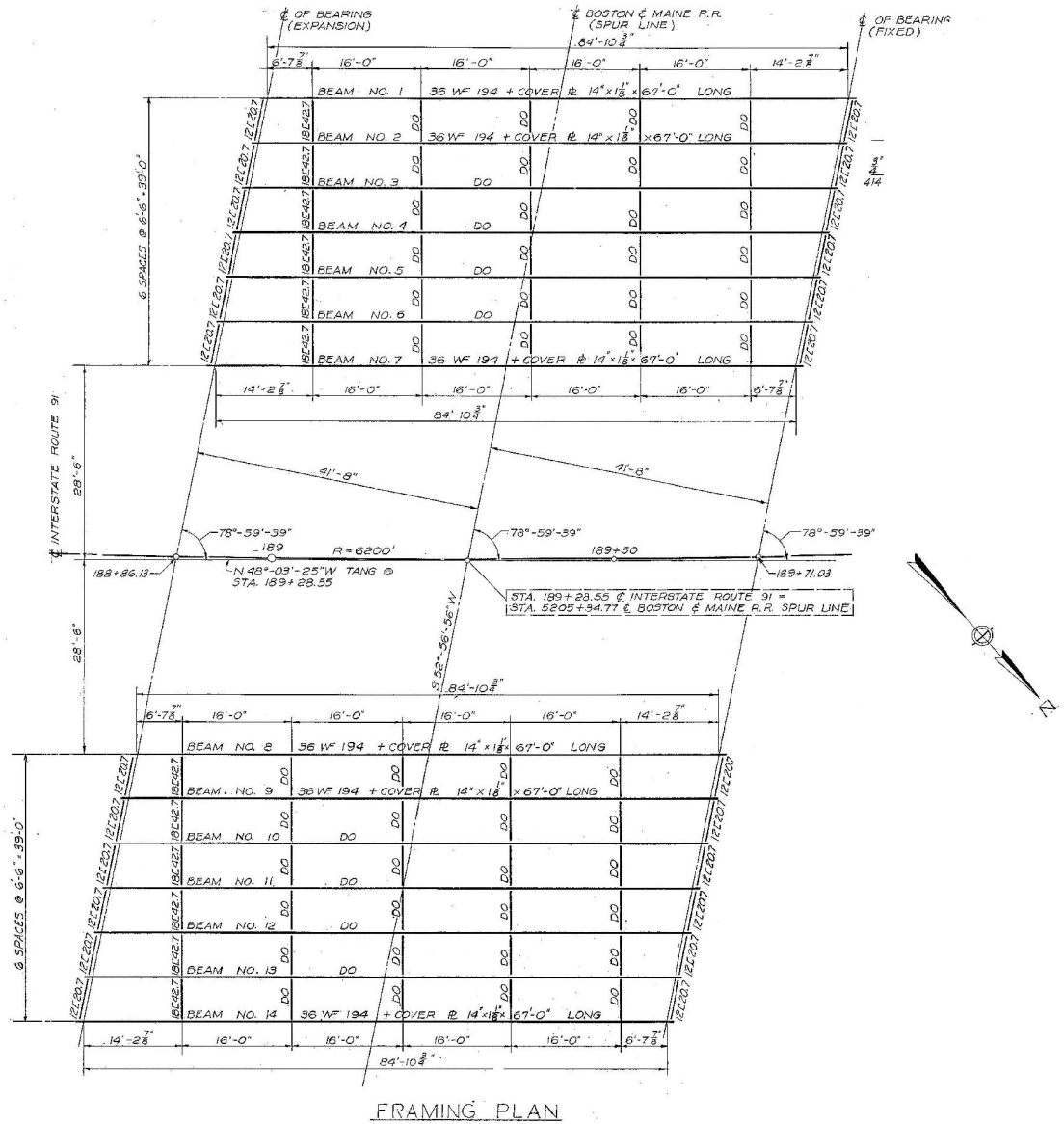
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	109	N-19-063	N19063-109-DOT-NBI	APR 2, 2024

SKETCHES



FRAMING PLAN

Sketch 1: Framing Plan

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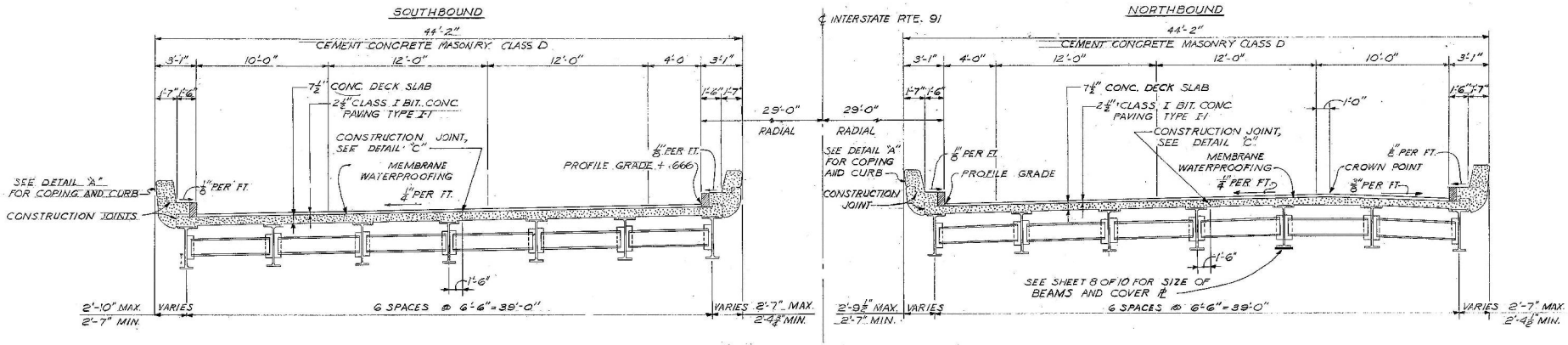
Proposal No. 6132219-132950

TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ORTHAMPTON	109	N-19-063	N19063-109-DOT-NBI	APR 2, 2024

SKETCHES



TYPICAL CROSS SECTION

Sketch 2: Cross Section

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A00808 - 265
Proposal No. 6132219-132950

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	109	N-19-063	N19063-109-DOT-NBI	APR 2, 2024

PHOTOS

Photo 1: **Wearing Surface is in good condition.**

Photo 2: **Deck Underside have full depth patches. Cover Plates have surface rust.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	109	N-19-063	N19063-109-DOT-NBI	APR 2, 2024

PHOTOS

Photo 3: **Steel Thrie beam guardrail on wood posts have been retrofitted and bolted to parapet walls.**

Photo 4: **North Approach roadway has minor transverse & longitudinal cracks.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	109	N-19-063	N19063-109-DOT-NBI	APR 2, 2024

PHOTOS

Photo 5: **South Approach roadway has minor transverse & longitudinal cracking.**

Photo 6: **Beam 1, south end, west face, lower web & bottom flange have section loss.**

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NORTHAMPTON	109	N-19-063	N19063-109-DOT-NBI	APR 2, 2024

PHOTOS

Photo 7: **Beam 1, north end, west face, lower web & bottom flange have section loss.**

Photo 8: **Beam 7, south end, east face, web & bottom flange have section loss.**

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NORTHAMPTON	109	N-19-063	N19063-109-DOT-NBI	APR 2, 2024

PHOTOS

Photo 9: **Beam 7, north end, east face, lower web & bottom flange have section loss.**

Photo 10: **Bearings, Beam 2 south end has pack rust.**

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NORTHAMPTON	109	N-19-063	N19063-109-DOT-NBI	APR 2, 2024

PHOTOS

Photo 11: Bearings, Beam 5, north end is buried in construction debris.

Photo 12: South Breastwall, under Bay 4 & 5 has horizontal crack under.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHAMPTON	**109**	**N-19-063**	**N19063-109-DOT-NBI**	**APR 2, 2024**

PHOTOS

Photo 13: North Slope has encroaching soil and vegetation at the edges.

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Report Date: March 11, 2025

State Information

BDEPT#= N19063 Agency Br.No.

Town= Northampton L.O. MHD

B.I.N= 109 AASHTO= 094.1

RANK= 2861 H.I.= 72.4 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	N19063109DOTNBI
(5) Inventory Route	111000913
(2) State Highway Department District	02
(3) County Code 015 (4) Place code	46330
(6) Features Intersected	**OTHER NORTWOTTUCK RA TR**
(7) Facility Carried	**I 91 SB**
(9) Location	MM 24.8 ON I-91 SB
(11) Kilometerpoint	0040.055
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 20 MIN 03.78 SEC
(17) Longitude	72 DEG 37 MIN 23.99 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr: Other	Code 000
(45) Number of spans in main unit	001
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Built-up	Code 1
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1965
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Pedestrian	Code 13
(28) Lanes: On Structure 02	Under structure 00
(29) Average Daily Traffic	017735
(30) Year of ADT 2019	(109) Truck ADT 09 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0025.9 M
(49) Structure Length	00027.4 M
(50) Curb or sidewalk: Left 00.5 M	Right 00.5 M
(51) Bridge Roadway Width Curb to Curb	011.6 M
(52) Deck Width Out to Out	013.5 M
(32) Approach Roadway Width (w/shoulders)	011.6 M
(33) Bridge Median - No median	Code 0
(34) Skew 11 DEG	(35) Structure Flared N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	11.6 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref N	06.01 M
(55) Min Lat Underclear RT ref N	00.0 M
(56) Min Lat Underclear LT	00.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	L
(102) Direction of Traffic - 1-way traffic	1
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance less than 50 years old & is of common st	R

Condition

	Code
(58) Deck	7
(59) Superstructure	6
(60) Substructure	7
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	53.0
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	31.6
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	6
(68) Deck Geometry	6
(69) Underclearances, vert. and horiz.	N
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 04/02/24 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	03/02/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 10/01/91	H20	Type 3	Type 3S2	Type HS
Operating	32.0	59.0	81.0	58.0
Inventory	22.0	33.0	42.0	35.0

Field Posting

Status LEGAL Posting Date 02/13/92

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / N	Liftbucket	N / N	Rigging	N / N	Other
Y / Y	Ladder	N / N	Staging		
N / N	Boat	N / N	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		N / N	Police		

Inspection Hours: 008

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National Bridge Element Inspection

BDEPT# **N-19-063**
B.I.N. **109**
Item 8 **N19063-109-DOT-NBI**
Span Group **1**
Town **Northampton**
District **2**

Date **04/02/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **James Roy**
Team Member(s) **Tony Mazzaferro**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	3,967.000	☐ %	1,984.000	1,983.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	1,983.000	☐ %		1,983.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	3,413.000	☐ %	3,413.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	569.000	☐ %	11.000	558.000		
Notes :									
> 1000	*Corrosion*	feet	2	558.000	☐ %		558.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	4,955.000	☐ %		4,955.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	4,955.000	☐ %		4,955.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	35.000	☐ %		18.000	17.000	
Notes :									
> 1000	*Corrosion*	feet	3	35.000	☐ %		18.000	17.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	311.000	☐ %		160.000	151.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	311.000	☐ %		160.000	151.000	
Notes :									
215	**Re Conc Abutment**	feet	2	45.000	☐ %	45.000			
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-063**	Date	**04/02/2024**
B.I.N.	**109**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19063-109-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
215	**Re Conc Abutment**	feet	3	45.000	☐ %	45.000			
Notes :									
301	**Pourable Joint Seal**	feet	2	39.000	☐ %	39.000			
Notes :									
311	**Moveable Bearing**	each	3	7	☐ %		7		
Notes :									
> 1000	*Corrosion*	each	3	7	☐ %		7		
Notes :									
> 515	Steel Protective Coating	sq feet	3	14.000	☐ %		14.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	14.000	☐ %		14.000		
Notes :									
313	**Fixed Bearing**	each	2	7	☐ %	5	2		
Notes :									
> 1000	*Corrosion*	each	2	2	☐ %		2		
Notes :									
> 515	Steel Protective Coating	sq feet	2	14.000	☐ %	10.000	4.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	4.000	☐ %		4.000		
Notes :									
330	**Metal Bridge Railing**	feet	2	180.000	☐ %	180.000			
Notes :									
331	**Re Conc Bridge Railing**	feet	2	180.000	☐ %		180.000		
Notes :									

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National Bridge Element Inspection

BDEPT#	**N-19-063**	Date	**04/02/2024**
B.I.N.	**109**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**N19063-109-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**James Roy**
Town	**Northampton**	Team Member(s)	**Tony Mazzaferro**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1080	*Delamination/Spall/Patched Area*	feet	2	180.000	☐ %		180.000		
Notes :									

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CITY OF SPRINGFIELD BRIDGES –

INSPECTION REPORTS

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 34

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10M	S-24-087

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
SPRINGFIELD	S24087-10M-DOT-NBI	106.858	A:OPEN	AUG 7, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
US 20 PLAINFLD ST		1968	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
I 91	Urban Arterial	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
402 : Steel continuous Stringer/Girder	State Highway Agency	State Highway Agency	A. Power

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	20°C	A. T. LOCHNER

ITEM 58 — 6

DECK

		DEF
1. Wearing Surface	5	M-P
2. Deck Condition	6	-
3. Stay in Place Forms	N	-
4. Curbs	5	M-P
5. Median	6	M-P
6. Sidewalks	6	M-P
7. Parapets	N	-
8. Railing	6	M-P
9. Anti-Missile Fence	6	-
10. Drainage System	5	M-P
11. Lighting Standards	4	S-P
12. Utilities	5	M-P
13. Deck Joints	5	M-P
14. Shielding	7	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters): N = 320, S = 280

APPROACHES

		DEF
a. Appr. pavement condition	6	-
b. Appr. Roadway Settlement	6	-
c. Appr. Sidewalk Settlement	6	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N): N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 5

SUPERSTRUCTURE

		DEF
1. Stringers	N	-
2. Floorbeams	N	-
3. Floor System Bracing	N	-
4. Girders or Beams	5	S-A
5. Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6. Pin & Hangers	N	-
7. Conn Plt's, Gussets & Angles	6	-
8. Cover Plates	6	-
9. Bearing Devices	6	-
10. Diaphragms/Cross Frames	4	M-P
11. Rivets & Bolts	6	-
12. Welds	6	-
13. Member Alignment	7	-
14. Paint/Coating	4	S-P
15.	N	-

Year Painted: 1988

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — 6

SUBSTRUCTURE

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	6		-
c. Backwalls	N	6		-
d. Breastwalls	N	6		-
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	6		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			7	
a. Pedestals	N	7		-
b. Caps	N	6		M-P
c. Columns	N	7		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 6

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	6	M-P
B. Transitions	0	6	M-P
C. Approach Guardrail	0	6	-
D. Approach Guardrail Ends	0	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge E	At bridge W	Other Advance E	Other Advance W

CLEARANCE POSTING

Not X

	N ft	N in	S ft	S in	meter
Actual Field Measurement	16	4	17	10	4.97
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge N	At bridge S	Advance N	Advance S

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
NIGHTWORK	Y	Y

TOTAL HOURS 40

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 04/01/2009

Inspection data at time of existing rating

I 58: **6** I 59: **6** I 60: **5** Date : 12/07/2007

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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REMARKS

BRIDGE ORIENTATION
Bridge carries State 20 (Plainfield Street), east and west, over I-91 Northbound & Southbound, and State 20 and I-291 Ramps.

Per the bridge plans, spans and piers are numbered east to west. Girders are numbered south to north and east to west. Pier columns are numbered south to north. **See Sketches 1 - 3.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has random short transverse & longitudinal cracks, random minor asphalt patching, and some minor wheel rutting.

Pavement has heaved along the curb in several areas with random minor pavement break-up.
See Photo 1.

Span 2, eastbound lane has an area of uneven HMA patches along the median curb. **See Photo 2.**

Span 4, westbound lane has an area of uneven patching with minor depressions along the median curb.
See Photo 3.

Item 58.2 - Deck Condition
North & South Deck Overhangs have transverse hairline cracks with leaching efflorescence and minor spalling along the beam edges.

Deck Underside has some scattered areas of minor hairline mapcracking with & without leaching efflorescence.

Deck Underside, Span 2 (Northbound Lanes):
- Bay 1:
  - Northbound right lane, at Pier 1 deck weep drains, has spalling with rust stains and efflorescence. **See Photo 4.**
  - Transverse cracks with efflorescence over the left lanes.
- Bay 3, above 2nd lane from east, two areas of scaling, 2' diameter x 1" deep.
- Bay 6, previously reported spall over left lane is hidden by timber shielding. **See Sketch 4.**
- Bay 7, near full length has hairline mapcracking and rust staining from rebar chairs.

Deck Underside, Span 3 (Southbound Lanes):
- Bay 1:
  - Transverse cracks, efflorescence, and a few random cover spalls.
  - Haunch along the top flange of Girder 12 has been removed except for the western most 9'.
- Bay 6, over the left southbound lane has a spall with exposed rebar, 1.5' diameter x 4" deep. **See Sketch 4 & Photo 5.**
- Bay 7, previously reported random transverse hairline cracks with leaching efflorescence are hidden by timber shielding. **See Sketch 4.**

Item 58.4 - Curbs
Granite curbs have areas of missing joint mortar and areas of minor chipping.

Northwest & Northeast Approach Curbs have settled by up to 2".

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REMARKS

Northeast Approach Curb at end post has a 3' section of missing curb, also curb is misaligned. **See Photo 6.**

Item 58.5 - Median
Concrete Median has random areas of scaling, up to 2" deep x up to 16" wide, along the granite curb interfaces, which have filled in with sand. **See Photo 7.**

Median has an accumulation of debris.

Item 58.6 - Sidewalks
Sidewalk has areas of scaling, up to 2" deep x up to 12" wide x various lengths, along the granite curb interface, which have filled in with sand. **See Photo 8.**

Item 58.8 - Railing
Railing consists of AL-3 Railing (three tubular rails on T-posts) that is not attached to the concrete endposts.

Anchor bolts on the posts have some minor corrosion and random missing bolts. **See Photo 9.**

Item 58.9 - Anti-Missile Fence
Type I Protective Screening (Anti-Missile Fence) has minor corrosion.

Item 58.10 - Drainage System
Piers 1 & 3 & West Abutment weep pipes are missing and allow water to drain onto the end diaphragms & bridge seats.

Steel weep drains in the deck underside have random areas of rust delaminations and a few missing extensions. **See Photo 4.**

Item 58.11 - Lighting Standards
Span 1 median light standard has previously been removed has a 4" high stub sticking above median with exposed wires. **See Photo 10.**

Span 2 median light standard is leaning up to 2° northeast. **See Photo 11.**

Span 3 median light standard has previously been removed and has a 3' high stub sticking above median. **See Photo 12.**

Some of Luminaries along the underside of the bridge were not working at the time of this inspection, and the glass housings for some of the fixtures are broken.

Metal Conduits & Junction Boxes

- Along both Backwalls conduit is rusted with some areas of 100% loss and exposed electrical wires. **See Photo 13.**
- At Pier 1, east face, not over roadway, there is a loose section of conduit.

Item 58.12 - Utilities
Several of the utility supports have corrosion & section loss.

At Bay 5, Pier 1 in both spans the lower support brackets have failed with 100% section loss adjacent to Beams 6 & 17. **See Photo 14.**

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REMARKS

Item 58.13 - Deck Joints
Deck Joints at Piers 1 & 3 have random areas of leakage allowing moisture onto the elements below. **See Photo 15.**

East Abutment, **Eastbound**:
- Multiple locations of cracked up concrete header.
- Multiple locations of asphalt patching within the concrete header.
- Random locations of minor seal adhesion failure.

See Photo 16.

Pier 1, Eastbound extruded silicone joint has transverse cracking along the concrete header.

Pier 3, Eastbound concrete header has multiple areas of mapcracking 3' long x 2' wide in the travel lane.

West Abutment, Westbound joint seal has widespread adhesion failure. **See Photo 17.**

West Abutment, Eastbound:
- Concrete header has areas concrete patching throughout
- Concrete header has an area of asphalt patching near the south shoulder.
- Concrete header has random transfers cracking and mapcracking.
- Random locations of minor seal adhesion failure.

See Photo 18.

Item 58.14 - Shielding
Bridge has Deck Shielding in the following locations:
- Span 2, Bay 6, full length, above the utility conduits.
- Span 3, Bay 7, full length.
- Span 3, Bay 8, west end at Pier 3.
- Span 4, Bay 8, over the roadway and extending to Pier 3.

See Sketch 4.

APPROACHES

Approaches a - Appr. pavement condition
Approach pavement typically has minor wheel rutting in all lanes.

East Departure, Eastbound has transverse & longitudinal cracking.

West Departure, Westbound has pavement break-up along the median and areas of minor mapcracking up to 4' diameter. **See Photo 19.**

Approaches b - Appr. Roadway Settlement
East & West Approaches have wheel rutting in all travel lanes. **See Photo 19.**

Approaches c - Appr. Sidewalk Settlement
HMA has been placed to ramp up the approach sidewalks to the bridge at the Southwest & Southeast Approaches.

West Abutment has 2" of settlement where the concrete sidewalk and HMA ramps up.

East Abutment has 2" of settlement where the concrete sidewalk and HMA ramps up. **See Photo 20.**

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REMARKS

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams

Spans 1 & 4 have eleven rolled steel beams that are simply supported.

Spans 2 & 3 have eleven welded steel plate girders that are continuous over Pier 2.

Spans 2 & 3 Girder bottom flanges have moderate surface rust, and most of the peeling paint and moderate surface rust is in Span 3.

Piers 1 & 3 Girder ends have minor to moderate surface rust with some localized pitting and multiple locations of heavy section loss with web edge holes, detailed below. **See Sketch 5.**

At Pier 1:

- **Span 1**, **Beam 6:**
  - **Lower web edge** has a hole, 3" high x 4" wide, surrounded by section loss, 6" high x 6" wide x 0.25" remaining. **See Photo 21.**
  - **Mid height web edge** has a hole, 2" high x 2" wide, surrounded by section loss, 6" high x 6" wide x 0.25" remaining.
  - **Upper web edge (at concrete diaphragm)** has a hole, 6" high x 3" wide, surrounded by section loss, 10" high x 6" wide x 0.25" remaining.
  - **South face stiffeners** have holes and section loss:
    - **West** has 1"Φ, 2"Φ & 4" high x 1" wide holes, surrounded by section loss, 8" high x full width x 0.25" remaining. **See Photo 21.**
    - **East** has a 8" high x 1" wide hole, surrounded by section loss, 10" high x full width x knife-edge to 1/4" remaining.
  - **North face, west stiffener** has 0.10" remaining.
- **Span 1, Beam 11**:
  - **Lower web edge** has a hole, 9" high x 6" wide.
  - **Upper web edge** has a hole, 27" high x 6" wide. **See Photo 22.**
  - **Remaining web edge** has section loss typically 0.25" remaining with areas of 0.10" remaining adjacent to the web holes, full height x 6" wide.
  - **Stiffeners:**
    - North face, west stiffener has section loss at the bottom, 12" high x full width x 0.25"-0.50" remaining.
    - South face, west stiffener has a hole at the bottom, 6" high x 4" wide, and holes along the edge, full height x up to 2" wide.
- **Span 2, Beam 16**, **Web Edge (at concrete diaphragm)** has a hole at the top, 2" high x 3.5" wide, surrounded by section loss, 4" high x 6" wide x 0.25" remaining.
- **Span 2, Beam 17, Web Edge (at concrete diaphragm)** has a hole at the top, 3" high x 3" wide, surrounded by section loss, 4" high x 6" wide x 0.25" remaining.
- **Span 2, Beam 18:**
  - **Lower web edge** has a hole, 2" high x 1" wide, surrounded by full section.
  - **Upper web edge (at concrete diaphragm)** has a hole, 3" high x 4" wide, surrounded by section loss, 5" high x 6" wide x 0.25" remaining.
- **Span 2, Beam 22:**
  - **Web edge** has section loss, full height x 5" wide x 0.25" remaining.
  - **Lower web edge** has a hole, 5" high x 8" wide. **See Photo 22.**
  - **Upper web edge (at concrete diaphragm)** has a hole, 3/4" high x 2" wide.

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REMARKS

At Pier 3:

- **Span 3, Beam 13, Web Edge (at concrete diaphragm)** has a hole at the top, 1.75" high x 3" wide, surrounded by section loss, 3" high x 6" wide x 0.25" remaining. **See Photo 23.**
- **Span 4, Beam 29**:
  - North face, east beam stiffener has a hole at the base, 2"Φ surrounded by section loss, 12" high x full width x 0.375" remaining.
  - North face, east bolster stiffener has a hole at the top, 2"Φ surrounded by section loss, 2" high x full width x 0.25" remaining. **See Photo 24.**

Item 59.7 - Conn Plt's, Gussets & Angles
Beam splice plates, nuts, and bolts over the left northbound lane in Span 2 have some laminated steel. **See Photo 25.**

Item 59.8 - Cover Plates
Spans 1 & 4 cover plates have areas of peeling paint and minor corrosion.

Cover Plates do not have end welds.

Item 59.9 - Bearing Devices
West Abutment Expansion Bearings have minor to severe rust delaminations on the masonry plates. **See Photo 26.**

Pier Fixed Bearings have rust delaminations.

Pier Bearings have debris build-up.

Item 59.10 - Diaphragms/Cross Frames
Steel end diaphragms over the abutments and Piers 1 & 3 have areas of widespread section loss and holes **See Chart 1.**

Pier 1, Bay 5 lower steel utility diaphragm is completely corroded and broken. **Photo 14.**

Concrete end diaphragms have random areas of cracking, delamination, and spalling, with the worst instance of spalling at Pier 3, Bay 2. **See Photo 27.**

Item 59.11 - Rivets & Bolts
Most bolts on the bottom flanges of the beams and girders have minor corrosion.

Item 59.12 - Welds
Failure of the paint system has allowed for minor corrosion of some welds along the lower sections of the girders and beams.

Item 59.14 - Paint/Coating
Spans 1 & 4 cover plates and Spans 2 & 3 bottom flanges of the continuous girders have areas of moderate peeling paint.

Piers 1 & 3, beam end and diaphragm paint has mostly failed. **See Photos 21 - 24.**

SuperStructure Load Vibration Notes
Bridge has minor load vibrations can be felt under heavy loads.

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REMARKS

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
East Bridge Seat, Bay 2, is scaled at the breastwall interface. **See Photo 28.**

East & West Bridge Seats have a build-up of debris. **See Photo 29.**

Item 60.1.c - Backwalls
East & West Backwalls have a few random vertical hairline cracks with some rust stains.

East Backwall, Bay 9, has an area of spalling, up to 3' wide x 8" high x 1" deep. **See Photo 30.**

Item 60.1.d - Breastwalls
East & West Breastwalls have scattered short horizontal hairline cracks just below the bridge seat with some rust staining.

West Breastwall:
- Bay 2 at the top has hairline cracks with efflorescence.
- Bay 5 top of wall has short hairline cracks with minor rust staining.
- Bay 7 has one full-height hairline vertical crack.

East Breastwall:
- Bay 2 top of wall has a spall, 2' wide x 6" high x 3" deep. **See Photo 28.**
- Bays 2, 4 & 6 have full-height hairline vertical cracks.

Item 60.1.e - Wingwalls
Northwest & Southwest Wingwalls have one small shallow spall each.

Tops of all the Wingwalls have a few random vertical hairline cracks.

Southwest Wingwall has a large area of hairline mapcracking.

Item 60.1.f - Slope Paving/Rip-Rap
West Slope Paving, at Bays 2, 9, & 10, top has minor erosion and settlement with a few missing blocks, up to 20' wide x 5' long. **See Photo 31.**

East Slope Paving has random concrete repairs. **See Photo 32.**

Item 60.2 - Piers or Bents
Item 60.2.b - Caps
Pier 1, East face, Bay 8, top, spall 14" high x 18" wide x up to 3" deep. **See Photo 33.**

Pier 2:
- Top face has widespread random hollow, delaminated concrete.
- East face:
  - Bay 4, between Beams 15 & 16, has a spall, 4' wide x 6" high x 4" deep, with surrounding delaminated concrete.
  - Bay 7, below Beam 19, has a spall, 3' wide x 14" high x 3" deep with hollow sounding concrete on either side up to 16" long x 12" high. **See Photo 34.**
- West face:

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REMARKS

- Bay 2, between Beams 13 & 14, has delaminated concrete along the top edge 8' long x 9" high.
- Bay 3, between Beams 14 & 15, has spalling along the top edge that extends into the top face, up to 6' long x 3" high x 3" deep. **See Photo 35.**

Pier 3, West Face, Bay 7 & Bay 10 have cracking and hollow sounding concrete.

Item 60.2.c - Columns
Columns have a few locations of random, minor, vertical cracking.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of steel W-beam guardrail bolted to the concrete endposts, on steel H-posts with steel offset blocks.

Northwest & Northeast transitions have minor bends in the rail with some of the H-posts tipped backwards at the northeast corner.

Item 36c - Approach Guardrail
Approach guardrails consist of steel W-beam on steel H-posts with steel offset blocks.

Northwest Approach guardrails have some minor collision damage.

Southeast Approach guardrail has been repaired since the previous inspection. **See Photo 36.**

Item 36d - Approach Guardrail Ends
Northwest Approach has a steel terminal end.

Southwest Approach guardrail extends down the adjacent roadway to a terminal end.

Northeast Approach has a buried end.

Southeast Approach guardrail terminal end has been replaced since the last inspection. **See Photo 36.**

Sketch / Chart / Photo Log

Sketch 1 :	Framing Plan
Sketch 2 :	Elevation
Sketch 3 :	Cross-Section
Sketch 4 :	Deck shielding and significant spall locations.
Sketch 5 :	Beam end hole locations
Chart 1 :	End Diaphragm - Defects
Photo 1 :	Wearing Surface, Span 3, south edge has heaving along the curb with areas of pavement break-up.
Photo 2 :	Wearing Surface, Span 2, eastbound lane has an area of uneven patches along the median curb.
Photo 3 :	Wearing Surface, Span 4, westbound lane has an area of uneven patching with minor depressions along the median curb.

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SPRINGFIELD	**10M**	**S-24-087**	**S24087-10M-DOT-NBI**	**AUG 7, 2024**

REMARKS

Photo 4 : Deck Underside, Span 2, Bay 1, east end has an area of rust staining and efflorescence at the deck weep holes.
Photo 5 : Deck Underside, Span 3, Bay 6, east end has a spall with exposed rebar.
Photo 6 : Northeast Approach Curb at end post has a 3' section of missing curb, and curb is misaligned.
Photo 7 : Concrete Median has random areas of scaling, up to 2" deep x up to 16" wide, along the granite curb interfaces, which have filled in with sand.
Photo 8 : Sidewalk has areas of scaling, up to 2" deep x up to 12" wide x various lengths, along the granite curb interface, which have filled in with sand.
Photo 9 : Railing Anchor bolts on the posts have some minor corrosion, and random missing anchor bolts.
Photo 10 : Lighting Standard in Span 1 has a 4" high stub sticking above pavement with exposed wires.
Photo 11 : Lighting Standard in Span 2 is leaning.
Photo 12 : Lighting Standard in Span 3 has a 3' stub sticking out from abandoned lighting pole.
Photo 13 : Along both Backwalls conduit is rusted with some areas of 100% loss and exposed electrical wires.
Photo 14 : Utility Support Cross Frame, Bay 5 over Pier 1, has failed (100% section loss) adjacent to Beams 6 & 17.
Photo 15 : Deck Joint at Pier 3 is leaking allowing moisture onto elements below. Similar at Pier 1.
Photo 16 : Deck Joint, East Abutment, Eastbound has cracking concrete header with areas of asphalt patching.
Photo 17 : Deck Joint, West Abutment, Westbound, has widespread adhesion failure.
Photo 18 : Deck Joint, West Abutment, Eastbound, has cracking in the concrete header and asphalt patching.
Photo 19 : Approach roadway, West Departure, westbound has pavement break-up along the median and areas of minor mapcracking up to 4' diameter.
Photo 20 : Approach Sidewalk at East Abutment has 2" of settlement where the concrete sidewalk and HMA ramps up.
Photo 21 : Span 1, Beam 6, at Pier 1, has section loss with a hole the lower web end, and section loss with a hole at the south face bearing stiffeners.
Photo 22 : Span 1, Beam 11 at Pier 1 and Span 2, Beam 22 at Pier 1, have severe section loss with holes to the web end.
Photo 23 : Span 3, Beam 13 at Pier 3, has section loss to the web end with a hole adjacent to the concrete diaphragm.
Photo 24 : Span 4, Beam 29 at Pier 3, stiffener and bolster stiffener have section loss with holes.
Photo 25 : Span 2, splice plates have rust and minor laminated steel.
Photo 26 : West Abutment Expansion Bearings have minor to severe rust delaminations on the masonry plates.
Photo 27 : Span 3, Bay 2, concrete end diaphragm at Pier 3 is cracked and spalled.
Photo 28 : East Bridge Seat is scaled at the Breastwall interface.
Photo 29 : East Bridge Seat, Bay 10, has moderate debris.
Photo 30 : East Backwall, Bay 9, has a spall.
Photo 31 : West Slope Paving has multiple areas of displaced blocks near the top of the wall.
Photo 32 : East Slope Paving has random concrete repairs.
Photo 33 : Pier 1, Cap, east face, Bay 8, top of cap is spalled 14" high x 18" wide x up to 3" deep.
Photo 34 : Pier 2, Cap, east face, Bay 7, has a spall 14" high x 3' wide x up to 3" deep with adjacent hollow concrete.
Photo 35 : Pier 2, Bay 3, east face and top face are spalled.
Photo 36 : Southeast Approach guardrail & end treatment have been repaired since the last inspection.

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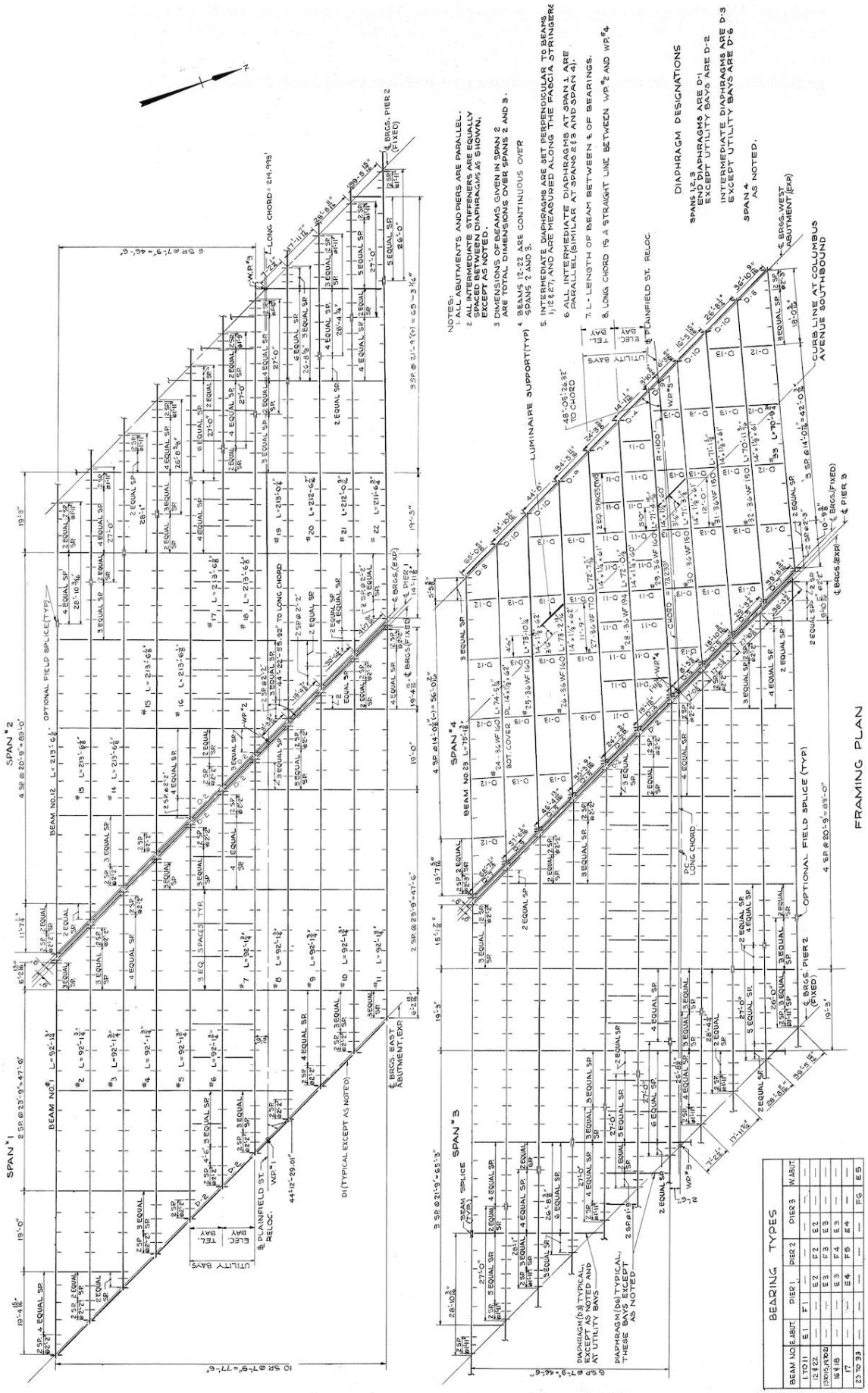
SPRINGFIELD	**10M**	**S-24-087**	**S24087-10M-DOT-NBI**	**AUG 7, 2024**

SKETCHES



Sketch 1: Framing Plan

REM.(2)2-21

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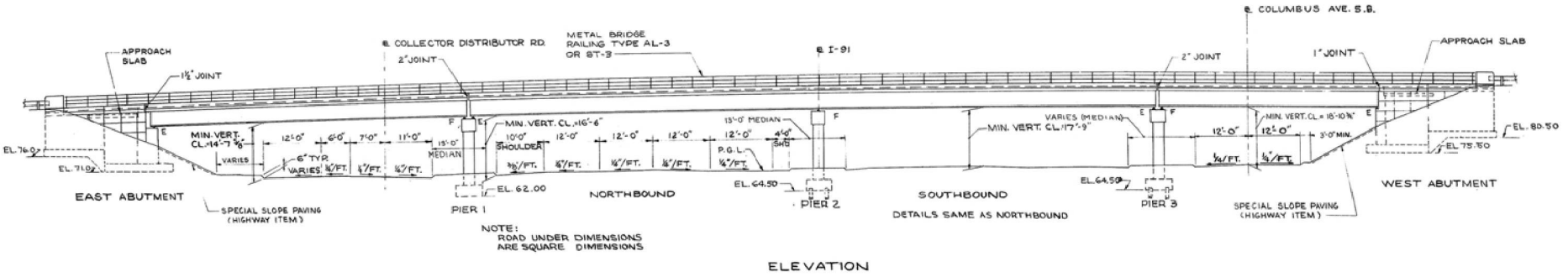
SKETCHES



ELEVATION

Sketch 2: Elevation

REM.(2)2-21

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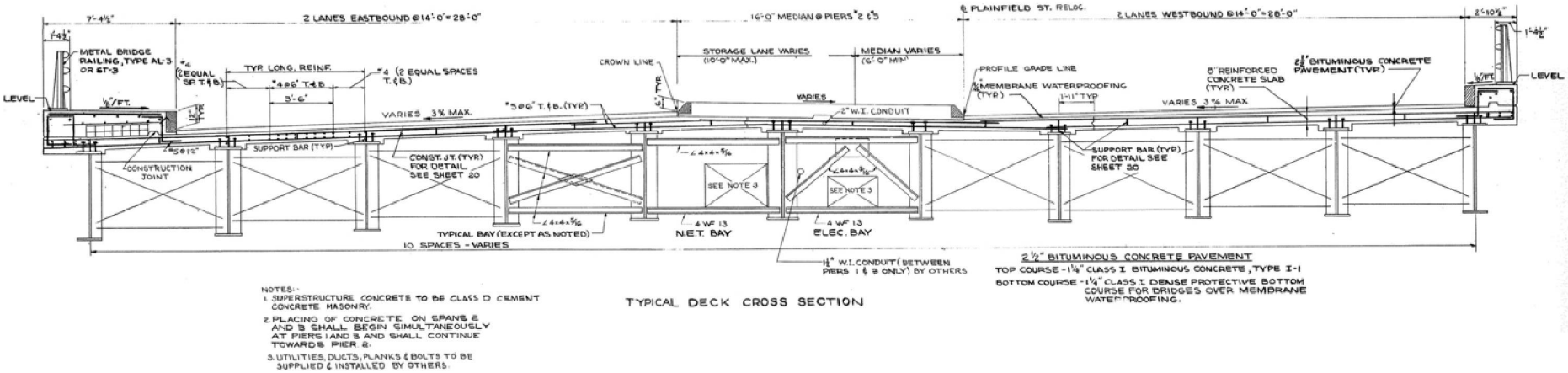
SKETCHES



TYPICAL DECK CROSS SECTION

Sketch 3: Cross-Section

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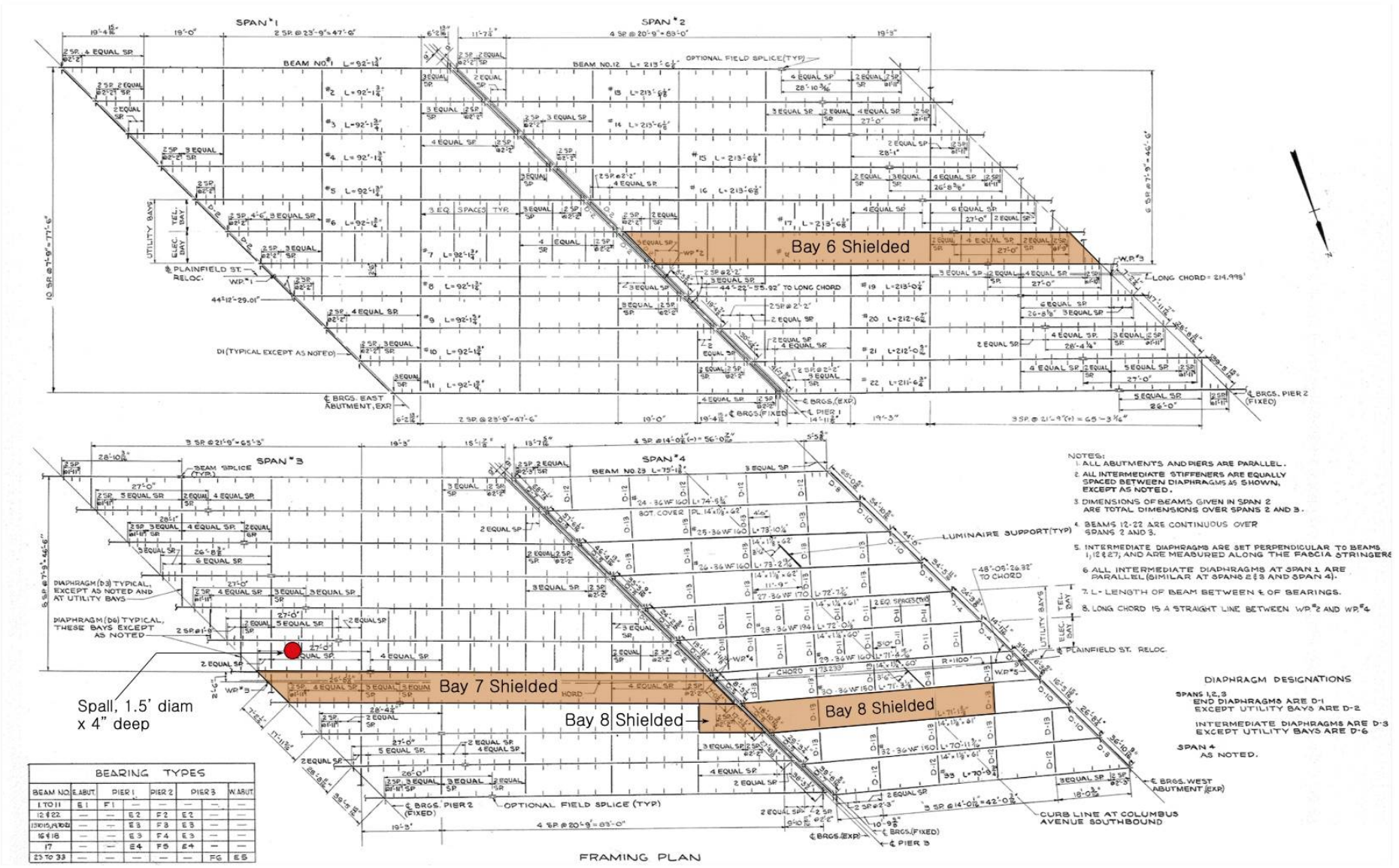
SKETCHES



Sketch 4: Deck shielding and significant spall locations.

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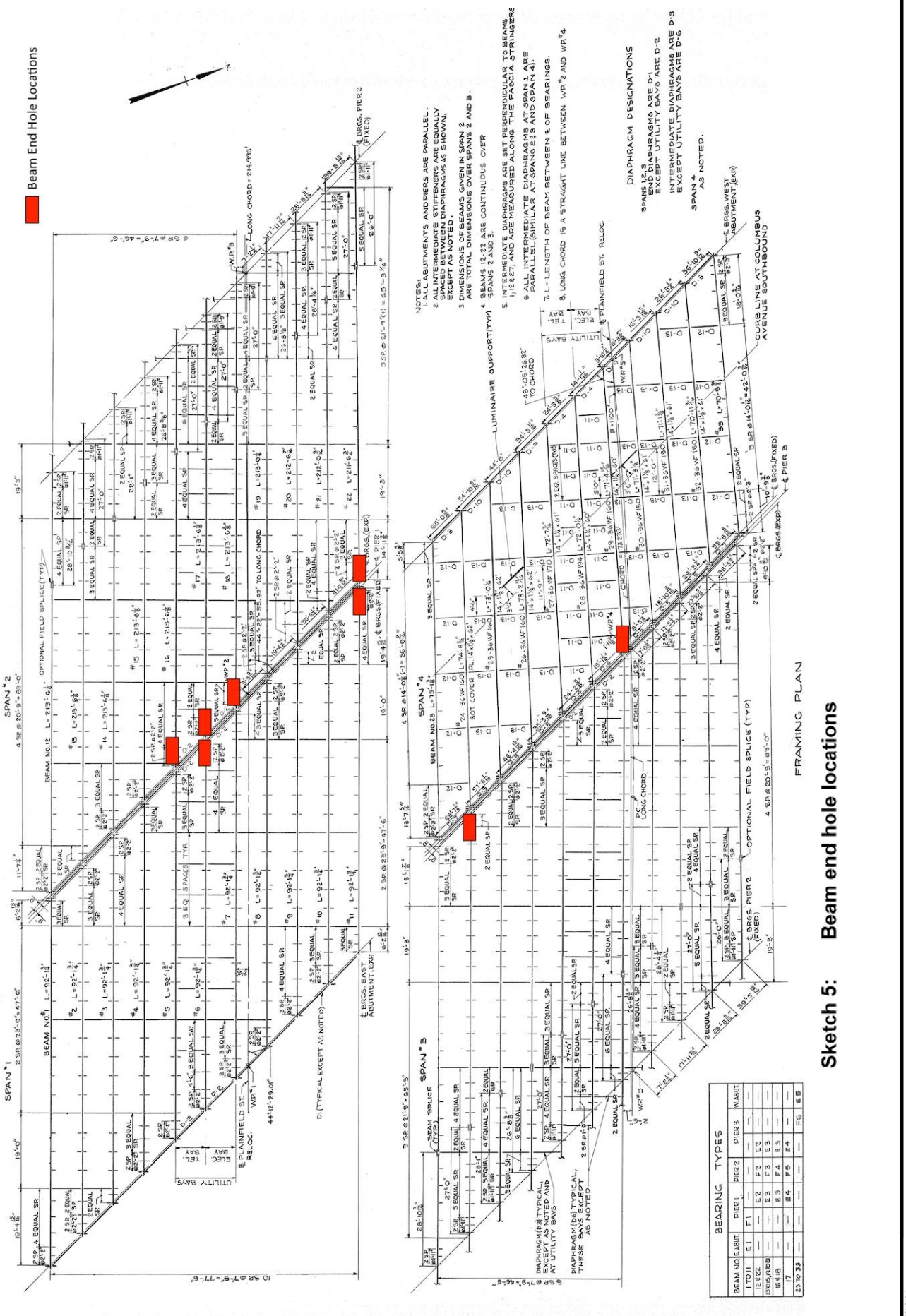
SKETCHES



Sketch 5: Beam end hole locations

REM.(2)2-21

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CHARTS

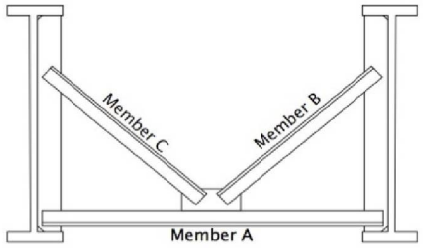
Pier 1

Bay	Span	Hole Member A	Hole Member B	Hole Member C	Section Loss Member A	Section Loss Member B	Section Loss Member C
12	2	18"L x FW	-	-	30"L x FW x 1/4" Rem	-	-
13	2	18"L x FW, 3"Φ	-	-	50"L x FW x 1/4" Rem	-	-
15	2	-	-	-	FL x FW x 1/4" Rem	-	-
16, utility	2 & 3	both failed	n/a	n/a	-	n/a	n/a
14	2	8"L x 2"W	-	-	-	-	-
18	2	4 holes < 6"L x 2"W,	10"L x FW, 2 @1"Φ	-	FL x FW x 3/8" rem	-	-
19	2	5 holes 2"Φ - 4"Φ	-	-	FL x FW x 1/8" - 1/4" rem	-	-
20	2	-	-	-	FL x FW x 3/8" Rem	-	-

Pier 3

Bay	Span	Hole Member A	Hole Member B	Hole Member C	Section Loss Member A	Section Loss Member B	Section Loss Member C
12	3	-	5"L x FW	-	-	-	-
15	3	-	-	-	36"L x FW x 1/4" Rem	-	-
14	3	6"L x 2"W & 1"Φ	-	-	5'L x FW x 1/4" Rem	-	-
21	3	20"L x FW	-	1"Φ	-	-	-

Φ = diameter FL = Full Length FW = Full Width Rem = Remaining



Not to Scale

Chart 1: End Diaphragm - Defects

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PHOTOS

Photo 1: **Wearing Surface, Span 3, south edge has heaving along the curb with areas of pavement break-up.**

Photo 2: **Wearing Surface, Span 2, eastbound lane has an area of uneven patches along the median curb.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 3: **Wearing Surface, Span 4, westbound lane has an area of uneven patching with minor depressions along the median curb.**

Photo 4: **Deck Underside, Span 2, Bay 1, east end has an area of rust staining and efflorescence at the deck weep holes.**

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PHOTOS

Photo 5: **Deck Underside, Span 3, Bay 6, east end has a spall with exposed rebar.**

Photo 6: **Northeast Approach Curb at end post has a 3' section of missing curb, and curb is misaligned.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 7: **Concrete Median has random areas of scaling, up to 2" deep x up to 16" wide, along the granite curb interfaces, which have filled in with sand.**

Photo 8: **Sidewalk has areas of scaling, up to 2" deep x up to 12" wide x various lengths, along the granite curb interface, which have filled in with sand.**

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PHOTOS

Photo 9: **Railing Anchor bolts on the posts have some minor corrosion, and random missing anchor bolts.**

Photo 10: **Lighting Standard in Span 1 has a 4" high stub sticking above pavement with exposed wires.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 11: Lighting Standard in Span 2 is leaning.

Photo 12: Lighting Standard in Span 3 has a 3' stub sticking out from abandoned lighting pole.

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 13: **Along both Backwalls conduit is rusted with some areas of 100% loss and exposed electrical wires.**

Photo 14: **Utility Support Cross Frame, Bay 5 over Pier 1, has failed (100% section loss) adjacent to Beams 6 & 17.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 15: **Deck Joint at Pier 3 is leaking allowing moisture onto elements below. Similar at Pier 1.**

Photo 16: **Deck Joint, East Abutment, Eastbound has cracking concrete header with areas of asphalt patching.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 17: **Deck Joint, West Abutment, Westbound, has widespread adhesion failure.**

Photo 18: **Deck Joint, West Abutment, Eastbound, has cracking in the concrete header and asphalt patching.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 19: **Approach roadway, West Departure, westbound has pavement break-up along the median and areas of minor mapcracking up to 4' diameter.**

Photo 20: **Approach Sidewalk at East Abutment has 2" of settlement where the concrete sidewalk and HMA ramps up.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 21: **Span 1, Beam 6, at Pier 1, has section loss with a hole the lower web end, and section loss with a hole at the south face bearing stiffeners.**

Photo 22: **Span 1, Beam 11 at Pier 1 and Span 2, Beam 22 at Pier 1, have severe section loss with holes to the web end.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 23: **Span 3, Beam 13 at Pier 3, has section loss to the web end with a hole adjacent to the concrete diaphragm.**

Photo 24: **Span 4, Beam 29 at Pier 3, stiffener and bolster stiffener have section loss with holes.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 25: **Span 2, splice plates have rust and minor laminated steel.**

Photo 26: **West Abutment Expansion Bearings have minor to severe rust delaminations on the masonry plates.**

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PHOTOS

Photo 27: **Span 3, Bay 2, concrete end diaphragm at Pier 3 is cracked and spalled.**

Photo 28: **East Bridge Seat is scaled at the Breastwall interface.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 29: East Bridge Seat, Bay 10, has moderate debris.

Photo 30: East Backwall, Bay 9, has a spall.

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PHOTOS

Photo 31: **West Slope Paving has multiple areas of displaced blocks near the top of the wall.**

Photo 32: **East Slope Paving has random concrete repairs.**

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SPRINGFIELD	10M	S-24-087	S24087-10M-DOT-NBI	AUG 7, 2024

PHOTOS

Photo 33: **Pier 1, Cap, east face, Bay 8, top of cap is spalled 14" high x 18" wide x up to 3" deep.**

Photo 34: **Pier 2, Cap, east face, Bay 7, has a spall 14" high x 3' wide x up to 3" deep with adjacent hollow concrete.**

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PHOTOS

Photo 35: **Pier 2, Bay 3, east face and top face are spalled.**

Photo 36: **Southeast Approach guardrail & end treatment have been repaired since the last inspection.**

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Report Date: March 11, 2025

State Information

BDEPT#= S24087 Agency Br.No.
Town= Springfield L.O. MHD
B.I.N= 10M AASHTO= 072.1
RANK= 884 H.I.= 71.3 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	S2408710MDOTNBI
(5) Inventory Route	121000204
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	67000
(6) Features Intersected	**I 91**
(7) Facility Carried	**US 20 PLAINFLD ST**
(9) Location	JCT OF I-91 & US 20A
(11) Kilometerpoint	0106.858
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 06 MIN 41.02 SEC
(17) Longitude	72 DEG 36 MIN 22.80 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel continuous Code 402
Stringer/Girder Jointless bridge type: Not applicable
(44) Structure Type Appr:
Other Code 000
(45) Number of spans in main unit 004
(46) Number of approach spans 0000
(107) Deck Structure Type - Concrete Cast-in-Place Code 1
(108) Wearing Surface / Protective System:
A) Type of wearing surface - Bituminous Code 6
B) Type of membrane - Built-up Code 1
C) Type of deck protection - None Code 0

Age and Service

(27) Year Built	1968
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway-Ped	
Under - Highway Code	51
(28) Lanes: On Structure 04 Under structure	10
(29) Average Daily Traffic	031251
(30) Year of ADT 2017 (109) Truck ADT	04 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0032.7 M
(49) Structure Length	00117.5 M
(50) Curb or sidewalk: Left 00.4 M Right	01.8 M
(51) Bridge Roadway Width Curb to Curb	017.1 M
(52) Deck Width Out to Out	025.1 M
(32) Approach Roadway Width (w/shoulders)	021.9 M
(33) Bridge Median - Closed median (no barrier) Code	2
(34) Skew 46 DEG (35) Structure Flared	N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	08.5 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.97 M
(55) Min Lat Underclear RT ref H	00.0 M
(56) Min Lat Underclear LT	01.8 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N
(111) Pier Protection Code
(39) Navigation Vertical Clearance 000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear M
(40) Navigation Horizontal Clearance 0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Arterial	14
(100) Defense Highway	0
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	N
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	6
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - H 20=M 18	4
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	54.2
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	32.5
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	5
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0 0 0 0
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 08/07/24 (91) Frequency 24 MO
(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	05/02/23
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	06/14/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 04/01/09	H20	Type 3	Type 3S2	Type HS
Operating	32.0	57.0	90.0	57.0
Inventory	22.0	31.0	40.0	33.0

Field Posting

Status LEGAL Posting Date 02/08/10

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name
Y Anti-missile fence N Acrow Panel N Jointless Bridge
Freeze/Thaw 1 : Known problematic history of concrete deterioration
Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	Y / Y	Other
P / N	Ladder	N / N	Staging	NIGHTWORK	
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson	Inspection Hours:	040
		Y / Y	Police		

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National Bridge Element Inspection

BDEPT# **S-24-087**
B.I.N. **10M**
Item 8 **S24087-10M-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **08/07/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Andrew T. Lochner**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	31,711.000	☐ %	715.000	30,996.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	15,498.000	☐ %		15,498.000		
Notes :									
> 1120	*Effflorescence/Rust Staining*	sq feet	2	15,498.000	☐ %		15,498.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	21,590.000	☐ %	422.000	21,168.000		
Notes :									
> > 3230	*Effectiveness (Wearing Surface)*	sq feet	2	21,168.000	☐ %		21,168.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	3,824.000	☐ %		3,824.000		
Notes :									
> 1000	*Corrosion*	feet	2	3,824.000	☐ %		3,824.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	52,145.000	☐ %		52,145.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	52,145.000	☐ %		52,145.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	330.000	☐ %		322.000		8.000
Notes :									
> 1000	*Corrosion*	feet	3	330.000	☐ %		322.000		8.000
Notes :									
> 515	Steel Protective Coating	sq feet	3	4,369.000	☐ %		3,789.000	475.000	105.000
Notes :									

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National Bridge Element Inspection

BDEPT# **S-24-087**
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Item 8 **S24087-10M-DOT-NBI**
Span Group **1**
Town **Springfield**
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Date **08/07/2024**
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Inspecting Agency **Mass. Highway Dept.**
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El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	4,369.000	☐ %		3,789.000	475.000	105.000
Notes :									
205	**Re Conc Column**	each	2	7	☐ %	7			
Notes :									
205	**Re Conc Column**	each	3	14	☐ %	14			
Notes :									
215	**Re Conc Abutment**	feet	3	235.000	☐ %	215.000	20.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	20.000	☐ %		20.000		
Notes :									
234	**Re Conc Pier Cap**	feet	2	116.000	☐ %	96.000	10.000	10.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	20.000	☐ %		10.000	10.000	
Notes :									
234	**Re Conc Pier Cap**	feet	3	228.000	☐ %	208.000	18.000	2.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	20.000	☐ %		18.000	2.000	
Notes :									
306	**Other Joint**	feet	2	323.000	☐ %	181.000	42.000	100.000	
Notes :									
> 2310	*Leakage*	feet	2	50.000	☐ %			50.000	
Notes :									
> 2320	*Seal Adhesion*	feet	2	50.000	☐ %			50.000	
Notes :									

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National Bridge Element Inspection

BDEPT# **S-24-087**
B.I.N. **10M**
Item 8 **S24087-10M-DOT-NBI**
Span Group **1**
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Date **08/07/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Andrew T. Lochner**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 2360	*Adjacent Deck or Header*	feet	2	42.000	☐ %		42.000		
Notes :									
311	**Moveable Bearing**	each	3	44	☐ %		44		
Notes :									
> 1000	*Corrosion*	each	3	44	☐ %		44		
Notes :									
> 515	Steel Protective Coating	sq feet	3	88.000	☐ %		88.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	88.000	☐ %		88.000		
Notes :									
313	**Fixed Bearing**	each	2	11	☐ %	11			
Notes :									
> 515	Steel Protective Coating	sq feet	2	22.000	☐ %	22.000			
Notes :									
313	**Fixed Bearing**	each	3	22	☐ %		22		
Notes :									
> 1000	*Corrosion*	each	3	22	☐ %		22		
Notes :									
> 515	Steel Protective Coating	sq feet	3	44.000	☐ %		44.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	44.000	☐ %		44.000		
Notes :									
330	**Metal Bridge Railing**	feet	2	772.000	☐ %	772.000			
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 19

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10P	S-24078

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
SPRINGFIELD	S24078-10P-DOT-NBI	011.265	A:OPEN	DEC 12, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91		1967	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
HWY HUNTINGTON ST	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	Z. C. Wright, P.E.

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	MstlyCldy	2°C	J. LENARES

ITEM 58 — DECK — 6

		DEF
1.Wearing Surface	6	-
2.Deck Condition	6	-
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	6	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	7	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	5	M-P
12.Utilities	6	M-P
13.Deck Joints	6	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	250	250

APPROACHES

		DEF
a. Appr. Pavement Condition	7	-
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 5

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	S-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	M-P
8.Cover Plates	N	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross Frames	6	-
11.Rivets & Bolts	N	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	6	M-P
15.	N	-

Year Painted: 1993

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 6

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	5		M-P
c. Backwalls	N	5		M-P
d. Breastwalls	N	6		M-P
e. Wingwalls	N	5		M-P
f. Slope Paving/Rip-Rap	N	5		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 6

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10P	S-24-078	S24078-10P-DOT-NBI	DEC 12, 2024

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	1	6	-
B. Transitions	1	7	-
C. Approach Guardrail	1	7	-
D. Approach Guardrail Ends	N	N	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	14	8	16	3	4.47
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	N	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 16

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 07/01/1992

Inspection data at time of existing rating

I 58: **6** I 59: **6** I 60: **7** Date : 11/30/1990

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound & Southbound Lanes, north and south, over Huntington Street which travels east and west.

Per the bridge plans, the 19 built-up steel girders and 18 bays are numbered west to east. The steel diaphragms in each bay are numbered south to north. **See Sketches 1 & 2.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Northbound & Southbound Lanes have mat separation up to 1" wide, widespread abrasion, scattered HMA patches and transverse cracks, up to 1/8" wide. **See Photo 1.**

Along the Saw & Seal Joints above the North Abutment, wearing surface has transverse cracking, up to 1" wide and asphalt patching.

Item 58.2 - Deck Condition
Deck Underside has scattered hairline cracks and areas of minor efflorescence staining.

Bay 5 has a large full-depth patch from the 2008 Rehabilitation Project.

Bay 7 over Huntington St eastbound sidewalk has 2 patched jackhammer spalls.

Bay 9 (Median):
- Longitudinal cracking with efflorescence and rust staining along the median joint. **See Photo 2.**
- Hollow sounding areas, all along the west edge of the Northbound Deck:
  - Over Huntington Street north sidewalk, 1.5' wide x 2' long.
  - Between Diaphragms 1 & 2, 7" wide x 1.5' long.
  - Over the centerline of Huntington Street, 9" wide x 2' long.
  - Over Huntington Street south curbline and sidewalk,1.5' wide x 3' long.
  - Between Diaphragms 2 & 3, has a spall, 8" wide x 3' long x 2" deep. **See Photo 3.**
- Haunch along the east side of Girder 9 top flange has minor rust staining.

Bay 13 over Huntington Street, south sidewalk has 6 patched and unpatched jackhammer spalls.

Item 58.4 - Curbs
Granite Curbs have minor chipping, scrape marks, and rust staining.

Item 58.5 - Median
Median consists of a raised concrete surface with double faced Thrie-beam on steel H-posts with timber offset blocks.

Bay 9, median longitudinal deck joint has signs of leakage and deterioration on the deck underside. **See Photo 2.**

Item 58.7 - Parapets
Parapet exterior faces have hairline vertical cracks with leaching efflorescence.

Parapet interior faces have scattered hairline to 1/16" wide mapcracking with leaching efflorescence.

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SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

REMARKS

Item 58.8 - Railing
Railing consists of AL-1 Rail bolted to the tops of the 30" high concrete parapets, with steel Thrie-beam guardrail retrofit on timber offset block mounted to the interior faces of parapets.

Median has double face Thrie-beam guardrail on steel H-posts with timber offset blocks.

Item 58.11 - Lighting Standards
Bridge has 5 light standards on the deck underside between the girders, Bay 3 is not working at the time of this inspection. **See Photo 4.**

Item 58.12 - Utilities
Bays 1 & 18 have 3.5" diameter steel conduits for I-91 and deck underside lighting.

Steel lighting conduits which run along the bridge seat have severe surface rust with holes and broken connections at the junction boxes. **See Photo 4.**

Steel Utility support brackets have been mounted to the north face of Girder 1 and the wingwalls. At the time of inspection, the brackets were not in use. **See Photo 5.**

Remainder of the conduits are in better condition.

Item 58.13 - Deck Joints
South Extruded Silicone Deck Joint consists of concrete headers with a sealant, which has minor areas of separation from the interior faces of the concrete headers. There are signs of leakage on the Backwall.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Girders original web is 3/8" (0.375") thick and the ends of the bottom flanges are 7/8" (0.875) thick.
Steel stiffeners over the bearings are 6" wide x 44" high x 1/2" thick

Most Girders have scattered areas of minor surface rust.

Girder 9, east face has minor surface rust on the top and bottom flanges due to leakage of the median longitudinal joint.

Girders 1 & 19 (Fascia) lower outer ends have moderate to severe surface rust with rust delamination and web section loss. End outer stiffeners have section loss with holes. Bottom flanges in front of the bearing have minor section loss. **See Photos 5 - 7.**

Girder 1, lower south end:
- Girder web has moderate to severe section loss with multiple holes beyond the bearing. **See Photo 5 & Sketch 3.**

Girder 19:
- Lower south end:
  - Girder web has moderate to severe section loss with a large hole beyond the bearing, 5" wide x 23" high. **See Photo 6 & Sketch 4.**
- Lower north end:
  - Girder web has moderate to severe section loss with a hole beyond the bearing.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

REMARKS

See Photo 7 & Sketch 4.

Item 59.7 - Conn Plt's, Gussets & Angles
Refer to Item 59.4 - Girders or Beams.

Item 59.9 - Bearing Devices
Girders 1 & 19 Fascia Bearings and Girders 9 & 10 (along edges of median) have severe surface rust and delamination. **See Photo 8.**

North Abutment:
- Anchor bolts are all slightly tilted towards the backwall.
- Sole plates are overhanging the sides of the masonry plates, up to 1/2". **See Photo 8.**

Girder 1, north end, spalling at the bridge seat has undermined the corner of the bearing by 1/2" deep x 7" wide.

Item 59.10 - Diaphragms/Cross Frames
Concrete encased end diaphragms have vertical and transverse cracks and a few scattered spalls, up to 4' wide x 1' long x 3" deep. **See Photo 4.**

Utility bay steel diaphragms have moderate surface rust next to the backwalls.

Remainder of the steel diaphragms are in satisfactory condition.

Item 59.14 - Paint/Coating
Paint System has moderate to severe rust forming at the lower ends of the Girders 1, 9, 10 & 19.
See Photos 5 - 7.

Remainder of the steel superstructure is in satisfactory condition.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North & South Bridge Seats under Bays 1, 12 & 18 have moderate to severe concrete debris.

North and South Bridge Seats have spalls with exposed rebar at the top edge which extend into the Breastwalls and Wingwalls:

South Bridge Seat:
- West face is spalled with exposed rebar, 2.5' long x 9" high x 4" deep. **See Photo 9.**
- Bay 9 has a cracked and delaminated area, 3.5' wide x 9" high, with edge spalling, up to 1" deep.
- East face is spalled with exposed rebar, up to 2' long x up to 30" high x 3.5" deep. **See Photo 10.**

North Bridge Seat:
- West corner is spalled with exposed deteriorated and broken/debonded rebar, 2.5' wide (south face) x 3.5' long (west face) x up to 4' high x up to 7" deep. Girder 1 Bearing is undermined at this location. **See Photo 11.**
- East face is spalled with exposed deteriorated and debonded rebar, 2.5' long x 1.5' high x up to 6" deep. **See Photo 12.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

REMARKS

Item 60.1.c - Backwalls
North & South Backwalls have scattered hairline mapcracking with leaching efflorescence.

North Backwall:
- Bays 8, 9 & 10 are spalled at the top with exposed rebar, 8' wide x up to 1.5' high x up to 10" deep.
- Behind Girder 1, is spalled, 4.5' wide x up to full height x up to 10" deep, with only stumps of rebar remaining. **See Photo 11.**
- Behind Girder 19, is spalled and delaminated, up to full height x 4' wide x up to 6" deep. **See Photo 12.**

Item 60.1.d - Breastwalls
North & South Breastwalls have scattered vertical and horizontal hairline to 1/8" wide cracks, heavy efflorescence, and rust staining. **See Photo 13.**

Refer to Item 60.1.b - Bridge Seats.

Item 60.1.e - Wingwalls
Wingwalls have scattered hairline vertical & mapcracking, and efflorescence staining.

Southwest Wingwall:
- South end is spalled, 18" diameter x 1.5" deep.
- Base is delaminated, 3' wide x 2' high.
- Near the top, at joint with bridge deck is spalled with exposed rebar, 8" wide x 1.5' wide x 6" deep. **See Photo 10.**

Northwest Wingwall:
- Backwall interface has a spall, 6" wide x 4' high x up to 4" deep. **See Photo 11.**

Northeast Wingwall:
- Northeast concrete endpost southeast corner is spalled with exposed rebar, 4" wide x 8" high x 2" deep.

Refer to Item 60.1.b - Bridge Seats.

Item 60.1.f - Slope Paving/Rip-Rap
Concrete slope paving blocks have some scaling, settlement, and undermining.

South Abutment:
- Bays 9, 10, & 11 top of slope is undermined with displaced blocks, 16' wide x 4' long. **See Photo 14.**
- Bays 17 & 18, blocks are settled and displaced, 6' wide x 3' long. **See Photo 15.**

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of nested steel Thrie-beam guardrail on timber posts with timber offset blocks.

Item 36c - Approach Guardrail
Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

REMARKS

Item 36d - Approach Guardrail Ends
All four approach guardrails run continuously to other bridges.

Sketch / Photo Log
Sketch 1 : Framing Plan
Sketch 2 : Cross Section
Sketch 3 : Girder 1 - Defects
Sketch 4 : Girder 19 - Defects
Photo 1 : Wearing Surface has transverse cracks, mat separation, abrasion and patched areas.
Photo 2 : Deck Underside, Bay 9 (Median Bay) near the north end, cracking with rust staining, efflorescence and hollow sounding areas.
Photo 3 : Deck Underside, Bay 9 (Median Bay) in between Diaphragms 2 & 3, spall.
Photo 4 : Steel Lighting Conduits have severe surface rust with rust holes near the backwalls. Concrete end diaphragms have scattered spalls with exposed rebar.
Photo 5 : Girder 1, lower south end, web and stiffener have moderate to severe web section loss with holes.
Photo 6 : Girder 19, lower south end, web and stiffener have moderate to severe web section loss with holes.
Photo 7 : Girder 19, lower north end, web and stiffener have moderate to severe web section loss with holes.
Photo 8 : North Abutment, Girder 19 Bearing, rust and delamination, sole plate overhanging the side of the masonry plate (typical).
Photo 9 : South Abutment, West End, Bridge Seat/Breastwall and Southwest Wingwall are spalled with exposed rebar.
Photo 10 : South Abutment, East End, Bridge Seat/Breastwall and Southeast Wingwall are spalled with exposed rebar.
Photo 11 : North Abutment, West End, Bridge Seat/Breastwall, Backwall, & Northwest Wingwall are spalled with deteriorated and broken/missing rebar.
Photo 12 : North Abutment, East End, Bridge Seat/Breastwall, Backwall & Northeast Wingwall, are spalled with exposed rusted and debonded rebars.
Photo 13 : South Breastwall, typical cracking with efflorescence and rust staining.
Photo 14 : South Slope Paving under Bays 9 - 11 has undermining.
Photo 15 : South Slope Paving under Bays 17 & 18, blocks are settled and displaced.

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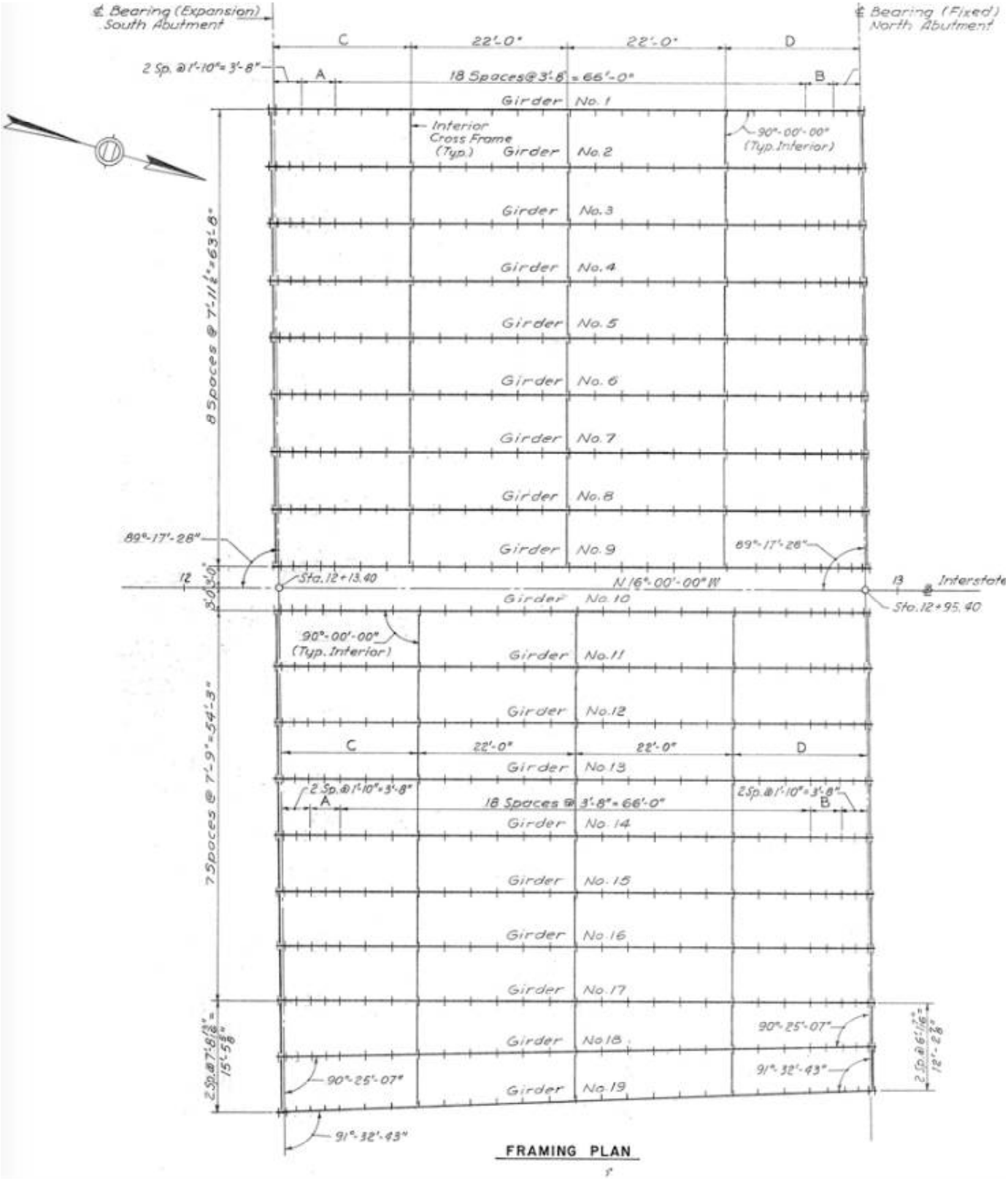
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

SKETCHES



Sketch 1: Framing Plan

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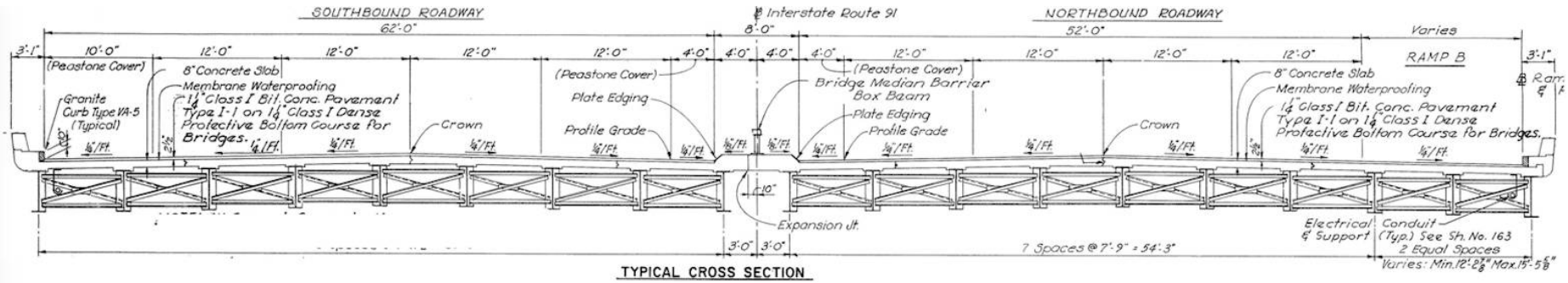
TY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
PRINGFIELD	10P	S-24-078	S24078-10P-DOT-NBI	DEC 12, 2024

SKETCHES



TYPICAL CROSS SECTION

Sketch 2: Cross Section

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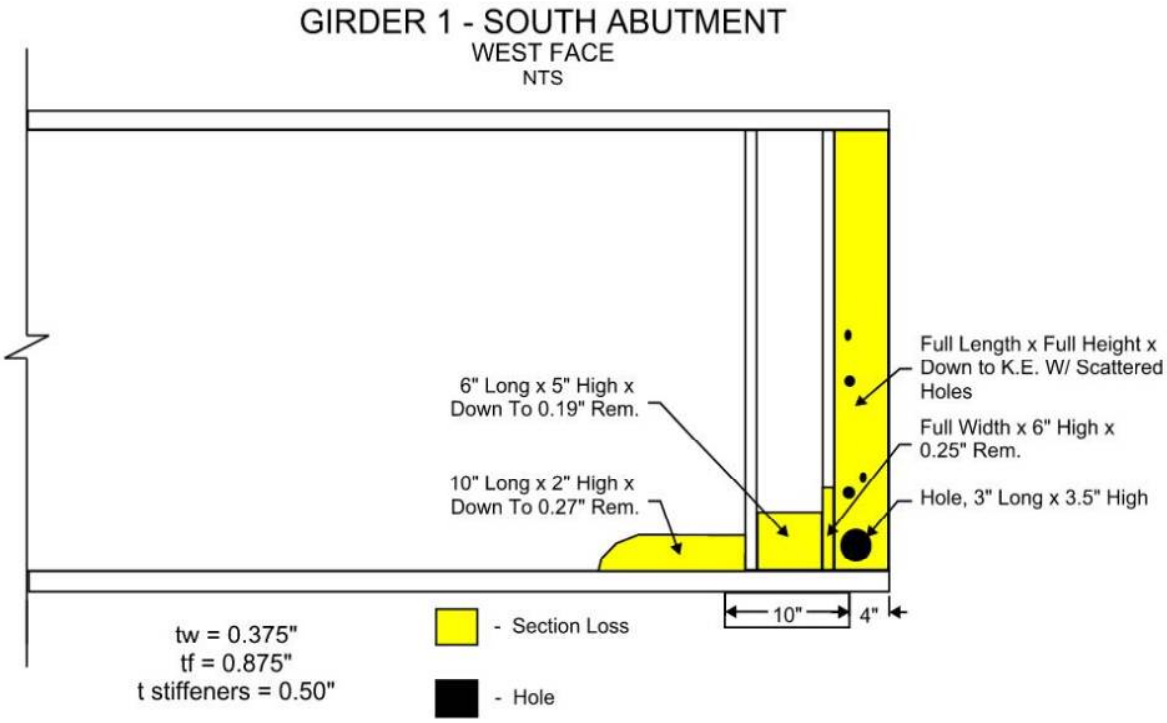
A00809 - 49
Proposal No. 6132219-132950

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

SKETCHES



Sketch 3: Girder 1 - Defects

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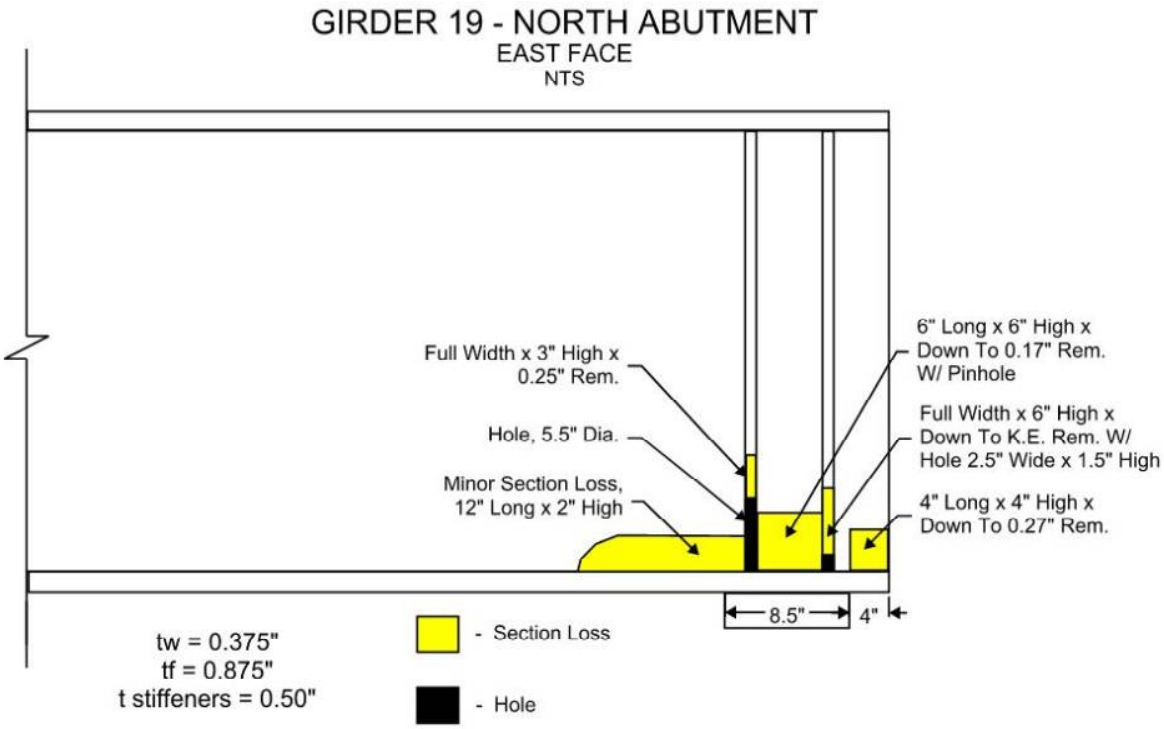
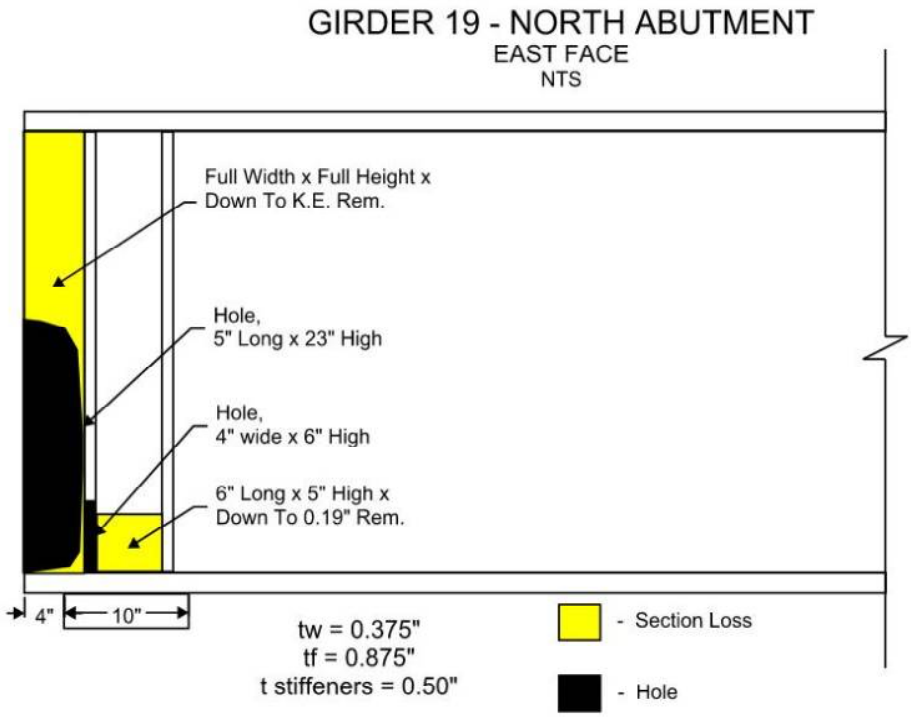
SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

SKETCHES





Sketch 4: Girder 19 - Defects

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SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

PHOTOS

Photo 1: **Wearing Surface has transverse cracks, mat separation, abrasion and patched areas.**

Photo 2: **Deck Underside, Bay 9 (Median Bay) near the north end, cracking with rust staining, efflorescence and hollow sounding areas.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10P	S-24-078	S24078-10P-DOT-NBI	DEC 12, 2024

PHOTOS

Photo 3: **Deck Underside, Bay 9 (Median Bay) in between Diaphragms 2 & 3, spall.**

Photo 4: **Steel Lighting Conduits have severe surface rust with rust holes near the backwalls. Concrete end diaphragms have scattered spalls with exposed rebar.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

PHOTOS

Photo 5: **Girder 1, lower south end, web and stiffener have moderate to severe web section loss with holes.**

Photo 6: **Girder 19, lower south end, web and stiffener have moderate to severe web section loss with holes.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10P	S-24-078	S24078-10P-DOT-NBI	DEC 12, 2024

PHOTOS

Photo 7: **Girder 19, lower north end, web and stiffener have moderate to severe web section loss with holes.**

Photo 8: **North Abutment, Girder 19 Bearing, rust and delamination, sole plate overhanging the side of the masonry plate (typical).**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10P	S-24-078	S24078-10P-DOT-NBI	DEC 12, 2024

PHOTOS

Photo 9: **South Abutment, West End, Bridge Seat/Breastwall and Southwest Wingwall are spalled with exposed rebar.**

Photo 10: **South Abutment, East End, Bridge Seat/Breastwall and Southeast Wingwall are spalled with exposed rebar.**

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SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

PHOTOS

Photo 11: **North Abutment, West End, Bridge Seat/Breastwall, Backwall, & Northwest Wingwall are spalled with deteriorated and broken/missing rebar.**

Photo 12: **North Abutment, East End, Bridge Seat/Breastwall, Backwall & Northeast Wingwall, are spalled with exposed rusted and debonded rebars.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10P	S-24-078	S24078-10P-DOT-NBI	DEC 12, 2024

PHOTOS

Photo 13: South Breastwall, typical cracking with efflorescence and rust staining.

Photo 14: South Slope Paving under Bays 9 - 11 has undermining.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10P**	**S-24-078**	**S24078-10P-DOT-NBI**	**DEC 12, 2024**

PHOTOS

Photo 15: South Slope Paving under Bays 17 & 18, blocks are settled and displaced.

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Report Date: March 11, 2025

State Information

BDEPT#= S24078 Agency Br.No.
Town= Springfield L.O. MHD
B.I.N= 10P AASHTO= 075.9
RANK= 1849 H.I.= 96.1 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	S2407810PDOTNBI
(5) Inventory Route	111000910
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	67000
(6) Features Intersected	**HWY HUNTINGTON ST**
(7) Facility Carried	**I 91**
(9) Location	MM 7.0 ON I-91
(11) Kilometerpoint	0011.265
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 06 MIN 55.01 SEC
(17) Longitude	72 DEG 36 MIN 30.28 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302
Stringer/Girder Jointless bridge type: Not applicable
(44) Structure Type Appr:
Other Code 000
(45) Number of spans in main unit 001
(46) Number of approach spans 0000
(107) Deck Structure Type - Concrete Cast-in-Place Code 1
(108) Wearing Surface / Protective System:
A) Type of wearing surface - Bituminous Code 6
B) Type of membrane - Built-up Code 1
C) Type of deck protection - None Code 0

Age and Service

(27) Year Built	1967
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 09	Under structure 02
(29) Average Daily Traffic	084206
(30) Year of ADT 2023	(109) Truck ADT 09 %
(19) Bypass, detour length	000 KM

Geometric Data

(48) Length of maximum span	0025.0 M
(49) Structure Length	00026.4 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	037.8 M
(52) Deck Width Out to Out	042.1 M
(32) Approach Roadway Width (w/shoulders)	040.2 M
(33) Bridge Median - Closed median with non-mountable barriers	Code 3
(34) Skew 00 DEG (35) Structure Flared	Y
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	18.9 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.47 M
(55) Min Lat Underclear RT ref H	03.4 M
(56) Min Lat Underclear LT	03.4 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N
(111) Pier Protection Code
(39) Navigation Vertical Clearance 000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear M
(40) Navigation Horizontal Clearance 0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	6
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mo	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	54.9
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	26.1
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	5
(69) Underclearances, vert. and horiz.	6
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 1 1 N
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 12/12/24 (91) Frequency 24 MO
(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/17/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 07/01/92	H20	Type 3	Type 3S2	Type HS
Operating	33.0	58.0	73.0	61.0
Inventory	23.0	27.0	34.0	29.0

Field Posting

Status LEGAL Posting Date 11/19/92

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name
N Anti-missile fence N Acrow Panel N Jointless Bridge
Freeze/Thaw 2 : Deteriorated concrete; No known problematic history
Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
N / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 016

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National Bridge Element Inspection

BDEPT# **S-24-078**
B.I.N. **10P**
Item 8 **S24078-10P-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **12/12/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Zachary C. Wright**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	12,307.000	☐ %	12,225.000	80.000	2.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	82.000	☐ %		80.000	2.000	
Notes :									
> 510	Wearing Surfaces	sq feet	2	11,081.000	☐ %	11,081.000			
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,489.000	☐ %	1,489.000			
Notes :									
> 515	Steel Protective Coating	sq feet	2	15,635.000	☐ %	14,060.000	1,500.000	50.000	25.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	15,635.000	☐ %	14,060.000	1,500.000	50.000	25.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	95.000	☐ %		89.000		6.000
Notes :									
> 1000	*Corrosion*	feet	3	95.000	☐ %		89.000		6.000
Notes :									
> 515	Steel Protective Coating	sq feet	3	998.000	☐ %		938.000	40.000	20.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	998.000	☐ %		938.000	40.000	20.000
Notes :									
215	**Re Conc Abutment**	feet	2	142.000	☐ %	129.000	3.000	10.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	10.000	☐ %			10.000	
Notes :									

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National Bridge Element Inspection

BDEPT# **S-24-078**
B.I.N. **10P**
Item 8 **S24078-10P-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **12/12/2024**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Zachary C. Wright**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 1130	*Cracking (RC and Other)*	feet	2	3.000	☐ %		3.000		
Notes :									
215	**Re Conc Abutment**	feet	3	145.000	☐ %	125.000	10.000	10.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	10.000	☐ %			10.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	10.000	☐ %		10.000		
Notes :									
302	**Compressn Joint Seal**	feet	2	130.000	☐ %	100.000	30.000		
Notes :									
> 2310	*Leakage*	feet	2	30.000	☐ %		30.000		
Notes :									
311	**Moveable Bearing**	each	3	19	☐ %	15	4		
Notes :									
> 1000	*Corrosion*	each	3	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	3	38.000	☐ %	30.000		4.000	4.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	8.000	☐ %			4.000	4.000
Notes :									
313	**Fixed Bearing**	each	2	19	☐ %		19		
Notes :									
> 1000	*Corrosion*	each	2	4	☐ %		4		
Notes :									

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National Bridge Element Inspection

BDEPT#	**S-24-078**	Date	**12/12/2024**
B.I.N.	**10P**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**S24078-10P-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Zachary C. Wright**
Town	**Springfield**	Team Member(s)	**Jonathan Lenares**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 2220	*Alignment*	each	2	15	☐ %		15		
Notes :									
> 515	Steel Protective Coating	sq feet	2	38.000	☐ %	30.000		4.000	4.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	38.000	☐ %	30.000		4.000	4.000
Notes :									
333	**Other Bridge Railing**	feet	2	170.000	☐ %	170.000			
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 21

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10Q	S-24-079

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
SPRINGFIELD	S24079-10Q-DOT-NBI	011.587	A:OPEN	DEC 20, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91		1967	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
OTHER BUILDING	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	A. Power

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Clear	3°C	G. GNIADEK

ITEM 58 — 6

DECK

		DEF
1. Wearing Surface	6	M-P
2. Deck Condition	6	M-P
3. Stay in Place Forms	N	-
4. Curbs	6	-
5. Median	6	-
6. Sidewalks	N	-
7. Parapets	6	-
8. Railing	6	M-P
9. Anti Missile Fence	N	-
10. Drainage System	N	-
11. Lighting Standards	4	M-P
12. Utilities	7	-
13. Deck Joints	6	M-P
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	250	250

APPROACHES

		DEF
a. Appr. pavement condition	6	M-P
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 5

SUPERSTRUCTURE

		DEF
1. Stringers	N	-
2. Floorbeams	N	-
3. Floor System Bracing	N	-
4. Girders or Beams	5	S-P
5. Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6. Pin & Hangers	N	-
7. Conn Plt's, Gussets & Angles	7	-
8. Cover Plates	5	S-P
9. Bearing Devices	6	M-P
10. Diaphragms/Cross-Frames	6	-
11. Rivets & Bolts	7	-
12. Welds	6	-
13. Member Alignment	7	-
14. Paint/Coating	5	M-P
15.	N	-

Year Painted: 1969

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — 5

SUBSTRUCTURE

	Dive	Cur		DEF
1. Abutments			5	
a. Pedestals	N	N		-
b. Bridge Seats	N	5		M-P
c. Backwalls	N	5		M-P
d. Breastwalls	N	5		M-P
e. Wingwalls	N	5		M-P
f. Slope Paving/Rip-Rap	N	N		-
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	H		-
j. Scour	N	N		-
k. Settlement	N	6		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	1	6	M-P
B. Transitions	1	6	M-P
C. Approach Guardrail	1	6	M-P
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not X

	E ft	E in	W ft	W in	meter
Actual Field Measurement		0		0	
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	N	N
Ladder	Y	Y
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	N	N
RR Flagger	N	N
Police	N	N
Other:		
LIGHTING	Y	Y

TOTAL HOURS 12

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 02/01/1992

Inspection data at time of existing rating

I 58: **6** I 59: **6** I 60: **7** Date : 11/28/1989

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound & Southbound over the Gerena Magnet School.

Per the bridge plans, the 22 steel beams and bays are numbered west to east. Diaphragms are number south to north. **See Sketches 1 - 3.**

GENERAL REMARKS
Access Notes:
Bridge is located above the Gerena Magnet School, access to the underside is at the west side of the bridge, off of Birnie Avenue. Contact the Security Department in the school across the street from the bridge at the south entrance at the "Gerena Magnet School".

Building is a low light area, be sure to bring supplemental lighting.

During this inspection, a 6' high step ladder was used to access locations on top of the school building roof, and an extension ladder was used to access beam ends at either abutment.

Exterior of Beam 22 was accessed on foot from the shoulder of I-91 Northbound.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Wearing surface in both travel directions has random minor wear, cracking, and patching throughout.

Previously reported potholes in the wearing surface are now patched, including a large patch in the northbound off ramp. **See Photos 1 & 2.**

Item 58.2 - Deck Condition
Deck Underside:

- Random longitudinal and transverse hairline cracks some with leaching efflorescence.
- Random small concrete patches and areas of minor formwork left in place throughout.
- Bay 2, between Diaphragms 4 & 5, has hairline cracking with efflorescence staining.
- Bay 3, between Diaphragms 2 & 3, has one delaminated area and spall with exposed rusted rebars, 3' long x 1' wide x 2" deep. **See Photo 3.**
- Bay 5:
  - Between Diaphragms 1 & 2, there is a 6" diameter spall adjacent to Beam 6.
  - Between Diaphragms 2 & 3, there is a 3' diameter patch with delaminated edges. **See Photo 4.**
  - Between Diaphragms 3 & 4, there is a 3' diameter delaminated area.
  - At the North Backwall, has a 3' diameter patch with spalling around the edges.
- Bay 9:
  - Between Beams 9 & 10 is the median area with no diaphragms.
  - Along Beam 10, there are several delaminated areas and longitudinal cracking with rust and water staining.
  - 20' from the north end, there is a spall with exposed rebars, 6.5' long x 1.5' wide x 3" deep. **See Photo 5.**
- Bay 10, between Diaphragms 5 & 6, there is formwork left in place 2' wide x 2' long and a spall 8" diameter x 1" deep.
- Bay 12, at Diaphragm 1, there are two 1' x 1' timber forms left in place.
- Bays 14 & 15, between Diaphragms 2 & 4 have large areas of hairline mapcracking.
- Bay 20, at the North Abutment has a spall, 1' diameter x 1" deep.

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REMARKS

- Bay 21, at the North Abutment has a 2' diameter spall, filled with foam.

Item 58.4 - Curbs
Granite Curb, outer edges, have minor chipping, scrape marks, and rust stains.

Steel Curb, along the median, has rusting with some pitting along the bottom edges.

Item 58.5 - Median
Concrete Median has areas of minor surface scaling.

Item 58.7 - Parapets
Concrete Parapets have minor vertical hairline cracks with and without leaching efflorescence.

Item 58.8 - Railing
Railing consists of AL-1 Rail mounted on top of 30" high concrete parapets with retrofit steel Thrie-beam with timber offset blocks mounted on the interior faces of the parapets.

West Railing, thrie-beam rail near midspan has a 37' long area of collision damage with partially crushed timber blocks and loosened fasteners. **See Photo 6.**

Item 58.11 - Lighting Standards
Light structures under this bridge, in Bays 1, 3, 4, 9, 11, 15, & 21 are no longer functional, whereas there is no roadway, but only top of the school building. Most of these lights are damaged and corroded.

Bays 9, 15, & 21 have exposed wires through the old corroded conduits at the South Abutment.

Light Pole on the top of the west concrete parapet, at the south end, has been removed since the last inspection. **See Photo 7.**

Item 58.12 - Utilities
Fiberoptic conduit has been bolted to the east face of Beam 22.

Item 58.13 - Deck Joints
North Deck Joint:
- Minor transverse cracking in the concrete joint header.
- Random areas of joint sealer adhesion failure throughout, most prominently in the southbound travel lanes. **See Photo 8.**

APPROACHES

Approaches a - Appr. pavement condition
North & South Approach roadways have minor wheel rutting, random minor HMA patches, and minor longitudinal and transverse cracking.

Northbound Lanes, south approach, east end at the deck interface, there is a pothole, 2' wide x 6" long x up to 2" deep.

Southbound Lanes:
- North approach, there is a pothole in the right travel lane, 2' long x 6" wide x up to 3" deep. **See Photo 9.**

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REMARKS

- South approach has transverse cracking and random minor potholes along the deck edge throughout the travel lanes.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Steel beams have scattered areas of peeling paint with some areas of minor to moderate surface rust, especially at the North Abutment.

Beam 9:
- East face has severe rust delamination with moderate section loss on the lower web, top & bottom flanges, and the cover plate.
- West face has moderate surface rust with minor section loss. **See Sketch 4 & Photo 10.**

Beam 17, north end has moderate to severe surface rust.

Beam 21, north end has moderate to severe surface rust.

Beam 22:
- North end, lower web has minor section loss 4' long x 2" high x .75" remaining and web end has minor section loss up to full height x 6" wide x 0.75" remaining. **See Photo 11.**
- South end has severe surface rust with laminating steel, partially buried in debris.

Item 59.8 - Cover Plates
Beams 9, cover plate has extensive section loss on the east side of the plate. **See Sketch 4 & Photo 10.**

Beams 14, 15, & 17 cover plates have minor to moderate surface rust.

Item 59.9 - Bearing Devices
Bearings have some scattered surface rust.

Fascia Bearings at either end of the structure are partially buried in dirt and debris.

Beam 1, South Bearing, has an anchor bolt not flush with the plate.

Beam 9, North Bearing, has severe corrosion, and is expanded up to 2" beyond the back of the masonry plate despite 0°C temperature at the time of the inspection. **See Photo 12.**

Item 59.10 - Diaphragms/Cross-Frames
North Concrete End Diaphragm, Bay 3, underside is totally spalled with exposed rebars, full width x full length x up to 6" deep. **See Photo 13.**

Item 59.12 - Welds
Welds on the east face of Beam 9 connecting the beam and cover plate have severe corrosion.
See Photo 10.

Item 59.14 - Paint/Coating
Steel Superstructure has peeling paint with areas of moderate surface rust, especially Beam 9.
See Photos 10 - 12.

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REMARKS

SuperStructure Load Vibration Notes
Bridge has minor load vibration can be felt at mid-span.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North & South Bridge Seats are covered with concrete debris especially at the fascia beams.

South Bridge Seat:
- Bridge seat at the Southwest Wingwall interface is spalled with exposed rebars, 2' wide x 2.5' long x up to 16" deep. Bridge Seat is delaminated east of the spall, 2' wide x 2.5' long. **See Photo 14.**
- Bridge seat at the Southeast Wingwall interface is scaled with exposed rebars, 4' 6" wide x 4' 4" long x up to 14" deep. This area is covered with wet concrete debris. **See Photo 15.**

North Bridge Seat, at the Northeast Wingwall interface is scaled, 2' 8" wide x 4' long x up to 3" deep. Area is covered with wet concrete debris. **See Photo 16.**

Item 60.1.c - Backwalls
North & South Backwalls have hairline mapcracking and a few vertical hairline cracks with water, efflorescence, and rust staining.

South Backwall:
- West end, is delaminated and scaled, 2' wide x 3' high x up to 3" deep. **See Photo 14.**
- East end, is scaled with exposed rebars 5' 6" wide x 6' high x up to 7" deep. **See Photo 15.**

North Backwall:
- Entire wall has extensive map cracking with leakage and efflorescence.
- East end is scaled, 4' 6" wide x 4' 4" high x up to 6" deep. **See Photo 16.**

Item 60.1.d - Breastwalls
North & South Breastwalls have sections of moderate water staining and a few full-height vertical hairline cracks.

South Breastwall:
- West corner has a spall, 2' wide x 2' high x 2' deep. **See Photos 14 & 17.**
- Below Beam 1 & Bay 2 has full-height map cracking with heavy efflorescence staining, up to 15' wide. **See Photo 17.**
- Below Beam 3 & Bay 21 there are horizontal hairline cracks with water and rust staining.
- Bays 3, 9 & 21 have hairline mapcracking.
- Below Beam 5 is a full-height 1/16" wide vertical crack.
- Below Beam 8 is delaminated, 2' wide x full-height, with an 1/8" wide crack.
- East corner has map cracking and leakage.

North Breastwall:
- Below Bays 3 & 9, just below bridge seat, has a 1/16" wide x 2' long horizontal crack.
- Below Beam 17, just below bridge seat, has a 1/16" wide x 3' long horizontal crack.

Item 60.1.e - Wingwalls
All four wingwalls have various degrees of mapcracking with & without leaching efflorescence.

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REMARKS

Southwest Wingwall:
- Map cracking up to 1/16" wide.
- At the bridge seat interface is a spall, 2.5' wide x 1' high x up to 6" deep. **See Photos 14 & 17.**

Southeast Wingwall is scaled at the backwall interface, 15" wide x 20" high x up to 3" deep. **See Photo 15.**

Northeast Wingwall has scaling at interface with the North Bridge Seat. **See Photo 16.**

Item 60.1.h - Footings
Footings are largely inaccessible.

North Footing, top face is partially exposed under Bay 9.

Item 60.1.k - Settlement
Breastwalls have some vertical hairline cracks.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions consists of steel Thrie-beam guardrail on timber posts with timber offset blocks.

Northwest Approach transition has minor collision damage.

Item 36c - Approach Guardrail
East & West side approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Southeast & Northwest Approaches have random minor collision damage.

Median guardrail consists of steel Thrie-beam on steel H-posts with timber offset blocks with random minor collision damage.

Item 36d - Approach Guardrail Ends
Northwest, Southeast, Southwest, & Median Approach guardrails travel beyond the limits of the structure.

Northeast Approach guardrail (trailing end to one-way traffic) has a terminal end.

Sketch / Photo Log

Sketch 1 :	Plan & Elevation
Sketch 2 :	Framing Plan
Sketch 3 :	Cross Section
Sketch 4 :	Beam 9 - Defects
Photo 1 :	Previously reported potholes in the Southbound Wearing Surface have been patched since the last inspection.
Photo 2 :	Previously reported potholes in the Northbound Wearing Surface have been patched since the last inspection.

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REMARKS

Photo 3 : Deck Underside, Bay 3, between Diaphragms 2 & 3, has one delaminated area and spall with exposed rusted rebars, up to 2" deep.

Photo 4 : Deck Underside, Bay 5, between Diaphragms 2 & 3, has a 3' diameter patch with delamination around the edges.

Photo 5 : Deck Underside, Bay 9, north end has spalling with exposed rebar.

Photo 6 : West Thrie-beam near midspan has minor collision damage.

Photo 7 : Light Pole on the top of the west concrete parapet, at the south end, has been removed since the last inspection.

Photo 8 : Southbound Lanes, north deck joint has areas of failed joint sealer adhesion in the travel lanes and random minor transverse cracking in the concrete header.

Photo 9 : Southbound Lanes, North Approach roadway has random cracking and a pothole in the right travel lane.

Photo 10 : Beam 9, East Face has severe rust delamination with section loss on the lower web, top & bottom flanges, and cover plate.

Photo 11 : Beam 22, north end, east face has rust, lamination, and section loss to the web.

Photo 12 : Beam 9, North Bearing, has severe corrosion and is in an expanded position despite freezing temperatures.

Photo 13 : North Concrete End Diaphragm, Bay 3, underside is totally spalled with exposed rebars. North Breastwall, Bay 3, just below Bridge Seat has a 2' horizontal crack.

Photo 14 : Bridge Seat at Southwest Wingwall interface is spalled with exposed rebars. Bridge Seat is delaminated east of the spall. Backwall is delaminated & scaled.

Photo 15 : South Bridge Seat at Southeast Wingwall interface is scaled with exposed rebars, up to 14" deep. Area is covered with wet concrete debris. South Backwall is scaled.

Photo 16 : North Bridge Seat, at the Northeast Wingwall interface is scaled. Area is covered with wet concrete debris.

Photo 17 : South Breastwall, below Beam 1 has full-height mapcracking with heavy efflorescence staining.

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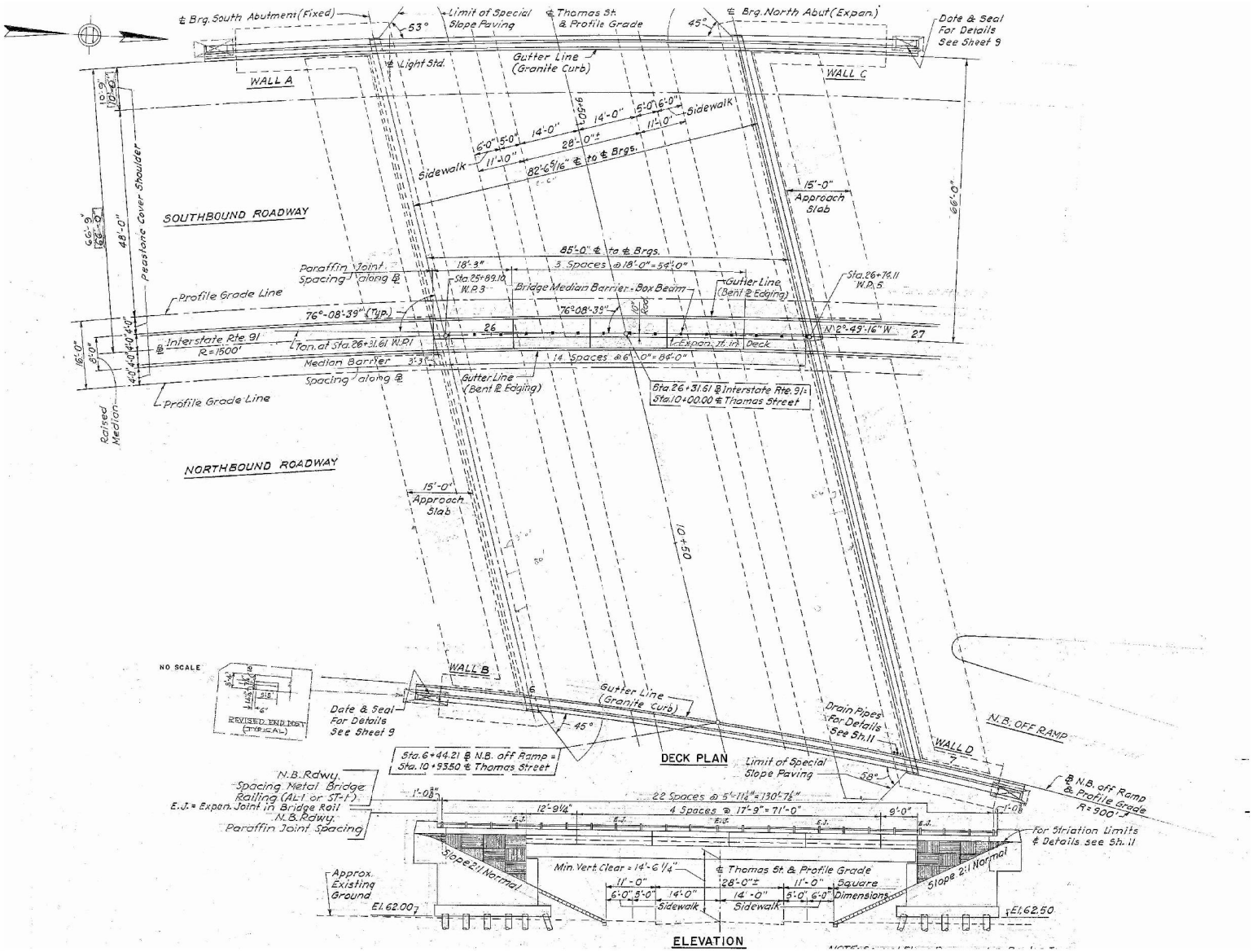
SKETCHES



Sketch 1: Plan & Elevation

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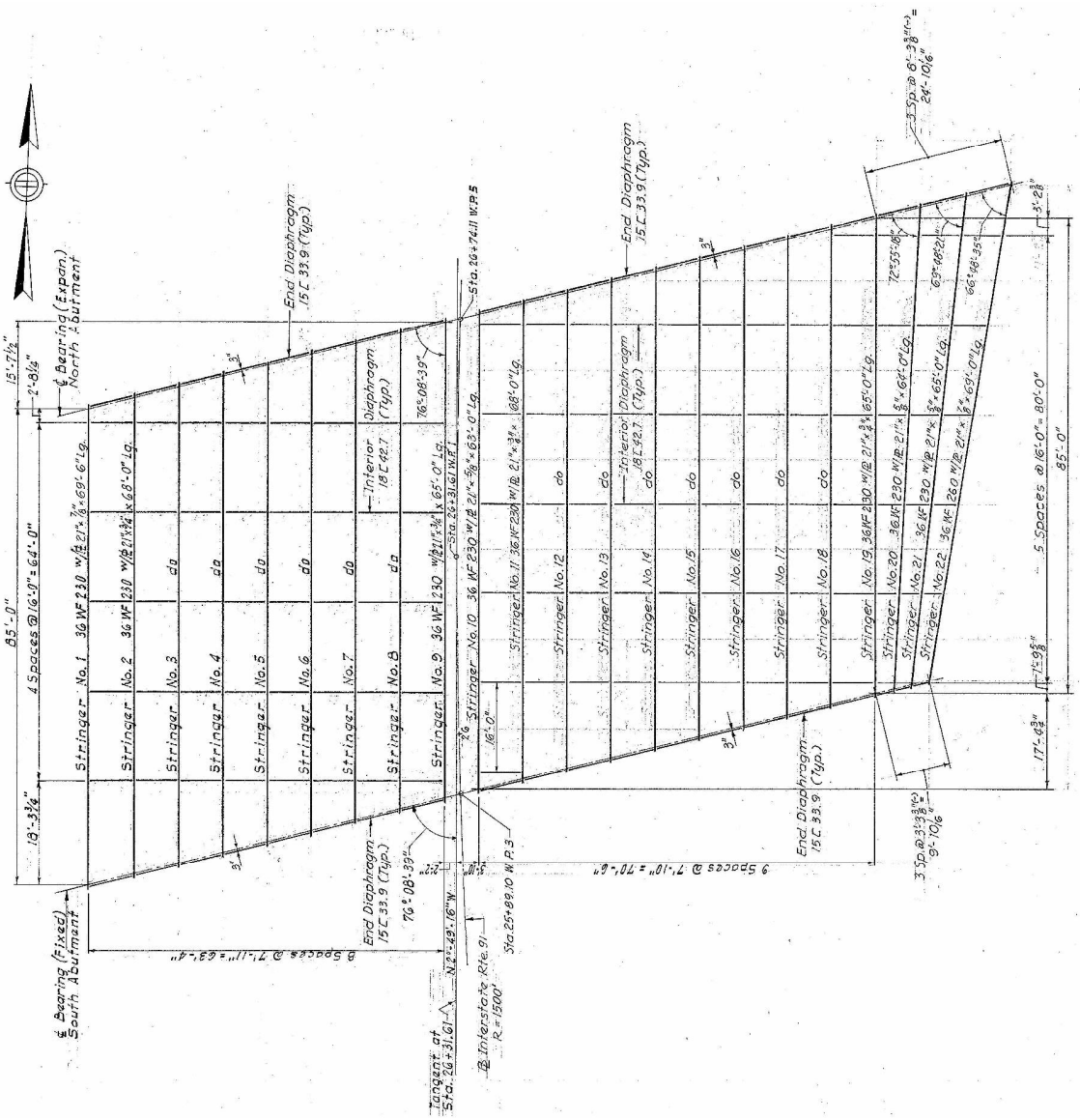
SKETCHES



FRAMING PLAN

Sketch 2: Framing Plan

REM.(2)2-21

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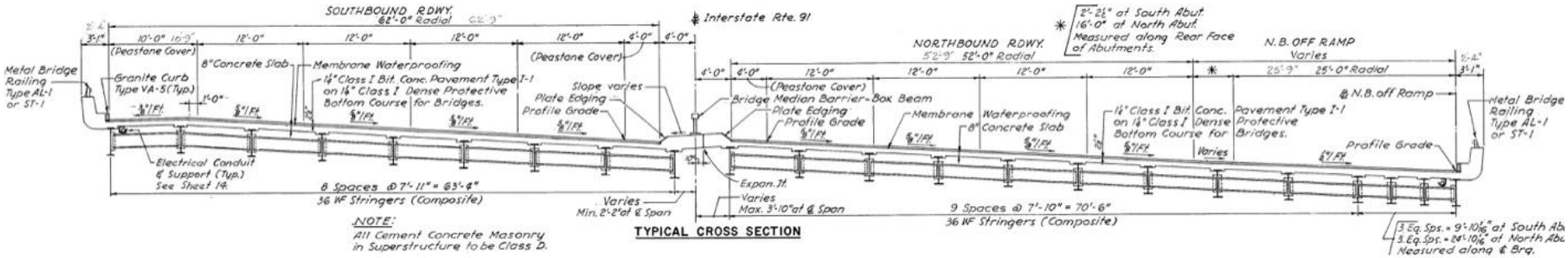
SKETCHES



TYPICAL CROSS SECTION

Sketch 3: Cross Section

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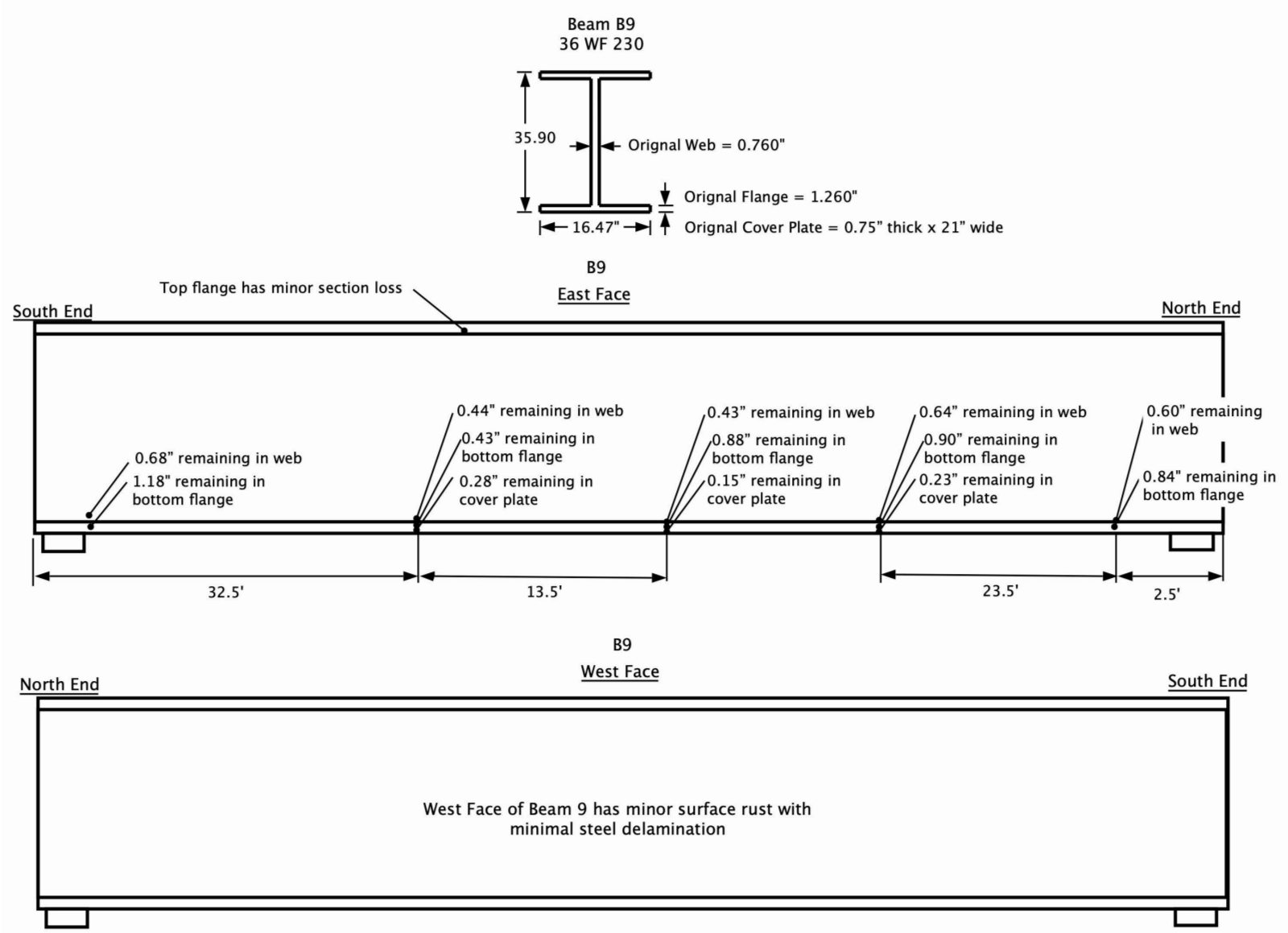
SKETCHES



Sketch 4: Beam 9 - Defects

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PHOTOS

Photo 1: **Previously reported potholes in the Southbound Wearing Surface have been patched since the last inspection.**

Photo 2: **Previously reported potholes in the Northbound Wearing Surface have been patched since the last inspection.**

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PHOTOS

Photo 3: **Deck Underside, Bay 3, between Diaphragms 2 & 3, has one delaminated area and spall with exposed rusted rebars, up to 2" deep.**

Photo 4: **Deck Underside, Bay 5, between Diaphragms 2 & 3, has a 3' diameter patch with delamination around the edges.**

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PHOTOS

Photo 5: Deck Underside, Bay 9, north end has spalling with exposed rebar.

Photo 6: West Thrie-beam near midspan has minor collision damage.

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PHOTOS

Photo 7: **Light Pole on the top of the west concrete parapet, at the south end, has been removed since the last inspection.**

Photo 8: **Southbound Lanes, north deck joint has areas of failed joint sealer adhesion in the travel lanes and random minor transverse cracking in the concrete header.**

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PHOTOS

Photo 9: **Southbound Lanes, North Approach roadway has random cracking and a pothole in the right travel lane.**

Photo 10: **Beam 9, East Face has severe rust delamination with section loss on the lower web, top & bottom flanges, and cover plate.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10Q	S-24-079	S24079-10Q-DOT-NBI	DEC 20, 2023

PHOTOS

Photo 11: **Beam 22, north end, east face has rust, lamination, and section loss to the web.**

Photo 12: **Beam 9, North Bearing, has severe corrosion and is in an expanded position despite freezing temperatures.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10Q	S-24-079	S24079-10Q-DOT-NBI	DEC 20, 2023

PHOTOS

Photo 13: **North Concrete End Diaphragm, Bay 3, underside is totally spalled with exposed rebars. North Breastwall, Bay 3, just below Bridge Seat has a 2' horizontal crack.**

Photo 14: **Bridge Seat at Southwest Wingwall interface is spalled with exposed rebars. Bridge Seat is delaminated east of the spall. Backwall is delaminated & scaled.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10Q	S-24-079	S24079-10Q-DOT-NBI	DEC 20, 2023

PHOTOS

Photo 15: **South Bridge Seat at Southeast Wingwall interface is scaled with exposed rebars, up to 14" deep. Area is covered with wet concrete debris. South Backwall is scaled.**

Photo 16: **North Bridge Seat, at the Northeast Wingwall interface is scaled. Area is covered with wet concrete debris.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10Q**	**S-24-079**	**S24079-10Q-DOT-NBI**	**DEC 20, 2023**

PHOTOS

Photo 17: **South Breastwall, below Beam 1 has full-height mapcracking with heavy efflorescence staining.**

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Report Date: March 11, 2025

State Information

BDEPT#= S24079 Agency Br.No.
Town= Springfield L.O. MHD
B.I.N= 10Q AASHTO= 072.9
RANK= 1364 H.I.= 95.4 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	S2407910QDOTNBI
(5) Inventory Route	111000910
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	67000
(6) Features Intersected	**OTHER BUILDING**
(7) Facility Carried	**I 91**
(9) Location	MM 7.2 ON I-91
(11) Kilometerpoint	0011.587
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 07 MIN 08.18 SEC
(17) Longitude	72 DEG 36 MIN 34.84 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302
Stringer/Girder Jointless bridge type: Not applicable
(44) Structure Type Appr:
Other Code 000
(45) Number of spans in main unit 001
(46) Number of approach spans 0000
(107) Deck Structure Type - Concrete Cast-in-Place Code 1
(108) Wearing Surface / Protective System:
A) Type of wearing surface - Bituminous Code 6
B) Type of membrane - Built-up Code 1
C) Type of deck protection - None Code 0

Age and Service

(27) Year Built	1967
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Other Code	10
(28) Lanes: On Structure 09 Under structure	00
(29) Average Daily Traffic	132311
(30) Year of ADT 2022 (109) Truck ADT	12 %
(19) Bypass, detour length	001 KM

Geometric Data

(48) Length of maximum span	0025.9 M
(49) Structure Length	00027.0 M
(50) Curb or sidewalk: Left 00.0 M Right	00.0 M
(51) Bridge Roadway Width Curb to Curb	037.8 M
(52) Deck Width Out to Out	043.3 M
(32) Approach Roadway Width (w/shoulders)	037.8 M
(33) Bridge Median - Closed median with non-mountable barriers Code	3
(34) Skew 14 DEG (35) Structure Flared	Y
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	25.4 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref N	00.00 M
(55) Min Lat Underclear RT ref N	00.0 M
(56) Min Lat Underclear LT	00.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N
(111) Pier Protection Code
(39) Navigation Vertical Clearance 000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear M
(40) Navigation Horizontal Clearance 0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	6
(59) Superstructure	5
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	48.9
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	26.0
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	5
(69) Underclearances, vert. and horiz.	N
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 1 1 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 12/20/23 (91) Frequency 24 MO
(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection ()	N	00	MO *)	04/02/01
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	06/12/23

Rating Loads

Report Date 02/01/92	H20	Type 3	Type 3S2	Type HS
Operating	30.0	54.0	72.0	54.0
Inventory	20.0	27.0	34.0	28.0

Field Posting

Status LEGAL Posting Date 11/27/92

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name
N Anti-missile fence N Acrow Panel N Jointless Bridge
Freeze/Thaw
Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

N / N Liftbucket	N / N Rigging	Y / Y Other
Y / Y Ladder	N / N Staging	LIGHTING
N / N Boat	N / N Traffic Control	
N / N Wader	N / N RR Flagperson	Inspection Hours: 012
	N / N Police	

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National Bridge Element Inspection

BDEPT# **S-24-079**
B.I.N. **10Q**
Item 8 **S24079-10Q-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **12/20/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Gregory Gniadek**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	12,011.000	☐ %	11,881.000	130.000		
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	130.000	☐ %		130.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	10,980.000	☐ %	9,880.000	1,100.000		
Notes :									
> > 3210	*Del/Spall/Patch/Pot(Wear Surf)*	sq feet	2	1,100.000	☐ %		1,100.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,800.000	☐ %	1,714.000	41.000		45.000
Notes :									
> 1000	*Corrosion*	feet	2	86.000	☐ %		41.000		45.000
Notes :									
> 515	Steel Protective Coating	sq feet	2	17,712.000	☐ %	16,456.000	846.000		410.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	1,256.000	☐ %		846.000		410.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	110.000	☐ %		100.000		10.000
Notes :									
> 1000	*Corrosion*	feet	3	110.000	☐ %		100.000		10.000
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,082.000	☐ %		992.000		90.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	1,082.000	☐ %		992.000		90.000
Notes :									

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National Bridge Element Inspection

BDEPT# **S-24-079**
B.I.N. **10Q**
Item 8 **S24079-10Q-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **12/20/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Gregory Gniadek**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
215	**Re Conc Abutment**	feet	2	161.000	☐ %	141.000	20.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	20.000	☐ %		20.000		
Notes :									
215	**Re Conc Abutment**	feet	3	176.000	☐ %	171.000	5.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	5.000	☐ %		5.000		
Notes :									
306	**Other Joint**	feet	2	150.000	☐ %	150.000			
Notes :									
311	**Moveable Bearing**	each	3	22	☐ %	17	5		
Notes :									
> 1000	*Corrosion*	each	3	5	☐ %		5		
Notes :									
> 515	Steel Protective Coating	sq feet	3	44.000	☐ %	34.000	10.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	10.000	☐ %		10.000		
Notes :									
313	**Fixed Bearing**	each	2	22	☐ %	19	3		
Notes :									
> 1000	*Corrosion*	each	2	3	☐ %		3		
Notes :									
> 515	Steel Protective Coating	sq feet	2	44.000	☐ %	38.000	6.000		
Notes :									

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National Bridge Element Inspection

BDEPT#	**S-24-079**	Date	**12/20/2023**
B.I.N.	**10Q**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**S24079-10Q-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Springfield**	Team Member(s)	**Gregory Gniadek**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > *3440*	*Eff (Stl Protect Coat)*	sq feet	2	6.000	☐ %		6.000		
Notes :									
333	**Other Bridge Railing**	feet	2	180.000	☐ %	180.000			
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 28

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10R	S-24080

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
SPRINGFIELD	S24080-10R-DOT-NBI	011.909	A:OPEN	JAN 24, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91		1967	0000	2010

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
ST116 MAIN ST (N END)	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	S. J. Ausevich

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	2°C	J. LORUSSO

ITEM 58 — 7

DECK

		DEF
1.Wearing Surface	6	M-P
2.Deck Condition	7	-
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	6	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	6	M-P
9.Anti Missile Fence	N	-
10.Drainage System	5	S-P
11.Lighting Standards	5	M-P
12.Utilities	3	S-A
13.Deck Joints	5	S-P
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	140	190

APPROACHES

		DEF
a. Appr. pavement condition	6	M-P
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 5

SUPERSTRUCTURE

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	7	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	N	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross-Frames	5	M-P
11.Rivets & Bolts	7	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1990

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — 5

SUBSTRUCTURE

	Dive	Cur		DEF
1. Abutments			5	
a. Pedestals	N	N		-
b. Bridge Seats	N	5		M-P
c. Backwalls	N	5		M-P
d. Breastwalls	N	5		M-P
e. Wingwalls	N	6		M-P
f. Slope Paving/Rip-Rap	N	5		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	6		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 24, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION: N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:
Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — TRAFFIC SAFETY

	36	COND	DEF
A. Bridge Railing	1	6	M-P
B. Transitions	1	7	-
C. Approach Guardrail	1	7	-
D. Approach Guardrail Ends	N	N	-

WEIGHT POSTING — *Not Applicable* X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 06/07/1995 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING — *Not* X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	14	10	15	3	4.52
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	N	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	P	Y
Other:		
	N	N

TOTAL HOURS 24

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#:

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 02/01/1993

Inspection data at time of existing rating
I 58: **6** I 59: **7** I 60: **6** Date : 02/20/1991

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON:

CONDITION RATING GUIDE (For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10R**	**S-24-080**	**S24080-10R-DOT-NBI**	**JAN 24, 2023**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound & Southbound over State Route 116 (Main Street - North End).

Per the bridge plans, the 22 girders are labeled west to east. Girders 5 & 6 extend partial length of the span, and connect to a diaphragm between Girders 4 & 7. Abutments are labeled as "North Abutment" and "South Abutment". **See Sketches 1 - 4.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has minor rutting, moderate to heavy unraveling of the travel lane paving seams, random cracks, and random patched potholes. **See Photo 1.**

I-91 Southbound:
- Near the northwest corner, there is a large asphalt patch about 15' x 15' which extends over the North Joint. **See Photo 2.**
- Right-center lane, near the north joint, there is an asphalt patch with an adjacent patched pothole. **See Photo 2.**
- Left Travel Lane, midspan, there is a 2' wide x 8' long x up to 5" deep pothole.
- At the South Joint, has a HMA patching adjacent to a section of repaired joint header. **See Photo 3.**

I-91 Northbound:
- Center of Left Travel Lane, has a 2' wide x full length x up to 4" deep area of deterioration with HMA patching. **See Photo 1.**
- Center lane, at the South Joint, has a HMA patched pothole, 3' wide x 4' long. **See Photo 4.**
- Right Travel Lane, at the North Joint, has a large new HMA along the joint interface. **See Photo 1.**

Item 58.2 - Deck Condition
Deck Underside has scattered areas of hairline mapcracking with random areas of minor rust and efflorescence including signs of recent leakage from the joints.

Bay 13 longitudinal joint (beneath the median) has signs of leakage. **See Photo 5.**

Item 58.4 - Curbs
Median has steel edging with surface rust and minor dents and gouges.

Granite Curb along each breakdown lane has random scrapes, minor chipping, and minor loss of joint mortar.

Item 58.5 - Median
Median consists of a raised concrete median with double faced steel Thrie-beam on steel H-posts with timber offset blocks.

Concrete top surface has minor cracks with a minor accumulation of debris.

Item 58.7 - Parapets
Concrete Parapets have scattered hairline vertical cracks and areas of mapcracking with isolated efflorescence and rust.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	**10R**	**S-24-080**	**S24080-10R-DOT-NBI**	**JAN 24, 2023**

REMARKS

Item 58.8 - Railing
Railing consists of 30" high parapets with ST-1 railing mounted on top and steel Thrie-beam retrofit with timber offset blocks mounted on the interior faces of the parapets. **See Photo 3.**

Median lanes have steel Thrie-beam guardrail on steel H-posts bolted to the deck and with timber offset blocks, which travels across the bridge and beyond the limits of the bridge. **See Photo 4.**

Southeast Concrete Endpost is spalled at the timber post attachment, 2.5' long x 2' high x up to 5" deep.

Item 58.10 - Drainage System
North Abutment drain pipe under bay 14, base of the extension pipe has severe rust and delamination with a large rust hole. Lower portion of this drain pipe appears to be plugged. **See Photo 6.**

Concrete paving blocks around this drainage extension pipe appear to be newer than the original paving blocks.

Item 58.11 - Lighting Standards
Street Lights on top of bridge, previously bolted to the top of Parapet:

- West Fascia light standard has been cut off approximately 2' from the base. **See Photo 3.**
- East Fascia light standard, is removed, including the base. Embedded bolts protrude from parapet with exposed wires.

Overhead Lights under the bridge:

- There are 7 overhead light near the South Abutment and 7 near the North Abutment.
- 4 of the 14 overhead lights are not working at the time of this inspection.
- Bay 5 has 2 street light bases, but no overhead light structures. **See Photo 7.**

Item 58.12 - Utilities
Exterior web face of Girder 22 has a fiberglass conduit bolted to it. **See Photo 8.**

South Breastwall, under Girder 22, has a metal electrical box previously noted with moderate surface rust and active leakage has been replaced since the last inspection. **See Photo 8.**

Along the South Backwall, there are 2" diameter metal conduits for the overhead street lights, with areas of severe rust, and random areas where the metal conduit has totally rusted away, exposing several of the wires. **See Photo 9.**

The 2" metal conduits that are attached to the girders have scattered areas of moderate to severe deterioration.

In Bay 21, there is a 2" metal conduit that is disconnected at the north end.

In Bay 1, there is a 2" metal conduit that is severely deteriorated with widespread large rust holes and delaminations and several rusted through hangars and exposed wires. This conduit appears to have served the previously removed above bridge lighting standard and runs over the Main Street roadway.
See Photo 10.

Item 58.13 - Deck Joints
South Extruded Silicone Joint:

- Joint is leaking onto the backwall below.

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REMARKS

- I-91 Southbound Off Ramp, at the South Joint, has a 10' wide area with repaired concrete headers, with some adjacent asphalt patching. **See Photo 3.**
- I-91 Southbound, main line has areas of joint repair since last inspection. **See Photo 11.**
- I-91 Northbound, center lane, at the South Joint, has a HMA patched pothole, 3' wide x 4' long. **See Photo 4.**

North Compression Joint with Steel Headers:

- Minor rutting and sagging expansion material, allowing water to leak onto the backwall below.
- Moderate debris impaction throughout.
- I-91, Southbound, left-center lane has a large asphalt patch across the joint. **See Photo 2.**

APPROACHES

Approaches a - Appr. pavement condition

All Approaches have minor to moderate wear, random cracking, and moderate to heavy mat separation along the lane lines.

At both **Northbound Approaches**, mat separation with patched and unpatched potholes of various lengths up to 3" wide x 1" deep.

Northbound Departure Pavement has new large longitudinal patch in the travel lane. **See Photo 12.**

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams

Girders 5 & 6 are partial-length girders, with the north ends attached to a diaphragm between Girders 4 & 7. **See Sketch 2.**

Majority of the girder bottom flanges & webs have scattered areas of minor surface rust.

Girder 1:

- South End:
  - Lower web has painted over minor section loss, 5' 8" long x up to 7" high x averaging 0.31" remaining, with some isolated areas of 0.17" remaining. **See Photo 13.**
  - West bottom flange, starting 8" in front of the bearing, has section loss, 4' long x 3" wide x 0.46" remaining. (original = 0.75" thick). **See Photo 13.**
  - East bottom flange had moderate surface rust with little of no section loss.
- North End, the last two east vertical stiffeners have a rust holes near their bases. **See Photo 14.**

Girder 10:

- South End, lower west web face has moderate surface rust for the last 5' long x 1' high.
- North End:
  - East bottom flange has section loss, 3' long x 3" wide x 0.56" remaining (original = 0.75" thick).
  - East face of the lower web has moderate surface rust 3' long x up to 1' high.
  - East side the last two vertical stiffeners have rust holes at their bases, 4" wide x 4" high.

Girder 11, North End, east side, the last two vertical stiffeners have a rust holes at the base, up to 4" wide x 3" high.

Girder 12:

- South End, lower web end has a 1" diameter rust hole, behind the bearing.

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REMARKS

- North End:
  - Lower web & west bottom flange have heavy rust delamination, 4' long x up to 1' high.
  - East bottom flange has section loss, 1' long x 3" wide x 0.53" remaining (original = 0.75" thick).
  - East vertical stiffener has a rust hole at the base, 4" diameter.

Girder 13:
- East Face, full-length of the top and bottom flanges have random areas of moderate surface rust with minor rust delamination. This side of the beam is below the longitudinal deck joint. **See Photo 5.**
- North end, east face, two stiffeners have holes at the base. **See Photo 15.**
- South end, west face of lower web and bottom flange of moderate to heavy rust with lamination for 10'.

Girder 14:
- North End:
  - East bottom flange has section loss, 6" long x 3" wide x 0.53" remaining (original = 0.75" thick).
  - East vertical stiffener has a rust hole at the base, 3.5" diameter.

Girder 15, South End, last 10' of the lower web and bottom flange has moderate surface rust with severe rust delamination at the base of the stiffeners on the west side.

Girder 16, South End, last 10' of the lower web and bottom flange has moderate surface rust.

Girder 17:
- South End:
  - West lower web has moderate surface rust with minor section loss.
  - West lower web and stiffeners = 0.18" remaining (original = 0.375" thick).
  - West bottom flange, starting 3' in front of bearing, has section loss, 3' long x 3" wide x 0.50" remaining (original = 0.75" thick).

Girder 22:
- South End:
  - West bottom flange, starting at the bearing, has section loss, 1.5' long x 3" wide x 0.42" remaining (original = 0.75" thick).
  - West two vertical stiffeners have rust holes at the base, 5" diameter. **See Photo 16.**
- Mid-span, lower web and bottom flange has steel repair plates, angles and bolts. **See Photo 17.**
  - Web plate has two rows of bolts.
  - Top & bottom rows have 37 bolts each, the second row only 29.
  - Second row of bolts has seven pre drilled holes with no bolts, has a cross-frame connection plate on the west face restricts bolt locations. **See Photo 18.**
  - Just south of the repair, there is an area of moderate surface rust along the lower web.
- North End, West lower web and west bottom flange has severe surface rust at the bearing area.

Item 59.7 - Conn Plt's, Gussets & Angles

Connection Plates at either abutment have areas of moderate surface rust.

Girder 1, north end, east face connection plate has moderate pack rust. **See Photo 19.**

Item 59.9 - Bearing Devices

South Fixed Bearings:
- Random anchor bolts are bent out of plumb.
- Bearings have minor to moderate surface rust.

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REMARKS

North Expansion Bearings:

- Sliding plates extend up to 3" beyond the masonry plates at random locations. **See Photo 20.**
- Plates have moderate to severe rust delamination with areas of pack rust, especially at the fascia bearings.

Item 59.10 - Diaphragms/Cross-Frames

Concrete encased end diaphragms have random cracks, delaminations and spalls with exposed rusted rebars.

South Abutment:

- Cross-frames under the joint have moderate surface rust.
- Bay 10 has form work from the joint repair project left in place.
- Bay 11 cross-frame has severe surface rust.
- Bays 11,16 & 20 concrete end diaphragms are spalled with exposed rusted rebars.
- Bay 12, bottom frame angle, next to Girder 13 has rust holes, up to 3' long. **See Photo 9.**
- Bay 13 cross-frames under the longitudinal deck joint has severe surface rust.
- Bays 20 & 21 lower frame angles have rust holes in the legs, up to 4" long x 1.5" wide.

Bay 22, midspan, a diaphragm has been partially removed in the area of the Girder 22 repair plates. The connection is both bolted and welded and is solid at this time. **See Photo 21.**

Item 59.14 - Paint/Coating

Bearings & Girders Ends, under the deck joints have peeling paint with various degrees of surface rust. **See Photos 13 - 20.**

SuperStructure Load Deflection Notes

Bridge has minor load deflection under heavy live load conditions.

SuperStructure Load Vibration Notes

Bridge has minor load vibration under heavy live load conditions.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments

Item 60.1.b - Bridge Seats

North & South Bridge Seats have moderate to heavy debris and random hairline cracks that extend from the backwalls into the breastwalls.

South Bridge Seat:

- Bays 18 & 19 have concrete debris from a previous joint repair project.
- Below Beam 21, the east end and front corner of the seat has moderate hairline mapcracking with efflorescence and moderate scaling.
- East end, crack/scaled area extends from the backwall through the bridge seat down into the breastwall/wingwall. **See Photo 22.**

North Bridge Seat, at the interface with the North Breastwall & Northwest Wingwall is severely scaled with exposed severely deteriorated rebars, 4' wide x 2' long x up to 2' deep. **See Photo 23.**

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REMARKS

Item 60.1.c - Backwalls

North & South Backwalls have random hairline vertical cracks up to full-height, with & without efflorescence and rust stains that extend into the seat and down into the breastwalls.

South Backwall:

- Several areas of scaling and staining, possible from deck joint leakage.
- West end has a full-height vertical construction joint with minor scaling, up to 2" wide x 1" deep. **See Photo 13.**
- East end, has a full-height vertical construction joint with scaling up to 4" wide, that extends into the bridge seat and Southeast Wingwall. **See Photo 22.**

North Backwall:

- West end, at the interface of the Northwest Wingwall, has severe scaling, up to 4' wide x 8' high x up to 12" deep. The remaining concrete in the scaled area is soft and punky. **See Photo 24.**
- Severe hairline mapcracking with leaching efflorescence and delaminated concrete.
- Several bays with full-height vertical cracks, from hairline, up to 1/8" wide with & without leaching efflorescence.
- Some of these vertical cracks extend down into the breastwall.

Item 60.1.d - Breastwalls

North & South Breastwalls have several full-height vertical cracks, hairline to 1/8" wide, and scattered hairline horizontal cracks with leaching efflorescence and rust staining.

South Breastwall:

- Below Bay 3, has a hairline full-height vertical crack.
- Below Bay 6 & Girder 7, top of breastwall, has horizontal cracking, 3' long, with moderate rust and efflorescence staining. There is also a full-height x 1/8" wide, vertical crack with moderate efflorescence staining and a 3' x 2' hollow area. **See Photo 25.**
- Below Bay 13, has a vertical construction joint with deteriorated filler that is falling out.
- Below Girder 15, has a 1' diameter, hollow area.
- Below Bay 21, has two minor hollow areas and spalled concrete, 1" deep.
- Below Bays 20 & 21, top of breastwall has hairline horizontal and vertical cracking with rust and efflorescence staining. **See Photo 8.**
- East end, east face has a full height crack/scaled area up to 4" wide that continues up into the bridge seat and then into the backwall. **See Photo 22.**

North Breastwall:

- Several random, full-height hairline vertical cracks with and without leaching efflorescence.
- West end has severe scaling with deteriorating rebars, 4' wide x 1.5' high x up to 1.5' deep, with a full height vertical crack/scaled area down the west face. **See Photo 26.**
- Below Bay 7, top of breastwall has hairline x 2' long horizontal crack with heavy leaching efflorescence.
- Below Bay 9, top of breastwall has hairline x 3' long horizontal crack.
- Below Bay 11 & Girder 12, top of breastwall has a 1' diameter, delaminated and slight spalled area.
- Bay 19:
  - Top of breastwall has a 5' long x 1/16" horizontal crack with delamination, 3' long x 1' high.
  - Has a full height hairline vertical crack with minor efflorescence staining. **See Photo 27.**

Item 60.1.e - Wingwalls

Wingwalls have random vertical cracks and mapcracking up to 1/16" wide with & without leaching efflorescence.

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REMARKS

Northwest Wingwall, at the interface with the North Backwall has severe scaling. **See Photo 26.**

Northeast Wingwall has a diagonal hairline crack with leaching efflorescence, that extends from the back corner of the bridge seat.

Southeast Wingwall has a full height crack/scaled ares up to 4" wide at the breastwall interface.
See Photo 22.

Item 60.1.f - Slope Paving/Rip-Rap
Mortared concrete slope paving blocks have areas of moderate scaling, mainly at the outer ends.
See Photo 8.

Slopes have random depressed blocks up to 10' wide x 15' high x 4" deep.

At the top of the slopes, the slope paving has separated from the breastwall by up to 2".

Item 60.1.k - Settlement
North & South Abutments have several vertical cracks, up to 1/8" wide.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions along the travel lanes consist of nested steel Thrie-beam guardrail on timber posts with timber offset blocks.

Item 36c - Approach Guardrail
Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Southeast Approach guardrail has a previously noted area collision damage that has been repaired since last inspection. **See Photo 28.**

Item 36d - Approach Guardrail Ends
Approach guardrails travel beyond the limits of the bridge.

Sketch / Photo Log

Sketch 1 : Deck Plan
Sketch 2 : Framing Plan
Sketch 3 : Elevation
Sketch 4 : Cross Section
Photo 1 : Wearing Surface has longitudinal deterioration with heavy patching along paving seam, worst condition in 2nd from left lane. Large repair at North Joint.
Photo 2 : Southbound Wearing Surface, north end, has a large asphalt patch in the left-center lane extending over the north joint, and a newly patched longitudinal area in the right-center lane.
Photo 3 : I-91 Southbound Ramp, Joint has section of repaired header with adjacent patching. Base of cut off light post remains attached to the parapet over Main Street.
Photo 4 : I-91 Northbound, center lane, south joint, has an HMA patched pothole, 3' wide x 4' long.

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REMARKS

Photo 5 : Deck Underside, Bay 13 (beneath the median) has signs of leakage. Girder 13, east face, full-length of the top & bottom flanges have random areas of moderate surface rust & delaminations.

Photo 6 : North Abutment, Bay 14 drainage pipe has severe corrosion with rust holes, worst at top and bottom.

Photo 7 : In Bay 5, two of the overhead street lights have their bases, but no light structures.

Photo 8 : Under Girder 22 the metal junction box is new. Also note, South Breastwall cracking with efflorescence. Slope Paving, blocks are scaling, mainly at outer ends.

Photo 9 : Some metal conduits at the south abutment have severe corrosion. Bay 12 end diaphragm has rust holes in the bottom angle.

Photo 10 : Bay 1 has severely corroded metal conduit with exposed wires and several rusted through hangars, full span over roadway. Conduit served previously removed lighting standard from bridge topside.

Photo 11 : Southbound, south joint, previously reported failed joint filler and cracked concrete header have had repairs since last inspection.

Photo 12 : Northbound, North Approach & Wearing Surface, previous mat separation and potholes have been patched since last inspection but still show deterioration in middle travel lanes.

Photo 13 : Girder 1, south end, lower web & bottom west flange has minor section loss. South Backwall, west end has a full-height vertical construction joint with minor scaling.

Photo 14 : Girder 1, north end, two east vertical stiffeners have a rust holes near their bases.

Photo 15 : Girder 13, north end, two vertical stiffeners have rust holes at the base.

Photo 16 : Girder 22, south end, west bottom flange has 0.4" remaining. Two west vertical stiffeners have rust holes at the base, up to 5" diameter.

Photo 17 : Girder 22, midspan, lower web & bottom flange have repair plates. Repair has 7 bolt holes with no bolts in the second row of the web plate (connection plate on the opposite side).

Photo 18 : Repair has a cross frame connection plate at the location of the repairs on Girder 22, coinciding with the 7 empty bolt holes.

Photo 19 : Girder 1, north end, cross-frame connection plate has moderate pack rust.

Photo 20 : North Expansion Bearings, the sliding plates extend up to 3" beyond the masonry plates at random locations. Girder 12 shown.

Photo 21 : Bay 21, midspan, diaphragm has been partially removed in the area of the Girder 22 repair plates. Connection is solid at this time, both bolted and welded.

Photo 22 : South Abutment, east end, has a full height crack/scaled area extending from backwall through the bridge seat and into the breastwall/wingwall interface.

Photo 23 : North Bridge Seat, at the interface with the Breastwall & Northwest Wingwall is severely scaled with several exposed, severely deteriorated rebars, up to 2' deep.

Photo 24 : North Backwall, at the interface of the Northwest Wingwall & Bridge Seat, has severe scaling, up to 4' wide x 8' high x up to 12" deep.

Photo 25 : South Breastwall, below Bay 6 & Girder 7, top of breastwall has horizontal cracking, and one full-height x 1/8" wide vertical crack with moderate rust and efflorescence staining.

Photo 26 : North Breastwall, west end has vertical cracking and heavy scaling along the Northwest Wingwall interface, and severe scaling with exposed rebar at the top corner.

Photo 27 : North Abutment has cracking along the top of the breastwall in Bay 19.

Photo 28 : Southeast Approach guardrail, previous area of moderate collision damage has been replaced since last inspection.

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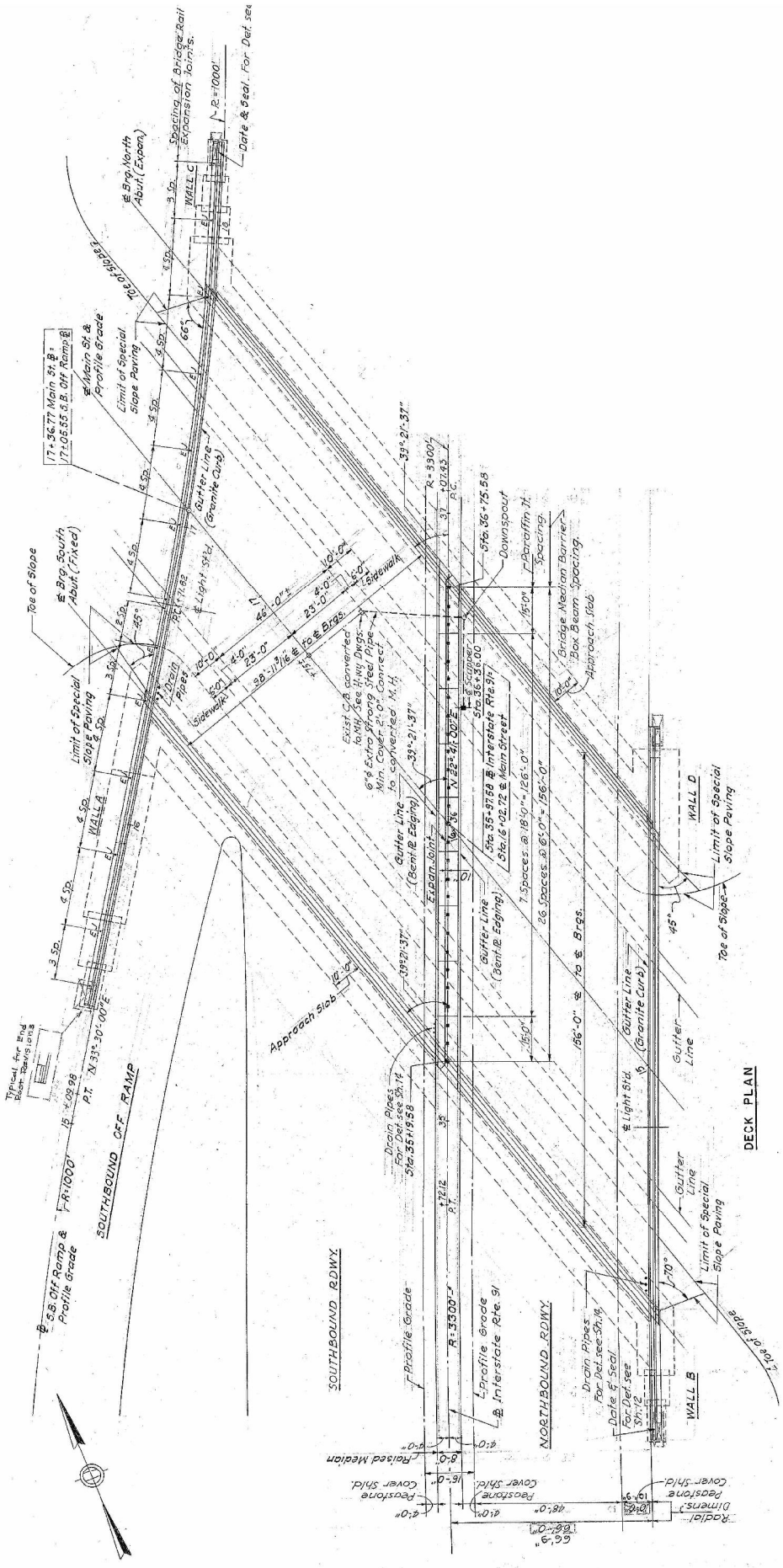

Sketch 1: Deck Plan

REM.(2)2-21

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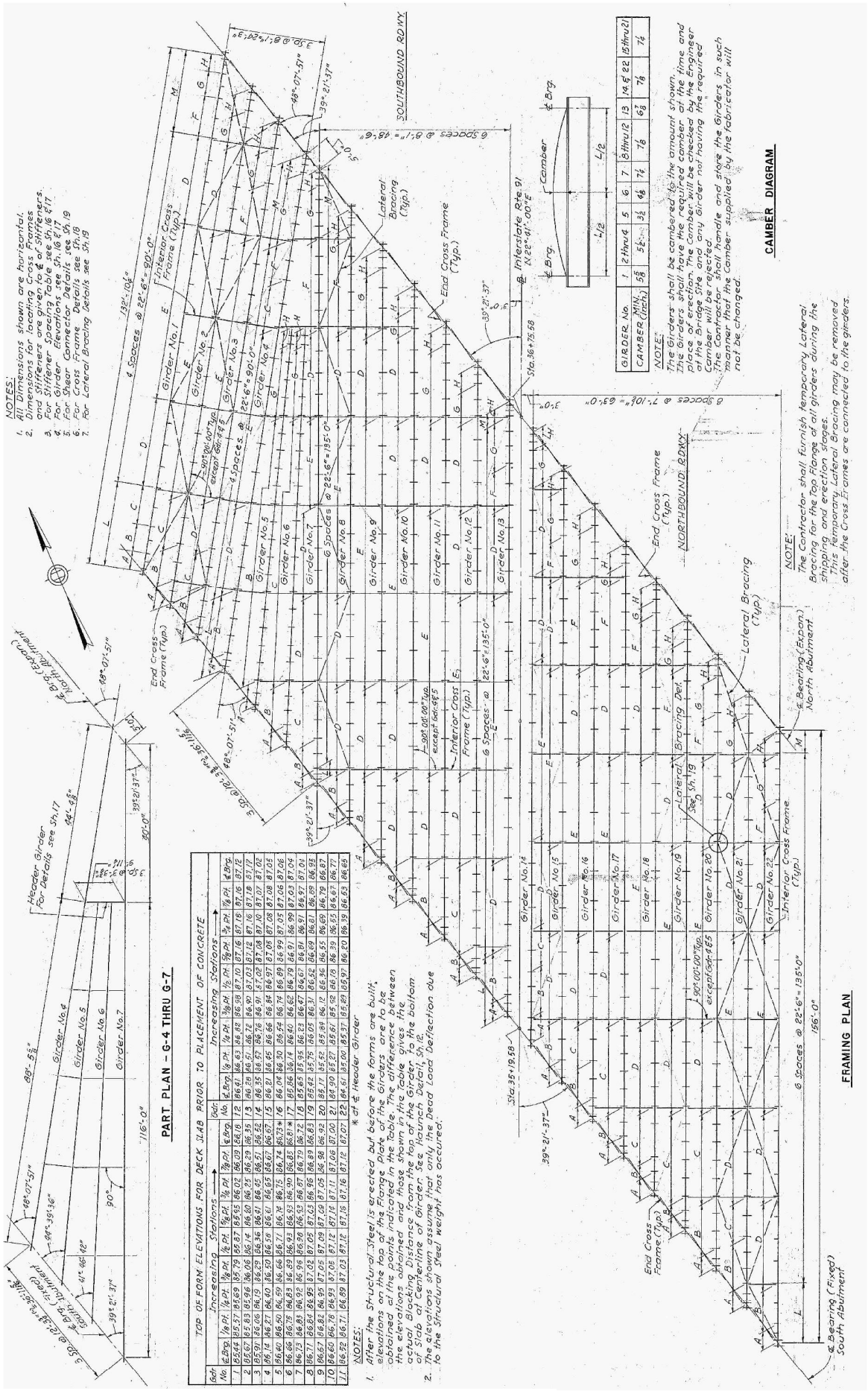

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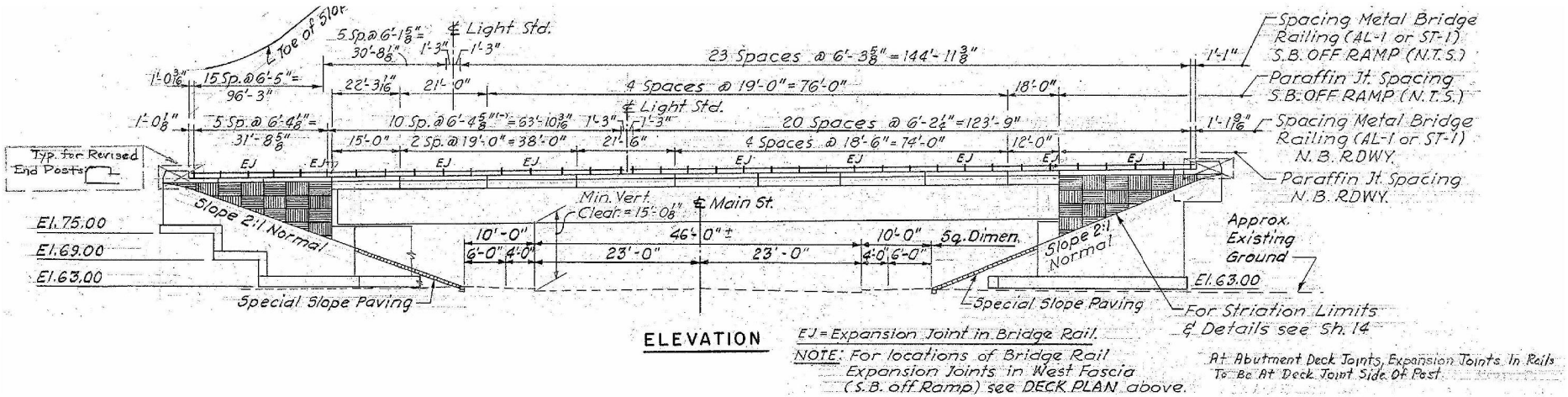

ELEVATION

EJ = Expansion Joint in Bridge Rail.

NOTE: For locations of Bridge Rail Expansion Joints in West Fascia (S.B. off Ramp) see DECK PLAN above.

At Abutment Deck Joints, Expansion Joints In Rails To Be At Deck Joint Side Of Post

Sketch 3: Elevation

REM.(2)2-21

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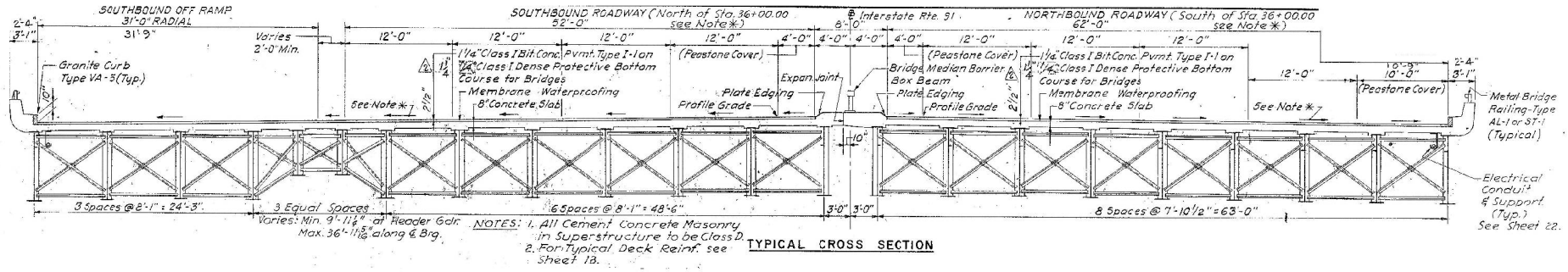

TYPICAL CROSS SECTION

Sketch 4: Cross Section

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PHOTOS

Photo 1: **Wearing Surface has longitudinal deterioration with heavy patching along paving seam, worst condition in 2nd from left lane. Large repair at North Joint.**

Photo 2: **Southbound Wearing Surface, north end, has a large asphalt patch in the left-center lane extending over the north joint, and a newly patched longitudinal area in the right-center lane.**

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PHOTOS

Photo 3: **I-91 Southbound Ramp, Joint has section of repaired header with adjacent patching. Base of cut off light post remains attached to the parapet over Main Street.**

Photo 4: **I-91 Northbound, center lane, south joint, has an HMA patched pothole, 3' wide x 4' long.**

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PHOTOS

Photo 5: **Deck Underside, Bay 13 (beneath the median) has signs of leakage. Girder 13, east face, full-length of the top & bottom flanges have random areas of moderate surface rust & delaminations.**

Photo 6: **North Abutment, Bay 14 drainage pipe has severe corrosion with rust holes, worst at top and bottom.**

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PHOTOS

Photo 7: **In Bay 5, two of the overhead street lights have their bases, but no light structures.**

Photo 8: **Under Girder 22 the metal junction box is new. Also note, South Breastwall cracking with efflorescence. Slope Paving, blocks are scaling, mainly at outer ends.**

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PHOTOS

Photo 9: **Some metal conduits at the south abutment have severe corrosion. Bay 12 end diaphragm has rust holes in the bottom angle.**

Photo 10: **Bay 1 has severely corroded metal conduit with exposed wires and several rusted through hangars, full span over roadway. Conduit served previously removed lighting standard from bridge topside.**

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PHOTOS

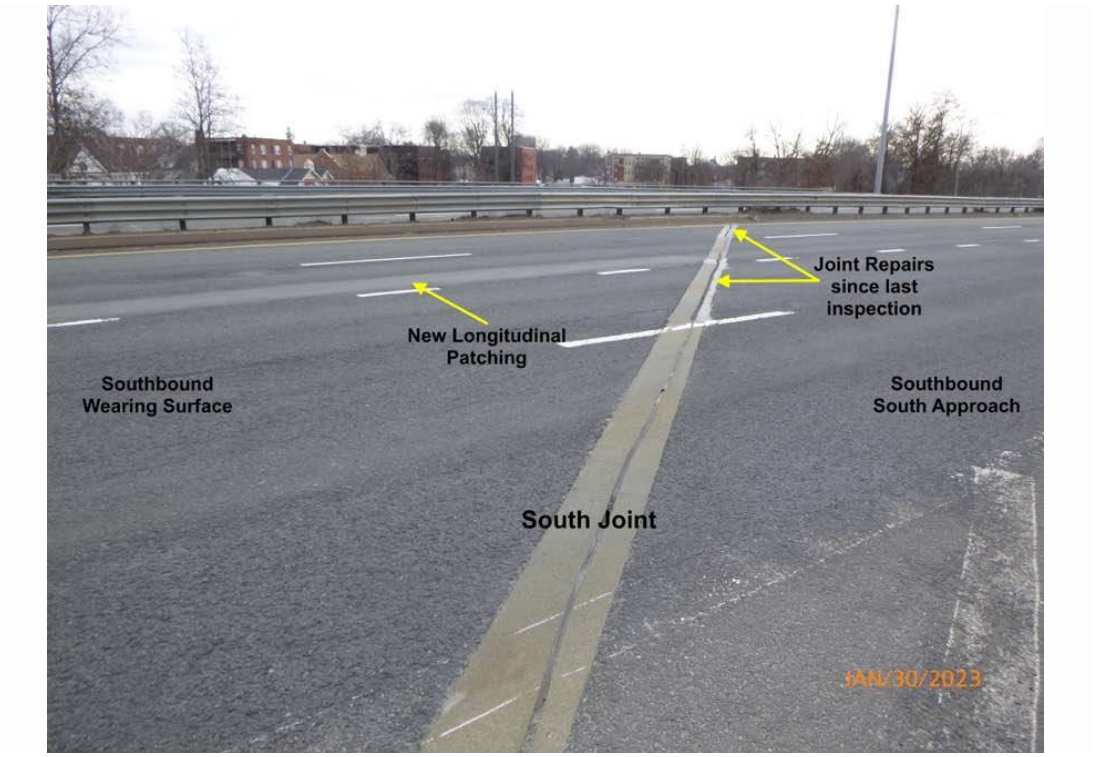

Photo 11: **Southbound, south joint, previously reported failed joint filler and cracked concrete header have had repairs since last inspection.**

Photo 12: **Northbound, North Approach & Wearing Surface, previous mat separation and potholes have been patched since last inspection but still show deterioration in middle travel lanes.**

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PHOTOS

Photo 13: **Girder 1, south end, lower web & bottom west flange has minor section loss. South Backwall, west end has a full-height vertical construction joint with minor scaling.**

Photo 14: **Girder 1, north end, two east vertical stiffeners have a rust holes near their bases.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 24, 2023

PHOTOS

Photo 15: **Girder 13, north end, two vertical stiffeners have rust holes at the base.**

Photo 16: **Girder 22, south end, west bottom flange has 0.4" remaining. Two west vertical stiffeners have rust holes at the base, up to 5" diameter.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 24, 2023

PHOTOS

Photo 17: **Girder 22, midspan, lower web & bottom flange have repair plates. Repair has 7 bolt holes with no bolts in the second row of the web plate (connection plate on the opposite side).**

Photo 18: **Repair has a cross frame connection plate at the location of the repairs on Girder 22, coinciding with the 7 empty bolt holes.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 24, 2023

PHOTOS

Photo 19: **Girder 1, north end, cross-frame connection plate has moderate pack rust.**

Photo 20: **North Expansion Bearings, the sliding plates extend up to 3" beyond the masonry plates at random locations. Girder 12 shown.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 24, 2023

PHOTOS

Photo 21: **Bay 21, midspan, diaphragm has been partially removed in the area of the Girder 22 repair plates. Connection is solid at this time, both bolted and welded.**

Photo 22: **South Abutment, east end, has a full height crack/scaled area extending from backwall through the bridge seat and into the breastwall/wingwall interface.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 24, 2023

PHOTOS

Photo 23: **North Bridge Seat, at the interface with the Breastwall & Northwest Wingwall is severely scaled with several exposed, severely deteriorated rebars, up to 2' deep.**

Photo 24: **North Backwall, at the interface of the Northwest Wingwall & Bridge Seat, has severe scaling, up to 4' wide x 8' high x up to 12" deep.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 24, 2023

PHOTOS

Photo 25: **South Breastwall, below Bay 6 & Girder 7, top of breastwall has horizontal cracking, and one full-height x 1/8" wide vertical crack with moderate rust and effloresence staining.**

Photo 26: **North Breastwall, west end has vertical cracking and heavy scaling along the Northwest Wingwall interface, and severe scaling with exposed rebar at the top corner.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 24, 2023

PHOTOS

Photo 27: **North Abutment has cracking along the top of the breastwall in Bay 19.**

Photo 28: **Southeast Approach guardrail, previous area of moderate collision damage has been replaced since last inspection.**

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Report Date: March 11, 2025

State Information

BDEPT#= S24080 Agency Br.No.
Town= Springfield L.O. MHD
B.I.N= 10R AASHTO= 044.3
RANK= 1310 H.I.= 85.5 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	S2408010RDOTNBI
(5) Inventory Route	111000910
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	67000
(6) Features Intersected	**ST116 MAIN ST (N END)**
(7) Facility Carried	**I 91**
(9) Location	MM 7.4 ON I-91
(11) Kilometerpoint	0011.909
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 07 MIN 17.33 SEC
(17) Longitude	72 DEG 36 MIN 32.11 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302
Stringer/Girder Jointless bridge type: Not applicable
(44) Structure Type Appr:
Other Code 000
(45) Number of spans in main unit 001
(46) Number of approach spans 0000
(107) Deck Structure Type - Concrete Cast-in-Place Code 1
(108) Wearing Surface / Protective System:
A) Type of wearing surface - Bituminous Code 6
B) Type of membrane - Built-up Code 1
C) Type of deck protection - None Code 0

Age and Service

(27) Year Built	1967
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway Code	11
(28) Lanes: On Structure 10 Under structure	02
(29) Average Daily Traffic	129457
(30) Year of ADT 2023 (109) Truck ADT	06 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0047.5 M
(49) Structure Length	00050.3 M
(50) Curb or sidewalk: Left 00.0 M Right	00.0 M
(51) Bridge Roadway Width Curb to Curb	047.9 M
(52) Deck Width Out to Out	052.2 M
(32) Approach Roadway Width (w/shoulders)	047.9 M
(33) Bridge Median - Closed median with non-mountable barriers Code	3
(34) Skew 51 DEG (35) Structure Flared	Y
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	18.9 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.52 M
(55) Min Lat Underclear RT ref H	03.0 M
(56) Min Lat Underclear LT	03.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N
(111) Pier Protection Code
(39) Navigation Vertical Clearance 000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear M
(40) Navigation Horizontal Clearance 0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	7
(59) Superstructure	5
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	53.9
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	13.5
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	3
(68) Deck Geometry	9
(69) Underclearances, vert. and horiz.	6
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 1 1 N
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 01/28/25 (91) Frequency 24 MO
(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/17/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 02/01/93	H20	Type 3	Type 3S2	Type HS
Operating	33.0	58.0	68.0	59.0
Inventory	14.0	14.0	16.0	15.0

Field Posting

Status WAIVED Posting Date 06/07/95

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name
N Anti-missile fence N Acrow Panel N Jointless Bridge
Freeze/Thaw 2 : Deteriorated concrete; No known problematic history
Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
N / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		P / Y	Police		

Inspection Hours: 024

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National Bridge Element Inspection

BDEPT# **S-24-080**
B.I.N. **10R**
Item 8 **S24080-10R-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **01/24/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Stephen J. Ausevich**
Team Member(s) **Jason Lorusso**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	32,207.000	☐ %	27,207.000	4,500.000	500.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	5,000.000	☐ %		4,500.000	500.000	
Notes :									
> 510	Wearing Surfaces	sq feet	2	27,777.000	☐ %	24,977.000	2,798.000	2.000	
Notes :									
> > 3210	*Del/Spall/Patch/Pot(Wear Surf)*	sq feet	2	400.000	☐ %		398.000	2.000	
Notes :									
> > 3230	*Effectiveness (Wearing Surface)*	sq feet	2	12,000.000	☐ %	9,600.000	2,400.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	3,296.000	☐ %	2,296.000	1,000.000		
Notes :									
> 1000	*Corrosion*	feet	2	1,000.000	☐ %		1,000.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	67,897.000	☐ %	64,897.000	3,000.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	15,000.000	☐ %	12,000.000	3,000.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	210.000	☐ %		147.000	63.000	
Notes :									
> 1000	*Corrosion*	feet	3	210.000	☐ %		147.000	63.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	4,326.000	☐ %	865.000	2,163.000	1,298.000	
Notes :									

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National Bridge Element Inspection

BDEPT# **S-24-080**
B.I.N. **10R**
Item 8 **S24080-10R-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **01/24/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Stephen J. Ausevich**
Team Member(s) **Jason Lorusso**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	4,326.000	☐ %	865.000	2,163.000	1,298.000	
Notes :									
215	**Re Conc Abutment**	feet	3	505.000	☐ %	485.000	4.000	6.000	10.000
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	20.000	☐ %		4.000	6.000	10.000
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	30.000	☐ %	30.000			
Notes :									
302	**Compressn Joint Seal**	feet	2	196.000	☐ %			98.000	98.000
Notes :									
> 2310	*Leakage*	feet	2	196.000	☐ %			98.000	98.000
Notes :									
311	**Moveable Bearing**	each	3	20	☐ %		9	5	6
Notes :									
> 1000	*Corrosion*	each	3	20	☐ %		9	5	6
Notes :									
> 515	Steel Protective Coating	sq feet	3	40.000	☐ %		20.000	20.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	40.000	☐ %		20.000	20.000	
Notes :									
313	**Fixed Bearing**	each	3	22	☐ %		7	15	
Notes :									
> 1000	*Corrosion*	each	3	22	☐ %		7	15	
Notes :									

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National Bridge Element Inspection

BDEPT#	**S-24-080**	Date	**01/24/2023**
B.I.N.	**10R**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**S24080-10R-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Stephen J. Ausevich**
Town	**Springfield**	Team Member(s)	**Jason Lorusso**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 515	Steel Protective Coating	sq feet	3	44.000	☐ %		22.000	22.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	44.000	☐ %		22.000	22.000	
Notes :									
333	**Other Bridge Railing**	feet	2	329.000	☐ %	329.000			
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 25

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10R	S-24080

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
SPRINGFIELD	S24080-10R-DOT-NBI	011.909	A:OPEN	JAN 28, 2025

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91		1967	0000	2010

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
ST116 MAIN ST (N END)	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER Z. C. Wright, P.E.
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	-2°C	J. LENARES

ITEM 58 — DECK — 7

		DEF
1.Wearing Surface	6	M-P
2.Deck Condition	7	-
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	6	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	6	M-P
9.Anti Missile Fence	N	-
10.Drainage System	5	S-P
11.Lighting Standards	5	M-P
12.Utilities	3	S-A
13.Deck Joints	5	S-A
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	140	190

APPROACHES

		DEF
a. Appr. pavement condition	6	M-P
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE — 5

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	7	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	N	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross-Frames	5	M-P
11.Rivets & Bolts	7	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	M-P
15.	N	-

Year Painted: 1990

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 5

	Dive	Cur		DEF
1. Abutments			5	
a. Pedestals	N	N		-
b. Bridge Seats	N	5		M-P
c. Backwalls	N	5		M-P
d. Breastwalls	N	5		M-P
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	5		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	6		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

ITEM 61 CHANNEL & CHANNEL PROTECTION — N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	1	6	M-P
B. Transitions	1	7	-
C. Approach Guardrail	1	7	-
D. Approach Guardrail Ends	N	N	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 06/07/1995 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not X

	E ft	E in	W ft	W in	meter
Actual Field Measurement	14	10	15	3	4.52
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	N	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	P	Y
Other:		
	N	N

TOTAL HOURS 24

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 02/01/1993

Inspection data at time of existing rating

I 58: **6** I 59: **7** I 60: **6** Date : 02/20/1991

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE (For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound & Southbound over State Route 116 (Main Street - North End).

Per the bridge plans, the 22 girders are labeled west to east. Girders 5 & 6 extend partial length of the span, and connect to a diaphragm between Girders 4 & 7. Abutments are labeled as "North Abutment" and "South Abutment". **See Sketches 1 - 4.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has minor rutting, moderate to heavy unraveling of the travel lane paving seams, random cracks, and random patched potholes, some new. **See Photo 1.**

I-91 Southbound:
- North Joint, center left lane, asphalt patch over the joint is deteriorated, leaving a hole through to the underside, 8' long x 4" wide x up to full depth. **See Photo 2.**
- At the South Joint, has a HMA patching adjacent to a section of previously repaired joint header.

I-91 Northbound:
- Center of Left Travel Lane, has a 2' wide x full length x up to 4" deep area of deterioration with HMA patching. **See Photo 1.**
- Center lane, at the South Joint, has a HMA patched pothole, 3' wide x 4' long.

Item 58.2 - Deck Condition
Deck Underside has scattered areas of hairline mapcracking with random areas of minor rust and efflorescence including signs of recent leakage from the joints.

Bay 13 longitudinal joint (beneath the median) has signs of leakage. **See Photo 3.**

Item 58.4 - Curbs
Median has steel edging with surface rust and minor dents and gouges.

Granite Curb along each breakdown lane has random scrapes, minor chipping, and minor loss of joint mortar.

Item 58.5 - Median
Median consists of a raised concrete median with double faced steel Thrie-beam on steel H-posts with timber offset blocks.

Concrete top surface has minor cracks with a minor accumulation of debris.

Item 58.7 - Parapets
Concrete Parapets have scattered hairline vertical cracks and areas of mapcracking with isolated efflorescence and rust.

Item 58.8 - Railing
Railing consists of 30" high parapets with ST-1 railing mounted on top and steel Thrie-beam retrofit with timber offset blocks mounted on the interior faces of the parapets.

Median lanes have steel Thrie-beam guardrail on steel H-posts bolted to the deck and with timber offset blocks, which travels across the bridge and beyond the limits of the bridge.

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REMARKS

Southeast Concrete Endpost is spalled at the timber post attachment, 2.5' long x 2' high x up to 5" deep.

Item 58.10 - Drainage System
North Abutment drain pipe under Bay 14, base of the extension pipe has severe rust and delamination with a large rust hole. Lower portion of this drain pipe appears to be plugged. **See Photo 4.**

Concrete paving blocks around this drainage extension pipe appear to be newer than the original paving blocks.

Item 58.11 - Lighting Standards
Street Lights on top of bridge, previously bolted to the top of Parapet:

- West Fascia light standard has been cut off approximately 2' from the base.
- East Fascia light standard, is removed, including the base. Embedded bolts protrude from parapet with exposed wires.

Overhead Lights under the bridge:

- There are 7 overhead light near the South Abutment and 7 near the North Abutment.
- 4 of the 7 overhead lights at the North Abutment and 5 of 7 overhead lights at the South Abutment are not working at the time of this inspection. **See Photo 5.**
- Bay 5 has 2 street light bases, but no overhead light structures.

Item 58.12 - Utilities
Exterior web face of Girder 22 has staging and a fiberglass conduit bolted to it.

Along the South Backwall, there are 2" diameter metal conduits for the overhead street lights, with areas of severe rust, and random areas where the metal conduit has totally rusted away, exposing several of the wires. **See Photo 6.**

The 2" metal conduits that are attached to the girders have scattered areas of moderate to severe deterioration.

In Bay 21, there is a 2" metal conduit that is disconnected at the north end.

In Bay 1, there is a 2" metal conduit that is severely deteriorated with widespread large rust holes and delaminations and several rusted through hangars and exposed wires. This conduit appears to have served the previously removed above bridge lighting standard and runs over the Main Street roadway.
See Photo 7.

Item 58.13 - Deck Joints
South Extruded Silicone Joint:

- Joint is leaking onto the backwall below.
- I-91 Southbound Off Ramp, at the South Joint, has a 10' wide area with repaired concrete headers, with some adjacent asphalt patching.
- I-91 Northbound, center lane, at the South Joint, has a HMA patched pothole, 3' wide x 4' long.

North Compression Joint with Steel Headers:

- Minor rutting and sagging expansion material, allowing water to leak onto the backwall below.
- Moderate debris impaction throughout.

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REMARKS

- I-91, Southbound, center left lane, previous HMA patch over the joint is severely deteriorated and breaking apart, 8' long x 4" wide x up to full depth. There is no seal at this location resulting in open leakage onto the superstructure below. Daylight is visible from the underside of deck in Bay 11. **See Photo 2.**

APPROACHES

Approaches a - Appr. pavement condition
All Approaches have minor to moderate wear, random cracking, and moderate to heavy mat separation along the lane lines.

At both **Northbound Approaches**, mat separation with patched and unpatched potholes of various lengths up to 3" wide x 1" deep. **See Photo 8.**

Northbound Departure Pavement has new large longitudinal patch in the travel lane.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Girders 5 & 6 are partial-length girders, with the north ends attached to a diaphragm between Girders 4 & 7. **See Sketch 2.**

Majority of the girder bottom flanges & webs have scattered areas of minor surface rust.

Girder 1:
- South End:
  - Lower web has painted over minor section loss, 5' 8" long x up to 7" high x averaging 0.31" remaining, with some isolated areas of 0.17" remaining.
  - West bottom flange, starting 8" in front of the bearing, has section loss, 4' long x 3" wide x 0.46" remaining. (original = 0.75" thick).
  - East bottom flange had moderate surface rust with little of no section loss.
- North End:
  - The last two east intermediate vertical stiffeners have a rust holes near their bases, up to 2.5" wide x 2" high.
  - Lower web, extending from the 2nd to last intermediate vertical stiffener, has an area of section loss, 20" long x 3.5" high x down to knife edge remaining, with a pinhole (original = 0.75" thick). **See Photo 9.**

Girder 10:
- North End:
  - East bottom flange has section loss, 3' long x 3" wide x 0.56" remaining (original = 0.75" thick).
  - East face of the lower web has moderate surface rust 3' long x up to 1' high.
  - East side the last intermediate vertical stiffeners has a rust hole at the base, 4" wide x 4" high.

Girder 11:
- North End, east side, the last two intermediate vertical stiffeners have rust holes at the base, up to 4" wide x 3" high.

Girder 12:
- South End, lower web end has a 3" long x 1.5" high rust hole, behind the bearing at the beam end.
- North End:

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REMARKS

- East bottom flange has section loss, 1' long x 3" wide x 0.53" remaining (original = 0.75" thick).
- East last intermediate vertical stiffener has a rust hole at the base, 4" diameter.

Girder 13:

- East Face, full-length of the top and bottom flanges have random areas of moderate surface rust with minor rust delamination. This side of the beam is below the longitudinal deck joint. **See Photo 3.**
- North end, east face, last two intermediate vertical stiffeners have holes at the base, up to full width x 1.5" high. **See Photo 10.**
- South end:
  - West face of lower web and bottom flange of moderate to heavy rust with lamination for 10'.
  - Beyond the bearing, lower web has section loss, 16" long x up to 8" high x down to 0.15" remaining (original = 0.75" thick).
  - In front of the bearing, lower web has section loss, 2' long x 4" high x down to 0.28" remaining (original = 0.75" thick)

Girder 14:

- North End:
  - East bottom flange has section loss, 6" long x 3" wide x 0.53" remaining (original = 0.75" thick).
  - East last intermediate vertical stiffener has a rust hole at the base, full width x 3.5" high.

Girder 15

- South End:
  - Last 10' of the lower web and bottom flange has moderate surface rust with severe rust delamination at the base of the stiffeners on the west side.
  - Beyond the bearing, lower web has section loss, 16" long x 2" high x down to knife edge remaining (original = 7.5" thick).
  - East last intermediate vertical stiffener has a rust hole at the base, full width x 2" high.

Girder 16, South End, last 10' of the lower web and bottom flange has moderate surface rust.

Girder 17:

- South End:
  - West lower web has moderate surface rust with minor section loss.
  - West lower web and stiffeners = 0.18" remaining (original = 0.375" thick).
  - West bottom flange, starting 3' in front of bearing, has section loss, 3' long x 3" wide x 0.50" remaining (original = 0.75" thick).

Girder 20:

- South End:
  - Beyond the bearing, lower web has section loss, 16" long x 2" high x down to knife edge remaining, with a hole at the beam end, 1.5" long x 3.5" high. **See Photo 11.**

Girder 22:

- South End:
  - West bottom flange, starting at the bearing, has section loss, 1.5' long x 3" wide x 0.42" remaining (original = 0.75" thick).
  - West two vertical stiffeners have rust holes at the base, 5" diameter. **See Photo 12.**
  - Beyond the bearing, web at the beam end has edge loss, full height x down to knife edge remaining with multiple pinholes and a hole near the top, 2" diameter.
- Mid-span, lower web and bottom flange has steel repair plates, angles and bolts.
  - Web plate has two rows of bolts.

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REMARKS

- Top & bottom rows have 37 bolts each, the second row only 29.
- Second row of bolts has seven pre drilled holes with no bolts, has a cross-frame connection plate on the west face restricts bolt locations. **See Photo 13.**
- Just south of the repair, there is an area of moderate surface rust along the lower web.

• North End, West lower web and west bottom flange has severe surface rust at the bearing area.

Item 59.7 - Conn Plt's, Gussets & Angles
Connection Plates at either abutment have areas of moderate surface rust.

Girder 1, north end, east face connection plate has moderate pack rust.

Item 59.9 - Bearing Devices
South Fixed Bearings:

• Random anchor bolts are bent out of plumb. **See Photo 14.**
• Bearings have minor to moderate surface rust.

North Expansion Bearings:

• Sliding plates extend up to 3" beyond the masonry plates at random locations. **See Photo 15.**
• Plates have moderate to severe rust delamination with areas of pack rust, especially at the fascia bearings.

Item 59.10 - Diaphragms/Cross-Frames
Concrete encased end diaphragms have random cracks, delaminations and spalls with exposed rusted rebars.

South Abutment:

• Cross-frames under the joint have moderate surface rust.
• Bay 10 has form work from the joint repair project left in place.
• Bay 11 cross-frame has severe surface rust.
• Bays 11,16 & 20 concrete end diaphragms are spalled with exposed rusted rebars.
• Bay 12, bottom frame angle, next to Girder 13 has rust holes, up to 3' long. **See Photo 6.**
• Bay 13 cross-frames under the longitudinal deck joint has severe surface rust.
• Bays 20 & 21 lower frame angles have rust holes in the legs, up to 4" long x 1.5" wide.

Bay 22, midspan, a diaphragm has been partially removed in the area of the Girder 22 repair plates. The connection is both bolted and welded and is solid at this time. **See Photo 16.**

Item 59.14 - Paint/Coating
Bearings & Girders Ends, under the deck joints have peeling paint with various degrees of surface rust. **See Photos 9 - 12.**

SuperStructure Load Deflection Notes
Bridge has minor load deflection under heavy live load conditions.

SuperStructure Load Vibration Notes
Bridge has minor load vibration under heavy live load conditions.

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REMARKS

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North & South Bridge Seats have moderate to heavy debris and random hairline cracks that extend from the backwalls into the breastwalls.

South Bridge Seat:
- Bays 18 & 19 have concrete debris from a previous joint repair project.
- Below Beam 21, the east end and front corner of the seat has moderate hairline mapcracking with efflorescence and moderate scaling.
- East end, crack/scaled area extends from the backwall through the bridge seat down into the breastwall/wingwall. **See Photo 17.**

North Bridge Seat, at the interface with the North Breastwall & Northwest Wingwall is severely scaled with exposed severely deteriorated rebars, 4' wide x 2' long x up to 2' deep. **See Photo 18.**

Item 60.1.c - Backwalls
North & South Backwalls have random hairline vertical cracks up to full-height, with & without efflorescence and rust stains that extend into the seat and down into the breastwalls.

South Backwall:
- Several areas of scaling and staining, possible from deck joint leakage.
- West end has a full-height vertical construction joint with minor scaling, up to 2" wide x 1" deep.
- East end, has a full-height vertical construction joint with scaling up to 4" wide x 4" deep, that extends into the bridge seat and breastwall. **See Photo 19.**

North Backwall:
- West end, at the interface of the Northwest Wingwall, has severe scaling, up to 4' wide x 8' high x up to 12" deep. The remaining concrete in the scaled area is soft and punky. **See Photo 18.**
- Severe hairline mapcracking with leaching efflorescence and delaminated concrete.
- Several bays with full-height vertical cracks, from hairline, up to 1/8" wide with & without leaching efflorescence.
- Some of these vertical cracks extend down into the breastwall.

Item 60.1.d - Breastwalls
North & South Breastwalls have several full-height vertical cracks, hairline to 1/8" wide, and scattered hairline horizontal cracks with leaching efflorescence and rust staining.

South Breastwall:
- Below Bay 3, has a hairline full-height vertical crack.
- Below Bay 6 & Girder 7, top of breastwall, has horizontal cracking, 3' long, with moderate rust and efflorescence staining. There is also a full-height x 1/8" wide, vertical crack with moderate efflorescence staining and a 3' x 2' hollow area. **See Photo 20.**
- Below Bay 13, has a vertical construction joint with deteriorated filler that is falling out.
- Below Girder 15, has a 1' diameter, hollow area.
- Below Bay 21, has two minor hollow areas and spalled concrete, 1" deep.
- Below Bays 20 & 21, top of breastwall has hairline horizontal and vertical cracking with rust and efflorescence staining. **See Photo 21.**
- East end, east face has a full height crack/scaled area with exposed rebar, up to 1' wide x 4" deep that continues up into the bridge seat and then into the backwall. **See Photo 17.**

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North Breastwall:

- West end has severe scaling with deteriorating rebars, 4' wide x 2.5' high x up to 1.5' deep, with a full height vertical crack/scaled area down the west face. **See Photo 18.**
- Below Bay 11 & Girder 12, top of breastwall has a 1' diameter, delaminated and slight spalled area.
- Below Girder 13 has a spall with exposed rebar, 1' wide x 18" high x 2" deep.
- Bay 19, top of breastwall has a 5' long x 1/16" horizontal crack with delamination, 3' long x 1' high.

Item 60.1.e - Wingwalls
Wingwalls have random vertical cracks and mapcracking up to 1/16" wide with & without leaching efflorescence.

Northeast Wingwall has a diagonal hairline crack with leaching efflorescence, that extends from the back corner of the bridge seat.

Item 60.1.f - Slope Paving/Rip-Rap
Mortared concrete slope paving blocks have areas of moderate scaling, mainly at the outer ends.

Slopes have random areas of settled and displaced blocks, up to 10' wide x 15' high x 4" deep.
See Photo 22.

At the top of the slopes, the slope paving has separated from the breastwall by up to 2".

Item 60.1.k - Settlement
North & South Abutments have several vertical cracks, up to 1/8" wide.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions along the travel lanes consist of nested steel Thrie-beam guardrail on timber posts with timber offset blocks.

Item 36c - Approach Guardrail
Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends
Approach guardrails travel beyond the limits of the bridge.

Sketch / Photo Log

Sketch 1 :	Deck Plan
Sketch 2 :	Framing Plan
Sketch 3 :	Elevation
Sketch 4 :	Cross Section
Photo 1 :	Wearing Surface, Northbound, has longitudinal deterioration with heavy patching along paving seam, random cracks and minor rutting.
Photo 2 :	Wearing Surface, Southbound, north end along the Joint, asphalt patch over center left lane is deteriorated with missing joint sealer.

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Photo 3 : Deck Underside, Bay 13 (beneath the median) has signs of leakage. Girder 13, east face, full-length of the top & bottom flanges have random areas of moderate surface rust & delaminations.

Photo 4 : North Abutment, Bay 14 drainage pipe has severe corrosion with rust holes, worst at top and bottom.

Photo 5 : Underside of Deck, lighting is out in several locations. Superstructure Paint has areas of deterioration.

Photo 6 : Some metal conduits at the south abutment have severe corrosion. Bay 12 end diaphragm has rust holes in the bottom angle.

Photo 7 : Bay 1 has severely corroded metal conduit with exposed wires and several rusted through hangars, full span over roadway. Conduit served previously removed lighting standard from bridge topside.

Photo 8 : Northbound, North Approach, mat separation, scattered minor potholes and patched areas.

Photo 9 : Girder 1, north end, two east vertical stiffeners have a rust holes near their bases and web has an area of section loss with a pinhole.

Photo 10 : Girder 13, north end, two vertical stiffeners have rust holes at the base.

Photo 11 : Girder 20, south end beyond the bearing, lower web has section loss with a hole at the beam end.

Photo 12 : Girder 22, south end, west bottom flange has section loss. Two west vertical stiffeners have rust holes at the base.

Photo 13 : Girder 22, midspan, lower web & bottom flange have repair plates. Repair has 7 bolt holes with no bolts in the second row of the web plate (connection plate on the opposite side).

Photo 14 : South Abutment Fixed Bearings, bent anchor bolt (typical). Girder 5 bearing shown.

Photo 15 : North Expansion Bearings, the sliding plates extend beyond the masonry plates at random locations. Girder 12 shown.

Photo 16 : Bay 21, midspan, diaphragm has been partially removed in the area of the Girder 22 repair plates. Connection is solid at this time, both bolted and welded.

Photo 17 : South Abutment, east end, has a full height crack/scaled area extending from backwall through the Bridge Seat and into the Breastwall.

Photo 18 : North Abutment, west end, Bridge Seat, Backwall, & Breastwall are cracked and scaled with exposed rebar.

Photo 19 : South Backwall, east end, has scaling along the vertical construction joint.

Photo 20 : South Breastwall, below Bay 6 & Girder 7, top of breastwall has horizontal and vertical cracking with efflorescence and rust staining.

Photo 21 : South Breastwall, Bays 20 & 21, cracking with efflorescence and rust staining.

Photo 22 : North Abutment, east end, Slope Paving blocks have areas of settlement and displacement (typical).

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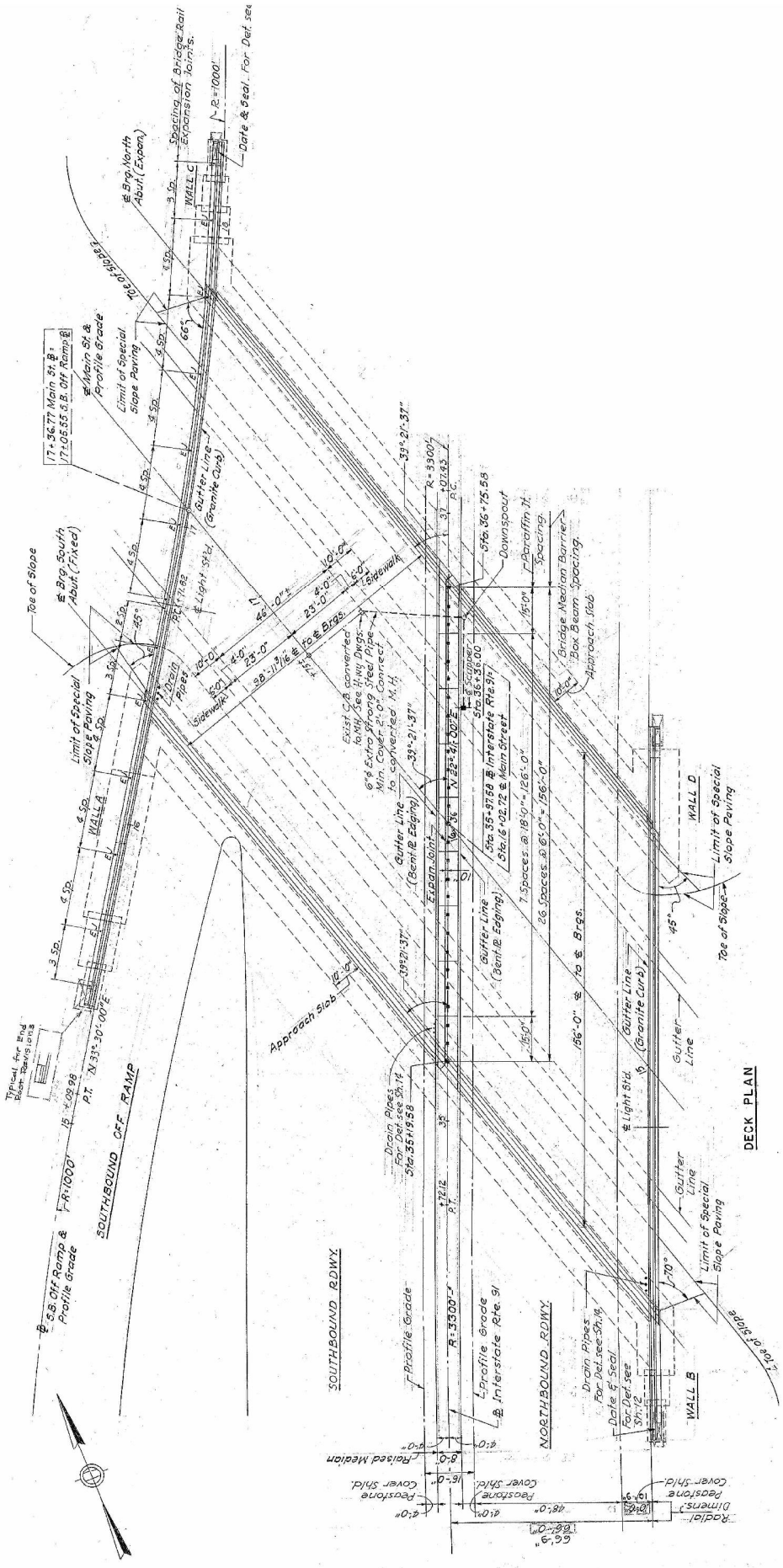
SKETCHES


DECK PLAN
SOUTHBOUND RDWY.
NORTHBOUND RDWY.
SOUTHBOUND OFF RAMP
WALL A
WALL B
WALL C
WALL D
Approach Slab
Limit of Special Slope Paving
Gutter Line (Granite Curb)
Profile Grade
Interstate Rte. 91
Main St. & Profile Grade
Bridge Median Barrier
Box Beam Spacing
Sidewalk
Light Std.
Drain Pipes
Toe of Slope
Raised Median
Parapet Ht.
Spacing
Downspout
Expan. Joint
Gutter Line (Bent # Edging)
Sta. 35+87.58 ℄ Interstate Rte 91
Sta. 36+36.00 ℄ Main Street
Sta. 36+75.58
Sta. 16+02.72 ℄ Main Street
7 Spaces @ 18'-0" = 126'-0"
26 Spaces @ 6'-0" = 156'-0"
156'-0" ℄ to ℄ Brgs.
℄ Brg. South Abut. (Fixed)
℄ Brg. North Abut. (Expan.)
Spacing of Bridge Rail Expansion Joints.
Date & Seal. For Def. see
Typical for End Bent Revisions
℄ S.B. Off Ramp & Profile Grade
P.T. N 33° 30' 00" E
P.C. N 32° 21' 00" E
R=1000'
R=3300'
Sta. 35+19.58
Sta. 16+09.98
Sta. 17+34.77 Main St. ℄
Sta. 17+05.55 S.B. Off Ramp ℄
Drain Pipes For Det. see Sh. 14
Date & Seal For Def. see Sh. 12
Fenstone Cover Shld.
Radial Dimens.
Sidewalk
Toe of Slope
Limit of Special Slope Paving
Gutter Line
Exist. C.B. converted to MH. See Hwy. Dwgs.
6"ø Extra Strong Steel Pipe Min. Cover 2'-0" Connect to converted M.H.
Sta. 17+71.82
Sta. 16+36.98
Sta. 35+19.58
Sta. 36+75.58
Sta. 16+02.72
Sta. 35+87.58
Sta. 36+36.00
Sta. 16+09.98
Sta. 17+05.55
Sta. 17+34.77
Sta. 17+71.82
Sta. 18+00.00
Sta. 18+09.98
Sta. 18+36.98
Sta. 18+71.82
Sta. 19+00.00
Sta. 19+09.98
Sta. 19+36.98
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Sta.

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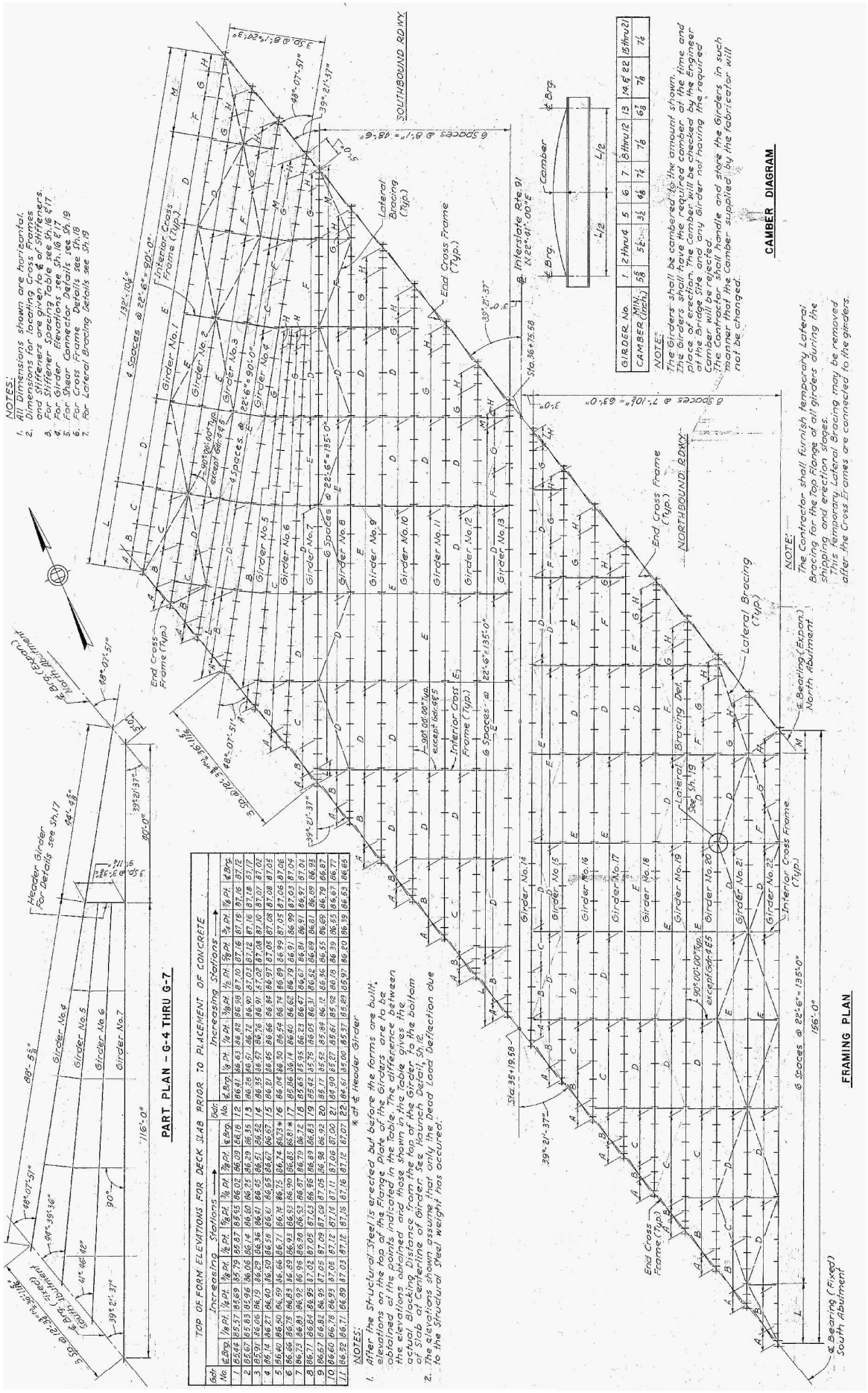
SKETCHES



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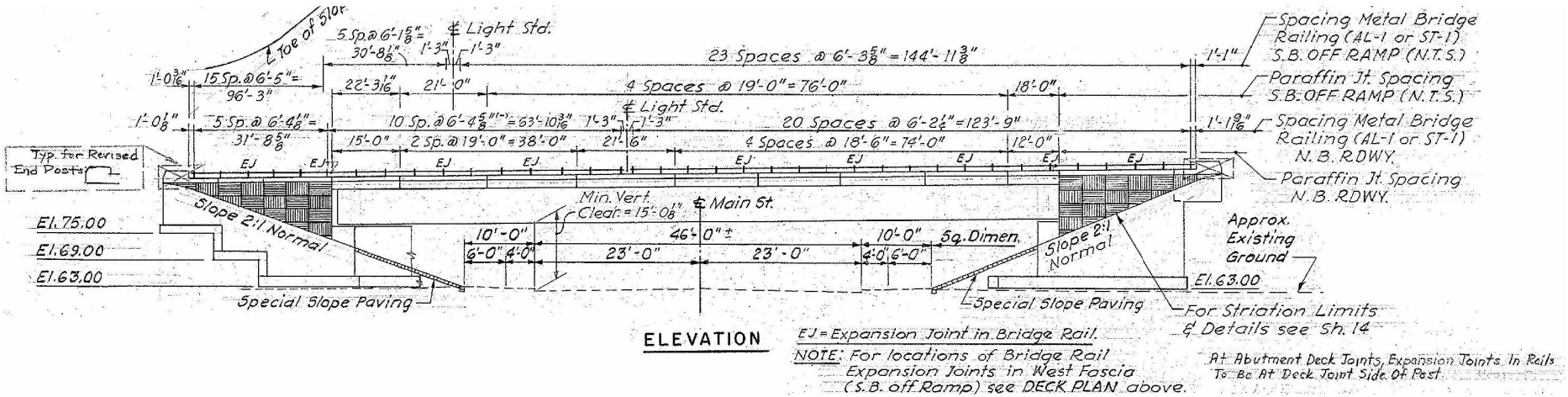

ELEVATION

EJ = Expansion Joint in Bridge Rail.

NOTE: For locations of Bridge Rail Expansion Joints in West Fascia (S.B. off Ramp) see DECK PLAN above.

At Abutment Deck Joints, Expansion Joints In Rails To Be At Deck Joint Side Of Post

Sketch 3: Elevation

REM.(2)2-21

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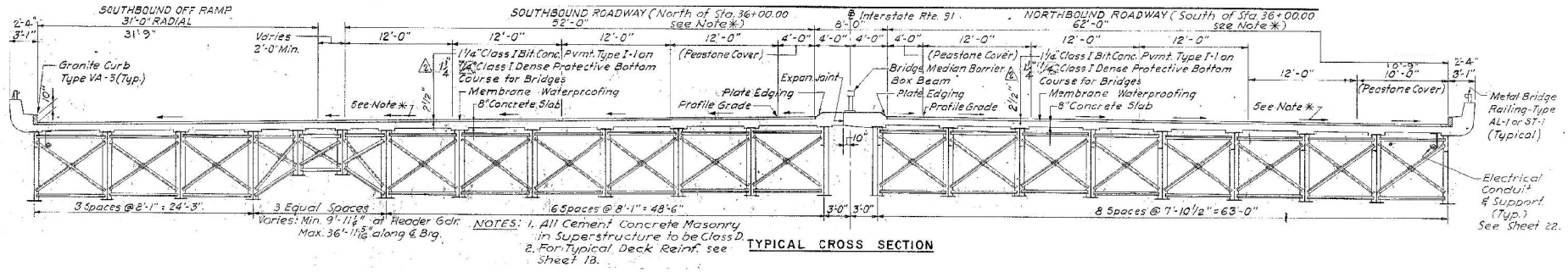
PRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

SKETCHES



TYPICAL CROSS SECTION

Sketch 4: Cross Section

A00809 - 134

Proposal No. 6132190-132950

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

Photo 1: **Wearing Surface, Northbound, has longitudinal deterioration with heavy patching along paving seam, random cracks and minor rutting.**

Photo 2: **Wearing Surface, Southbound, north end along the Joint, asphalt patch over center left lane is deteriorated with missing joint sealer.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

Photo 3: **Deck Underside, Bay 13 (beneath the median) has signs of leakage. Girder 13, east face, full-length of the top & bottom flanges have random areas of moderate surface rust & delaminations.**

Photo 4: **North Abutment, Bay 14 drainage pipe has severe corrosion with rust holes, worst at top and bottom.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

Photo 5: **Underside of Deck, lighting is out in several locations. Superstructure Paint has areas of deterioration.**

Photo 6: **Some metal conduits at the south abutment have severe corrosion. Bay 12 end diaphragm has rust holes in the bottom angle.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

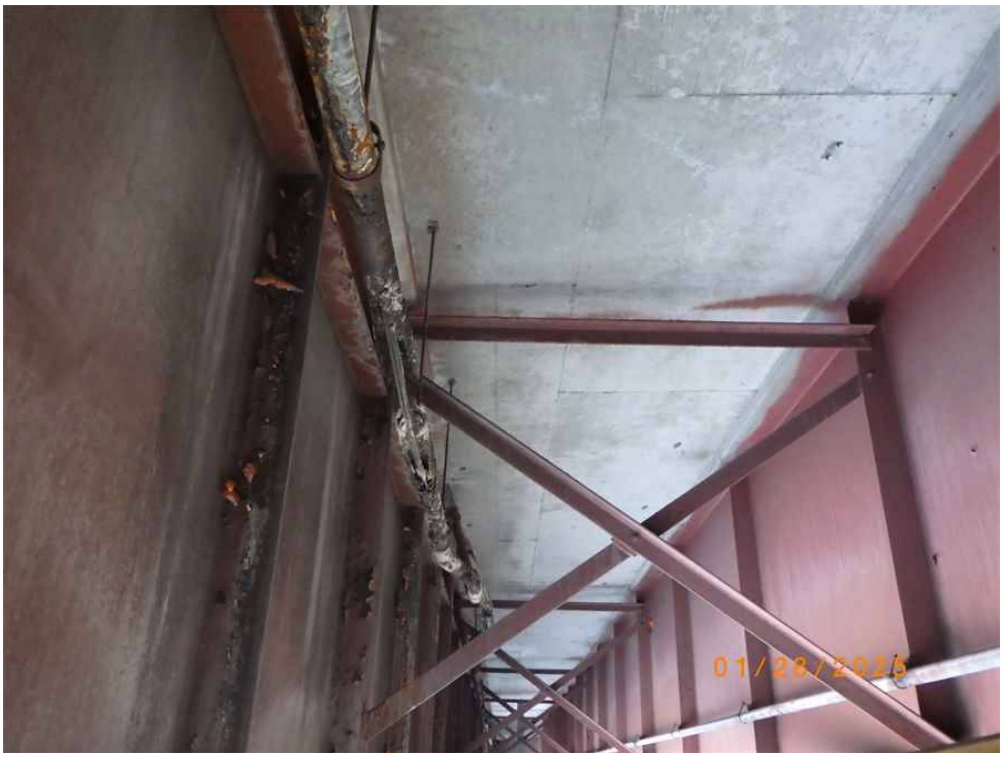

Photo 7: **Bay 1 has severely corroded metal conduit with exposed wires and several rusted through hangars, full span over roadway. Conduit served previously removed lighting standard from bridge topside.**

Photo 8: **Northbound, North Approach, mat separation, scattered minor potholes and patched areas.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

Photo 9: **Girder 1, north end, two east vertical stiffeners have a rust holes near their bases and web has an area of section loss with a pinhole.**

Photo 10: **Girder 13, north end, two vertical stiffeners have rust holes at the base.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

Photo 11: **Girder 20, south end beyond the bearing, lower web has section loss with a hole at the beam end.**

Photo 12: **Girder 22, south end, west bottom flange has section loss. Two west vertical stiffeners have rust holes at the base.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

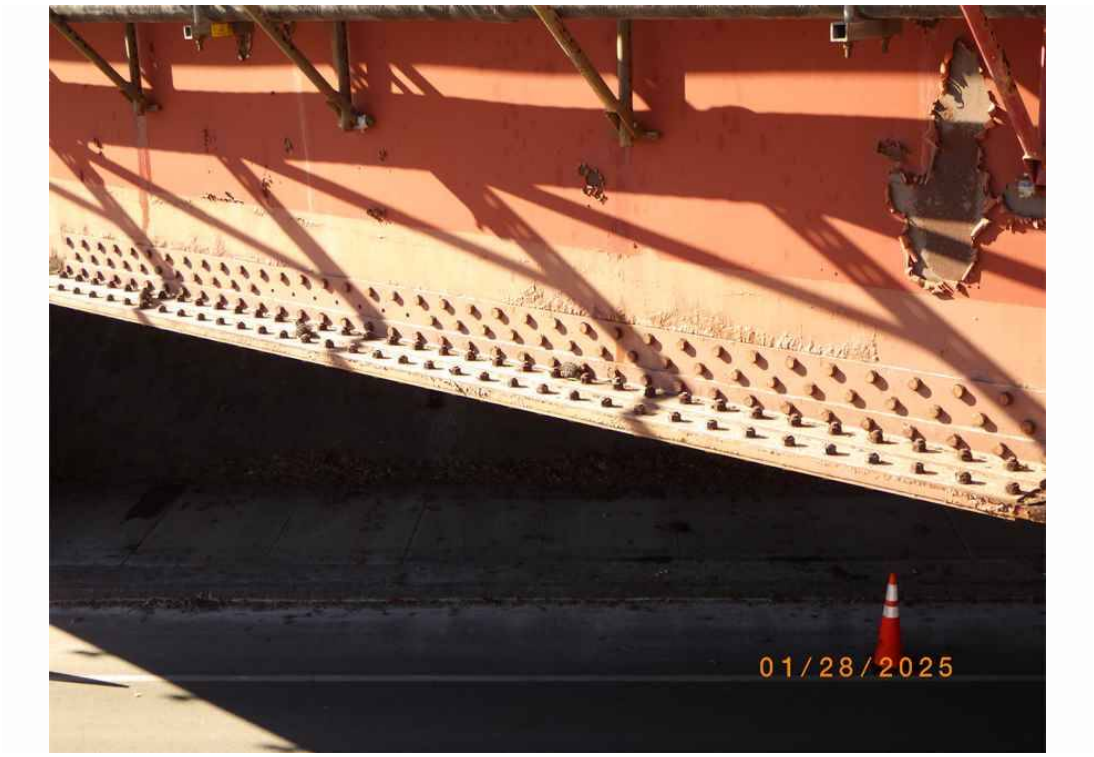

Photo 13: **Girder 22, midspan, lower web & bottom flange have repair plates. Repair has 7 bolt holes with no bolts in the second row of the web plate (connection plate on the opposite side).**

Photo 14: **South Abutment Fixed Bearings, bent anchor bolt (typical). Girder 5 bearing shown.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

Photo 15: **North Expansion Bearings, the sliding plates extend beyond the masonry plates at random locations. Girder 12 shown.**

Photo 16: **Bay 21, midspan, diaphragm has been partially removed in the area of the Girder 22 repair plates. Connection is solid at this time, both bolted and welded.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

Photo 17: **South Abutment, east end, has a full height crack/scaled area extending from backwall through the Bridge Seat and into the Breastwall.**

Photo 18: **North Abutment, west end, Bridge Seat, Backwall, & Breastwall are cracked and scaled with exposed rebar.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

Photo 19: **South Backwall, east end, has scaling along the vertical construction joint.**

Photo 20: **South Breastwall, below Bay 6 & Girder 7, top of breastwall has horizontal and vertical cracking with efflorescence and rust staining.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10R	S-24-080	S24080-10R-DOT-NBI	JAN 28, 2025

PHOTOS

Photo 21: **South Breastwall, Bays 20 & 21, cracking with efflorescence and rust staining.**

Photo 22: **North Abutment, east end, Slope Paving blocks have areas of settlement and displacement (typical).**

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Report Date: October 7, 2025

State Information

BDEPT#= S24080 Agency Br.No.
Town= Springfield L.O. MHD
B.I.N= 10R AASHTO= 044.3
RANK= 1310 H.I.= 85.5 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	S2408010RDOTNBI
(5) Inventory Route	111000910
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	67000
(6) Features Intersected	**ST116 MAIN ST (N END)**
(7) Facility Carried	**I 91**
(9) Location	MM 7.4 ON I-91
(11) Kilometerpoint	0011.909
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 07 MIN 17.33 SEC
(17) Longitude	72 DEG 36 MIN 32.11 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302
Stringer/Girder Jointless bridge type: Not applicable
(44) Structure Type Appr:
Other Code 000
(45) Number of spans in main unit 001
(46) Number of approach spans 0000
(107) Deck Structure Type - Concrete Cast-in-Place Code 1
(108) Wearing Surface / Protective System:
A) Type of wearing surface - Bituminous Code 6
B) Type of membrane - Built-up Code 1
C) Type of deck protection - None Code 0

Age and Service

(27) Year Built	1967
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway Code	11
(28) Lanes: On Structure 10 Under structure	02
(29) Average Daily Traffic	129457
(30) Year of ADT 2023 (109) Truck ADT	06 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0047.5 M
(49) Structure Length	00050.3 M
(50) Curb or sidewalk: Left 00.0 M Right	00.0 M
(51) Bridge Roadway Width Curb to Curb	047.9 M
(52) Deck Width Out to Out	052.2 M
(32) Approach Roadway Width (w/shoulders)	047.9 M
(33) Bridge Median - Closed median with non-mountable barriers Code	3
(34) Skew 51 DEG (35) Structure Flared	Y
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	18.9 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.52 M
(55) Min Lat Underclear RT ref H	03.0 M
(56) Min Lat Underclear LT	03.0 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N
(111) Pier Protection Code
(39) Navigation Vertical Clearance 000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear M
(40) Navigation Horizontal Clearance 0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	7
(59) Superstructure	5
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mc	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	53.9
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	13.5
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	3
(68) Deck Geometry	9
(69) Underclearances, vert. and horiz.	6
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 1 1 N
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 01/28/25 (91) Frequency 24 MO
(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	04/26/25
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 02/01/93	H20	Type 3	Type 3S2	Type HS
Operating	33.0	58.0	68.0	59.0
Inventory	14.0	14.0	16.0	15.0

Field Posting

Status WAIVED Posting Date 06/07/95

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name
N Anti-missile fence N Acrow Panel N Jointless Bridge
Freeze/Thaw 2 : Deteriorated concrete; No known problematic history
Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
N / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		P / Y	Police		

Inspection Hours: 024

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National Bridge Element Inspection

BDEPT# **S-24-080**
B.I.N. **10R**
Item 8 **S24080-10R-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **01/28/2025**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Zachary C. Wright**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	32,207.000	☐ %	27,207.000	4,500.000	500.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	5,000.000	☐ %		4,500.000	500.000	
Notes :									
> 510	Wearing Surfaces	sq feet	2	27,777.000	☐ %	24,977.000	2,798.000	2.000	
Notes :									
> > 3210	*Del/Spall/Patch/Pot(Wear Surf)*	sq feet	2	400.000	☐ %		398.000	2.000	
Notes :									
> > 3230	*Effectiveness (Wearing Surface)*	sq feet	2	12,000.000	☐ %	9,600.000	2,400.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	3,296.000	☐ %	2,296.000	1,000.000		
Notes :									
> 1000	*Corrosion*	feet	2	1,000.000	☐ %		1,000.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	67,897.000	☐ %	64,697.000	3,000.000	100.000	100.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	15,000.000	☐ %	14,800.000		100.000	100.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	210.000	☐ %		147.000	63.000	
Notes :									
> 1000	*Corrosion*	feet	3	210.000	☐ %		147.000	63.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	4,326.000	☐ %	865.000	2,163.000	1,000.000	298.000
Notes :									

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National Bridge Element Inspection

BDEPT# **S-24-080**
B.I.N. **10R**
Item 8 **S24080-10R-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **01/28/2025**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Zachary C. Wright**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	4,326.000	☐ %	865.000	2,163.000	1,000.000	298.000
Notes :									
215	**Re Conc Abutment**	feet	3	505.000	☐ %	485.000	4.000	6.000	10.000
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	20.000	☐ %		4.000	6.000	10.000
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	30.000	☐ %	30.000			
Notes :									
302	**Compressn Joint Seal**	feet	2	196.000	☐ %			98.000	98.000
Notes :									
> 2310	*Leakage*	feet	2	196.000	☐ %			98.000	98.000
Notes :									
311	**Moveable Bearing**	each	3	20	☐ %		9	5	6
Notes :									
> 1000	*Corrosion*	each	3	20	☐ %		9	5	6
Notes :									
> 515	Steel Protective Coating	sq feet	3	40.000	☐ %		20.000	20.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	40.000	☐ %		20.000	20.000	
Notes :									
313	**Fixed Bearing**	each	3	22	☐ %		7	15	
Notes :									
> 1000	*Corrosion*	each	3	22	☐ %		7	15	
Notes :									

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National Bridge Element Inspection

BDEPT#	**S-24-080**	Date	**01/28/2025**
B.I.N.	**10R**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**S24080-10R-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Zachary C. Wright**
Town	**Springfield**	Team Member(s)	**Jonathan Lenares**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> 515	Steel Protective Coating	sq feet	3	44.000	☐ %		22.000	22.000	
Notes :									
> > *3440*	*Eff (Stl Protect Coat)*	sq feet	3	44.000	☐ %		22.000	22.000	
Notes :									
333	**Other Bridge Railing**	feet	2	329.000	☐ %	329.000			
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 24

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10T	S-24085

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
SPRINGFIELD	S24085-10T-DOT-NBI	012.070	A:OPEN	JUN 20, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91		1967	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
HWY NOBLE ST	Urban Interstate	M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	A. Power

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Sunny	23°C	J. LENARES

ITEM 58 — 5

DECK

		DEF
1.Wearing Surface	6	M-P
2.Deck Condition	5	S-P
3.Stay in Place Forms	N	-
4.Curbs	6	-
5.Median	7	-
6.Safetywalks	6	-
7.Parapets	7	-
8.Railing	7	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	4	M-P
12.Utilities	N	-
13.Deck Joints	6	-
14.Shielding	7	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	200	250

APPROACHES

		DEF
a. Appr. pavement condition	6	-
b. Appr. Roadway Settlement	6	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 6

SUPERSTRUCTURE

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	6	-
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	6	-
8.Cover Plates	N	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross Frames	6	-
11.Rivets & Bolts	7	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	5	-
15.	N	-

Year Painted: 1990

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor (X) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — 5

SUBSTRUCTURE

	Dive	Cur	5	DEF
1. Abutments				
a. Pedestals	N	N		-
b. Bridge Seats	N	6		-
c. Backwalls	N	5		M-P
d. Breastwalls	N	5		M-P
e. Wingwalls	N	5		S-A
f. Slope Paving/Rip-Rap	N	6		-
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	6		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
SPRINGFIELD	10T	S-24-085	S24085-10T-DOT-NBI	JUN 20, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION: N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — TRAFFIC SAFETY

	36	COND	DEF
A. Bridge Railing	1	7	-
B. Transitions	1	7	-
C. Approach Guardrail	1	6	-
D. Approach Guardrail Ends	N	N	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 11/19/1992 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge N	At bridge S	Other Advance N	Other Advance S

CLEARANCE POSTING

Not ( )

	E ft	E in	W ft	W in	meter
Actual Field Measurement	14	5	15	3	4.39
Posted Clearance	14	2	14	2	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge E	At bridge W	Advance E	Advance W
	Y	Y	N	N
	7 3	7 3		

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	N	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 24

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 07/01/1992

Inspection data at time of existing rating

I 58: **7** I 59: **7** I 60: **6** Date : 09/30/1991

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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SPRINGFIELD	**10T**	**S-24-085**	**S24085-10T-DOT-NBI**	**JUN 20, 2023**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound & Southbound Lanes over Noble Street which travels east and west.

Per the bridge plans, abutments are labeled as south and north. The eighteen steel girders and bays are numbered west to east. **See Sketches 1 & 2.**

GENERAL REMARKS
Vertical Clearance:
West 14' 2" "At Bridge" Clearance Posting sign are partially hidden behind a highway guide sign.
See Photo 1.

Bridge has no "Advance" Clearance Posting signs.

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface has minor rutting, scaling along the longitudinal paving joints, and random cracks & potholes along the Saw & Seal joints. **See Photo 2.**

Item 58.2 - Deck Condition
Deck Underside:
- Scattered hairline transverse cracks with efflorescence, random areas of hairline mapcracking with minor leaching efflorescence, and rust spots from rebar chairs.
- There are previously patched areas randomly throughout. **See Photo 3.**

Bay 9:
- Severe spalling with exposed rebars along the east edge of the southbound lane, spalls averaging 3' wide x full-length x up to 3" deep. **See Photo 4.**
- Bay is covered with metal shielding. **See Photo 5.**

Southwest corner, behind Girder 1, there is a spall adjacent to the backwall, 3' wide x 7" long x 2" deep with exposed rebar.

Item 58.4 - Curbs
Granite Curbs have minor chipping along the edges and loss of mortar in the joints at some locations.

Concrete Median has steel protective edging that has moderate surface rusting.

Item 58.5 - Median
Median consists of double faced steel Thrie-beam guardrail on steel H-posts with timber offset blocks, on a raised concrete surface.

Concrete Median has minor scaling along the interface with the steel edging.

Item 58.6 - Safetywalks
Bridge has a few minor scaled areas on the safetywalks.

Item 58.7 - Parapets
Concrete Parapet, exterior faces, have minor efflorescence staining.

Interior faces have been patched.

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REMARKS

Item 58.8 - Railing
Railing consists of AL-1 Rails mounted on top of 30" high concrete parapets, and the current standard retrofit steel Thrie-beam guardrail mounted to the face of the parapets with timber blocks.

Item 58.11 - Lighting Standards
Previously noted lighting standard at the west fascia has been removed since the last report.

On the east fascia, there is a lighting standard near the south approach, attached to the concrete parapet.

Under the Structure:
- Lights at the north and south ends in Bay 3, Bay 7, Bay 11, & Bay 15.
- Light covers are typically broken.
- Lights in Bay 3 and Bay 7 are not functioning. **See Photo 6.**
- Conduits for the light wiring are typically severely corroded along the north abutment. **See Photos 7 & 8.**

Item 58.13 - Deck Joints
North Extruded Silicone Joints have sagging expansion material in both northbound & southbound lanes and evidence of leaking on the abutment below.

Northbound Lanes, north joint, concrete header is breaking up in the right travel lane. **See Photo 9.**

Item 58.14 - Shielding
Bay 9 is covered with metal grate shielding. **See Photo 5.**

APPROACHES

Approaches a - Appr. pavement condition
North & South Approach roadways have minor rutting, mat separation, random patching, and random minor potholes. **See Photo 10.**

Approaches b - Appr. Roadway Settlement
Approach pavement typically has minor rutting.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Girders ends at the North Abutment typically have minor surface rust at the lower webs, bottom flanges, and bearing stiffeners.

Girder 1:
- Repair plates are in good condition, with some minor rust. **See Photo 11.**
- There is minor rust along the bottom flange, just south of the repair plates, 10' long x 6" wide.

Girder 6, north end, stiffeners have up to 1/8" section loss. **See Photo 12.**

Girder 10:
- West face is covered by shielding.
- Lower west face web, (below the longitudinal deck joint between the NB and SB lanes) has areas of minor section loss next to some vertical stiffeners.
- Bottom west face, vertical web stiffeners have areas of severe rust delamination with measurable

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REMARKS

section loss. Four of the stiffeners have rust holes (1 - 4" dia.) at the bottom 4", including the south bearing stiffeners as well as intermediate stiffeners near the north end. **See Photos 13 & 14.**

Girder 18, north end, stiffeners have up to 1/8" section loss.

Item 59.7 - Conn Plt's, Gussets & Angles
End diaphragm connection plates have minor rust at the north end.

Item 59.9 - Bearing Devices
North Abutment Expansion Bearings have moderate to severe surface rusting. **See Photo 12.**

Girder 4, north bearing, southeast corner is slightly undermined by a spall on the bridge seat. **See Photo 15.**

South Abutment, Bearings for Girders 1, 9, 10, & 18 have light to moderate rust, all others are in good condition. **See Photo 13.**

Girder 9, south end, has an anchor bolt bent back. **See Photo 16.**

Girder 18, south end, the sole plate is rotated approximately 5°.

Item 59.10 - Diaphragms/Cross Frames
Bay 1, South End, Diaphragm has a spall with exposed, rusted rebar, 2' long x 10" wide x 5" deep. **See Photo 17.**

Concrete end diaphragms have random locations of minor cracking and spalling. **See Photo 7.**

Steel end diaphragms at the north end have minor to moderate rust. **See Photo 7.**

Item 59.14 - Paint/Coating
Paint System is breaking down, especially on the interior face and outer flange of Girder 18. **See Photos 18 & 19.**

SuperStructure Load Deflection Notes
Bridge has minor deflection under heavy loads.

SuperStructure Load Vibration Notes
Bridge has minor vibrations under heavy loads.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
North & South Bridge Seats have a small accumulation of sand and debris.

South Bridge Seat, west end is cracked and scaled adjacent to the backwall, 5" wide x 1' long x up to 10" deep. This crack continues down into the southwest wingwall. **See Photo 20.**

North Bridge Seat:
- Cracking at several locations

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REMARKS

- Bay 4, has spalling with freeze-thaw damaged concrete, 4' long x 1' high x up to 12" deep. Spall is beginning to slightly undermine the north bearing for Girder 4. **See Photo 15.**

Item 60.1.c - Backwalls
North & South Backwalls have a few scattered vertical hairline cracks with efflorescence.

South Backwall:
- Moderate to severe deterioration/vertical crack, up to 24" wide x full height x up to 12" deep, just west of Girder 1, inside is soft deteriorated concrete with exposed rebar. **See Photo 21.**
- Areas of previous moisture exposure with leaching efflorescence.

North Backwall:
- Behind Girder 1 has spalling and cracking.
- Bay 17 has three random spalls, averaging 2.5' wide x 5" high x 3" deep. **See Photo 22.**
- Moderate efflorescence and active water staining from the north deck joint.

Item 60.1.d - Breastwalls
North & South Breastwalls have random full height cracks with efflorescence and/or rust & water stains. Breastwalls have minor hollow areas throughout. **See Photo 23.**

South Breastwall, under Bay 9, has two minor spalls with exposed rebar, up to 8" diameter x 1/2" deep. **See Photo 24.**

South Breastwall has spalling and freeze-thaw damage at the bridge seat interface. **See Item 60.1.b - Bridge Seats.**

Item 60.1.e - Wingwalls
Wingwalls were partially hidden by heavy vegetation and poison ivy at the time of inspection. **See Photo 25.**

Tops of the Wingwalls have a few scattered vertical hairline cracks up to 2' long with leaching efflorescence.

Southwest Wingwall is cracked and severely deteriorated with soft concrete and exposed rebar, up to 1' wide x full-height x up to 14" deep, from the bridge seat interface to the ground. The bottom portion of this defect is hidden by poison ivy growth. **See Photo 20.**

Northwest Wingwall has a spall, 8" diameter x 2" deep, with rebar and efflorescence staining at the backwall and bridge seat interfaces. **See Photo 26.**

Item 60.1.f - Slope Paving/Rip-Rap
South Slope Paving:
- Diagonal/vertical crack, averaging 3" width x full-height, below the median. **See Photo 27.**
- Scaling on many blocks.
- Southwest corner has a washout.

North Slope Paving has loss of mortar, shifting, numerous dislodged blocks, and loose sand throughout.

Vegetation growing (including poison ivy) along all four corners of the slopes. **See Photo 25.**

Item 60.1.k - Settlement
North & South Abutments have several vertical hairline cracks.

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REMARKS

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Transitions consist of steel Thrie-beam guardrail on timber posts with timber offset blocks.

Item 36c - Approach Guardrail
Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks that have minor collision damage. **See Photo 28.**

Item 36d - Approach Guardrail Ends
Southeast & Southwest Approach guardrails run continuous to the next bridge.

Northeast & Northwest Approach guardrails travel beyond the limits of the bridge.

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Cross Section
Photo 1 : West Clearance Posting Sign is partially hidden behind a highway guide sign.
Photo 2 : Southbound Wearing Surface has longitudinal mat separation, rutting, and multiple large patches.
Photo 3 : Deck Underside, Bay 4 has patching and cracking with efflorescence.
Photo 4 : Deck Underside, Bay 9 has full length spalling.
Photo 5 : Bay 9 has metal shielding in place for the full length with concrete debris.
Photo 6 : Under structure lighting, Bay 3, lighting cover is broken and light is not functioning. Typical in Bays 3 & 7.
Photo 7 : Bay 11, North Abutment, wiring conduit is disconnected, steel diaphragm has minor rust, and concrete diaphragm has minor spalling.
Photo 8 : Lighting wiring conduit along the north abutment has areas of heavy corrosion. Bay 1 shown here.
Photo 9 : Northbound Lanes, north joint, concrete header is breaking up in the right travel lane.
Photo 10 : Southbound Lanes, north approach pavement has minor rutting, mat separation, random patching, and random minor potholes.
Photo 11 : Girder 1, repair plates in typical condition with areas of minor rust.
Photo 12 : Girder 6, north end, bearing stiffeners have rust with some minor section loss. Bearing has moderate rust.
Photo 13 : Girder 10, south abutment, west bearing stiffeners have severe section loss and a hole.
Photo 14 : Girder 10, west face, near north end, intermediate bearing stiffeners have section loss with holes up to 4" diameter.
Photo 15 : North Bridge Seat, Bay 4 has spalling which is slightly undermining the Girder 4 bearing.
Photo 16 : Girder 9, south abutment, west anchor bolt is bent southward.
Photo 17 : Bay 1, South Abutment, concrete end diaphragm has spalling adjacent to Girder 1.
Photo 18 : Typical peeling paint on the girder webs; Girder 18, west face shown.
Photo 19 : Paint, Girder 18 has full length paint failure.
Photo 20 : South Bridge Seat, west end has cracking and scaling, which carries down into the Southwest Wingwall. Lower portion of this defect is hidden by heavy poison ivy growth.
Photo 21 : Southwest Backwall has full height spalling/cracking and soft concrete due to severe leakage. Spalling continues into Wingwall and full height to ground.
Photo 22 : North Backwall, Bay 17 has a few random spalls.

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REMARKS

Photo 23 : North Breastwall has typical cracking and rust stains.
Photo 24 : South Breastwall under Bay 9 has a few minor spalls.
Photo 25 : Southwest Wingwall and west end of the south slope is overgrown with poison ivy.
Photo 26 : Northwest Wingwall has a spall with efflorescence at the backwall and bridge seat interface.
Photo 27 : Slope Paving has cracking and scaling on blocks under Bay 9.
Photo 28 : Northbound Lanes, South Approach guardrail has minor collision damage, 20' from the structure.

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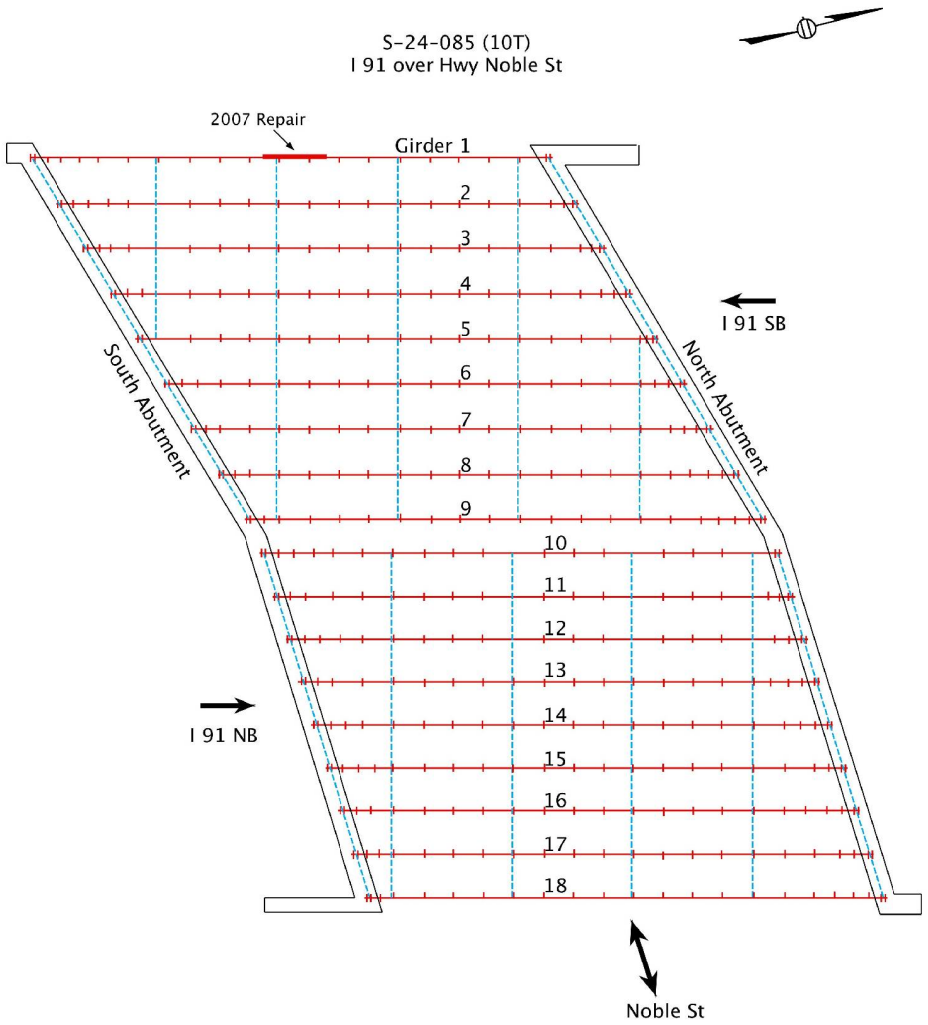
SKETCHES



Not To Scale

Sketch 1: Framing Plan

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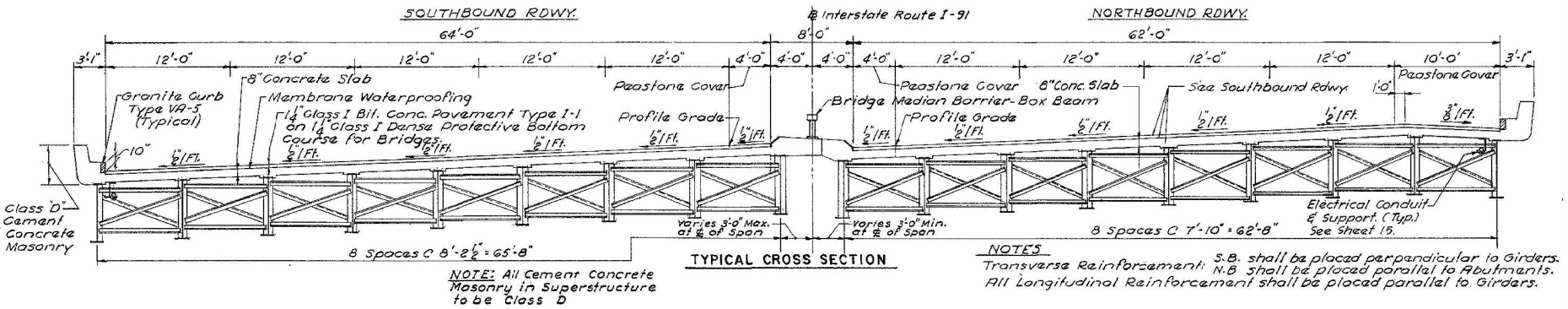
SKETCHES



Sketch 2: Cross Section

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A00809 - 159
Proposal No. 6132I9-132950

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PHOTOS

Photo 1: **West Clearance Posting Sign is partially hidden behind a highway guide sign.**

Photo 2: **Southbound Wearing Surface has longitudinal mat separation, rutting, and multiple large patches.**

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SPRINGFIELD	**10T**	**S-24-085**	**S24085-10T-DOT-NBI**	**JUN 20, 2023**

PHOTOS

Photo 3: Deck Underside, Bay 4 has patching and cracking with efflorescence.

Photo 4: Deck Underside, Bay 9 has full length spalling.

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PHOTOS

Photo 5: **Bay 9 has metal shielding in place for the full length with concrete debris.**

Photo 6: **Under structure lighting, Bay 3, lighting cover is broken and light is not functioning. Typical in Bays 3 & 7.**

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PHOTOS

Photo 7: **Bay 11, North Abutment, wiring conduit is disconnected, steel diaphragm has minor rust, and concrete diaphragm has minor spalling.**

Photo 8: **Lighting wiring conduit along the north abutment has areas of heavy corrosion. Bay 1 shown here.**

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PHOTOS

Photo 9: **Northbound Lanes, north joint, concrete header is breaking up in the right travel lane.**

Photo 10: **Southbound Lanes, north approach pavement has minor rutting, mat separation, random patching, and random minor potholes.**

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PHOTOS

Photo 11: Girder 1, repair plates in typical condition with areas of minor rust.

Photo 12: Girder 6, north end, bearing stiffeners have rust with some minor section loss. Bearing has moderate rust.

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PHOTOS

Photo 13: **Girder 10, south abutment, west bearing stiffeners have severe section loss and a hole.**

Photo 14: **Girder 10, west face, near north end, intermediate bearing stiffeners have section loss with holes up to 4" diameter.**

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PHOTOS

Photo 15: **North Bridge Seat, Bay 4 has spalling which is slightly undermining the Girder 4 bearing.**

Photo 16: **Girder 9, south abutment, west anchor bolt is bent southward.**

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PHOTOS

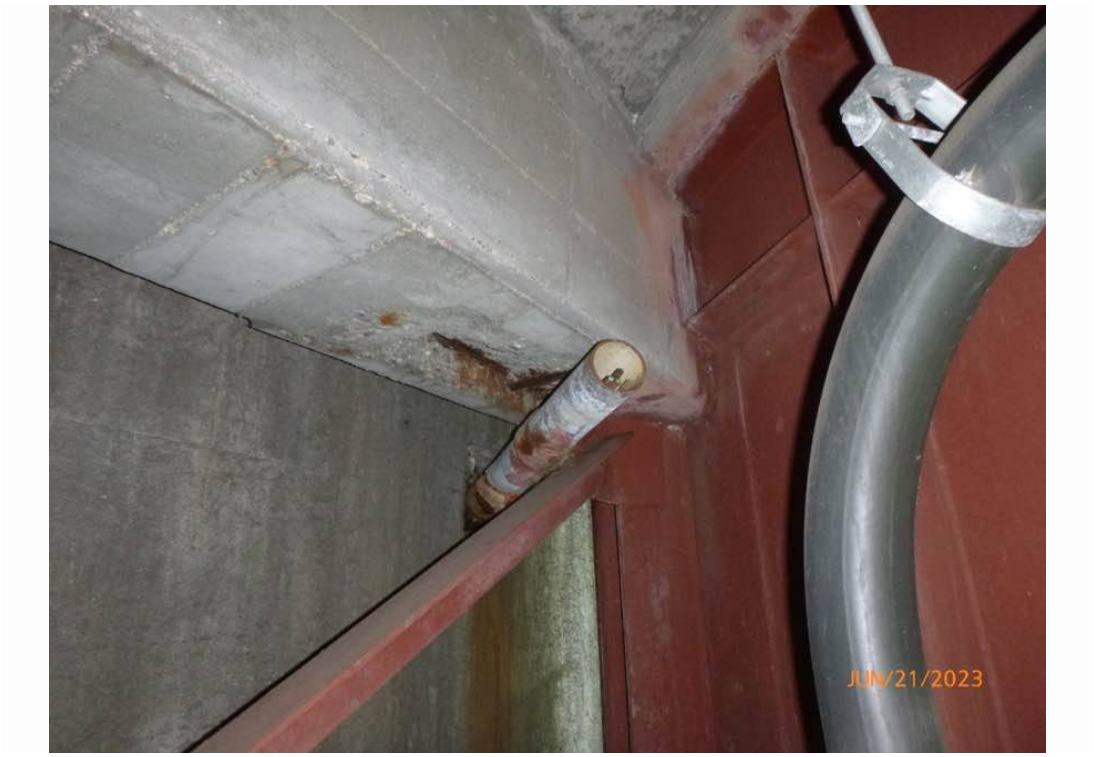

Photo 17: **Bay 1, South Abutment, concrete end diaphragm has spalling adjacent to Girder 1.**

Photo 18: **Typical peeling paint on the girder webs; Girder 18, west face shown.**

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PHOTOS

Photo 19: Paint, Girder 18 has full length paint failure.

Photo 20: South Bridge Seat, west end has cracking and scaling, which carries down into the Southwest Wingwall. Lower portion of this defect is hidden by heavy poison ivy growth.

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PHOTOS

Photo 21: **Southwest Backwall has full height spalling/cracking and soft concrete due to severe leakage. Spalling continues into Wingwall and full height to ground.**

Photo 22: **North Backwall, Bay 17 has a few random spalls.**

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PHOTOS

Photo 23: North Breastwall has typical cracking and rust stains.

Photo 24: South Breastwall under Bay 9 has a few minor spalls.

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PHOTOS

Photo 25: **Southwest Wingwall and west end of the south slope is overgrown with poison ivy.**

Photo 26: **Northwest Wingwall has a spall with efflorescence at the backwall and bridge seat interface.**

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PHOTOS

Photo 27: Slope Paving has cracking and scaling on blocks under Bay 9.

Photo 28: Northbound Lanes, South Approach guardrail has minor collision damage, 20' from the structure.

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Report Date: March 11, 2025

State Information

BDEPT#= S24085 Agency Br.No.
Town= Springfield L.O. MHD
B.I.N= 10T AASHTO= 066.9
RANK= 1634 H.I.= 91.3 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	S2408510TDOTNBI
(5) Inventory Route	111000910
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	67000
(6) Features Intersected	**HWY NOBLE ST**
(7) Facility Carried	**I 91**
(9) Location	MM 7.5 ON I-91
(11) Kilometerpoint	0012.070
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 07 MIN 21.88 SEC
(17) Longitude	72 DEG 36 MIN 29.95 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302
Stringer/Girder Jointless bridge type: Not applicable
(44) Structure Type Appr:
Other Code 000
(45) Number of spans in main unit 001
(46) Number of approach spans 0000
(107) Deck Structure Type - Concrete Cast-in-Place Code 1
(108) Wearing Surface / Protective System:
A) Type of wearing surface - Bituminous Code 6
B) Type of membrane - Built-up Code 1
C) Type of deck protection - None Code 0

Age and Service

(27) Year Built	1967
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway Code	11
(28) Lanes: On Structure 08 Under structure	02
(29) Average Daily Traffic	110101
(30) Year of ADT 2015 (109) Truck ADT	06 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0028.7 M
(49) Structure Length	00030.2 M
(50) Curb or sidewalk: Left 00.0 M Right	00.0 M
(51) Bridge Roadway Width Curb to Curb	038.4 M
(52) Deck Width Out to Out	042.7 M
(32) Approach Roadway Width (w/shoulders)	038.4 M
(33) Bridge Median - Closed median with non-mountable barriers Code	3
(34) Skew 24 DEG (35) Structure Flared	N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	20.7 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.39 M
(55) Min Lat Underclear RT ref H	01.5 M
(56) Min Lat Underclear LT	00.8 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N
(111) Pier Protection Code
(39) Navigation Vertical Clearance 000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear M
(40) Navigation Horizontal Clearance 0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	5
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mo	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	50.4
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	27.0
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	9
(69) Underclearances, vert. and horiz.	4
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 1 1 N
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 06/20/23 (91) Frequency 24 MO
(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	06/22/99
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	04/12/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 07/01/92	H20	Type 3	Type 3S2	Type HS
Operating	31.0	55.0	77.0	56.0
Inventory	21.0	29.0	35.0	30.0

Field Posting

Status WAIVED Posting Date 11/19/92

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name
N Anti-missile fence N Acrow Panel N Jointless Bridge
Freeze/Thaw 2 : Deteriorated concrete; No known problematic history
Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
N / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 024

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National Bridge Element Inspection

BDEPT# **S-24-085**
B.I.N. **10T**
Item 8 **S24085-10T-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **06/20/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	13,892.000	☐ %	13,469.000		423.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	273.000	☐ %			273.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	sq feet	2	150.000	☐ %			150.000	
Notes :									
> 510	Wearing Surfaces	sq feet	2	12,488.000	☐ %	12,268.000	120.000	100.000	
Notes :									
> > 3220	*Crack (Wearing Surface)*	sq feet	2	220.000	☐ %		120.000	100.000	
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,631.000	☐ %	1,549.000	82.000		
Notes :									
> 1000	*Corrosion*	feet	2	82.000	☐ %		82.000		
Notes :									
> 515	Steel Protective Coating	sq feet	2	16,320.000	☐ %	15,920.000		400.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	400.000	☐ %			400.000	
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	90.000	☐ %	30.000	40.000	20.000	
Notes :									
> 1000	*Corrosion*	feet	3	60.000	☐ %		40.000	20.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	900.000	☐ %			900.000	
Notes :									

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National Bridge Element Inspection

BDEPT# **S-24-085**
B.I.N. **10T**
Item 8 **S24085-10T-DOT-NBI**
Span Group **1**
Town **Springfield**
District **2**

Date **06/20/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Adam Power**
Team Member(s) **Jonathan Lenares**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	900.000	☐ %			900.000	
Notes :									
215	**Re Conc Abutment**	feet	2	160.000	☐ %	125.000	25.000	10.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	35.000	☐ %		25.000	10.000	
Notes :									
215	**Re Conc Abutment**	feet	3	160.000	☐ %	120.000	25.000	15.000	
Notes :									
> 1120	*Efflorescence/Rust Staining*	feet	3	40.000	☐ %		25.000	15.000	
Notes :									
306	**Other Joint**	feet	2	140.000	☐ %	100.000	30.000	10.000	
Notes :									
> 2310	*Leakage*	feet	2	10.000	☐ %			10.000	
Notes :									
> 2350	*Debris Impaction*	feet	2	30.000	☐ %		30.000		
Notes :									
311	**Moveable Bearing**	each	3	18	☐ %		18		
Notes :									
> 1000	*Corrosion*	each	3	18	☐ %		18		
Notes :									
> 515	Steel Protective Coating	sq feet	3	36.000	☐ %			36.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	36.000	☐ %			36.000	
Notes :									

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National Bridge Element Inspection

BDEPT#	**S-24-085**	Date	**06/20/2023**
B.I.N.	**10T**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**S24085-10T-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Adam Power**
Town	**Springfield**	Team Member(s)	**Jonathan Lenares**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
313	**Fixed Bearing**	each	2	18	☐ %		14	4	
Notes :									
> 1000	*Corrosion*	each	2	18	☐ %		14	4	
Notes :									
> 515	Steel Protective Coating	sq feet	2	36.000	☐ %		28.000	8.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	36.000	☐ %		28.000	8.000	
Notes :									
330	**Metal Bridge Railing**	feet	2	291.000	☐ %	291.000			
Notes :									
331	**Re Conc Bridge Railing**	feet	2	194.000	☐ %	134.000	60.000		
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	60.000	☐ %		60.000		
Notes :									

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CITY OF WEST SPRINGFIELD BRIDGES –

INSPECTION REPORTS

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 24

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10W	W-21047

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
WEST SPRINGFIELD	W21047-10W-DOT-NBI	014.773	A:OPEN	APR 22, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91		1966	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
US 5 RIVERDALE ST	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER S. R. Finck
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	9°C	T. P. PENNA

ITEM 58 — DECK — 5

		DEF
1.Wearing Surface	5	M-P
2.Deck Condition	5	S-A
3.Stay in Place Forms	N	-
4.Curbs	7	-
5.Median	7	-
6.Sidewalks	N	-
7.Parapets	6	-
8.Railing	7	-
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	6	-
13.Deck Joints	7	-
14.Shielding	7	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters): N 240 S 215

APPROACHES

		DEF
a. Appr. pavement condition	6	M-P
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) Y

		DEF
a. Condition of Welds	7	-
b. Condition of Bolts	7	-
c. Condition of Signs	7	-

ITEM 59 — SUPERSTRUCTURE — 5

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	S-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	5	M-P
8.Cover Plates	7	-
9.Bearing Devices	5	M-P
10.Diaphragms/Cross-Frames	7	-
11.Rivets & Bolts	7	-
12.Welds	6	-
13.Member Alignment	7	-
14.Paint/Coating	4	M-P
15.	N	-

Year Painted: 1993

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE — 6

	Dive	Cur		DEF
1. Abutments			6	
a. Pedestals	N	N		-
b. Bridge Seats	N	6		M-P
c. Backwalls	N	6		M-P
d. Breastwalls	N	6		-
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	6		M-P
g. Pointing	N	N		-
h. Footings	N	H		-
j. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			6	
a. Pedestals	N	6		-
b. Caps	N	6		M-P
c. Columns	N	6		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	7		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 6

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
WEST SPRINGFIELD	10W	W-21-047	W21047-10W-DOT-NBI	APR 22, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION

N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	1	6	-
B. Transitions	1	7	-
C. Approach Guardrail	1	7	-
D. Approach Guardrail Ends	N	N	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge E	At bridge W	Other Advance E	Other Advance W

CLEARANCE POSTING

Not X

	N ft	N in	S ft	S in	meter
Actual Field Measurement	14	10	15	3	4.52
Posted Clearance		0		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge N	At bridge S	Advance N	Advance S

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	N	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 24

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 07/01/1992

Inspection data at time of existing rating

I 58: **5** I 59: **5** I 60: **5** Date :03/28/1990

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/ Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
WEST SPRINGFIELD	**10W**	**W-21-047**	**W21047-10W-DOT-NBI**	**APR 22, 2023**

REMARKS

BRIDGE ORIENTATION

By the plans, Rating Report and compass, bridge carries I-91, east and west, over US Route 5, which travels north and south.

Per Bridge Plans, the two Spans are numbered East to West. Beams and bays are numbered South to North.
I-91 Southbound, Span 1, Beams are numbered 1 - 8 and in Span 2, Beams are numbered 9 - 16.
I-91 Northbound, Span 1, Beams are numbered 17 - 24 and in Span 1, Beams are numbered 25 - 32.
See Sketches 1 & 3.

Center Pier has eight columns numbered from South to North.

ITEM 58 - DECK

Item 58.1 - Wearing Surface

Hot mix asphalt (HMA) Wearing Surface:

- HMA throughout has wheel rutting and longitudinal cracking.
- I-91 Northbound, Span 1, 3rd lane from the North, deterioration along the paving seam, 30' long x up to 8" wide x full depth (4" deep), with top of the concrete deck exposed. **See Photo 1.**
- I-91 Southbound Lane has areas of mapcracking and new HMA patches place along the paving seams. **See Photo 2.**

Item 58.2 - Deck Condition

I-91 Northbound, Span 1, the haunch on South side of Beam 23 is spalled, 12" long x 2" high x 3" deep. This spall is 10' east of the center pier. The concrete around is spall is solid at this time.

Span 1, Bays 2 & 3, over US 5 Northbound, from the East Abutment and over the Right Lane, deck is cracked and delaminated.

US 5 Northbound, Right lane now has timber shielding. **See Photo 3.**

Span 2, over US 5 Southbound, Bay 11 is cracked & delaminated, along the edge of Beam 11, from the West Abutment & over the Right Lane. **See Photo 4.**

Bay 11 needs to be shielded over the Sidewalk, Breakdown Lane, & Right Lane.

Bay 13 is cracked and delaminated from the West Abutment and over the Right & Left Lanes.

Over the Right Breakdown Lane, along the edge of Beam 14 has two delaminated areas that could fall. **See Photo 5.**

Over the Right Lane, had an area (19" wide x 4' 3" long x 2.5" deep) that could fallen. This area of loose concrete was taken down. **See Photo 6.**

Over the Left Travel Lane, is a second area of delaminated concrete. **See Photo 7.**

Bay 13 needs to be shielded over the Sidewalk, Breakdown Lane, Right & left Lanes.

Remaining deck underside in both spans was spot sounded with a hammer and found to be solid at the time of this inspection.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
WEST SPRINGFIELD	**10W**	**W-21-047**	**W21047-10W-DOT-NBI**	**APR 22, 2023**

REMARKS

Item 58.5 - Median
Median consists of a raised concrete median with double faced steel Thrie-beam guardrail on steel H-posts with plastic offset blocks.

Item 58.7 - Parapets
Parapets have scattered hairline vertical cracks that reflect on both faces. The interior faces have concrete patches.

Steel Thrie-beam guardrail is mounted to the interior faces of the parapets with timber offset blocks.

Item 58.8 - Railing
Railing consists of AL-1 railing is mounted on the top of the 30" high concrete parapets.

Steel Thrie-beam guardrail is mounted to the interior face of the parapets with timber offset blocks and bolts totally through the concrete parapets.

Item 58.10 - Drainage System
There are is no drainage system on this bridge, except of the weep holes.

Item 58.12 - Utilities
Metal utility conduit traveling up the Southwest Wingwall has 4' of moderate rust delamination.

New MassDOT Lighting junction boxes and conduits have been added to all four wingwalls of the bridge since the last inspection. New conduit is fastened to the upper face of both breastwalls and across the web of the northern fascia beams.

Item 58.13 - Deck Joints
Extruded Silicone Joint over Center Pier in I-91 Southbound & I-91 Northbound lanes, have a few areas where the concrete headers are breaking up.

I-91 Southbound, right travel lane, east concrete header is breaking-up along the HMA paving seam, approximately 1' wide x 1' long. **See Photo 8.**

I-91 Northbound:
- Right travel lane, west concrete header is delaminated next to the silicone joint, 1' wide x 8" long.
- Center travel lane, starting at the HMA paving seam and traveling South, east and west concrete headers are cracked and delaminated, 3' wide x 2' long. East concrete header has one small spalled area, 6" diameter x 2" deep. **See Photo 9.**

Item 58.14 - Shielding
Span 1, Bays 2 & 3, Timber Shielding has been installed since the last inspection.

APPROACHES

Approaches a - Appr. pavement condition
Approach roadways have minor rutting, longitudinal cracking. Full length HMA patches over mat separation in travel and high speed lanes.

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REMARKS

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams

Beams are 36WF135 (original web = 5/8" (0.6") and flanges = 13/16" (0.79") thick.

Interior beams of I-91 Southbound and of I-91 Northbound bridges have scattered minor surface rust. There are lower web ends that have some section loss.

West Abutment fascia beam ends have moderate corrosion with minor delamination.

Center Pier beam ends have more severe corrosion with areas of moderate delamination, measurable section loss. Measurements taken from previous inspections, were spot checked and updated where needed.

Worse conditions found were on I-91 Southbound, Span 2:

- Beam 9, East Face, web end has rust holes. **See Sketch 4 & Photo 10.**
- [a] Beam 10, East web end has section loss with signs of bending. **See Photo 12.**

Span 1, West Ends at Pier:

I-91 Southbound-

- **Beam 1 (South Fascia):**
  - Lower web end has 10" long x 8" high x 0.22" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.56" remaining.
    - South side in front of bearing has 0.78" remaining.
- **Beam 1, South Face, Mid-Span,** Lower web and top of bottom flange has rust delamination with minor section loss. **See Photo 13.**
- **Beam 2:**
  - Lower web end has 2' long x 1" high x 0.5" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.68" remaining.
    - South side in front of bearing has 0.68" remaining.
- **Beam 3:**
  - Lower web end has 2' long x 1" high x 0.5" remaining.
  - Bottom flanges, both sides are in good condition.
- **Beams 4 - 8** are in satisfactory to good condition.

I-91 Northbound-

- **Beams 17** is in satisfactory to good condition.
- **Beam 18:**
  - Lower web end has 8" long x 4" high x 0.22" remaining.
  - North & South side of bottom flanges are in satisfactory condition.
- **Beam 19:**
  - Lower web end has 4' long x 1" high x 0.32" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.68" remaining.
    - South side is in good condition.
- **Beam 20** has minor rust delamination with no measurable section loss.
- **Beam 21:**
  - Lower web end has 3' long x 2" high x 0.5" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.68" remaining.

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REMARKS

- South side in front of bearing has 0.75" remaining.

• **Beam 22:**
  • Lower web end has 2.5' long x 2" high x 0.5" remaining.
  • Bottom flange:
    - North side in front of bearing has 0.75" remaining.
    - South side in front of bearing has 0.68 " remaining.

Beam 23:
  • Lower web end has 3' long x 1" high x 0.50" remaining.
  • Bottom flange:
    - North side in front of bearing has 0.68" remaining.
    - South side in front of bearing has 0.64" remaining.

• **Beam 24 (North Fascia):**
  • Lower web end has 2' long x 2" high x 0.48" remaining.
  • Bottom flange:
    - North side in front of bearing has 0.79" remaining.
    - South side in front of bearing has 0.60" remaining.

Span 2, East Ends at Pier:

I-91 Southbound-

• **Beam 9 (South Fascia):**
  • Lower web end:
    - Rusted Area = 24" long x 33" high x 0.11" remaining.
    - Rust Holes:
      - 2" up x 8" from web end x hole = 0.5" dia.
      - 13" up x 2" from web end x hole = 1.5" w x 2" h.
      - 28" up x 8" from web end x hole = 0.5" dia. **See Photo 10.**
  • Interior Stiffener has rust holes along bottom edge, 6" long x 4" high. **See Photo 11.**
  • Bottom flange:
    - North side in front of bearing has 0.34" remaining.
    - South side in front of bearing has 0.48" remaining.

• **Beam 9 (West End At Abutment):**
  • Lower web end has 8" long x 1" high x 0.18" remaining.
  • Bottom flange:
    - North side in front of bearing has 0.31" remaining.
    - South side in front of bearing has 0.19" remaining.

• **Beam 10:**
  • Lower web end has 6" long x 33" high x 0.19" remaining.
    - Measurement taken at 5" up x 6" from web end.
  • Lower Web has rust delamination, 4' long x 4" high. **See Photo 12.**
  • Bottom flange:
    - North side in front of bearing has 0.5" remaining.
    - South side in front of bearing has 0.56" remaining.

• **Beam 11:**
  • Lower web end has 3' long x 2" high x 0.44" remaining.
  • South face, lower web has rust delamination, 8' long x 4" high.
  • Bottom flange:
    - North side in front of bearing has 0.62" remaining.
    - South side in front of bearing has 0.62" remaining.

• **Beam 12:**
  • Lower web end has 3' long x 2" high x 0.21" remaining.

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REMARKS

- Bottom flange:
  - North side in front of bearing has 0.75" remaining.
  - South side in front of bearing has 0.75" remaining.
- **Beam 13:**
  - Lower web end has 3' long x 1" high x 0.21" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.68" remaining.
    - South side in front of bearing has 0.75" remaining.
- **Beam 14** is in satisfactory condition with a good coat of paint.
- **Beam 15:**
  - Lower web end has 1.5' long x 1" high x 0.48" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.63" remaining.
    - South side in front of bearing has 0.43" remaining.
- **Beam 16:**
  - Lower web end has rust delamination, 3' long x 3" high x 0.38" remaining. **See Photo 14.**
  - Bottom flange:
    - North side in front of bearing has 0.56" remaining.
    - South side in front of bearing has 0.56" remaining.

I-91 Northbound-

- **Beam 25** is in satisfactory condition.
- **Beam 26:**
  - Lower web end has 1' long x 1" high x 0.43" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.69" remaining.
    - South side in front of bearing has 0.75" remaining.
- **Beam 27** has been repaired by replaced the lower web and bottom flange (new flange = 1.05" thick).
- **Beam 28** is in good condition.
- **Beam 29:**
  - Lower web end has 3' long x 2" high x 0.5" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.625" remaining.
    - South side in front of bearing has 0.625" remaining.
- **Beam 30:**
  - Lower web end has 2' long x 1" high x 0.22" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.69" remaining.
    - South side in front of bearing has 0.69" remaining.
- [a] **Beam 31:**
  - Lower web end has 2' long x 1" high x 0.18" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.68" remaining.
    - South side in front of bearing has 0.75" remaining.
- **Beam 32 (North Fascia):**
  - Lower web end has 2' long x 2" high x 0.53" remaining.
  - Bottom flange:
    - North side in front of bearing has 0.79" remaining.
    - South side in front of bearing has 0.56" remaining.

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REMARKS

Item 59.7 - Conn Plt's, Gussets & Angles
Center Pier Connection Clips under the pier joint has areas of severe corrosion, delamination, and minor section loss. **See Photo 11.**

Interior Connection Clips are in fair to good condition.

Item 59.9 - Bearing Devices
Center Pier Expansion Bearings have moderate to severe corrosion and some minor delamination, with the fascia bearings having the worst conditions. **See Photos 10 & 11.**

Abutment Fixed Bearings are in generally better condition, except for the fascia bearings which have more severe corrosion. **See Photo 15.**

Item 59.12 - Welds
Some of the steel end diaphragm welds have severe rust. No cracks were found. **See Photo 11.**

Item 59.14 - Paint/Coating
Paint System is generally satisfactory through the interiors portions of the superstructure.

Paint coverage is failing with wide corrosion spreading on the web ends and bottom flanges around the pier and under the abutment curblines. **See Photos 10, 11, 12, 13, 14 & 15.**

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
Bridge Seats:

- East Bridge Seat at the North End is scaled, 4' wide x 1' long x x 3" deep. **See Photo 16.**
- Have concrete patches and minor debris buildup.

Item 60.1.c - Backwalls
East & West Backwalls have scattered hairline cracking with efflorescence and rust staining.

East Backwall:

- South of Beam 1 and North of Beam 24, backwall has mapcracking with leaching efflorescence.
- Top North End, just below deck is scaled, 30" wide x 20" high x 5" deep. **See Photo 17.**

West Backwall, behind beam 9, top of wall is scaled, 6" wide x 12" high x 4" deep.

Item 60.1.d - Breastwalls
East & West Breastwalls have scattered hairline cracking with leaching efflorescence and rust staining.

East Breastwall at the North End has large mapcracking with some efflorescence and is delaminated.
See Photo 18.

Item 60.1.e - Wingwalls
Wingwalls have scattered minor hairline cracking with efflorescence, rust staining and minor scaling.

Item 60.1.f - Slope Paving/Rip-Rap
Northwest corner, under Bay 31, slope paving is washing out due to leaking joint above. **See Photo 19.**

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REMARKS

Item 60.2 - Piers or Bents
Item 60.2.a - Pedestals
Pedestals have minor debris build-up.

Item 60.2.b - Caps
Pier Cap:

- Top South end is cracked, delaminated, and spalled, 4" wide x 5" high x 6" deep. **See Photo 20.**
- There is minor scattered hairline cracking with efflorescence and rust staining.

Item 60.2.c - Columns
Columns have scattered hairline cracking with efflorescence and rust staining.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions
Leading end transitions consist of steel Thrie-beam guardrail on timber posts with timber offset blocks.

Trailing end transitions consist of a steel Thrie-beam guardrail transition to steel W-beam guardrail on steel H-posts with timber offset blocks.

Item 36c - Approach Guardrail
Approach guardrails consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

Item 36d - Approach Guardrail Ends
Approach guardrails travel continuously beyond the limits of the bridge.

Sketch / Photo Log

Sketch 1 :	Framing Plan
Sketch 2 :	Elevation
Sketch 3 :	Cross Section
Sketch 4 :	I-91 Southbound, Span 2, Beam 9 Defects
Photo 1 :	I-91 Northbound, Span 1, 3rd lane from the North, deterioration along the paving seam, 30' long x up to 8" wide x full depth, with top of the concrete deck exposed.
Photo 2 :	I-91 Southbound Lane has areas of mapcracking and new HMA patches place along the paving seams.
Photo 3 :	Deck Underside, Span 1, Bays 2 & 3, over US 5 Northbound, from the East Abutment and over the Right Lane, deck is cracked and delaminated. These bays now has timber shielding.
Photo 4 :	Deck Underside, Span 2, over US 5 Southbound, Bay 11 is cracked & delaminated, along the edge of Beam 11, from the West Abutment & over the Right Travel Lane.
Photo 5 :	Deck Underside, Span 2, Bay 13, over the Right Breakdown Lane, along the edge of Beam 14 has 2 delaminated areas.
Photo 6 :	Deck Underside, Span 2, Bay 13, over the Right Travel Lane, had an area that could have fallen. This area of delaminated concrete was taken down.
Photo 7 :	Deck Underside, Span 2, Bay 13, over the left Travel Lane has a section of delaminated concrete.
Photo 8 :	I-91 Southbound, right travel lane, east concrete header is breaking-up along the HMA paving seam,

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Photo 9 : I-91 Northbound, Center travel lane, starting at the HMA paving seam, east and west concrete headers are cracked and delaminated, 3' wide x 2' long.

Photo 10 : I-91 Southbound, Span 2, Beam 9, South Face, over pier, East web end has rust holes.

Photo 11 : I-91 Southbound, Span 2, Beam 9, North Face, over Pier, bottom edge of vertical stiffener has rust holes.

Photo 12 : I-91 Southbound, Span 2, Beam 10, over pier, section loss along web end with sigs of bending. Lower web has rust delamination, 4' long x 4" high.

Photo 13 : I-91 Southbound, Beam 1, South Face, Mid-Span, lower web and top of bottom flange has rust delamination with minor section loss.

Photo 14 : Span 2, Beam 16, South face, lower web end has rust delamination, 3' long x 3" high x 0.38" remaining.

Photo 15 : Abutment Fixed Bearings are in generally better condition, except for the fascia bearings which have more severe corrosion.

Photo 16 : East Bridge Seat at the North End is scaled, 4' wide x 1' long x 3" deep.

Photo 17 : East Backwall, Top North End, behind Beam 24, just below deck is scaled, 30" wide x 20" high x 5" deep.

Photo 18 : East Breastwall at the North End has large mapcracking with some efflorescence and is delaminated.

Photo 19 : Northwest Corner, under Bay 31, granite block slope paving is washing out due to leaking joint above.

Photo 20 : Pier Cap, Top South End is cracked, delaminated, and spalled, 4" wide x 5" high x 6" deep.

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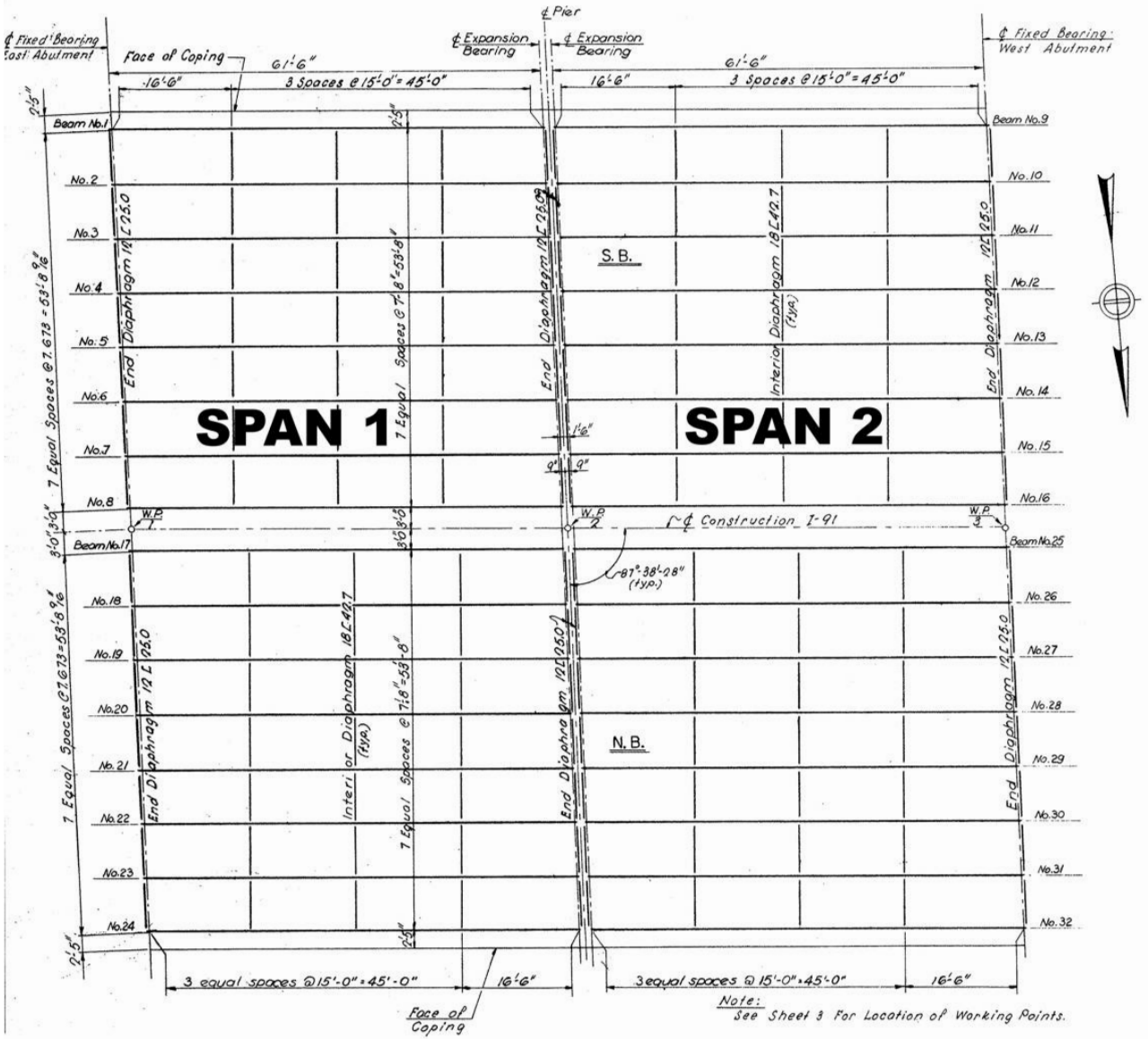
SKETCHES



Sketch 1: Framing Plan

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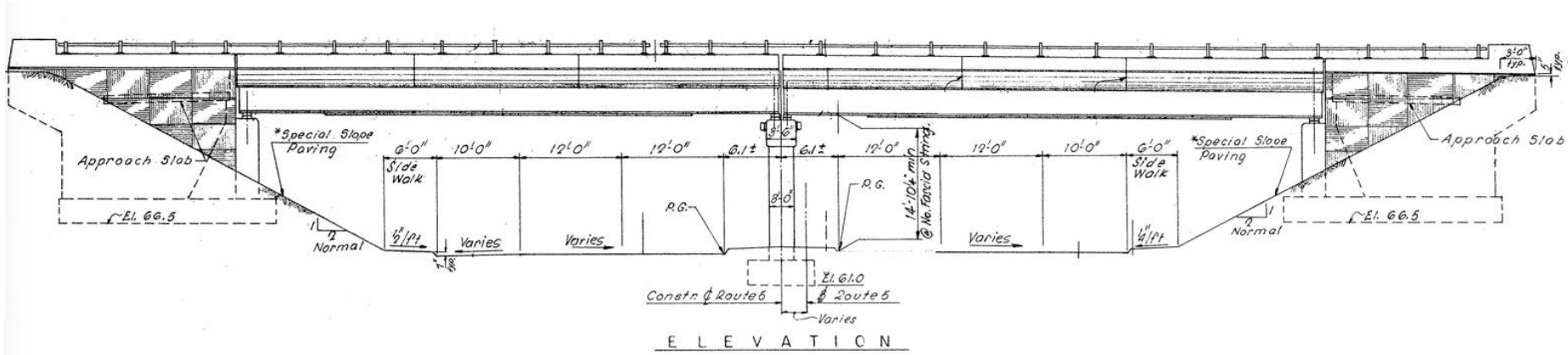
SKETCHES



Sketch 2: Elevation

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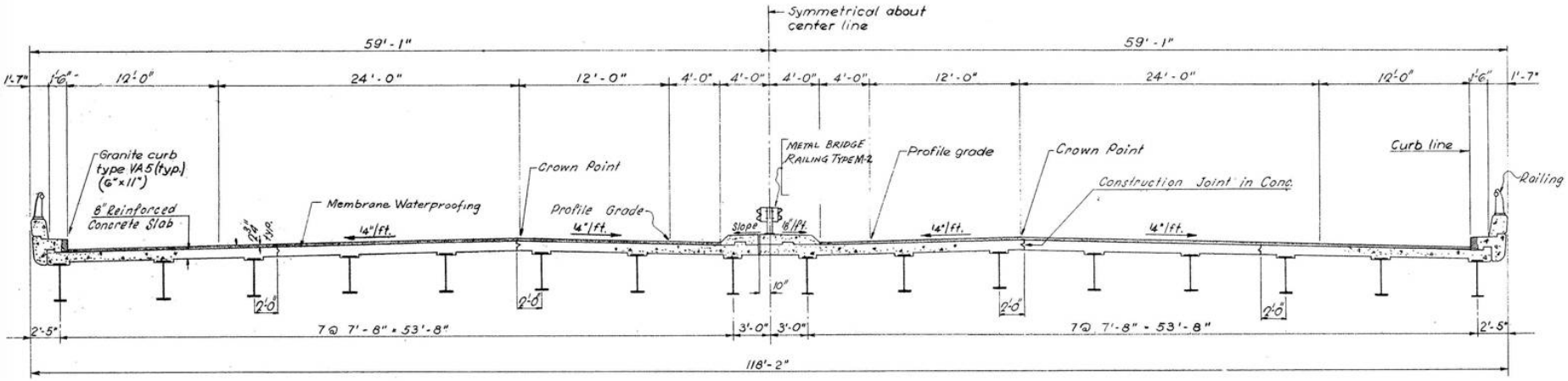
SKETCHES



TYPICAL CROSS SECTION

Sketch 3: Cross Section

REM.(2)2-21

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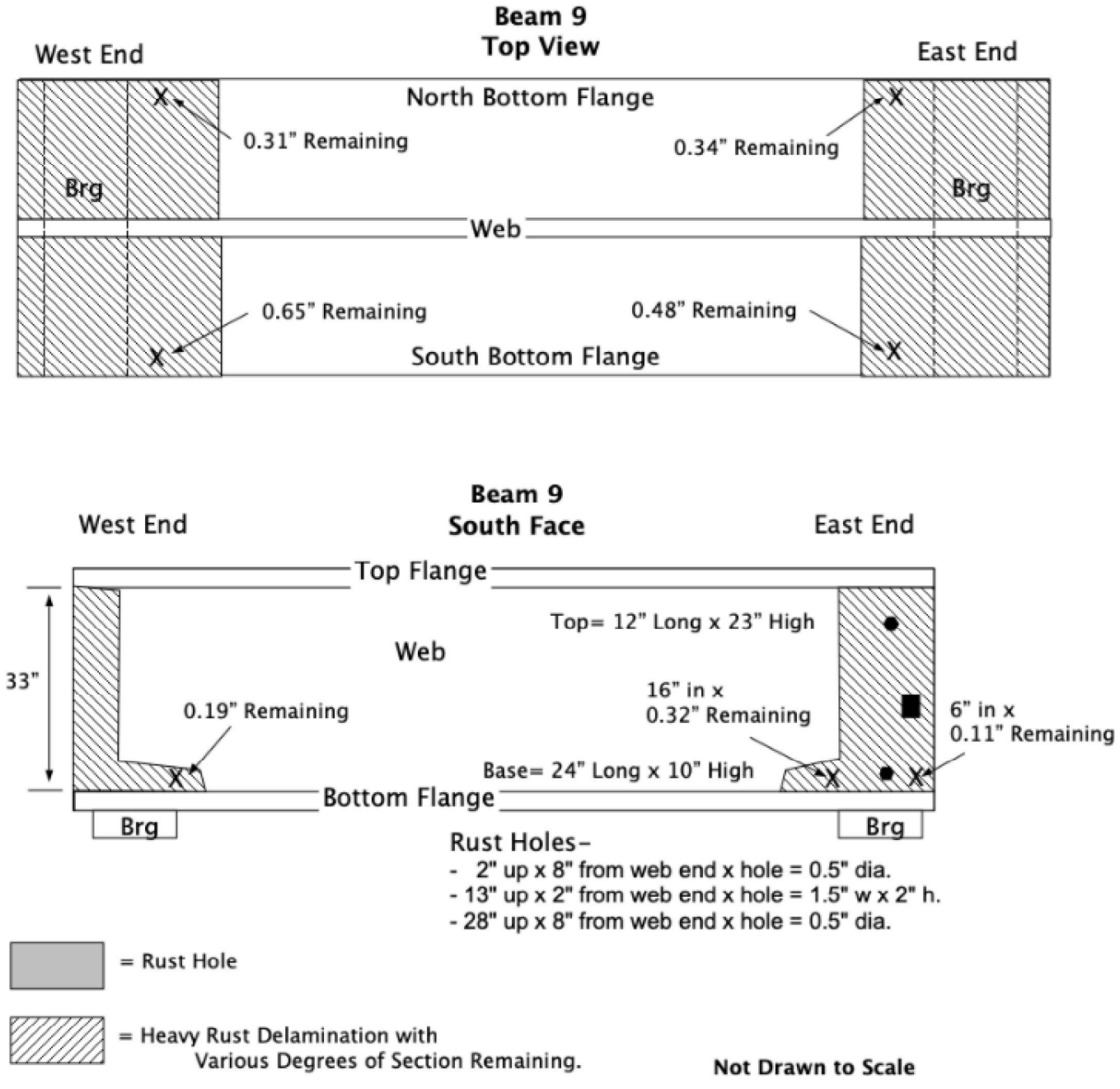
SKETCHES

I-91 SB Span 2
Steel Beam 9 (36WF135)
Original Web = 0.60 inches
Orginial Flange = 0.79 inches



Sketch 4: I-91 Southbound, Span 2, Beam 9 Defects

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PHOTOS

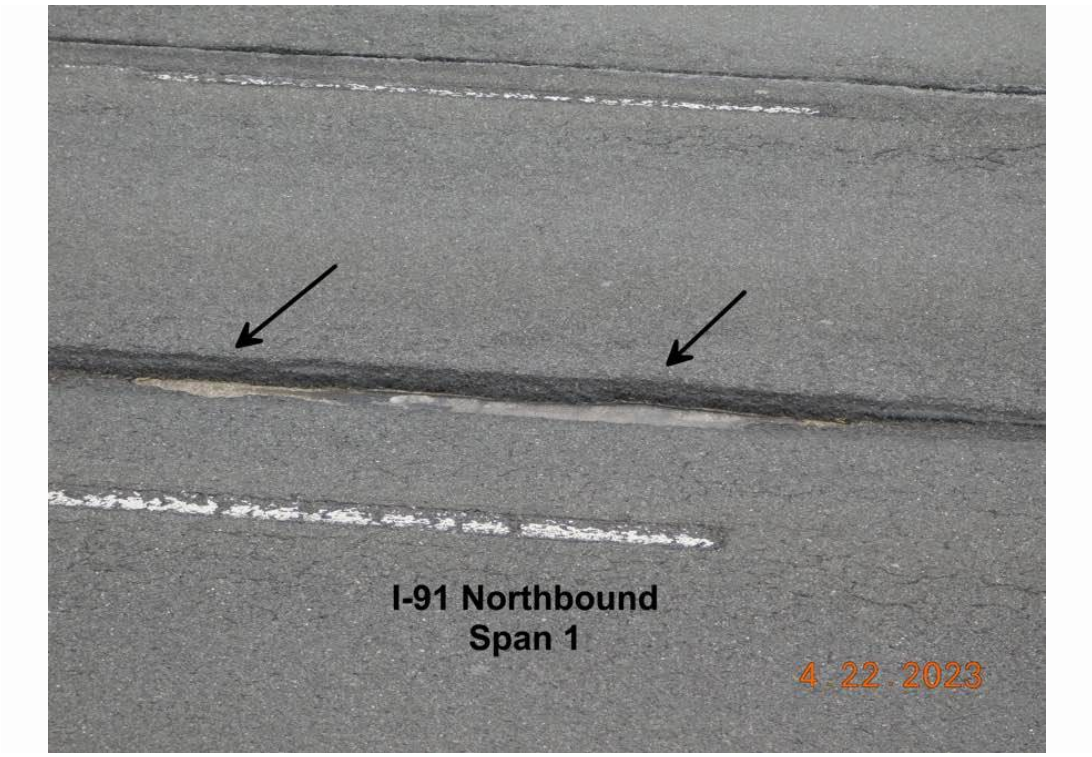

Photo 1: **I-91 Northbound, Span 1, 3rd lane from the North, deterioration along the paving seam, 30' long x up to 8" wide x full depth, with top of the concrete deck exposed.**

Photo 2: **I-91 Southbound Lane has areas of mapcracking and new HMA patches place along the paving seams.**

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PHOTOS

Photo 3: **Deck Underside, Span 1, Bays 2 & 3, over US 5 Northbound, from the East Abutment and over the Right Lane, deck is cracked and delaminated. These bays now has timber shielding.**

Photo 4: **Deck Underside, Span 2, over US 5 Southbound, Bay 11 is cracked & delaminated, along the edge of Beam 11, from the West Abutment & over the Right Travel Lane.**

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PHOTOS

Photo 5: **Deck Underside, Span 2, Bay 13, over the Right Breakdown Lane, along the edge of Beam 14 has 2 delaminated areas.**

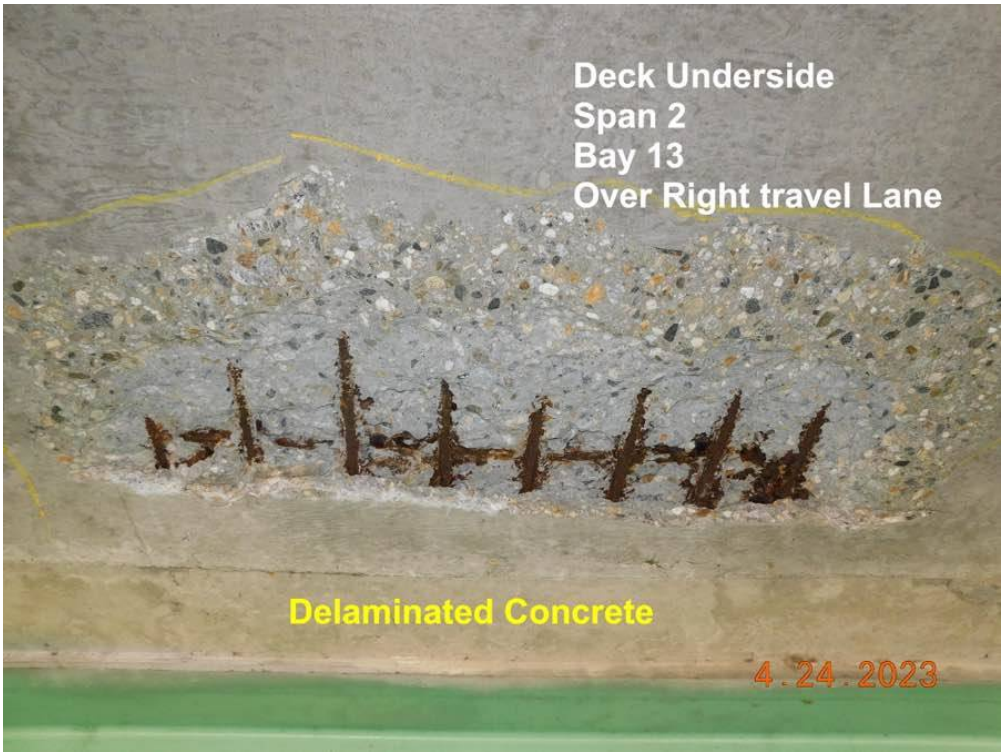

Photo 6: **Deck Underside, Span 2, Bay 13, over the Right Travel Lane, had an area that could have fallen. This area of delaminated concrete was taken down.**

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PHOTOS

Photo 7: **Deck Underside, Span 2, Bay 13, over the left Travel Lane has a section of delaminated concrete.**

Photo 8: **I-91 Southbound, right travel lane, east concrete header is breaking-up along the HMA paving seam,**

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PHOTOS

Photo 9: **I-91 Northbound, Center travel lane, starting at the HMA paving seam, east and west concrete headers are cracked and delaminated, 3' wide x 2' long.**

Photo 10: **I-91 Southbound, Span 2, Beam 9, South Face, over pier, East web end has rust holes.**

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PHOTOS

Photo 11: **I-91 Southbound, Span 2, Beam 9, North Face, over Pier, bottom edge of vertical stiffener has rust holes.**

Photo 12: **I-91 Southbound, Span 2, Beam 10, over pier, section loss along web end with sigs of bending. Lower web has rust delamination, 4' long x 4" high.**

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PHOTOS

Photo 13: **I-91 Southbound, Beam 1, South Face, Mid-Span, lower web and top of bottom flange has rust delamination with minor section loss.**

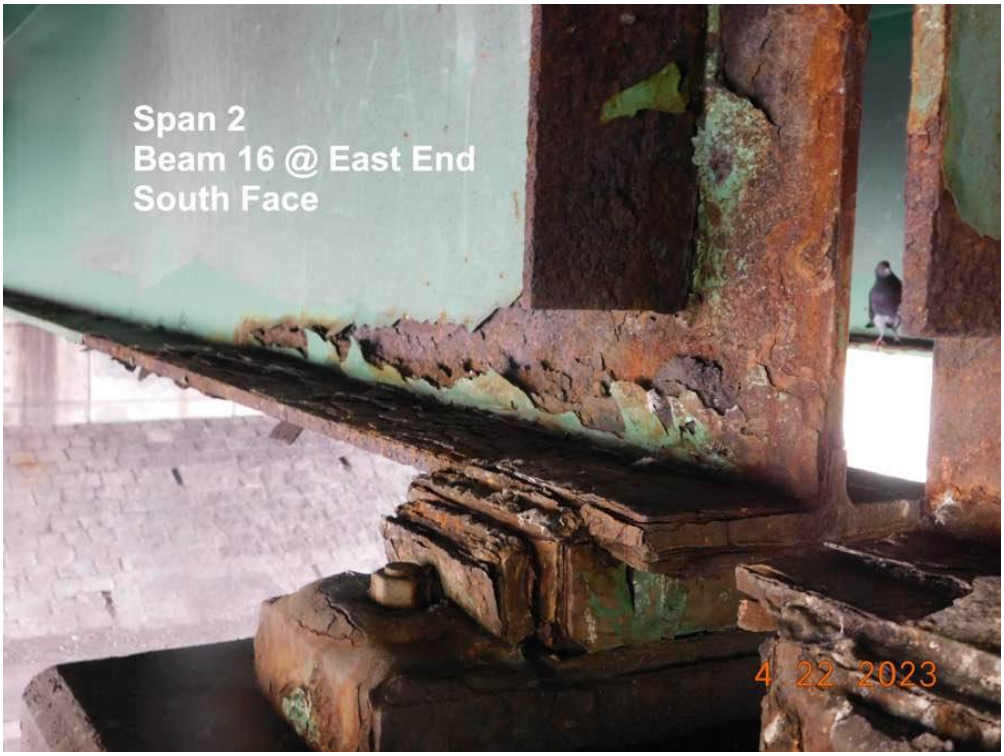

Photo 14: **Span 2, Beam 16, South face, lower web end has rust delamination, 3' long x 3" high x 0.38" remaining.**

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PHOTOS

Photo 15: **Abutment Fixed Bearings are in generally better condition, except for the fascia bearings which have more severe corrosion.**

Photo 16: **East Bridge Seat at the North End is scaled, 4' wide x 1' long x 3" deep.**

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PHOTOS

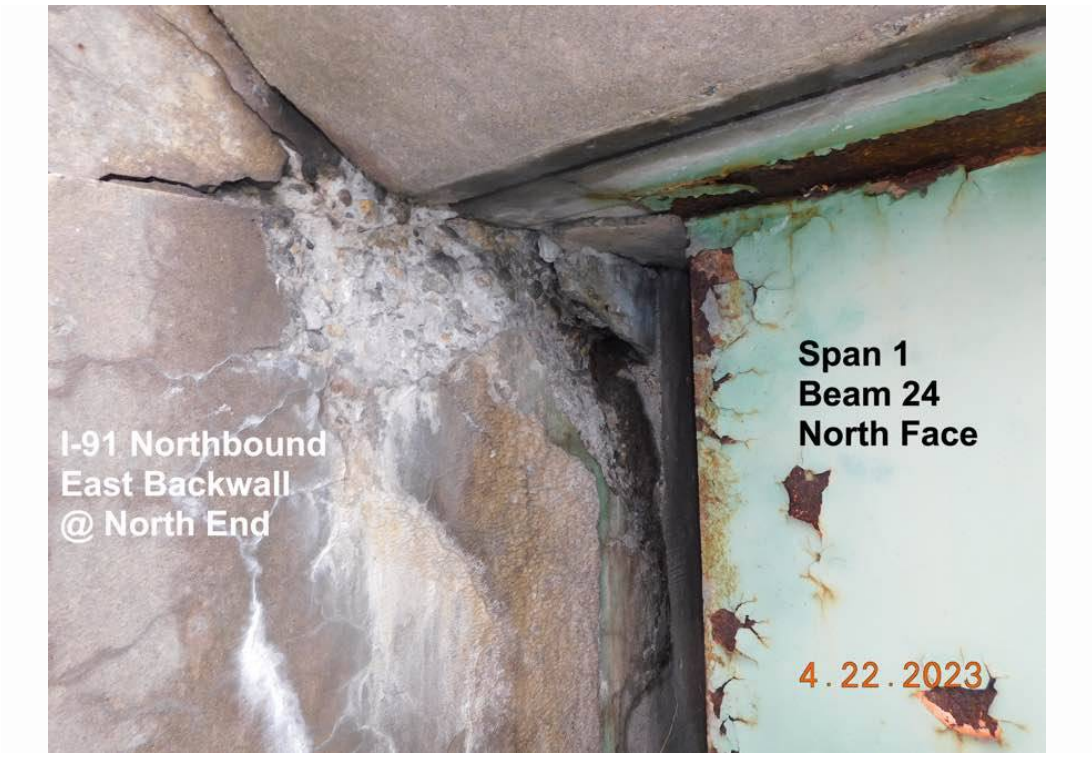

Photo 17: **East Backwall, Top North End, behind Beam 24, just below deck is scaled, 30" wide x 20" high x 5" deep.**

Photo 18: **East Breastwall at the North End has large mapcracking with some efflorescence and is delaminated.**

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PHOTOS

Photo 19: **Northwest Corner, under Bay 31, granite block slope paving is washing out due to leaking joint above.**

Photo 20: **Pier Cap, Top South End is cracked, delaminated, and spalled, 4" wide x 5" high x 6" deep.**

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Report Date: March 11, 2025

State Information

BDEPT#= W21047 Agency Br.No.

Town= West Springfield L.O. MHD

B.I.N= 10W AASHTO= 080.5

RANK= 1071 H.I.= 88.2 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	W2104710WDOTNBI
(5) Inventory Route	111000910
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	77850
(6) Features Intersected	**US 5 RIVERDALE ST**
(7) Facility Carried	**I 91**
(9) Location	MM 9.2 ON I-91
(11) Kilometerpoint	0014.773
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 08 MIN 10.29 SEC
(17) Longitude	72 DEG 37 MIN 32.48 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel Code 302

Stringer/Girder Jointless bridge type: Not applicable

(44) Structure Type Appr:

Other Code 000

(45) Number of spans in main unit	002
(46) Number of approach spans	0000

(107) Deck Structure Type - Concrete Cast-in-Place Code 1

(108) Wearing Surface / Protective System:

A) Type of wearing surface - Bituminous Code 6

B) Type of membrane - Built-up Code 1

C) Type of deck protection - None Code 0

Age and Service

(27) Year Built	1966
(106) Year Reconstructed	0000

(42) Type of Service: On - Highway

Under - Highway Code 11

(28) Lanes: On Structure 08	Under structure 04
(29) Average Daily Traffic	087448
(30) Year of ADT 2018	(109) Truck ADT 06 %
(19) Bypass, detour length	000 KM

Geometric Data

(48) Length of maximum span	0018.7 M
(49) Structure Length	00039.2 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	031.7 M
(52) Deck Width Out to Out	036.0 M
(32) Approach Roadway Width (w/shoulders)	031.7 M

(33) Bridge Median - Closed median with non-mountable barriers Code 3

(34) Skew 02 DEG (35) Structure Flared N

(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	15.8 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.52 M
(55) Min Lat Underclear RT ref H	03.3 M
(56) Min Lat Underclear LT	01.4 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway Code N

(111) Pier Protection Code

(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	5
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mo	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	52.7
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	27.5
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	4
(69) Underclearances, vert. and horiz.	6
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 1 1 N
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 04/22/23 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	06/23/10
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	05/08/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 07/01/92	H20	Type 3	Type 3S2	Type HS
Operating	34.0	54.0	77.0	58.0
Inventory	23.0	28.0	40.0	30.0

Field Posting

Status LEGAL Posting Date 11/20/92

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 1 : Known problematic history of concrete deterioration

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
N / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 024

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National Bridge Element Inspection

BDEPT# **W-21-047**
B.I.N. **10W**
Item 8 **W21047-10W-DOT-NBI**
Span Group **1**
Town **West Springfield**
District **2**

Date **04/22/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	15,205.000	☐ %	10,205.000	2,800.000	2,000.000	200.000
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	5,000.000	☐ %		2,800.000	2,000.000	200.000
Notes :									
> 510	Wearing Surfaces	sq feet	2	13,382.000	☐ %	11,882.000	1,500.000		
Notes :									
> > 3220	*Crack (Wearing Surface)*	sq feet	2	1,500.000	☐ %		1,500.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	1,847.000	☐ %	1,847.000			
Notes :									
> 515	Steel Protective Coating	sq feet	2	16,087.000	☐ %		16,087.000		
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	16,087.000	☐ %		16,087.000		
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	160.000	☐ %	118.000		42.000	
Notes :									
> 1000	*Corrosion*	feet	3	42.000	☐ %			42.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,394.000	☐ %	1,028.000			366.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	366.000	☐ %				366.000
Notes :									
205	**Re Conc Column**	each	3	8	☐ %	8			
Notes :									

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National Bridge Element Inspection

BDEPT# **W-21-047**
B.I.N. **10W**
Item 8 **W21047-10W-DOT-NBI**
Span Group **1**
Town **West Springfield**
District **2**

Date **04/22/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
215	**Re Conc Abutment**	feet	2	237.000	☐ %	237.000			
Notes :									
234	**Re Conc Pier Cap**	feet	3	116.000	☐ %	116.000			
Notes :									
306	**Other Joint**	feet	2	118.000	☐ %	118.000			
Notes :									
311	**Moveable Bearing**	each	3	32	☐ %		16	16	
Notes :									
> 1000	*Corrosion*	each	3	32	☐ %		16	16	
Notes :									
> 515	Steel Protective Coating	sq feet	3	64.000	☐ %			32.000	32.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	64.000	☐ %			32.000	32.000
Notes :									
313	**Fixed Bearing**	each	2	32	☐ %	28		4	
Notes :									
> 1000	*Corrosion*	each	2	4	☐ %			4	
Notes :									
> 515	Steel Protective Coating	sq feet	2	64.000	☐ %		56.000		8.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	64.000	☐ %		56.000		8.000
Notes :									
333	**Other Bridge Railing**	feet	2	257.000	☐ %	257.000			
Notes :									

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PAGE 1 OF 22

STRUCTURES INSPECTION FIELD REPORT

ROUTINE INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
02	10X	W-21046

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
WEST SPRINGFIELD	W21046-10X-DOT-NBI	015.127	A:OPEN	APR 24, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
I 91		1966	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER	
HWY WEST LOOP	Urban Interstate		M. Barrett

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	State Highway Agency	State Highway Agency	S. R. Finck

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	7°C	T. P. PENNA

ITEM 58 — 6

DECK

		DEF
1.Wearing Surface	5	M-P
2.Deck Condition	6	M-P
3.Stay in Place Forms	N	-
4.Curbs	7	-
5.Median	N	-
6.Sidewalks	N	-
7.Parapets	7	-
8.Railing	6	M-P
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	7	-
13.Deck Joints	6	-
14.Timber Shielding	6	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	N	S
	250	260

APPROACHES

		DEF
a. Appr. pavement condition	5	M-P
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N) N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — 5

SUPERSTRUCTURE

		DEF
1.Stringers	N	-
2.Floorbeams	N	-
3.Floor System Bracing	N	-
4.Girders or Beams	5	M-P
5.Trusses - General	N	-
a. Upper Chords	N	-
b. Lower Chords	N	-
c. Web Members	N	-
d. Lateral Bracing	N	-
e. Sway Bracings	N	-
f. Portals	N	-
g. End Posts	N	-
6.Pin & Hangers	N	-
7.Conn Plt's, Gussets & Angles	7	-
8.Cover Plates	5	M-P
9.Bearing Devices	5	M-P
10.Diaphragms/Cross-Frames	6	-
11.Rivets & Bolts	7	-
12.Welds	7	-
13.Member Alignment	7	-
14.Paint/Coating	4	M-P
15.	N	-

Year Painted: 1993

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None ( ) Minor ( ) Moderate (X) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — 5

SUBSTRUCTURE

	Dive	Cur		DEF
1. Abutments			5	
a. Pedestals	N	N		-
b. Bridge Seats	N	6		M-P
c. Backwalls	N	6		M-P
d. Breastwalls	N	5		M-P
e. Wingwalls	N	6		-
f. Slope Paving/Rip-Rap	N	7		-
g. Pointing	N	N		-
h. Footings	N	H		-
i. Piles	N	N		-
j. Scour	N	N		-
k. Settlement	N	7		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

SCOUR: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/0000

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
WEST SPRINGFIELD	10X	W-21-046	W21046-10X-DOT-NBI	APR 24, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION: N

	Dive	Cur	DEF
1.Channel Scour	N	N	-
2.Embankment Erosion	N	N	-
3.Debris	N	N	-
4.Vegetation	N	N	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	N	-
7.Aggradation	N	N	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:
Tidal ( ) High ( ) Moderate ( ) Low ( ) None (X)

ITEM 61 (Dive Report): N *ITEM 61 (This Report):* N

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — TRAFFIC SAFETY

	36	COND	DEF
A. Bridge Railing	1	6	M-P
B. Transitions	0	7	-
C. Approach Guardrail	1	6	M-P
D. Approach Guardrail Ends	1	7	-

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/0000 **EJDMT Date:** 00/00/0000

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility	At bridge E	At bridge W	Other Advance E	Other Advance W

CLEARANCE POSTING

Not Actual Field Measurement

Posted Clearance

	N ft	N in	S ft	S in	meter
Actual Field Measurement	14	5	16	7	4.39
Posted Clearance	14	2		0	

Signs In Place (Y=Yes,N=No, NR=Not Required) Legibility/ Visibility	At bridge N	At bridge S	Advance N	Advance S
	N	NR	N	NR
	7 / 7			

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	Y	Y
Ladder	P	N
Boat	N	N
Waders	N	N
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	Y	Y
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 20

PLANS (Y/N): Y

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 05/01/1992

Inspection data at time of existing rating

I 58: **6** I 59: **6** I 60: **7** Date : 11/21/1990

Recommend for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: _____

CONDITION RATING GUIDE

(For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advanced section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
WEST SPRINGFIELD	**10X**	**W-21-046**	**W21046-10X-DOT-NBI**	**APR 24, 2023**

REMARKS

BRIDGE ORIENTATION
Bridge carries I-91 Northbound & Southbound, east and west, over the West Loop which travels north and south.

Per Bridge Plans:
- Abutments are labeled east and west.
- West Loop consists of two bridges, I-91 Southbound & I-91 Northbound.
- Beams are numbered south to north.
  - I-91 Southbound, Beams are numbered 1-8 and Bays are numbered 1-7.
  - I-91 Northbound, Beams are numbered 9-18 and Bays are numbered 1-7. **See Sketches 1 - 3.**

ITEM 58 - DECK

Item 58.1 - Wearing Surface
Hot mix asphalt (HMA) Wearing Surface in I-91 Southbound & Northbound lanes, have opened longitudinal paving seams, up to 1" wide. Surface has HMA patching and moderate mapcracking along the edges of these longitudinal paving seams. **See Photos 1 & 2.**

Item 58.2 - Deck Condition
Timber Shielding has been installed between the beams over the travel lanes. **See Photo 3.**

Deck Underside:
- Minor areas of hairline transverse cracks & hairline mapcracking hairline cracking, with and without efflorescence.
- **I-91 Southbound Bridge:**
- Bay 2:
  - There is a large area of delaminated concrete.
  - there is a 1' diameter x 1/4" deep honeycombing.
- Bay 3, has a 20' long x 6" wide hollow area with edge spalling.
  - 10' from the East Abutment, cold joint is spalled with exposed rebars, 16" wide x 4' 8" long x 2" deep. **See Photo 4.**
- Bay 5, 20' from the East Abutment is spalled, 1' diameter x 1" deep spall.

- **I-91 Northbound Bridge:**
- Bay 1, 15' from West Abutment and next to Beam 9, spall, 9" wide x 14" long x 4" deep. There is some mortar patch within this spall.
- Bay 3, 7' from the East Abutment, cold joint is spalled, 2' long x 1' wide x 1" deep. **See Photo 5.**
- Bay 6, has hairline cracking with leaching efflorescence.

Item 58.8 - Railing
Railing consists of AL-1 aluminum rail mounted on top of the 30" high concrete parapets, which has steel Thrie-beam retrofit with timber offset blocks mounted to the face of the parapets.

Galvanized bolts that hold the Thrie beam to the concrete South Parapet:
- Some of the timber spacer are split and broken. **See Photo 6.**
- Most of the galvanized nuts are not fully tighten. **See Photo 7.**

Thrie Beams have minor scraps.

Southwest Concrete Endpost has minor spall on the interior top corner.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
WEST SPRINGFIELD	**10X**	**W-21-046**	**W21046-10X-DOT-NBI**	**APR 24, 2023**

REMARKS

Item 58.12 - Utilities
Bridge has 4" diameter conduits are located between Beams 1 & 2 and Beams 15 & 16.

Item 58.13 - Deck Joints
West Abutment has extruded silicone joints and active leakage between Beams 4 & 5.

Item 58.14 - Timber Shielding
Timber Shielding over the active roadway has some minor water staining. Previous mentioned hanging plastic was removed during this inspection. **See Photo 3.**

APPROACHES

Approaches a - Appr. pavement condition
North & South Approaches have opened longitudinal paving seams, up to 1" wide. **See Photo 2.**

Sealed & unsealed, up to 3/8" wide, longitudinal and transverse cracks exist in both directions of travel.

I-91 Southbound Lanes:
- There are broken up HMA patching along the longitudinal mat separation.
- East Approach Roadway has heavy mapcracking near the center of roadway.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Superstructure consists of sixteen (16) simply supported rolled steel beams.

Interior Beams have peeling paint with minor to moderate surface rust mainly along lower webs and bottom flanges. **See Photo 8.**

Fascia Beams 1, 8, & 9 have minor to moderate rust with various amounts of section loss along the base of the webs and bottom flanges. Top of bottom flanges have moderate rust delamination, directly over active traffic. **See Sketch 4 and Photos 9 - 11.**

Item 59.7 - Conn Plt's, Gussets & Angles
Diaphragm connection plates have areas of minor surface rust.

Item 59.8 - Cover Plates
Bottom Flange Cover Plates:
- Interior beams have areas of minor to moderate rust at random locations. **See Photo 8.**
- Fascia beams have severe surface rust with minor rust delamination. **See Photo 11.**

Item 59.9 - Bearing Devices
Fixed Bearings:
- Fascia bearings have areas of peeling paint with light to moderate rust and impacted rust between the sole and masonry plates at random locations. **See Photo 12.**
- Random anchor bolts are bent to the south.

Expansion Bearings:
- Fascia bearings have moderate to severe rust between the sole and masonry plates. **See Photos 9 & 10.**

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
WEST SPRINGFIELD	**10X**	**W-21-046**	**W21046-10X-DOT-NBI**	**APR 24, 2023**

REMARKS

- Interior bearings have minor to moderate rust between the sole and masonry plates and random bearings have light accumulation of debris and pigeon debris.
- Beam 15, north anchor bolt nut is backed off approximately 1".

Item 59.10 - Diaphragms/Cross-Frames
End diaphragms at both abutments are concrete encased and have minor vertical hairline cracks with rust staining.

Steel diaphragms have random areas of peeling paint and minor rust.

Item 59.14 - Paint/Coating
Paint System has failed on the fascia beams with severe surface rust. **See Photos 9, 10, & 11.**

Interior beams have peeling paint at random locations with moderate to severe rust on the lower webs and bottom flanges. **See Photo 8.**

SuperStructure Load Vibration Notes
Bridge has moderate vibration under heavy live loads.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.b - Bridge Seats
I-91 Southbound:

- **East Bridge Seat,** South corner has mapcracking and delaminated, 2' wide x 28" long. **See Photo 13.**
- **West Bridge Seat:**
  - Below Bay 5, is delaminated, 5.5' wide x 28" long.
  - Below Bay 6, is delaminated, 4' wide x 28" long.

I-91 Northbound, West Bridge Seat, Below Bay 6, is delaminated, 4' wide x 28" long. **See Photo 14.**

Item 60.1.c - Backwalls
East Backwall:

- **I-91 Southbound,** South of beam 1, is cracked and delaminated with minor efflorescence, 2' wide x 2.5' high. **See Photo 15.**
- Has scattered areas of hairline mapcracking with efflorescence. and rust staining.
- Random full-height vertical hairline cracks with efflorescence and rust stains.
- **I-91 Northbound,** North of Beam 16, is cracked and delaminated with moderate efflorescence, 2' wide x 2.5' high.

West Backwall:

- **I-91 Southbound,** South of Beam 1, is scaled along a vertical constriction joint, 3" wide x 14" high x 1" deep. **See Photo 16.**
- Areas of hairline mapcracking with efflorescence. and rust staining.

Item 60.1.d - Breastwalls
East Breastwall:

- Random vertical hairline cracks, up to 1' long x 1/8" wide, with areas of light scaling.

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CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
WEST SPRINGFIELD	**10X**	**W-21-046**	**W21046-10X-DOT-NBI**	**APR 24, 2023**

REMARKS

- **I-91 Northbound:**
  - Below **Bays 5, 7, & Beam 8**, all have shallow cover spalls, 4" diameter x 1/2" deep.
  - Below **Beam 16**, has hairline mapcracking with efflorescence, 2' wide x 5' high.

West Breastwall:

- Random vertical hairline cracks up to full-height.

- **I-91 Southbound:**
  - Starting at the South edge, just below the Bridge Seat, there is hairline mapcracking with rust staining, 7' wide x 4' high.
  - **Bay 1,** just below the Bridge Seat, has minor scaling, 4' wide x 2' high x 1/2" deep with rust staining.
  - **Bay 2,** just below Bridge Seat, there is a 1.5' long x 0.25" wide horizontal crack. Just below the crack, there is a 6" diameter of delamination.
  - **Bay 4**, just below the Bridge Seat, has a 1' long, narrow horizontal crack with rust staining. Just above the crack is delaminated.
  - **Bay 5**, just below the Bridge Seat, has a 5.5' long x 0.25" wide horizontal crack with efflorescence. Just above the crack is delaminated. **See Photo 17.**
  - **Bay 7**, 6" below bridge seat, has a 6' long x 0.25" wide, horizontal crack. Just above the crack is delaminated. **See Photo 18.**
  - Below **Beam 8,** has hairline mapcracking, 2' wide x full height. **See Photo 18.**

- **I-91 Northbound:**
  - Breastwall, Bays 6 & 7, below bridge seat, has a horizontal crack with heavy efflorescence, 10' long x up to 0.25" wide. **See Photo 14.**

Item 60.1.e - Wingwalls

Wingwalls have areas of hairline to narrow mapcracking and minor horizontal and vertical hairline cracks with and without efflorescence.

I-91Southbound:

- **Southeast Wingwall:**
  - Below the Backwall is scaled full height, 4" wide X full height x up to 6" deep.
  - Just below the Bridge Seat has hairline mapcracking with heavy efflorescence. **See Photo 19.**
- **Southwest Wingwall** has hairline cracking with efflorescence. **See Photo 20.**
- **Northwest Wingwall**, just below the Bridge Seat, has a full width narrow horizontal crack with efflorescence staining.

Retaining walls between Beams 8 & 9 have scattered areas of hairline mapcracking.

Item 60.1.f - Slope Paving/Rip-Rap

Slope paving has moderate vegetation growth at the ends and areas of minor settlement.

TRAFFIC SAFETY

Item 36a - Bridge Railing

Refer to Item 58.7. - Parapets & Item 58.8. - Railing.

Item 36b - Transitions

Northwest & Southeast Transitions (trailing ends) consist of steel W-beam guardrail on steel H-posts with plastic offset blocks.

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REMARKS

Northeast & Southwest Transitions (leading ends) consist of steel Thrie-beam guardrail on timber posts with timber offset blocks.

Northwest & Southeast Corners of the median have steel Thrie-beam guardrail on steel posts with plastic offset blocks.

Northeast & Southwest Corners of the median have steel Thrie-beam guardrail on timber posts with timber offset blocks.

Item 36c - Approach Guardrail
Median Approach Guardrails consist of steel Thrie-beam guardrail on steel H-posts with plastic offset blocks.

Southeast Median has minor collision damage.

Approach Guardrails along the breakdown lanes consists of steel W-beam on steel H-posts with plastic offset blocks.

Southeast Approach Guardrail, next to the bridge has minor collision damage, with some of the plastic offset blocks twisted.

Item 36d - Approach Guardrail Ends
Northeast & Southeast Approach Guardrails extend to another bridge.

Northwest Approach Guardrail extends beyond the limits of the bridge.

Southwest Approach Guardrail has a Tangent End Treatment.

Sketch / Photo Log

Sketch 1 : Framing Plan
Sketch 2 : Elevation
Sketch 3 : Cross Section
Sketch 4 : Fasica Beams 1, 8, 9, & 16 - Defects.
Photo 1 : Wearing Surface in both directions of travel, have opened longitudinal paving seams with moderate mapcracking along the edges.
Photo 2 : Wearing Surface & Approach roadways have mapcracking along edges of the paving seams. Saw Cut joints have missing asphalt sealer.
Photo 3 : Timber Shielding has been installed between the beams over the travel lanes. Several of the timber planks have signs of minor rot.
Photo 4 : Deck Underside, I-91 Southbound Lane, Bay 3, just west of the East Abutment, is spalled with exposed rebars, along a cold seam, 16" wide x 4' 8" long x 2" deep.
Photo 5 : I-91 Northbound Bridge, Bay 3, 7' from the East Abutment, cold joint is spalled, 2' long x 1' wide x 1" deep.
Photo 6 : Galvanized bolts that hold the Thrie beam to the concrete South Parapet. Some of the timber spacer are split and broken.
Photo 7 : Most of the galvanized nuts on the South Parapet are not fully tighten.
Photo 8 : Interior Beams have peeling paint with minor to moderate surface rust mainly along lower webs and bottom flanges.
Photo 9 : Fascia Beams have moderate to severe rust delamination with various amounts of section loss along the base of the webs and bottom flanges.

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WEST SPRINGFIELD	**10X**	**W-21-046**	**W21046-10X-DOT-NBI**	**APR 24, 2023**

REMARKS

Photo 10 : Fascia Beams have moderate rust delamination with various amounts of section loss along the base of the webs and bottom flanges.

Photo 11 : Top & underside of bottom flanges have minor to moderate rust delamination, directly over active traffic.

Photo 12 : Fascia Fixed Bearings have areas of peeling paint with light to moderate rust and impacted rust between the sole and masonry plates at random locations.

Photo 13 : I-91 Southbound, East Bridge Seat, South corner has mapcracking and delaminated, 2' wide x 28" long.

Photo 14 : I-91 Northbound, West Bridge Seat, below Bay 6, is delaminated, up to 4' wide. Breastwall, Bays 6 & 7, below bridge seat, has a horizontal crack with heavy effloresence, up to 0.25" wide.

Photo 15 : I-91 Southbound, East Backwall, South of Beam 1, is cracked and delaminated.

Photo 16 : I-91 Southbound, West Backwall, South of Beam 1, is scaled, up to 3" wide x 14" high x 1" deep.

Photo 17 : I-91 Southbound, West Breastwall, Bay 5, below the Bridge Seat, has a horizontal crack with efflorescence, 5.5' long x up to 0.25" wide. Upper portion of this crack is delaminated.

Photo 18 : I-91 Southbound, Bay 7, below bridge seat, has a horizontal crack, 6' long x 0.25" wide. Below Beam 8, has hairline mapcracking, 2' wide x full height.

Photo 19 : I-91 Southbound, Southeast Wingwall, just below the backwall is scaled full height, 4" wide X full height x up to 6" deep. Below bridge seat has mapcracking with heavy efflorescence.

Photo 20 : I-91 Southbound, Southwest Wingwall has hairline cracking with efflorescence.

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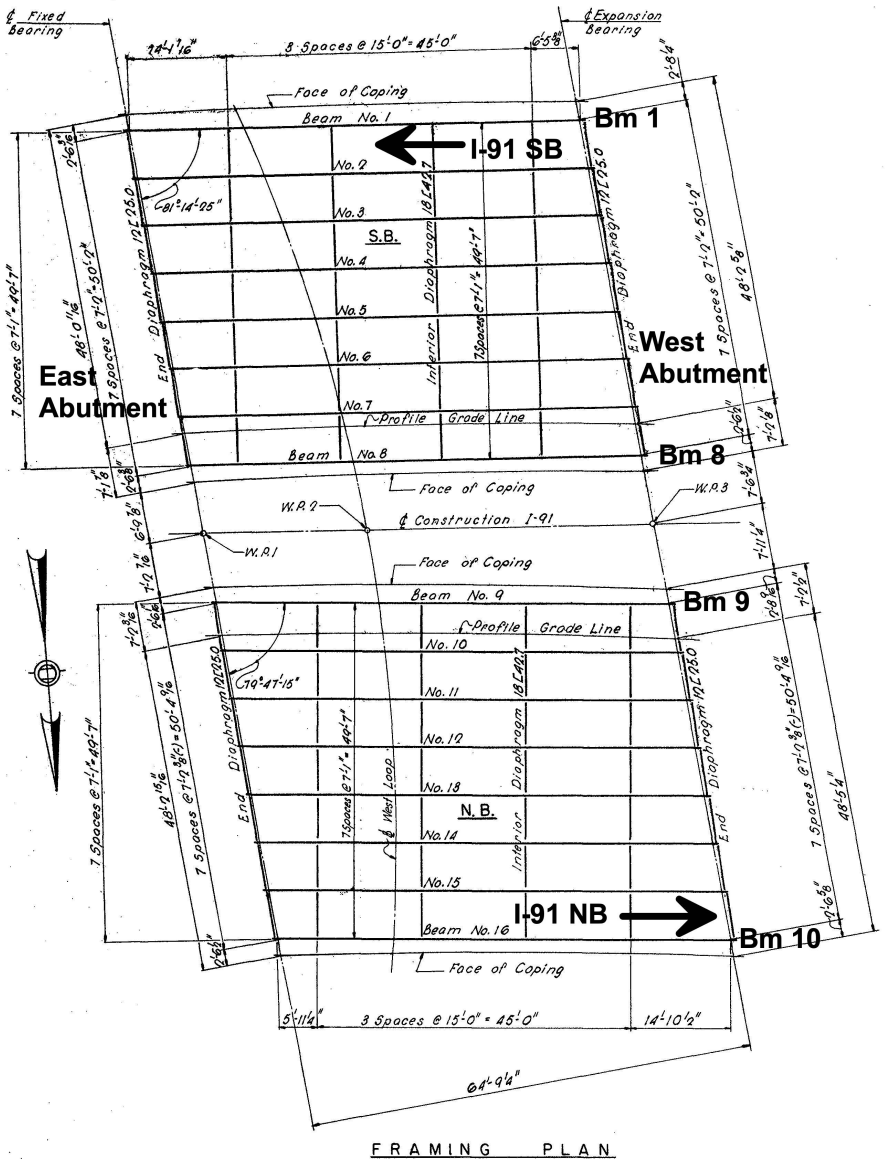
/EST SPRINGFIELD	10X	W-21-046	W21046-10X-DOT-NBI	APR 24, 2023

SKETCHES



Sketch 1: Framing Plan

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Proposal No. 6132l9-132950

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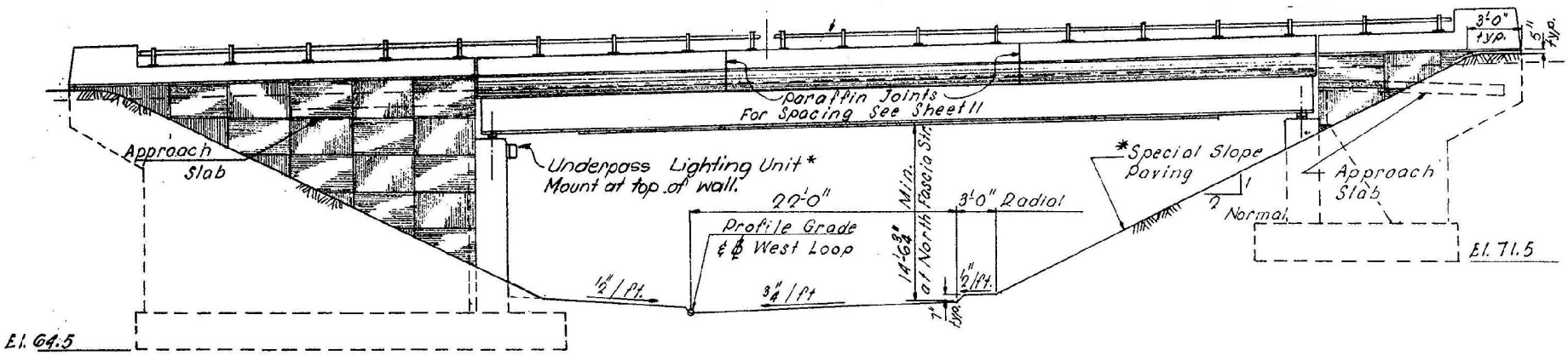
SKETCHES



E L E V A T I O N

Sketch 2: Elevation

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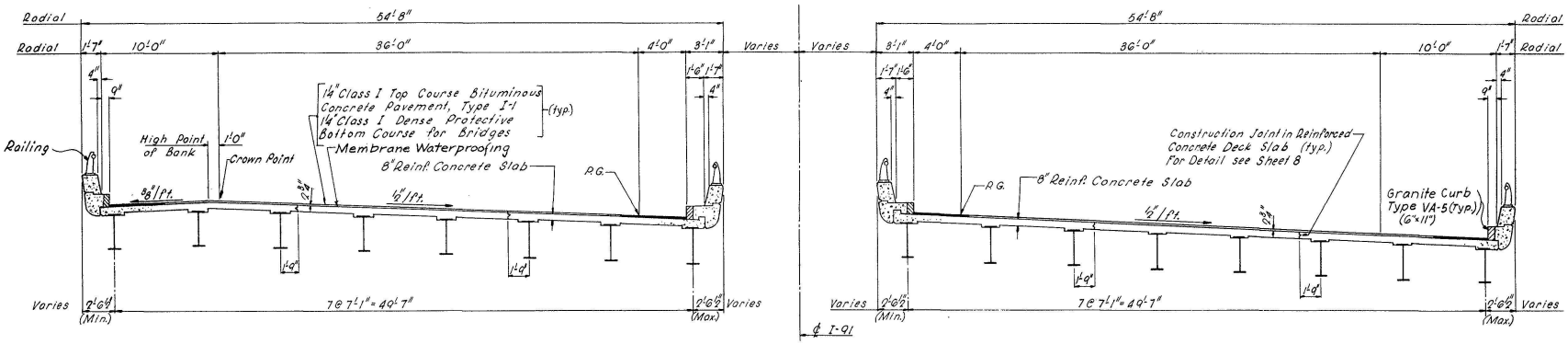
SKETCHES



TYPICAL CROSS SECTION

Sketch 3: Cross Section

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Proposal No. 6132219-132950

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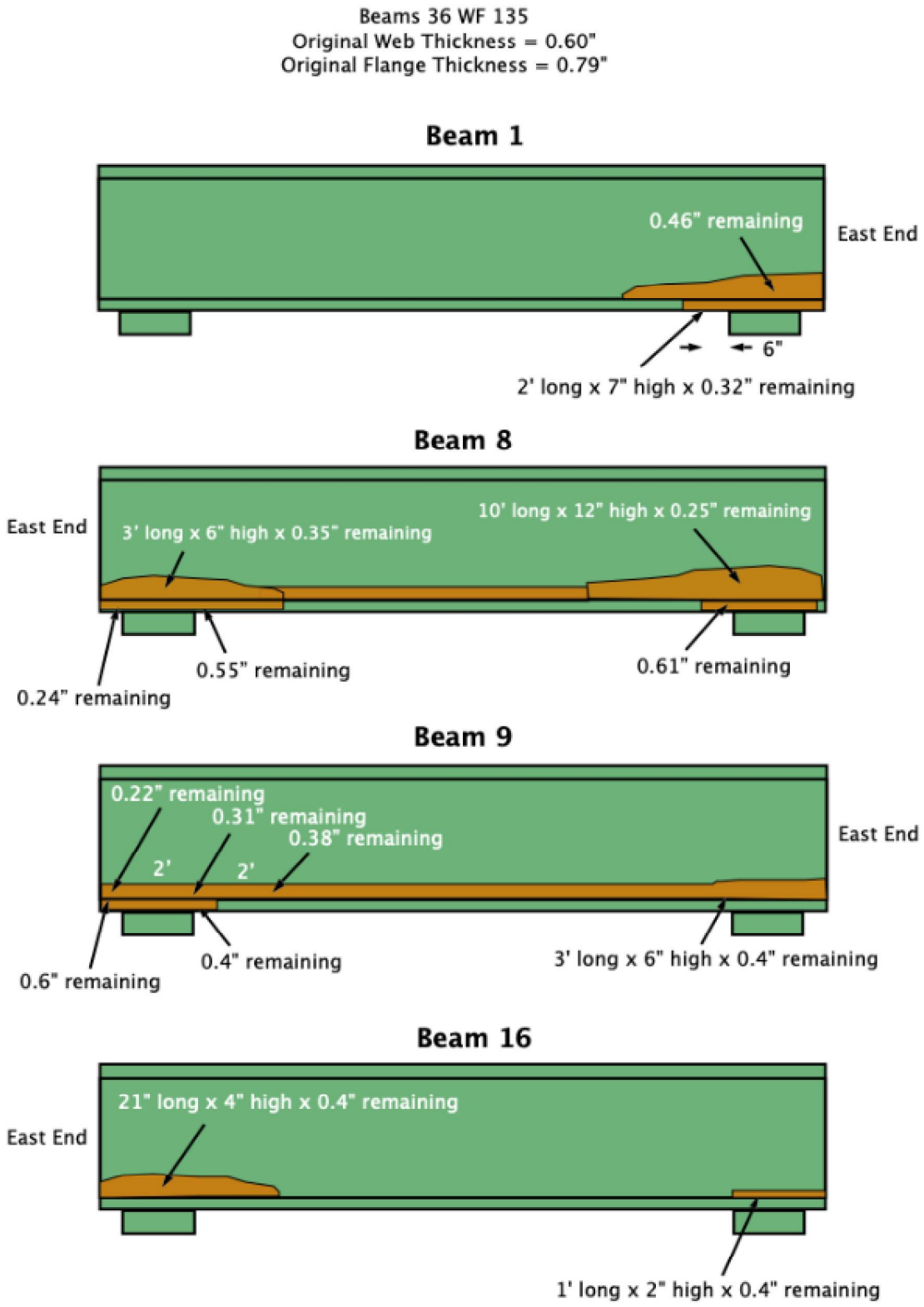
SKETCHES



Sketch 4: Fasica Beams 1, 8, 9, & 16 - Defects.

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PHOTOS

Photo 1: **Wearing Surface in both directions of travel, have opened longitudinal paving seams with moderate mapcracking along the edges.**

Photo 2: **Wearing Surface & Approach roadways have mapcracking along edges of the paving seams. Saw Cut joints have missing asphalt sealer.**

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WEST SPRINGFIELD	10X	W-21-046	W21046-10X-DOT-NBI	APR 24, 2023

PHOTOS

Photo 3: **Timber Shielding has been installed between the beams over the travel lanes. Several of the timber planks have signs of minor rot.**

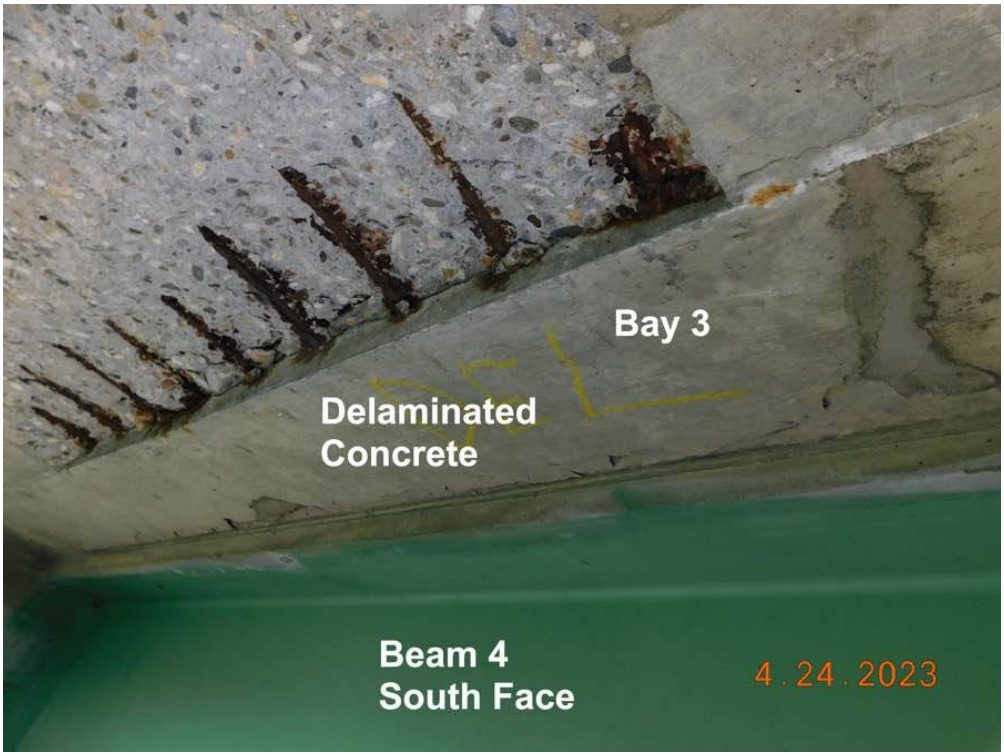

Photo 4: **Deck Underside, I-91 Southbound Lane, Bay 3, just west of the East Abutment, is spalled with exposed rebars, along a cold seam, 16" wide x 4' 8" long x 2" deep.**

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PHOTOS

Photo 5: **I-91 Northbound Bridge, Bay 3, 7' from the East Abutment, cold joint is spalled, 2' long x 1' wide x 1" deep.**

Photo 6: **Galvanized bolts that hold the Thrie beam to the concrete South Parapet. Some of the timber spacer are split and broken.**

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PHOTOS

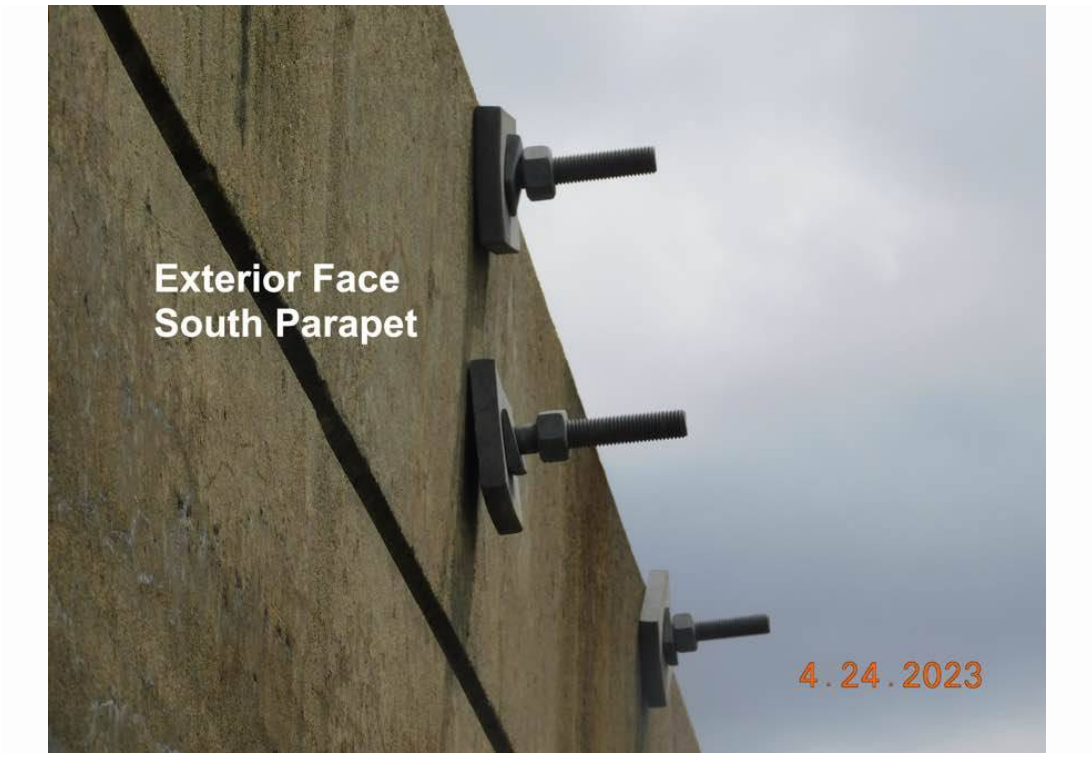

Photo 7: **Most of the galvanized nuts on the South Parapet are not fully tighten.**

Photo 8: **Interior Beams have peeling paint with minor to moderate surface rust mainly along lower webs and bottom flanges.**

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PHOTOS

Photo 9: **Fascia Beams have moderate to severe rust delamination with various amounts of section loss along the base of the webs and bottom flanges.**

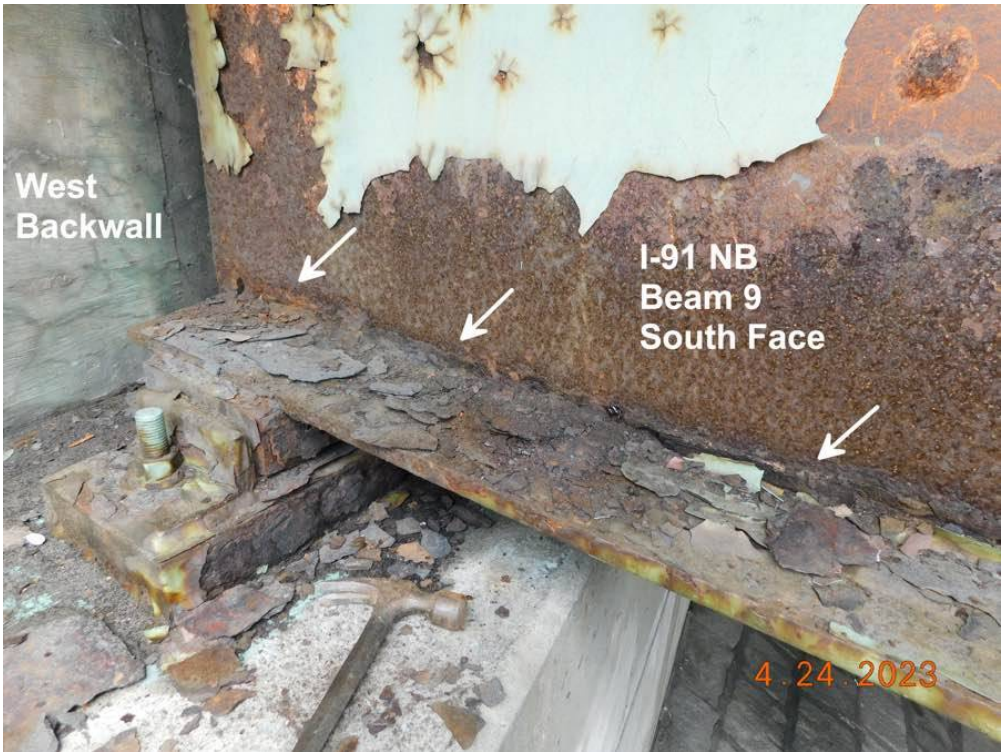

Photo 10: **Fascia Beams have moderate rust delamination with various amounts of section loss along the base of the webs and bottom flanges.**

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PHOTOS

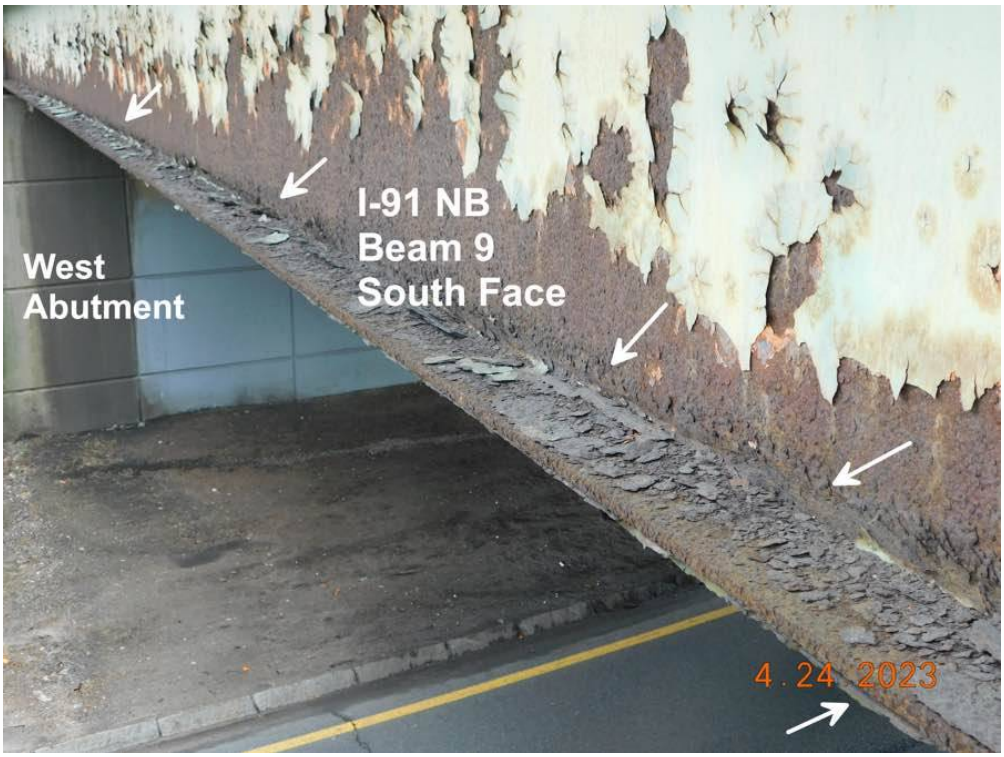

Photo 11: **Top & underside of bottom flanges have minor to moderate rust delamination, directly over active traffic.**

Photo 12: **Fascia Fixed Bearings have areas of peeling paint with light to moderate rust and impacted rust between the sole and masonry plates at random locations.**

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PHOTOS

Photo 13: **I-91 Southbound, East Bridge Seat, South corner has mapcracking and delaminated, 2' wide x 28" long.**

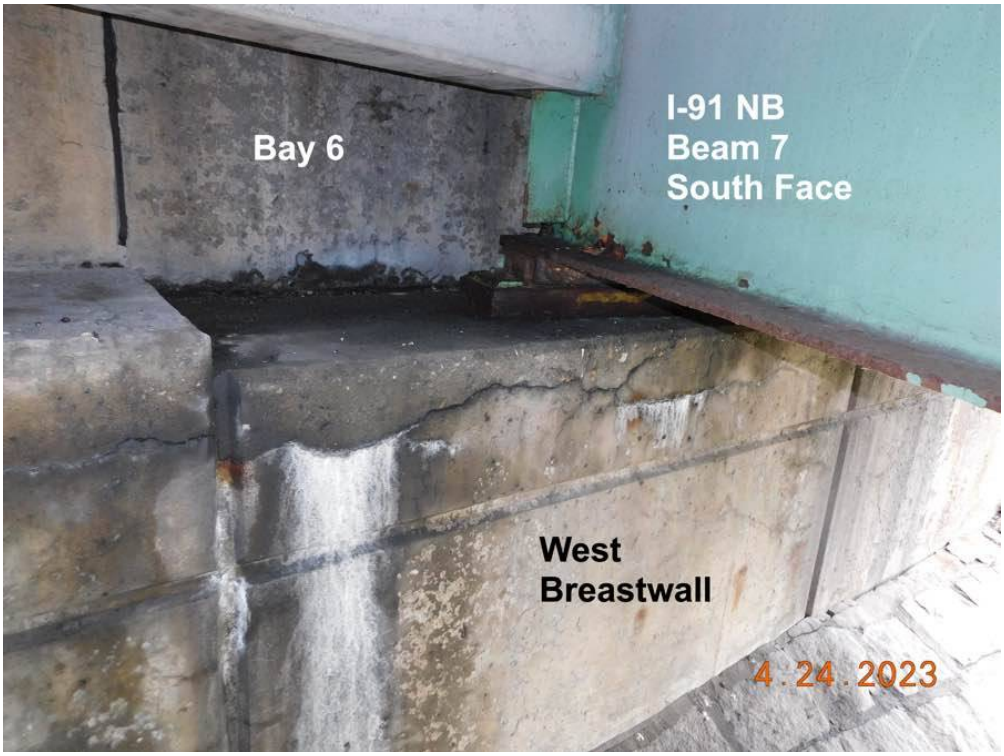

Photo 14: **I-91 Northbound, West Bridge Seat, below Bay 6, is delaminated, up to 4' wide. Breastwall, Bays 6 & 7, below bridge seat, has a horizontal crack with heavy efflorescence, up to 0.25" wide.**

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PHOTOS

Photo 15: **I-91 Southbound, East Backwall, South of Beam 1, is cracked and delaminated.**

Photo 16: **I-91 Southbound, West Backwall, South of Beam 1, is scaled, up to 3" wide x 14" high x 1" deep.**

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WEST SPRINGFIELD	10X	W-21-046	W21046-10X-DOT-NBI	APR 24, 2023

PHOTOS

Photo 17: **I-91 Southbound, West Breastwall, Bay 5, below the Bridge Seat, has a horizontal crack with efflorescence, 5.5' long x up to 0.25" wide. Upper portion of this crack is delaminated.**

Photo 18: **I-91 Southbound, Bay 7, below bridge seat, has a horizontal crack, 6' long x 0.25" wide. Below Beam 8, has hairline mapcracking, 2' wide x full height.**

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PHOTOS

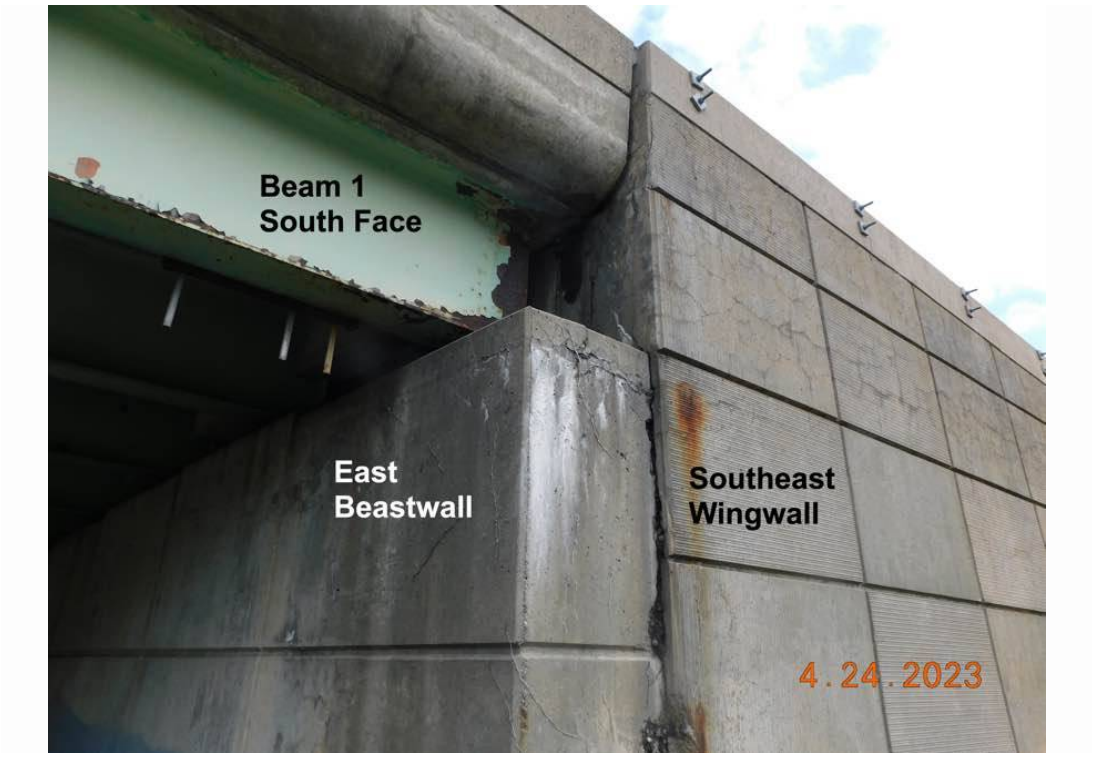

Photo 19: **I-91 Southbound, Southeast Wingwall, just below the backwall is scaled full height, 4" wide X full height x up to 6" deep. Below bridge seat has mapcracking with heavy efflorescence.**

Photo 20: **I-91 Southbound, Southwest Wingwall has hairline cracking with efflorescence.**

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Report Date: March 11, 2025

State Information

BDEPT#= W21046 Agency Br.No.

Town= West Springfield L.O. MHD

B.I.N= 10X AASHTO= 078.9

RANK= 1579 H.I.= 81.7 % FHWA Select List= Y (6/21/2017)

Identification

(8) Structure Number	W2104610XDOTNBI
(5) Inventory Route	111000910
(2) State Highway Department District	02
(3) County Code 013 (4) Place code	77850
(6) Features Intersected	**HWY WEST LOOP**
(7) Facility Carried	**I 91**
(9) Location	MM 9.4 ON I-91
(11) Kilometerpoint	0015.127
(12) Base Highway Network	Y
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	42 DEG 08 MIN 11.63 SEC
(17) Longitude	72 DEG 37 MIN 47.94 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Steel	Code 302
Stringer/Girder	Jointless bridge type: Not applicable
(44) Structure Type Appr:	
Other	Code 000
(45) Number of spans in main unit	001
(46) Number of approach spans	0000
(107) Deck Structure Type - Concrete Cast-in-Place	Code 1
(108) Wearing Surface / Protective System:	
A) Type of wearing surface - Bituminous	Code 6
B) Type of membrane - Preformed Fabric	Code 2
C) Type of deck protection - None	Code 0

Age and Service

(27) Year Built	1966
(106) Year Reconstructed	0000
(42) Type of Service: On - Highway	
Under - Highway	Code 11
(28) Lanes: On Structure 06	Under structure 01
(29) Average Daily Traffic	073585
(30) Year of ADT 2017	(109) Truck ADT 09 %
(19) Bypass, detour length	000 KM

Geometric Data

(48) Length of maximum span	0020.0 M
(49) Structure Length	00021.6 M
(50) Curb or sidewalk: Left 00.0 M	Right 00.0 M
(51) Bridge Roadway Width Curb to Curb	030.0 M
(52) Deck Width Out to Out	038.6 M
(32) Approach Roadway Width (w/shoulders)	030.0 M
(33) Bridge Median - Closed median with non-mountable barriers	Code 3
(34) Skew 10 DEG	(35) Structure Flared Y
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	15.0 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref H	04.39 M
(55) Min Lat Underclear RT ref H	00.6 M
(56) Min Lat Underclear LT	00.5 M

Navigation Data

(38) Navigation Control - Not applicable, no waterway	Code N
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	Y
(26) Functional Class - Urban Interstate	11
(100) Defense Highway	1
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	Y
(20) Toll - On free road	3
(21) Maintain - State Highway Agency	01
(22) Owner - State Highway Agency	01
(37) Historical Significance built after 1949 presumed to be not eligit	Z

Condition

	Code
(58) Deck	6
(59) Superstructure	5
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - HS 20+Mod=MS 18+Mo	6
(63) Operating Rating Method - Allowable Stress (AS)	2
(64) Operating Rating	52.4
(65) Inventory Rating Method - Allowable Stress (AS)	2
(66) Inventory Rating	27.0
(70) Bridge Posting	5
(41) Structure - Open	A

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	9
(69) Underclearances, vert. and horiz.	3
(71) Waterway adequacy	N
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1 0 1 1
(113) Scour Critical Bridges	N

Inspections

(90) Inspection Date 04/24/23 (91) Frequency 24 MO

(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	N	00	MO B)	00/00/00
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Freeze-Thaw)	Y	00	MO *)	04/01/24
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 05/01/92	H20	Type 3	Type 3S2	Type HS
Operating	33.0	55.0	75.0	58.0
Inventory	23.0	28.0	38.0	30.0

Field Posting

Status LEGAL Posting Date 11/19/92

	2 Axle	3 Axle	5 Axle	Single
Actual				
Recommended				

Missing Signs N

Misc.

Bridge Name

N Anti-missile fence N Acrow Panel N Jointless Bridge

Freeze/Thaw 2 : Deteriorated concrete; No known problematic history

Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

Y / Y	Liftbucket	N / N	Rigging	N / N	Other
P / N	Ladder	N / N	Staging		
N / N	Boat	Y / Y	Traffic Control		
N / N	Wader	N / N	RR Flagperson		
		Y / Y	Police		

Inspection Hours: 020

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National Bridge Element Inspection

BDEPT# **W-21-046**
B.I.N. **10X**
Item 8 **W21046-10X-DOT-NBI**
Span Group **1**
Town **West Springfield**
District **2**

Date **04/24/2023**
District Bridge Inspection Eng'r **Matthew Barrett**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Steven R. Finck**
Team Member(s) **Thomas P. Penna**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	7,540.000	☐ %	7,026.000	511.000	3.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	14.000	☐ %		11.000	3.000	
Notes :									
> 1130	*Cracking (RC and Other)*	sq feet	2	1,000.000	☐ %	500.000	500.000		
Notes :									
> 510	Wearing Surfaces	sq feet	2	6,887.000	☐ %	5,087.000	900.000	900.000	
Notes :									
> > 3230	*Effectiveness (Wearing Surface)*	sq feet	2	3,000.000	☐ %	1,200.000	900.000	900.000	
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	994.000	☐ %	754.000		240.000	
Notes :									
> 1000	*Corrosion*	feet	2	240.000	☐ %			240.000	
Notes :									
> 515	Steel Protective Coating	sq feet	2	8,657.000	☐ %	6,926.000			1,731.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	8,657.000	☐ %	6,926.000			1,731.000
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	80.000	☐ %	60.000		20.000	
Notes :									
> 1000	*Corrosion*	feet	3	20.000	☐ %			20.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	125.000	☐ %				125.000
Notes :									

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El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	125.000	☐ %				125.000
Notes :									
215	**Re Conc Abutment**	feet	2	127.000	☐ %	104.000	18.000	5.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	2	3.000	☐ %		3.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	20.000	☐ %		15.000	5.000	
Notes :									
215	**Re Conc Abutment**	feet	3	125.000	☐ %	97.000	8.000	20.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	1.000	☐ %		1.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	27.000	☐ %		7.000	20.000	
Notes :									
306	**Other Joint**	feet	2	83.000	☐ %		83.000		
Notes :									
> 2310	*Leakage*	feet	2	83.000	☐ %		83.000		
Notes :									
311	**Moveable Bearing**	each	3	16	☐ %		14	2	
Notes :									
> 1000	*Corrosion*	each	3	16	☐ %		14	2	
Notes :									
> 515	Steel Protective Coating	sq feet	3	32.000	☐ %			16.000	16.000
Notes :									

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National Bridge Element Inspection

BDEPT#	**W-21-046**	Date	**04/24/2023**
B.I.N.	**10X**	District Bridge Inspection Eng'r	**Matthew Barrett**
Item 8	**W21046-10X-DOT-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Steven R. Finck**
Town	**West Springfield**	Team Member(s)	**Thomas P. Penna**
District	**2**		

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	32.000	☐ %			16.000	16.000
Notes :									
313	**Fixed Bearing**	each	2	16	☐ %		13	3	
Notes :									
> 1000	*Corrosion*	each	2	16	☐ %		13	3	
Notes :									
> 515	Steel Protective Coating	sq feet	2	32.000	☐ %			16.000	16.000
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	32.000	☐ %			16.000	16.000
Notes :									
330	**Metal Bridge Railing**	feet	2	142.000	☐ %		142.000		
Notes :									
> 1900	*Distortion*	feet	2	142.000	☐ %		142.000		
Notes :									
331	**Re Conc Bridge Railing**	feet	2	142.000	☐ %	142.000			
Notes :									

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BERKSHIRE AND EASTERN RAILROAD (BERX)

PUBLIC PROJECT MANUAL

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Public Project Manual

For any activity or project that may involve the railroad

ENGINEERING SERVICES

a Genesee & Wyoming Company

Prepared by Public Projects Department
Revision: April 2019

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Section 1.02 – Introduction

Berkshire and Eastern Railroad (BERX) (the Railroad) is a subsidiary of Genesee & Wyoming Inc. (G&W), the largest holding company in the U.S. of regional and short line railroads. G&W has more than 100 subsidiary railroads in 41 U.S. states and four Canadian provinces serving thousands of communities and customers. G&W also has a major rail freight presence in Australia and Europe.

Each G&W subsidiary railroad is its own separate legal entity with local decision making to best meet customers' needs. G&W's North American railroads are organized in six operating regions that provide a consistent focus on safety, operating standards, and marketing.

G&W railroads receive corporate staff support in areas such as accounting, engineering, legal, mechanical, real estate, and other functions.

The Public Projects Department (PPD) at G&W is part of Engineering Services with the goal to support the railroads. PPD is also tasked to support outside agencies by streamlining the flow of outside party projects and initiatives.

PPD is involved in a wide variety of projects initiated by government agencies, local businesses, and others. Accurate and timely communication of information between the Railroad and these parties improves planning, relationships, and successful completion of projects. The information in this manual explains important steps project sponsors should follow to streamline their projects and proposals.

G&W railroads place the highest priority on the safety of the public and their employees. Therefore, any activity that has the potential to adversely impact safe railroad operations must be evaluated by the Railroad. This manual is intended to be a general guide for reference to the Railroad's minimum requirements and standards. The Railroad reserves the right to deviate from any of the requirements or standards set forth in this manual.

We look forward to working together to serve the common goal of the safe operation of trains. We hope the information provided in this manual makes it easier to work together as a team.

Jacob Smith
Director of Public Projects

Section 1.03 – Basic Information in this Manual

This manual is intended to be a general guide, but it in no way overrides the express guidance, requirements, or standards of the Railroad. As a tool only, the information herein is intended for broad use and each project will be reviewed by PPD and the Railroad to ensure the safest actions are taken.

Any subject not covered in the manual should be routed to PPD for review.

Any activity that either directly or indirectly impacts railroad property must have approval by the Railroad.

Common Types of Public Projects

- **Highway-Rail Grade Crossings:** Closure, removal, installation, and alterations of public highway-rail grade crossings.
- **Bridges Over Railroad:** Construction, reconstruction, rehabilitation, repair, removal, painting, and maintenance of bridges over the Railroad by outside parties.
- **Parallel Roads/Facilities:** Construction, reconstruction, modification, removal, and maintenance of parallel roads or other public facilities affecting railroad property or operations.
- **Entry on to Railroad Property:** Temporary rights of entry onto railroad property and utility installation licenses.
- **Other Projects Involving Rail Corridors:** Publicly sponsored projects involving or altering railroad facilities or its property. These projects may be on, above, adjacent to, or otherwise have the potential to impact the property.
- **General Engineering Consultants (GEC):** Although the PPD is the primary point of contact, GECs provide additional engineering services as directed by the Railroad to assist the Railroad in managing public projects.

Section 1.04 – Definitions and Common Terms

- **Agency** – The project sponsor (i.e., state DOT, local agencies, private developer, etc.)
- **AREMA** – American Railway Engineering and Maintenance-of-Way Association – the North American railroad industry standards group. The use of this term shall be in specific reference to the AREMA Manual for Railway Engineering.
- **Basis for Design (BOD)** – The developed scope of a project needed to bid out the project.
- **Construction Engineering Inspection (CEI)** – Consultant who oversees the construction operations who is authorized to act on behalf of the Railroad to ensure that only the safest and least impactful practices are being performed.
- **Contractor** – The agency's representative retained to perform the project work.
- **Engineer** – G&W engineering representative or a GEC authorized to act on their behalf.
- **Employee in Charge (EIC)** – An employee or designated contractor qualified to protect a project team during an operation, activity, or project.
- **Flagman/Flagger** – A qualified EIC with the sole responsibility protect the outside public and contractors while facilitating the safe passage of trains.
- **General Engineering Consultant (GEC)** – Consultant who has been authorized to act on the behalf of the Railroad. GECs perform preliminary engineering, construction inspection, and monitoring under the direction of the engineering personnel. GEC personnel also perform day-to-day administration of certain types of projects.
- **Notice to Proceed (NTP)** – Authorization by the project sponsor allowing the Railroad, its appointed consultants, and subcontractors to proceed out of PE and move into construction.
- **Order of Magnitude (OOM)** – A high-level estimate to quantify the estimated total value of the project. Typically the estimate is marked up to account for the project unknowns.
- **Potential to Encroach** – Any activity having the possibility of impacting railroad property or operations, defined as one or more of the following:
  - Any activity where access onto railroad property is required.
  - Any activity where work is being performed on the Railroad's Right of Way (ROW).
  - Any excavation work adjacent to railroad tracks or facilities, within the theoretical railroad live load influence zone, or where the active earth pressure zone extends within railroad property.
  - The use of any equipment that, if tipped and laid flat in any direction (360 degrees) about its center pin, can encroach within twenty-five feet (**25′-0″**) of the nearest track. This is based upon the proposed location of the equipment during use and may be a function of the equipment boom length.
    - Note that hoisting equipment with the potential to foul must satisfy the 150% factor of safety requirement for lifting capacities.
  - Any activity where the scatter of debris or other materials has the potential to encroach within twenty-five feet (**25′-0″**) of the nearest track.
  - Any activity where significant vibration forces may be induced upon the track structure or existing structures located under, over, or adjacent to the track structure.

  - Any other work that poses the potential to disrupt rail operations, threaten the safety of railroad employees, or otherwise negatively impact railroad property, as determined by the Railroad.

- **Preliminary Engineering (PE)** – The review and development of the project scope or project discovery that typically includes a site visit, design or design review, and estimate to complete the project.
- **Public Projects Department (PPD)** – A member of the G&W Public Projects team or assigned GEC representative.
- **Request for Proposal (RFP)** – The process by which a design-build contractor is selected and awarded to complete the project.
- **Right of Entry (ROE)** – Formal document applied for through the G&W Real Estate Department.
- **Right of Way (ROW)** – Railroad Right of Way as well as any railroad property and facilities. This includes all aerial space within the property limits and any underground facilities.
- **Theoretical Railroad Live Load Influence Zone** – 1 horizontal to 1 vertical theoretical slope line starting at bottom corner of tie.
- **Top of Rail (TOR)** – This is the base point for clearance measurements. It refers to the crown (top) of the steel rail, the point where train wheels bear on the steel rails. Use the higher of the two rails when track is superelevated.
- **Track Structure** – All load-bearing elements that support the train. This includes, but is not limited to, the rail, ties, appurtenances, ballast, sub-ballast, embankment, retaining walls, and bridge structures.
- **Vertical Clearance** – Distance measured from TOR to the lowest obstruction, within six feet (**6′-0″**) of the track centerline, in either direction.

Section 1.05 – Payment of Railroad Cost and Expenses

Summary

The project types addressed in this manual typically do not directly benefit railroad operations. In some cases, they create risk to and challenges for railroad operations and impact the Railroad's ability to serve its customers and the American economy. For these reasons, the Railroad seeks payment for its costs and expenses incurred in connection with project reviews and construction.

Types of Reimbursable Costs and Expenses

Costs reimbursable by the project sponsor in connection with the project include, but are not limited to:

- The Railroad's labor and support services
- Sums paid to railroad consultants and subcontractors
- Engineering reviews and CEI
- All out-of-pocket expenses
- Costs for equipment, tools, materials, and supplies
- Telephone, facsimile, and mailing expenses
- Real estate or legal reviews
- Cost for flagging or other action to protect rail operations and infrastructure

Key Points

- Preliminary engineering is usually initiated by the project sponsor with a commitment to reimburse for the project discovery and engineering services.
- The Railroad will not begin its preliminary engineering review until a PE agreement or other legal reimbursable agreement is provided.
- PE costs typically range between $10,000 to $30,000 depending on the project.
- All funding sources must be identified up front, and any time funding sources change, the Railroad must be immediately informed. All special funding requirements must be identified prior to the commencement of any project, such as "Buy America" or "Buy American" requirements.
- All costs billed will be actual cost and no profit will be gained by performing services on behalf of the project.
- Construction and CEI will be estimated prior to getting an NTP.
- The Railroad will not begin construction until all applicable contracts are provided along with an NTP.

Section 1.06 – Insurance Requirements for Public Projects

Summary

For any project that is performed on, above, or adjacent to railroad property, proper insurance must be obtained, submitted, and approved prior to work commencing. Insurance requirements will be incorporated in all applicable contracts.

The insurance requirements will be determined based on site-specific location as well as level of impact to the Railroad. Those specific requirements can be requested at the initiation of the project once the scope and project limits have been determined.

If during the project the insurance coverage expires or lapses, the agency or its contractor, as applicable, is responsible for notifying the Railroad and ceasing all work until the requirements have once again been met and approved by the Railroad.

Section 1.07 – Railroad Flagging Requirements

Summary

In the interest of public safety and the safety of the Railroad's and project sponsor's employees and property, the Railroad will work cooperatively with agencies, consultants, contractors, and others who need to access railroad property when work brings them in close proximity to active railroad tracks to determine the appropriate flagging services needed and to make arrangements for those services.

Flagging services may only be performed by personnel qualified by the Railroad who are trained in the proper procedures related to rail operations and safety requirements, familiar with rail operations and procedures in a project area and able to communicate directly with dispatching personnel and train crews.

All costs and expenses associated with railroad flagging services are the sole responsibility of the agency, consultant, or contractor. The GEC will provide its estimated costs prior to the start of the project work or its assignment of flagging personnel, but it is up to the agency to provide the estimated number of days the flagmen are needed.

Once flagging personnel are formally assigned to a specific work location, the period of assignment can only be changed with appropriate advanced arrangements. Charges for providing flagging services beyond a normal eight-hour weekday are calculated and billed at an overtime rate.

The GEC will coordinate the flagmen and should be the primary point of contact for scheduling, including changing the working schedule or duration the flagmen are required.

Conditions

The following are conditions that may require the use of a flagman by the Railroad:

- When any entity is working on, near, or adjacent to active railroad tracks.
- When an outside party is using railroad property or performing operations that may affect railroad property or facilities (including occasions when a party has been given express permission to enter railroad property or perform such operations under the terms of the applicable contracts).
- When work off railroad property has the potential to impact railroad property or operations.
- When off-highway construction equipment is crossing the railroad at a private or public crossing.
- When oversized equipment or highway vehicles are to cross the railroad at a private or public crossing.
- In other instances, as determined by the Railroad.

Section 1.08 – Engineering Reviews and Construction Monitoring

Summary

Any project proposals that may affect or be near the Railroad's right of way must be evaluated by the Railroad. To initiate a project, a PE agreement or other applicable contract is required to identify the project sponsor and the scope, define the tasks to be accomplished, and specify the payment required. Once the plans and scope are approved by the Railroad, the project can proceed into construction.

The purpose of PE is to identify issues related to safety, engineering, customer service, operations, legal and regulatory matters, expense, risk, and other considerations specific to any proposed project. The Railroad's review is only to determine that the plans and improvements constructed are in accordance with the Railroad standards and satisfy the Railroad's requirements. Plans should be submitted early in project development to ensure that the Railroad requirements can be incorporated up front. If property is leased, the review might require additional party signoff.

Cost and Timing

Prior to commencing with engineering, design, or reviews, a legal document or associated PE agreement must be executed where the outside party will bear the cost of the design or design reviews (**see Section 1.05**). This includes the cost of railroad employees as well as GEC support. The scope includes attending meetings, site surveys, reviewing plans, preparing plans, correspondence, and any other activity to support the review of the project and development of scope.

It is the goal of PPD to have a design review turned around within 30 to 45 days depending on the level of effort. It is in the interest of all parties to complete the PE review before commitments are made or construction steps begin. The Railroad and its GEC will work with the project sponsor to schedule PE and construction to meet project schedule objectives whenever possible, considering available resources.

Construction Monitoring

To ensure the safety of the public and railroad employees, maintain quality rail service to customers, and to protect railroad assets, the Railroad may require construction monitoring (in addition to flagman protection) of the project. The construction monitoring will be conducted by the Railroad and its GEC at the expense of the project sponsor.

Construction monitoring includes intermittent or continuous on-site presence of the Railroad or its GEC during construction activities. The following typically applies:

- The construction project sponsor, owner, or agency in charge will pay for the cost of construction monitoring. Construction monitoring will be specified, and the estimated cost will be included in the construction agreement for the project.
- Construction monitoring is in addition to railroad-required flagging.
- Construction monitoring includes the Railroad's review and approval of all plan changes and required contractor submissions during the construction phase of the project.
- The project sponsor is responsible for its safety and the safety of its property, contractors, and employees. The GEC, as part of its construction monitoring, will review the work site for activities that could interfere with safe operation of the Railroad.
- The GEC is only responsible for monitoring the general work activities for safety and impact to the Railroad and its property and not for managing the overall project work. Any observed unsafe acts or conditions will be reported immediately to the project sponsor or contractor representative.

Section 1.09 – Real Estate

Summary

All projects that modify or impact the Railroad's property must be reviewed by the G&W Real Estate Department to determine property descriptions, ownership, and implications. Any rail line requiring special handling due to a lease or property agreement must be taken into consideration when performing engineering reviews and providing project acceptance.

All parties accessing the Railroad's ROW for investigative activities or for the performance of construction work are required to have a written agreement with the Railroad fully detailing each party's responsibilities. Activities by others with the potential to affect the Railroad's property, operations, and/or personnel without actually entering the Railroad's property must also be reviewed by the Railroad and appropriate arrangements and agreements completed.

If a right of entry or utility license, or any applicable agreement is required for the project, the agency or its contractor, as applicable, will need to work directly with the G&W Real Estate Department to enter all contracts into place prior to commencing work on the property.

Construction and improvement projects involving railroad property may require a conveyance of property rights, subject to adequate consideration and corporate approvals. Such projects include, but are not limited to:

- Highway – rail grade crossings
- Bridges over/under the railroad
- Parallel roads/facilities
- Road/bridge widening projects

Further clarification can be requested by contacting the PPD and the appropriate G&W Real Estate Department specialist.

Section 1.10 – Project Requirements

Summary

The project requirements set forth in this Section 1.10 shall apply to any project, subject to the terms or conditions of any applicable contracts. The Railroad representative shall have final authority in all matters affecting the safe maintenance of railroad operations and property, and his or her approval shall be obtained by the agency or its contractor for methods of construction to avoid interference with railroad operations and property and all other matters contemplated by these requirements.

The agency or its contractor shall arrange and conduct its work so that there will be no interference with railroad operations, including train, signal, telephone, and telegraphic services, or damage to railroad property or to poles, wires, and other facilities of tenants on its property or right of way. The agency or its contractor shall store materials so as to prevent trespassers from causing damage to trains or property. Whenever work is likely to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad for approval, but such approval shall not relieve the agency or its contractor from liability in connection with such work. No work shall be performed without it first being approved by the Railroad.

If conditions arising from or in connection with the project require that immediate and unusual provisions be made to protect train operation or property, the agency or its contractor shall make such provisions. If the Railroad determines that such provisions are insufficient, the Railroad may, at the expense of the agency or its contractor, require or provide such provisions as may be deemed necessary, or cause the work to cease immediately.

If the agency or its contractor violate or fail to comply with any of the requirements in the section, the Railroad may:

- Require the agency and/or the contractor to vacate its property;
- Withhold monies due the agency and/or the contractor;
- Require the agency to withhold monies due to the contractor; and
- Cure such failure, and the agency and/or any contractor shall reimburse the Railroad for the cost of curing such failure.

Notice to Start Work

The agency or its contractor shall not commence any work on railroad property or ROW until it has entered into all applicable contracts and received all requisite approvals from the Railroad. Thereafter, unless otherwise specified in such applicable contracts, the agency or its contractor must:

- Notify the Railroad in writing of the date that it intends to commence work on the project. Such notice must be received at least 10 business days in advance of the date the agency or its contractor proposes to begin work on railroad property. The notice must refer to the specific project agreement. If flagging service is required, such notice shall be submitted at least thirty (**30**) business days in advance of the date scheduled to commence the work.
- Obtain authorization from the Railroad to begin work on the property, such authorization to include an outline of specific conditions with which it must comply.
- Obtain from the Railroad the names, addresses, and telephone numbers of railroad personnel who must receive notice under provisions in the construction agreement. Where more than one individual is designated, the area of responsibility of each shall be specified.

Hauling across Railroad

If the agency or its contractor desires access across the Railroad's property or tracks at a location other than an existing and open public road crossing in or adjacent to the construction of the project, the agency or contractor must first obtain the permission of the Railroad and shall execute any applicable contracts as described in **Section 1.09** Real Estate herein.

Cooperation & Delays

The agency or its contractor shall arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad. In arranging its schedule, the agency or contractor shall ascertain from the Railroad the lead time required for assembling crews and materials and shall make due allowance therefore.

The agency or its contractor may not charge any costs or submit any claims against the Railroad for hindrance or delay caused by railroad traffic; for any work done by the Railroad or other delay incident necessary for safe maintenance of railroad traffic; or for any delays due to compliance with these requirements. Agency and contractor shall cooperate with others participating in the construction of the project to the end that all work may continue to move forward.

The agency and its contractor understand and agree that the Railroad does not assume any responsibility for work performed by others in connection with the project. The agency and contractor further understand and agree that they shall have no claim whatsoever against the Railroad for any inconvenience, delay, or additional cost incurred by the agency or contractor on account of operations by others.

Storage

The agency and its contractor shall not store their materials or equipment on railroad property or where they may potentially interfere with operations unless the agency or contractor has received prior written permission. The agency and contractor understand and agree that the Railroad will not be liable for any damage to such materials and equipment from any cause and that the Railroad may move, or require the agency or its contractor to move, such material and equipment at the agency's or contractor's sole expense. To minimize the possibility of damage to the Railroad tracks resulting from the unauthorized use of equipment, all grading or other construction equipment that is left parked near the tracks unattended shall be immobilized to the extent feasible so that it cannot be moved by unauthorized persons.

Construction

Construction work on railroad property shall be subject to the Railroad's inspection and approval. Work shall be in accordance with written specific conditions and with these requirements. The agency or its contractor shall obtain the Railroad and agency representative's prior written approval for use of explosives on or adjacent to railroad property. If permission for use of explosives is granted, the agency or contractor must comply with the following:

- Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of agency or contractor.
- Electric detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.
- No blasting shall be done without the presence of the Railroad's CEI. At least 30 days' notice to the Railroad is required to arrange for site presence.
- Explosives shall not be stored on railroad property.

The Railroad will:

- Determine the approximate location of trains and advise the agency or contractor of the approximate amount of time available for the blasting operation and cleanup.
- Have the authority to order discontinuance of blasting if, in the Railroad's opinion, blasting is too hazardous or is not in accord with these requirements.

The agency or its contractor shall maintain all ditches and drainage structures free of silt or other obstructions that may result from their operations. The agency or contractor shall provide erosion control measures during construction and use methods that accord with applicable state standard specifications for road and bridge construction, including (1) silt fence; (2) hay or straw barrier; (3) berm or temporary ditches; (4) sediment basin; (5) aggregate checks; and (6) channel lining. All such maintenance and repair of damages due to agency's or contractor's operations shall be performed at agency's expense.

The agency shall arrange, upon approval from the Railroad, to have any utility facilities on or over railroad property changed as may be necessary to provide clearances for the proposed trackage.

The agency or its contractor, upon completion of the project, shall remove from railroad property any temporary grade crossings; any temporary erosion control measures used to control drainage; and all machinery, equipment, surplus materials, falsework, rubbish, or temporary buildings belonging to the agency or contractor. The agency or contractor, upon completion of the project, shall leave railroad property in neat condition, satisfactory to the Railroad.

Section 1.11 – Construction Submission Criteria

Summary

The intent of this manual is to guide outside parties and their contractors when performing work on, over, or with potential to impact railroad property. Work plans shall be submitted for review to the Railroad for all work that presents the potential to affect railroad property or operations. All work shall be performed in a manner that does not adversely impact the Railroad operations or safety; as such, the requirements of this manual shall be strictly adhered to, in addition to all other applicable standards associated with the construction.

General

- A construction work plan is required to be submitted by the agency or the Railroad for review and acceptance prior to accessing or performing any work with potential to foul.
- The agency or its representative shall submit sets of plans, specifications, supporting calculations, detailed means and methods, and procedures for the specific proposed work activity.
- Construction submissions shall include all information relevant to the work activity and shall clearly and concisely explain the nature of the work, how it is being performed, and what measures are being taken to ensure that railroad property and operations are continuously maintained.
- All construction plans shall include a map of the work site depicting the tracks, the ROW, proposed means of access, proposed locations for equipment and material staging (dimensioned from nearest track centerline), as well as all other relevant project information. An elevation drawing may also be necessary to depict clearances or other components of the work.
- Please note that the Railroad will not provide pricing to individual contractors involved in bidding projects. Bidding contractors shall request information from the agency only.
- The contractor shall install a geotextile fabric ballast protection system to prevent construction or demolition debris and fines from fouling ballast. The geotextile ballast protection system shall be installed and maintained by the contractor to the satisfaction of the Railroad.
- The Railroad shall be kept aware of the construction schedule. The contractor shall provide timely communication to the Railroad when scheduling the work such that a representative may be present during the work. The contractor's schedule shall not dictate the work plan review schedule, and flagging shall not be scheduled prior to receipt of an accepted work plan.

- At any time during construction activities, the Railroad may require revisions to the previously approved procedures to address weather, site conditions, or other circumstances that may create a potential hazard to rail operations or facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Railroad's satisfaction. The Railroad shall not be responsible for any additional costs or time claims associated with such revisions.
- Blasting will not be permitted to demolish a structure over or within railroad property. When blasting off railroad property but with potential to foul, vibration monitoring, track settlement surveying, and/or other protective measures may be required as determined by the Railroad.
- Blasting is not permitted adjacent to the Railroad's ROW without written approval from the Railroad.
- Mechanical and chemical means of rock removal must be explored before blasting is considered. If written permission for the use of explosives is granted, the agency or contractor must submit a work plan (**see Section 1.08 & Section 1.10**).

Hoisting

All proposed hoisting operations with potential to foul shall be submitted in accordance with the following:

- A plan view drawing shall depict the work site, the track(s), the proposed location(s) of the lifting equipment, as well as the proposed locations for picking, any intermediate staging, and setting the load(s). All locations shall be dimensioned from the centerline of the nearest track. Crane locations shall also be dimensioned from a stationary point at the work site for field confirmation.
- Computations showing the anticipated weight of all picks. Computations shall be made based upon the field-verified plans of the existing structure. Pick weights shall account for the weight of concrete rubble or other materials attached to the component being removed; this includes the weight of subsequent rigging devices/components. Rigging components shall be sized for the subsequent pick weight.
- All lifting equipment, rigging devices, and other load bearing elements shall have a rated (safe lifting) capacity that is greater than or equal to 150% of the load it is carrying, as a factor of safety. Supporting calculations shall be furnished to verify the minimum capacity requirement is maintained for the duration of the hoisting operation.
- Dynamic hoisting operations are prohibited when carrying a load with the potential to foul. Cranes or other lifting equipment shall remain stationary during lifting (i.e., no moving picks).
- For lifting equipment, the manufacturer's capacity charts, including crane, counterweight, maximum boom angle, and boom nomenclature are to be submitted.
- A schematic rigging diagram must be provided to clearly call out each rigging component from crane hook to the material being hoisted. Copies of catalog or information sheets shall be provided to verify rigging weights and capacities.
- For built-up rigging devices, the contractor shall submit the following:
  - Details of the device, calling out material types, sizes, connections, and other properties.
  - Load test certification documents and/or design computations bearing the seal and signature of a professional engineer. Load tests shall be performed in the configuration of its intended use as part of the subject demolition procedure.
  - Copies of the latest inspection reports of the rigging device. The device shall be inspected within one (**1**) calendar year of the proposed date for use.
- A detailed drawing shall be provided showing the crane outrigger setup, including dimensions from adjacent slopes or facilities. The drawing shall indicate requirements for bearing surface preparation, including material requirements and compaction efforts. As a minimum, outriggers and/or tracks shall bear on mats positioned on level material with adequate bearing capacity.

- A complete written narrative shall be provided that describes the sequence of events, indicating the order of lifts and any repositioning or re-hitching of the crane(s).

Demolition

The agency or its contractor shall submit a detailed procedure for a controlled demolition of any structure on, over, or adjacent to the ROW. The controlled demolition procedure must be approved by the Railroad prior to beginning work on the project.

Existing condition of the structure being demolished:

- The contractor shall submit as-built plans for the structure(s) being demolished.
- If as-built plans are unavailable, the contractor shall perform an investigation of the structure, including any foundations, substructures, etc. The field measurements are to be made under the supervision of the professional engineer submitting the demolition procedure. Findings shall be submitted as part of the demolition means and methods submittal for review by the Railroad.
- Any proposed method for temporary stabilization of the structure during the demolition shall be based on the existing plans or investigative findings and submitted as part of the demolition means and methods for review by the Railroad.

Demolition work plans shall include a schematic plan depicting the proposed locations of the following at various stages of the demolition:

- All cranes and equipment, calling out the operating radii.
- All proposed access and staging locations with all dimensions referenced from the centerline of the nearest track.
- Proposed locations for stockpiling material or locations for truck loading.
- The location, with relevant dimensions, of all tracks, other railroad facilities, and wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions.
- Note that no crane or equipment may be set on the rails or track structure and no material may be dropped on railroad property.

Demolition submittal shall also include the following information:

- A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure and hoisting. The proposed time frames for all critical subtasks (i.e., torch/saw cutting various portions of the superstructure or substructure, dismantling splices, installing temporary bracing, etc.) shall be furnished so that the potential impact(s) to operations may be assessed and eliminated or minimized.
- The names and experience of the key contractor personnel involved in the operation shall be included in the contractor's means and methods submission.
- Design and supporting calculations shall be prepared, signed, and sealed by the professional engineer for items including the temporary support of components or intermediate stages and shall be submitted for review. A guardrail will be required to be installed in the proximity of temporary bents or shoring towers when located within twelve feet (**12′-0″**) from the centerline of the track. The guardrail will be installed at the expense of the agency or its contractor.

Girders or girder systems shall be stable at all times during demolition. Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system for review by the Railroad. Lateral wind forces for the temporary conditions shall be considered in accordance with the current version of AREMA.

Existing obsolete bridge piers shall be removed to a minimum of three feet (**3′-0″**) below the finished grade, final ditch line invert, or as directed by the Railroad.

A minimum quantity of twenty-five (**25**) tons of approved granite track ballast may be required to be furnished and stockpiled on-site by the contractor or as directed by the Railroad.

The use of acetylene gas is prohibited for use on or over railroad property. Torch cutting shall be performed utilizing other materials such as propane.

Tracks, signals, structures, and other railroad facilities shall be protected from damage during demolition of existing structure or replacement of deck slab.

Demolition Debris Shield

- On-track or ground-level debris shields (such as crane mats) are prohibited for use.
- The demolition debris shield shall be installed prior to the demolition of the bridge deck or other relevant portions of the structure. The demolition debris shield shall be erected from the underside of the bridge over the track area to catch all falling debris. The debris shield shall not be the primary means of debris containment.
    - The demolition debris shield design and supporting calculations, all signed and sealed by a professional engineer, shall be submitted for review and acceptance.
    - The demolition debris shield shall have a minimum design load of 50 pounds per square foot (**50 psf**) plus the weight of the equipment, debris, personnel, and all other loads.
    - The contractor shall verify the maximum particle size and quantity of the demolition debris generated during the procedure does not exceed the shield design loads. Shield design shall account for loads induced by particle impact; however, the demolition procedure shall be such that impact forces are minimized. The debris shield shall not be the primary means of debris containment.
    - The contractor shall include installation/removal means and methods for the demolition debris shield as part of the proposed controlled demolition procedure submission.
    - The demolition debris shield shall provide twenty-three feet (**23′-0″**) minimum vertical clearance or maintain the existing vertical clearance if the existing clearance is less than twenty-three feet (**23′-0″**).
    - Horizontal clearance to the centerline of the track should not be reduced unless approved by the Railroad.
    - The contractor shall clean the demolition debris shield daily or more frequently as dictated either by the approved design parameters or as directed by the Railroad.

Vertical Demolition Debris Shield

This type of shield may be required for substructure removals in close proximity to tracks and other facilities, as determined by the Railroad.

The agency or its contractor shall submit detailed plans with detailed calculations prepared, signed, and sealed by a professional engineer of the protection shield.

Erection

The agency or its contractor shall submit a detailed procedure for erection of a structure with potential to foul. The erection procedure must be approved by the Railroad prior to beginning work on the project.

Erection work plans shall include a schematic plan depicting the following, at all stages of the construction:

- All proposed locations of all cranes and equipment, calling out the operating radii.

- All proposed access and staging locations with all dimensions referenced from the centerline of the nearest track.
- All proposed locations for stockpiling material or locations for truck loading.
- The location, with relevant dimensions, of all tracks, other railroad facilities, and wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions.
- No crane or equipment may be set on the rails or track structure and no material may be dropped on railroad property.

For erection of a structure over the tracks, the following information shall be submitted for review and acceptance by the Railroad at least thirty (**30**) days prior to erection:

- As-built beam seat elevations – field surveyed upon completion of pier/abutment construction.
- Current top of rail (TOR) elevations – field measured at the time of as-built elevation collection.
- Computations verifying the anticipated minimum vertical clearance in the final condition that account for all deflection and camber based upon the current TOR and as-built beam seat elevations. The anticipated minimum vertical clearance shall be greater than or equal to that which is indicated by the approved plans. Vertical clearance (see definitions) is measured from TOR to the lowest point on the overhead structure at any point within six feet (**6′-0″**) from the centerline of the track. Calculations shall be signed and sealed by a professional engineer.

Girders or girder systems shall be stable at all times during erection. No crane may unhook prior to stabilizing the beam or girder.

- Lateral wind forces for the temporary conditions shall be considered in accordance with the current version of AREMA.
- Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system for review by the Railroad.
- Temporary bracing shall not be removed until sufficient lateral bracing or diaphragm members have been installed to establish a stable condition. Supporting calculations furnished by the professional engineer shall confirm the stable condition.

Erection procedure submissions shall also include the following information:

- A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical subtasks (i.e., performing aerial splices, installing temporary bracing, installation of diaphragm members, etc.) shall be furnished so that the potential impact(s) to operations may be assessed and eliminated or minimized.
- The names and experience of the key contractor personnel involved in the operation shall be included in the contractor's means and methods submission.
- A guardrail will be required to be installed in a track in the proximity of temporary bents or shoring towers when these are located within twelve feet (**12′-0″**) from the centerline of the track.
- Design and supporting calculations prepared by the professional engineer for items including the temporary support of components or intermediate stages shall be submitted for review.

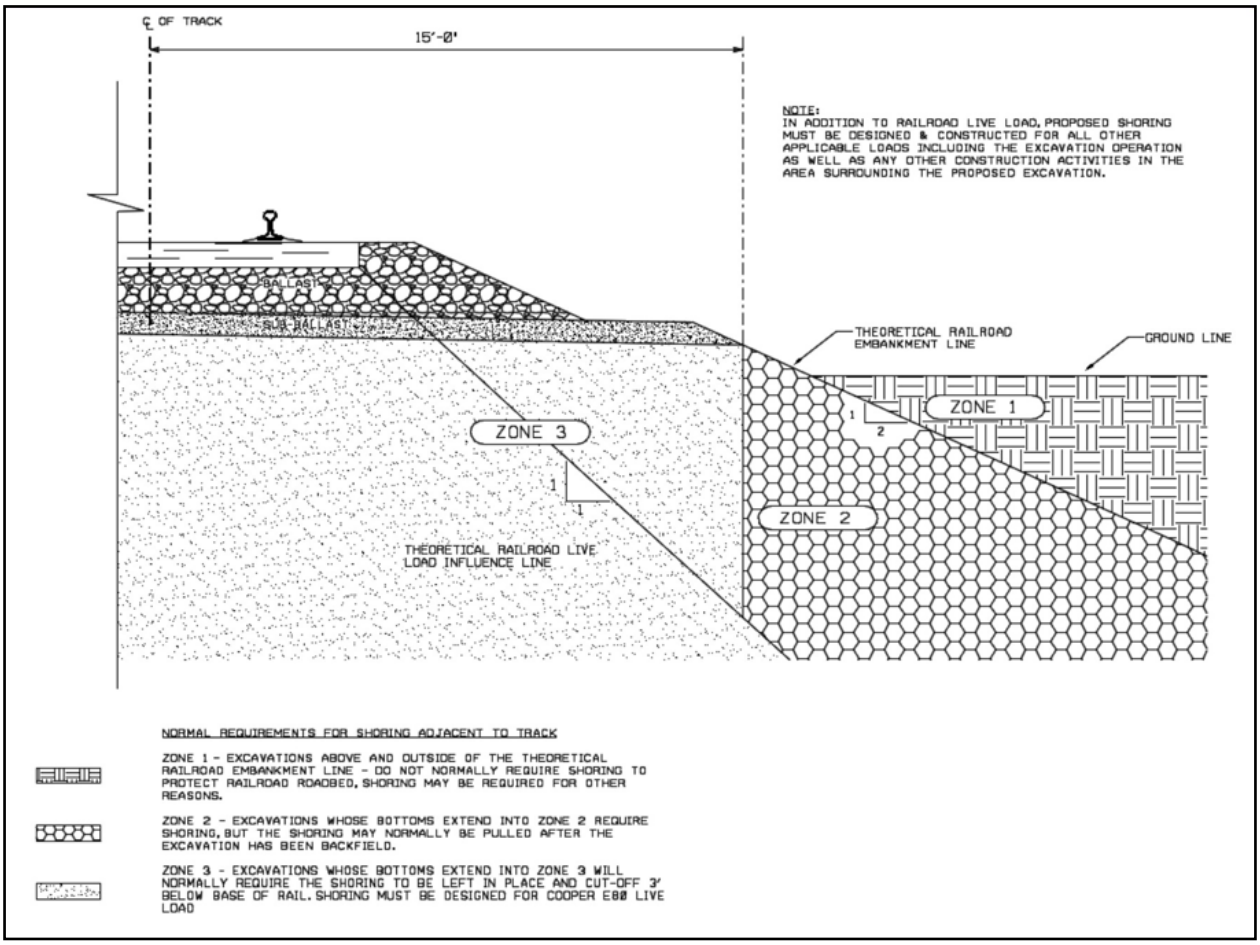
Excavation and Shoring

The agency or its contractor shall submit a detailed design and procedure for the installation of a sheeting/shoring system adjacent to the tracks. Shoring protection shall be provided when excavating with

potential to foul, or as otherwise determined by the Railroad. Shoring shall be provided in accordance with AREMA, except as noted below.

Shoring may not be required if all of the following conditions are satisfied:

- The excavation does not encroach within the theoretical live load influence zone. Please refer to figure below.



- The track structure is situated on level ground, or in a cut section, and on stable soil.
- The excavation does not adversely impact the stability of a railroad facility (i.e., signal bungalow, drainage facility, undergrade bridge, building, etc.), or the stability of any structure on, over, or adjacent to railroad property with potential to foul.
- Shoring is not required by any governing federal, state, local, or other construction code.

Shoring is required when excavating the toe of an embankment. Excavation of any embankment that supports an active track structure without shoring will not be permitted.

Trench boxes are not an acceptable means of shoring. Trench boxes are prohibited for use on railroad property or within the theoretical railroad live load influence zone.

Shoring shall be a cofferdam-type, which completely encloses the excavation. However, where justified by site or work conditions, partial cofferdams with open sides away from the track may be permissible, as determined by the Railroad.

Cofferdams shall be constructed using interlocking steel sheet piles, or when approved by the engineer, steel soldier piles with timber lagging. Wales and struts shall be included when dictated by the design.

The use of tiebacks can be permissible for temporary shoring systems when conditions warrant. Tiebacks shall have a minimum clear cover of six feet (**6′-0″**), measured from the bottom of the rail. Upon completion of the work, tiebacks shall be grouted, cut off, and remain in place.

All shoring systems on or adjacent to the Railroad's ROW shall be equipped with railings or other fall protection and be compliant with the governing federal, state, or local requirements. The area around pits shall be graded to eliminate all potential tripping hazards.

Interlocking steel sheet piles shall be used for shoring systems that qualify with one or more of the following conditions:

- Within eighteen feet (**18′-0″**) of the nearest track centerline
- Within the theoretical live load influence zone
- Within slopes supporting the track structure
- As otherwise deemed necessary by the Railroad

Sheet piles qualifying for one or more of the requirements listed in this document shall not be removed. Sheet piles shall be left in place and cut off a minimum of three feet (**3′-0″**) below the finished grade, the ditch line invert, or as otherwise directed by the Railroad. The ground shall be backfilled and compacted immediately after sheet pile is cut off.

The following design considerations shall be considered when preparing the shoring design package:

- Shoring shall be designed to resist a vertical live load surcharge of **1,882 lbs.** per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip, eight feet six inches (**8′-6″**) wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in the current version of AREMA.
- Allowable stresses in materials shall be in accordance with the current version of AREMA.
- A minimum horizontal clearance of ten feet (**10′-0″**) from the centerline of the track to face of nearest point of shoring shall be maintained, provided twelve feet (**12′-0″**) of roadbed is maintained with a temporary walkway and handrail system.
- For temporary shoring systems with potential to foul, piles shall be plumb under full dead load. Maximum deflection at the top of wall, under full live load, shall be as follows:
  - One-half inch (**.5″**) for walls within twelve feet (**12′-0″**) of track centerline (measured from the centerline of the nearest track to the nearest point of the supporting structure).
  - One inch (**1″**) for walls located greater than twelve feet (**12′-0″**) from track centerline.

Shoring work plans shall be submitted in accordance with this document, as well as the following additional requirements:

- The work plan shall include detailed drawings of the shoring systems, calling out the sizes of all structural members and details of all connections. Both plan and elevation drawings shall be provided, calling out dimensions from the face of shoring relative to the nearest track centerline. The elevation drawing shall also show the height of shoring and track elevation in relation to the bottom of excavation.
- Full design calculations for the shoring system shall be furnished.
- A procedure for cutting off the sheet pile, backfilling, and restoring the embankment shall be included.

Track Monitoring

When work being performed has the potential to disrupt the track structure, a work plan must be submitted detailing a track monitoring program that will serve to monitor and detect both horizontal and vertical movement of the track and roadbed.

The program shall specify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. The Railroad reserves the right to modify the survey locations and monitoring frequency as necessary during the project.

The survey data shall be collected in accordance with the approved frequency and immediately furnished to the Railroad for analysis.

If any movement has occurred as determined by the Railroad, the Railroad, at its sole discretion, shall have the right to immediately require all contractor operations to be ceased, have the excavated area immediately backfilled, and/or determine what corrective action is required.

Soil and Water Management

The Railroad must review and approve reuse of soil on railroad property.

If the soil cannot be reused on railroad property, it must be properly disposed of at an approved disposal facility. The Railroad prohibits any contractor from taking soils for off-property for reuse. Coordinate with the Railroad to handle waste characterization and profiling into an approved disposal facility. The Railroad prohibits any environmental sampling of its property unless approved in writing. If the agency has arrangements with a disposal facility not approved by the Railroad, the agency can request to evaluate the disposal facility. A request to evaluate alternate disposal facilities should take place prior to work being initiated on railroad property.

If dewatering is planned for a public project, the Railroad must review and approve the dewatering plan prior to work being initiated on or near railroad property. The Railroad prohibits the discharge of water onto its property without prior approval. The Railroad prohibits environmental sampling of groundwater or surface water.

All materials discarded by or on behalf of the Railroad will be managed in accordance with local, state, and federal regulations as well as best management practices and sustainability goals. To ensure that these goals are achieved, the Railroad has mechanisms in place to monitor waste management activities.

The cleanup and disposal of material from the surface preparation for painting and actual painting must comply with all appropriate regulations. The materials removed during the surface preparation must not impact the surrounding area, including ground, water, or air impacts. Materials must not be stored on railroad property.

Drainage

For the installation of temporary or permanent shoring systems, including but not limited to soldier piles and lagging, and interlocked steel sheeting on or adjacent to the Railroad's ROW, the contractor may be required to submit a detailed track monitoring program for approval prior to performing any work near the Railroad's ROW.

When water is known or expected to be encountered, all plans and specifications must be submitted to the Railroad for approval before the process begins. Pumps of sufficient capacity to handle the flow shall be maintained at the site, provided the contractor has received approval to operate them. Pumps in operation shall be constantly attended on a 24-hour basis until, in the sole judgment of the Railroad, the operation can be safely halted. When dewatering, a process for monitoring for any settlement of track or structures must be in place.

If any track movement has occurred as determined by the Railroad, the Railroad, at its sole discretion, shall have the right to immediately require all contractor operations to be ceased, have the excavated area immediately backfilled, and/or determine what corrective action is required. Any corrective action required or performed by the Railroad, including the monitoring of corrective action of the contractor, will be at project expense.

All pipes, ditches, and other structures carrying surface drainage on railroad property and/or under track(s) shall be designed to carry the runoff from the **100-year, 24-hour design** storm without ponding of water against the roadbed.

Pipe(s) used to carry surface drainage on the Railroad's ROW shall have a minimum diameter of 24 inches (**24″**).

When calculating the capacity of existing or proposed drainage structures under track(s), the headwater calculation at the structure shall not be greater than one (**1**):

HW/D ≤ 1.

Rate and quantity of storm water runoff from any proposed development shall not exceed the rate and quantity of runoff prior to development. This standard shall be maintained for all design storms up to the **100-year storm event**.

Pipes (casing or carrier) placed under tracks shall not be less than five feet six inches (**5′-6″**) from base of rail to top of pipe at its shallowest point.

Pipelines laid longitudinally on ROW fifty feet (**50′-0″**) or less from the centerline of the track shall be buried not less than four feet (**4′-0″**) from ground surface to top of pipe. Where the pipeline is laid more than fifty feet (**50′-0″**) from the centerline of the track, the minimum cover shall be at least three feet (**3′-0″**).

Erosion prevention methods shall be used to protect railroad ditches and other drainage facilities during construction on and adjacent to ROW.

Permanent erosion and sediment pollution control facilities shall be designed for the **100-year storm**. Provide calculations and details of any riprap outlet protection and channel linings as needed within ROW.

Pipes and culverts within the theoretical live load influence zone shall conform to current AREMA recommendations and ASTM specifications. All such structures shall be designed to carry **Cooper E80** loading with diesel impact.

ROW shall not be utilized for retention, detention, or settling basins. Also, the Railroad embankment must not be used as any part of a detention pond structure.

Track roadbed fills shall not be used as dams or levees for retention of runoff.

Temporary sediment basins/traps shall not be constructed against track roadbed fill.

Formal approval of the proposed design by the appropriate governmental agency having jurisdiction shall be submitted to the Railroad for their review and acceptance.

Pipes and culverts are not to be located within the limits of a turnout or nor closer than fifty feet (**50′-0″**) to any railroad bridge, building, or any other important structure.

When excavation for a pipeline or other structure will be within the theoretical railroad embankment line of an adjacent track, interlocking steel sheet piling will be required to protect the track(s). Trench boxes are prohibited for use on ROW within the theoretical railroad live load influence zone.

Blasting is not permitted on or adjacent to the Railroad's ROW without prior written approval.

Crossing of tracks at grade by equipment and personnel is prohibited except by prior arrangement with and as directed by the Railroad.

Temporary track supports may be required when a jacking, boring, or tunneling method of installation is used, depending upon the size and location of the drainage crossing. The agency's contractor shall furnish and supply the approved track supports, with the installation and removal performed by a person approved by the Railroad. The agency shall reimburse the Railroad for all costs associated with the installation and removal of the track supports.

Plans submitted to the Railroad for approval shall be prepared by a professional engineer and should indicate design, suitable topographic plan, and outline of total drainage area.

If the drainage is to discharge into an existing drainage channel on ROW and/or through a drainage structure under track(s), the computations must include the hydraulic analysis of any existing ditch and/or structure.

Extension of pipes, culverts, and other drainage structures previously installed under tracks shall be made with culvert or drainage structure having the same size, shape, and dimensions as the existing pipe. In no case shall the existing drainage structure be extended so that the hydraulic capacity is decreased or obstructed. In some cases, it may be necessary to extend existing outlets with pipe or culvert of a larger size. Details of connections to mismatched culverts shall be submitted for approval.

The agency may be required to provide reasonable corrective measures to alleviate an existing drainage problem within railroad property that may be affected by the proposed development. It shall be the responsibility of the agency to obtain all drainage easements and permits. The Railroad shall be indemnified and held harmless of any liability.

The agency is to provide information on groundwater recharge if infiltration is proposed adjacent to railroad property. Soils testing and certification by a registered professional engineer shall be required.

Emergency spillways discharging onto railroad property are to be designed and constructed so that the basin berm is protected against erosion.

Energy dissipating devices are to be placed at all outlets discharging to railroad property.

Concrete end walls shall be placed at outlets discharging to railroad property. All concrete outlet pipes on property must be equipped with a trash rack.

Under no conditions shall any person be allowed to modify, alter, or change a previously approved storm water management (SWM) facility discharging to railroad property unless an approved alternate facility is approved.

Design of the drainage system, including alterations of the existing drainage system on ROW, is the responsibility of the agency. Drainage shall not be diverted, directed toward the Railroad, or increased in quantity without prior written approval.

Supporting calculations must be provided for all proposed drainage and storm water management facilities that discharge onto or impact property.

Occupancies shall be designed, and their construction shall be accomplished, so that adequate and uninterrupted drainage of the Railroad's ROW is maintained.

If, in the course of construction, it may be necessary to block a ditch, pipe, or other drainage facility, temporary pipes, ditches, or other proposed drainage facilities shall be installed to maintain adequate drainage, as approved. Upon completion of the project, the temporary facilities shall be removed, and the permanent facilities restored.

Temporary and permanent erosion control and sedimentation (E&S) devices must be provided to prevent the flow of sediment onto and adjacent to railroad property.

The design shall take into account and provide upstream areas within the entire watershed in computing discharge, sizing of pipes, inlets, and other structures.

When applicable, the agency is to provide maintenance and operation of E&S/storm water facilities.

Plans shall include, but not be limited to, the following:

- Existing property boundaries, easements, etc.
- Existing drainage features and topography.
- Existing utility locations.
- Existing structures, tracks, roads, features, etc.
- Existing topography, including wetlands and all environmental features.
- Delineation & dimension of proposed property acquisition or property easements.
- Dimension distances from all temporary and proposed E&S and SWM facilities to railroad property line and/or easement.
- Dimension distances from all temporary and proposed E&S and SWM facilities to tracks.
- Dimension of all temporary and proposed encroachments within property.
- Existing contours.
- TOR elevations.
- Proposed contours, site grading, and drainage facilities.
- Proposed improvements, including easements and property lines and limit of disturbance.
- Details for all temporary and proposed drainage structures, SWM, and E&S best management practices (BMP) devices.
- Details for proposed E&S, SWM, and drainage collection and conveyance systems (pipes, ditches, etc.).
    - Location, size, slope, and type of pipe.
    - Ditch cross sections.
    - Invert elevations.
    - Grate and rim elevations.
- If applicable, identification of the 100-year floodplain if project is within a specified flood zone.
- E&S plans in compliance with all state and local requirements.
- Signature and seal of state-licensed professional engineer.

Design Calculations

Pre- and post-development drainage area maps.

- Provide soils boundary lines & soil types.
- Delineate drainage areas.
- Provide time of concentration (Tc) flow path.
- Provide weighted CN and c-values (as applicable to design method).

Pre-development 100-year runoff volume and flows for all facilities draining to or on ROW.

Post-development 100-year runoff volume and flows for all facilities draining to or on ROW.

- Verify no increase in rate or quantity of runoff to property from pre-development conditions.
- Provide hydraulic analysis (depth and velocity calculations) for all facilities draining to or on ROW (existing and proposed) and verify sufficient capacity for proposed flow is provided.

Design of proposed collection and conveyance systems (pipes, ditches, etc.)

- Required capacity for **a 100-year, 24-hour storm.**
- Required a minimum diameter of **24-inches** for pipes within ROW.

Provide all temporary and permanent E&S and SWM BMP calculations.

Signature and seal of state-licensed professional engineer.

Project narrative/summary describing proposed improvements, drainage design, SWM and E&S methodologies, site soil and geological conditions (if known), flooding characteristics (if applicable), and state and local requirements used to produce designs.

Recommended: Photographs of the site and adjacent property as well as discharge locations and drainage facilities on property to receive runoff from the proposed development.

Section 1.12 – Railroad Property Safety

All work on or near railroad property shall be conducted in accordance with the Railroad's safety rules and regulations. Specifically, all agency's employees and contractors, while on railroad property, shall be required to wear a hard hart, safety glasses with side shields, 6″ lace up boots with a distinct heel, shirts with sleeves, and long pants; additional personal protective equipment may be required based on certain operations. The contractor and its employees shall always comply with the safety rules while occupying railroad property. Operations will be subject to inspection at any time. All personnel operating equipment must be qualified on it to perform task at hand.

The agency, its contractors, or any person refusing to comply with the Railroad's safety rules may be removed from the property at the Railroad's discretion. Although the GEC and the Railroad may perform site visits to verify compliance to safety rules and regulations, it is up to the agency and its contractors to adhere to all safety rules and regulations at all times.

Additionally, all equipment shall be used only in the manner it was designed for. All applicable safety rules shall be followed, including the use of seat belts on all equipment equipped with such. Equipment operators shall only operate equipment for which they are trained, certified, and qualified to operate. Operators shall have such credentials on their person anytime in which they operate on railroad property.

If an onsite flagman (**see Section 1.07**) is assigned, a job briefing must be performed by all persons entering the property even if no work is being performed. If a job function is being performed outside the view of the flagman, it is the responsibility of the agency and its contractors to brief with the flagman.

For additional safety requirements, please refer to "Contractor Safety Rules" document. It is the goal of the Railroad to have zero safety incidents every day.

Section 2.01 – Public Road Crossing Openings and Closures

Summary

The Railroad understands the importance of highway-rail grade crossings and their relevance to such priorities as economic development, emergency vehicle access, and other growth opportunities in the communities through which we operate. Because of the safety concerns associated with highway-rail grade crossings, however, every effort must be made to obtain alternative access or additional capacity using grade separations, or by other roads leading to existing crossings.

The Railroad shares the goal of eliminating at grade crossings with both the state DOTs and the Federal Railroad Administration (FRA). Likewise, the Federal Highway Administration (FHWA) Railroad-Highway Grade Crossing Handbook acknowledges that the first alternative that should always be considered for a highway-rail at-grade crossing is elimination. Elimination of a crossing provides the highest level of crossing safety because the point of intersection between highway and railroad is removed. Closing adjacent crossings simplifies the design, installation, and operation of highway-rail grade crossing warning systems.

The addition of any grade crossing brings the potential for incidents involving trains and motor vehicles. For this reason, both federal and state government policies discourage the creation of new grade crossings. As such the Railroad, other railroads, the United States Department of Transportation, and most state DOTs encourage communities to carefully consider all alternatives, including grade separations (crossings that go over or under railroad tracks), as opposed to the creation of new at-grade crossings.

The cost of a grade separation should not outweigh the enhanced safety it would provide for motorists.

Before agreeing to the establishment of a new crossing, the Railroad encourages communities to engage in a study with the purpose of identifying existing redundant public crossings for closure. To comply with and in support of the federal initiative to reduce grade crossings, the Railroad requires that the community identify the closure of three (**3**) or more comparable active public at-grade crossings.

As discussed above, the appropriate public authority will be expected to reimburse the Railroad for its cost of design, installation, and future maintenance of the crossing.

Process

- Appropriate public authority provides a written request to PPD outlining the reason for the new crossing or for seeking to convert a private crossing to a public one. Include the following:
  - A description of the proposed highway project, including proposed passive or active traffic control devices, and the need for preemption and/or interconnection with traffic signals, together with a scale drawing or sketch of the proposed highway and vicinity.
  - Expected annual average daily traffic (AADT), proposed vehicular speed limit, photographs, and aerial map. Please include any expected future development.
  - Identification of at-grade crossings to be closed. Include their vehicular speed limit, AADT, and traffic type.
  - The determination by the highway or regulatory authority of the need for passive or active traffic control devices and other safety treatments (i.e., signage, roadway medians, etc.), as selected by the highway authority consistent with applicable federal, state, and Manual on Uniform Traffic Control Devices (MUTCD) guidelines and requirements.
  - A plan to satisfy any appropriate regulatory authority's requirements, procedures, and approval. The project sponsor should coordinate with all applicable agencies (state, county, city, etc.) to ensure proper procedures are followed.

- Authorization for the Railroad to incur costs for its preliminary engineering to review the crossing request (whether or not its approved), design and construction expenses, and for the ongoing maintenance of the crossing surface and related grade crossing warning devices.

- PPD will review the request and follow up with appropriate state authorities.
- If it is approved by the Railroad, the state DOT, and appropriate roadway authorities, PPD will proceed with creating a project and starting the design review process. The design process will include, but is not limited to, the following:
  - Assignment of temporary DOT number.
  - Site survey & diagnostic review to determine level of protection.
  - Basis for design.
  - Estimate to complete.
  - Agency/sponsor and the Railroad enter into all applicable contracts.
  - RFP and vendor selection.
  - Design and order material.
  - Construct surface (must remain closed and inaccessible).
  - Install level of protection as indicated by DOT.
  - Testing and DOT signoff.
  - Open crossing and close offset crossings.
  - Update FRA to make DOT number permanent.

Section 2.02 – Highway-Rail Grade Crossing Warning Devices

Summary

PPD will process all projects proposing alterations to public highway-rail grade crossing warning systems. Included will be projects for opening new crossings, closing existing crossings, modifying or widening of existing crossings, installing new warning systems, removing and/or relocating existing warning systems and modifying/upgrading existing warning systems. This also pertains to preemption projects.

Each crossing has a unique DOT inventory identification number posted at the crossing. There is often more than one crossing on the same road. The number (i.e., DOT 654321D) must be used to identify the specific crossing in all communications with the Railroad to reduce possible confusion about the specific location.

Highway-rail grade crossing warning systems must adhere to all applicable federal and state standards and regulations; all local policies, laws, and ordinances; as well as the Railroad's standards. The state DOT and highway agency, not the Railroad, is responsible for determining the level of protection and configuration of warning devices for a public highway-rail grade crossing. In addition, the highway agency or other governmental agency responsible for making warning system and equipment determinations is responsible for selecting appropriate vehicular traffic control signs and/or devices for a specific public highway. Loop detection circuitry will not be designed, installed, owned, or maintained by the Railroad.

The highway agency must determine whether advanced or simultaneous preemption is needed.
The agency must also provide a traffic study to determine how much advanced preemption time is required if needed. The Railroad as well as AREMA and MUTCD discourage the use of excessive preemption times. The Railroad will furnish one preemption interconnection circuit of a normally closed contact that is designed to open upon the approach or presence of a train and will terminate the closed preemption interconnection circuit in a common cable junction box (set at ROW line) to be used for the interconnection of the traffic signals and the grade crossing warning devices.

Recommended practices and additional information are available in AREMA and the MUTCD.

The Railroad will provide engineering reviews, signal designs, and cost estimates for the installation of highway-rail grade crossing warning devices at the expense of the project sponsor as part of the preliminary engineering for a project. Changes to highway-rail grade crossing surfaces may also require engineering and pre-approval by the Railroad. Installation or modification of warning devices must be supervised and performed by a qualified entity as determined by the Railroad.

The Railroad typically does not allow the mixing of different equipment. If additional gates or equipment is added to a location, the entire location should be redesigned and upgraded to the latest standard.

If the roadway footprint changes in width, including adding a sidewalk or multiuse path, an easement review must be completed prior to the project construction start (**see Section 1.09**).

Process

- Agency requests a diagnostic review.
- Agency sends review results, and PPD supplies agency with OOM estimate.
- Agency/sponsor and the Railroad enter into applicable contracts.
- PPD assigns a GEC to develop BOD, estimate to complete, and RFP.
- GEC solicits bids for design-build contractor.
- Contractor completes design and orders material.
- Utility concerns are resolved.
- Construct warning system.
- Testing and DOT signoff and update FRA.

Section 2.03 – Highway-Rail Grade Crossing Surface Maintenance

Summary

The crossing surface provides a path for highway vehicles to cross railroad tracks. The objective is to provide a safe, smooth, and cost-effective crossing for highway and railroad traffic. Highway and railroad maintenance work near highway-rail grade crossings must consider safety concerns for both highway and railroad traffic before, during, and after the work is implemented.

Each public crossing has a unique DOT inventory identification number posted at the crossing. There is often more than one crossing on the same road. The number (i.e., DOT 654321D) must be used to identify the specific crossing in all communications with the Railroad to reduce possible confusion about the specific location.

Railroad track is continuous through the crossing and includes railroad ties, rail, and fasteners below the surface of the crossing (joints shall not be made within the crossing). The crossing surface for highway traffic can be made of several different materials. Drainage is required for all four quadrants at a crossing.

Crossing surface material and construction methods are selected for each crossing based on the type of highway and railroad traffic, past experience, and funding available from highway agencies for individual projects. Highway agencies seeking replacement of crossing surfaces should contact PPD. The request for the work and the recommended surface must be reviewed and approved by the Railroad.

Crossing work requires closing the entire highway-rail grade crossing. Replacement of track components through a crossing requires removal of the crossing surface, replacement of track ballast, and surfacing the

track through the crossing prior to replacement of the crossing surface. If the subgrade needs to be improved, the application of a hot mixed asphalt underlayment should be considered. Drainage will be reestablished for all four quadrants. After the crossing surface is replaced, the highway approach paving is completed and then the road is opened to highway traffic. Replacement of the track and crossing surface usually requires that the highway be closed for several days. In the event the agency wants to reopen the crossing prior to allowing the asphalt to properly cool, the agency is responsible for any rutting that may occur.

If the roadway footprint changes in width, including adding additional lanes, a sidewalk, or a multiuse path, an easement review must be completed prior to the project construction start (**see Section 1.09**).

Process

- Agency submits request to PPD.
- Agency and PPD research existing contractual requirements.
- Agency/sponsor and the Railroad enter into applicable contracts.
- The Railroad assigns GEC to develop estimate.
- The Railroad orders materials and schedules work.
- Reconstruct crossing:
  - Place barricades and close roadway.
  - Sawcut roadway.
  - Remove existing track panel, ballast, and sub-ballast.
  - Establish new foundation.
  - Install new track panel.
  - Run tonnage to settle system.
  - Install surface materials.
  - Install asphalt (and concrete if needed).
  - Let cool and cure.
  - Remove barricades.
- Cleanup.
- Agency signoff and update FRA.

Section 2.04 – Parallel Road Construction and Maintenance

Summary

New Roadway Construction

In the interest of public safety, parallel public roads shall be located off railroad property. Parallel roads involving intersections with existing or proposed highways where public or private crossings are present should be aligned to provide sufficient distance from the crossing for the largest vehicle (design vehicle) permitted to use the road to stop between the Railroad and the parallel road traffic control signs, markings, and warning devices without interfering with railroad operations, obstructing or preventing the operation of traffic control devices, or obstructing the crossing in any manner.

The design of highways and highway intersections and configuration of highway-rail grade crossings is the responsibility of the highway agency. Drainage for highway runoff, the railroad corridor, and adjacent property must be designed to reduce or maintain existing railroad drainage and to prevent standing water

and potential erosion. Access for railroad equipment to railroad property, structures, and track cannot be restricted or prevented.

Federal and state design manuals, the Manual on Uniform Traffic Control Devices (MUTCD), and additional recommended practices available in American Railway Engineering and Maintenance-of-Way Association (AREMA) manuals provide design information to be considered by the highway agency responsible for the project engineering. The table of contents of this document has additional information on the MUTCD and AREMA manuals and information.

If new construction encroaches on railroad property, an easement review must be completed prior to the project construction start (**see Section 1.09**).

Maintenance of Existing Roadway

Projects that are either parallel or bisect as roadway crossings within the Railroad's ROW require both a ROE and the use of a qualified flagman at the cost of the project sponsor (**see Section 1.09**).

Process

- Request a ROE through G&W Real Estate.
- Agency/sponsor and the Railroad will enter into applicable contracts, including contractor ROE agreement.
- Submit executed ROE and insurance documents to PPD.
- PPD coordinate with region to provide flagman.

Section 2.05 – Overhead and Undergrade Bridges

Summary

The Railroad requires that new overhead bridges (including existing bridge replacements) span the Railroad's right of way and have a minimum twenty-three feet (**23′-0″**) vertical clearance above top of rail. The Railroad requires that new undergrade bridges provide accommodations for future operating needs, as determined by the Railroad.

During project construction, rail operations must not be impeded. Temporary run-around track(s) and/or phased construction may be necessary as determined by the Railroad.

All bridge projects over or under the Railroad's ROW shall be governed by the appropriate criteria found in this document. This includes, but is not limited to, replacements, new construction, substructure modifications and/or repairs, superstructure replacement or repair, and deck replacement or overlay. The following criteria must be reviewed and approved by the Railroad prior to construction:

- Temporary and final drainage plans must be approved by the Railroad.
- The Railroad's access to its property must be maintained.
- Plans must show all tracks and horizontal and vertical track clearances for both the existing conditions and the proposed project.
- Bridge demolition criteria are found in the Construction Submission Criteria (**see Section 1.11**) in this document.
- Upon completion of construction, a full set of as-built drawings, showing actual measured vertical and horizontal clearances, shall be furnished to the Railroad.

If new construction is bisecting railroad property, an easement review must be performed prior to the project construction start (**see Section 1.09**). Please note that the project may require both a temporary construction easement and a permanent easement.

Process

- Agency/sponsor and the Railroad enter into applicable contracts.
- PPD assigns GEC.
- GEC works with the agency to gather easement documentation and ROE.
- GEC works directly with the agency and its contractor on submittal reviews.
- GEC sends agency an estimate to complete project.
- Agency schedules construction.
- The Railroad supplies flagman.
- GEC provides CEI services.
- Project completion when both the Railroad and agency signoff.
- Agency submits as-built plans.

Overhead Bridge Criteria

The Railroad has minimum requirements for outside parties constructing, rehabilitating, or replacing bridges over the Railroad's ROW. These requirements are intended to provide safe and continuous passage of all train traffic during and after construction of bridges over its tracks. Part of these requirements is for the outside party to submit a detailed plan of the project as well as provide details of the construction methodology. This document provides information on the requirements for overhead bridges over railroad property.

Plans and specifications for new or reconstructed bridges over the Railroad's ROW shall meet the following requirements:

General

- The Railroad's valuation station and the distance from the nearest milepost at the intersection of the centerline of the track and the centerline of the bridge shall be shown on the general plan.
- The existing and proposed minimum horizontal and vertical clearances shall be marked clearly on the general plan and elevation.
- At least one subsurface exploration boring for each substructure unit adjacent to the track shall be furnished to the Railroad during the design submittal. Borings shall provide enough information to design shoring and foundations.
- Prior to construction activities, all overhead bridge projects will require the procurement of the appropriate property rights from G&W Real Estate.
- All lifting equipment and connection devices shall have capacity for 150% of the actual lifting load. The factor of safety provided by the manufacturer in the lifting capacity data shall not be considered in the 150% requirement. A licensed professional engineer familiar with lifting and rigging and in the state where the construction work is proposed must sign and seal all plans and calculations related to critical lifting on the project.

Clearance

- Horizontal Clearance: Standard horizontal clearance from the centerline of the track to the face of the pier or abutment shall typically be twenty-five feet (**25′-0″**) or greater, but never less than eighteen feet (**18′-0″**), measured perpendicular to the track. Provisions for future tracks, access roads, other railroad facilities, and drainage may require the minimum clearance be increased or the use of multi-span

structures. The toe of footings shall not be closer than eleven feet (**11′-0″**) from the centerline of the track to provide adequate room for sheeting.

- Vertical Clearance: A standard vertical clearance of twenty-three feet (**23′-0″**) shall be provided, measured from top of high rail to lowest point of structure in the horizontal clearance area, which extends six feet (**6′-0″**) either side of the centerline of the track.
- Temporary construction clearances to be used shall be subject to approval by the Railroad, (typically reductions in clearance for construction are not permitted).
- As-built drawings showing actual clearances as constructed are to be provided to the Railroad.

Crashwalls

- Reference the AREMA specifications that cover the requirements for crashwalls. Crashwalls are required when the face of the pier is closer than twenty-five feet (**25′-0″**) from the centerline of the track, measured perpendicular to the track, except as noted below.

- Crashwalls shall meet the following requirements:
  - Crashwalls for single column piers shall be minimum two feet six inches (**2′-6″**) thick and shall extend a minimum of six feet (**6′-0″**) above the top of high rail for piers located between eighteen feet (**18′-0″**) and twenty-five feet (**25′-0″**) from the centerline of the nearest track. The wall shall extend minimum six feet (**6′-0″**) beyond the column on each side in the direction parallel to the track.
  - For multi-column piers, the columns shall relate to a wall of the same thickness as the columns or two feet six inches (**2′-6″**), whichever is greater. The wall shall extend a minimum of two feet six inches (**2′-6″**) beyond the end of the outside columns in a direction parallel to the track.
  - Reinforcing steel to adequately anchor the crashwalls to the column and footing shall be provided. For piers of heavy construction, crashwalls may be omitted. Solid piers with a minimum thickness of two feet six inches (**2′-6″**) and length of twenty feet (**20′-0″**), single column piers of minimum four feet by twelve feet six inches (**4′-0″ x 12′-6″**) dimensions, or any other solid pier sections with equivalent cross sections and minimum two feet six inches (**2′-6″**) thickness are considered as heavy construction.

Drainage

Drainage from the bridge shall be preferably collected with drain pipes and drained away from the Railroad's ROW. When open scuppers are provided on the bridge, none shall be closer than twenty-five feet (**25′-0″**) from the centerline of nearest track. Flow from the scuppers shall be directed away from railroad drainage ditches.

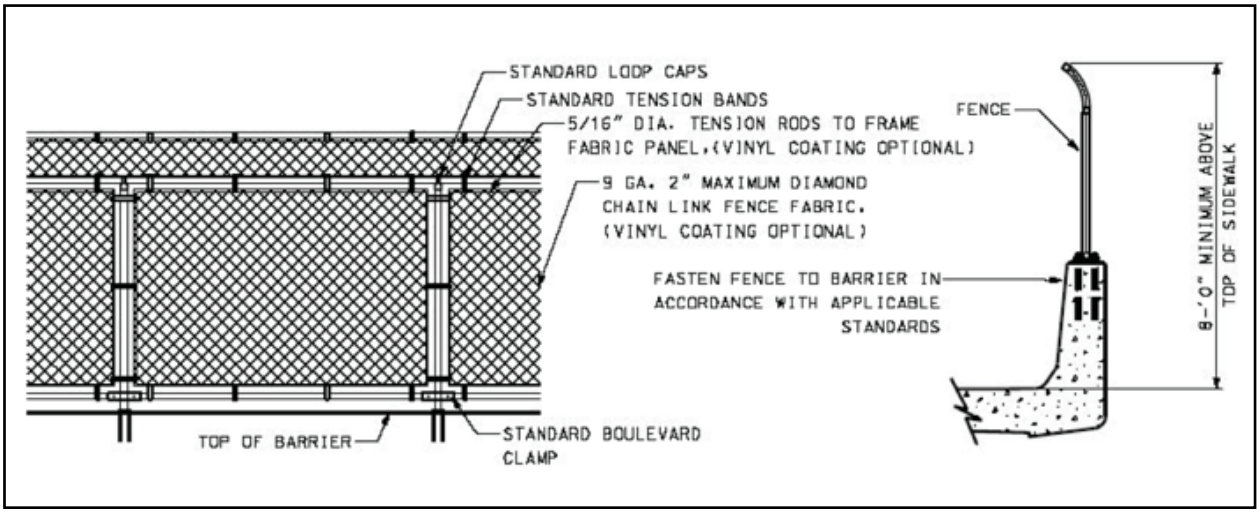
Projects including storm water systems shall be designed for a **100-year storm event** as a minimum. If storm water is drained on or to the Railroad ROW, calculations must be submitted to the Railroad to verify the **100-year storm event** is properly handled. Improvements to the adjacent drainage systems may be required at project expense to ensure the impacted system will meet the **100-year storm event** minimum condition.

During and after completion of construction, the outside party or its contractor must clear the Railroad's drainage ditches of all debris to the satisfaction of the Railroad.

Fencing

All highway structures shall have a protective barrier fence to extend at least eight feet (**8′-0″**) from the top of the sidewalk or driving surface adjacent to the barrier wall. The fence may be placed on top of the barrier wall. The fence shall be capable of preventing pedestrians from dropping debris onto the Railroad's ROW.

Openings in the fence shall not exceed two inches by two inches (**2″ x 2″**). Fencing should also include anti-climb shields or be of a configuration to minimize the likelihood of climbing on the outside of the protective fencing. A chain link fence option is shown below.



Excavation and Shoring

Shoring protection shall be provided when excavating adjacent to an active track. Shoring will be provided in accordance with AREMA, except as noted below.

Shoring will not be required if both the following conditions are satisfied:

- Excavation does not encroach upon a 1 horizontal to 1 vertical theoretical slope line starting at bottom corner of tie (theoretical live load influence zone).
- Track is on level ground or in a cut section and on stable soil.

When the track is on an embankment, excavating the toe of the embankment without shoring may affect the stability of the embankment. Therefore, excavation of the embankment toe without shoring will not be permitted.

Preferred protection is the cofferdam type that completely encloses the excavation. Where dictated by conditions, partial cofferdams with open sides away from the track may be used. Cofferdams shall be constructed using steel sheet piling or steel soldier piles with timber lagging. Wales and struts shall be provided as needed. The following shall be considered when designing cofferdams:

- Shoring shall be designed to resist a vertical live load surcharge of **1,882 lbs**. per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip eight feet six inches (**8′-6″**) wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in AREMA.
- Allowable stresses in materials shall be in accordance with AREMA.
- A construction procedure for temporary shoring shall be shown on the drawing.
- Safety railing shall be installed when temporary shoring is within fifteen feet (**15′-0″**) of the centerline of the track.
- A minimum distance of ten feet (**10′-0″**) from the centerline of the track to the face of nearest point of shoring shall be maintained.

The contractor shall submit the following drawings and calculations for the Railroad's review and approval:

- Detailed drawings of the shoring systems showing sizes of all structural members, details of connections, and distances from the centerline of the track to the face of shoring. Drawing shall show a section that includes the height of shoring and track elevation in relation to the bottom of excavation.
- One set of calculations of the shoring design.
- The drawings and calculations shall be prepared by and bear the seal and signature of a licensed professional engineer in the state where the shoring is to be constructed. Shoring plans shall be approved by the Railroad.
- For sheeting and shoring within eighteen feet (**18′-0″**) of the centerline of the track, within the theoretical live load influence zone, and in slopes, the contractor shall use sheet pile. No sheet pile in slopes or within eighteen feet (**18′-0″**) of the centerline of the track shall be removed. Sheet piles shall be cut off three feet (**3′-0″**) below the finished ground line. The remaining three feet (**3′-0″**) shall be backfilled and compacted immediately after cutting off.

Demolition of Existing Structure

The contractor shall submit a detailed procedure for demolition of existing structures over or adjacent to the Railroad's ROW. The procedure shall clearly indicate the capacity of cranes, location of cranes with respect to the tracks, and calculated lifting loads. The demolition procedure shall be approved by the Railroad.

The Railroad's tracks, signals, structures, and other facilities shall be protected from damage during demolition of existing structure or replacement of deck slab. As a minimum, both of the following methods shall be used:

- During demolition of the deck, a debris shield shall be erected from the underside of the bridge over the track area to catch falling debris. The shield shall be supported from girders or beams. The deck shall be removed by cutting it in sections and lifting each section out. The shield shall be designed, with supporting calculations, for a minimum of **50 pounds** per square foot plus the weight of the equipment, debris, personnel, and other loads to be carried.

Large pieces of deck shall not be allowed to fall on the debris shield:

- A ballast protection system consisting of geofabric or canvas shall be placed over the track structure to keep the ballast clean. The system shall extend along the track structure for a minimum of twenty-five feet (**25′-0″**) beyond the limits of the demolition work, or farther if required by the Railroad.
- The contractor shall submit detailed plans, with supporting calculations, of the debris shield and ballast protection systems for approval prior to the start of demolition.
- Blasting will not be permitted to demolish a structure over or within the Railroad's ROW.

Erection

The contractor shall submit a detailed procedure for erecting over or adjacent to ROW. The procedure shall clearly indicate the capacity of cranes, location of cranes with respect to the tracks, and calculated lifting loads. The erection procedure shall be approved by the Railroad.

Pile Installation

For the installation of piles and sheeting for abutment foundations, pier foundations, retaining wall foundations, temporary and permanent shoring, and other structures on or adjacent to the Railroad's ROW, the contractor may be required to submit a detailed track monitoring program for review and approval by the Railroad.

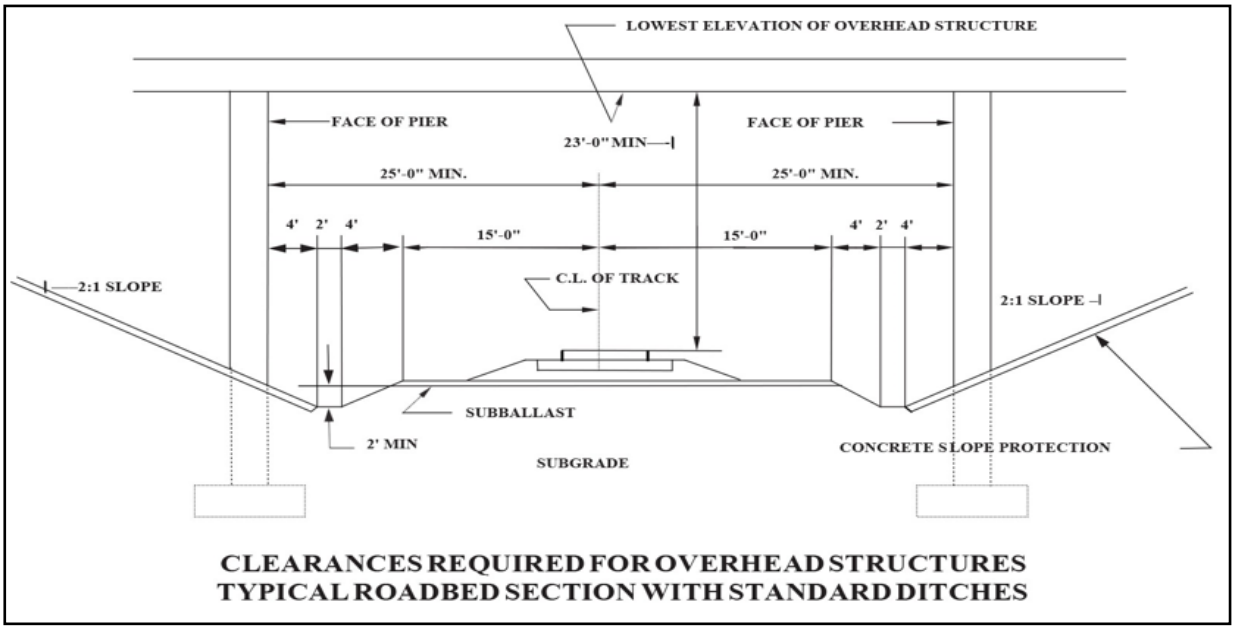
The program shall specify the survey locations, the distance between the location points, and the frequency of monitoring before, during, and after construction. The Railroad shall have the capability of modifying the survey locations and monitoring frequency as needed during the project.

If any settlement is observed, the Railroad shall be immediately notified. The Railroad shall have the right to immediately require all contractor operations to be ceased, have the excavated area immediately backfilled,

and/or determine what corrective action is required. Any corrective action required by the Railroad or performed by the Railroad, including the monitoring of corrective action of the contractor, will be at project expense.

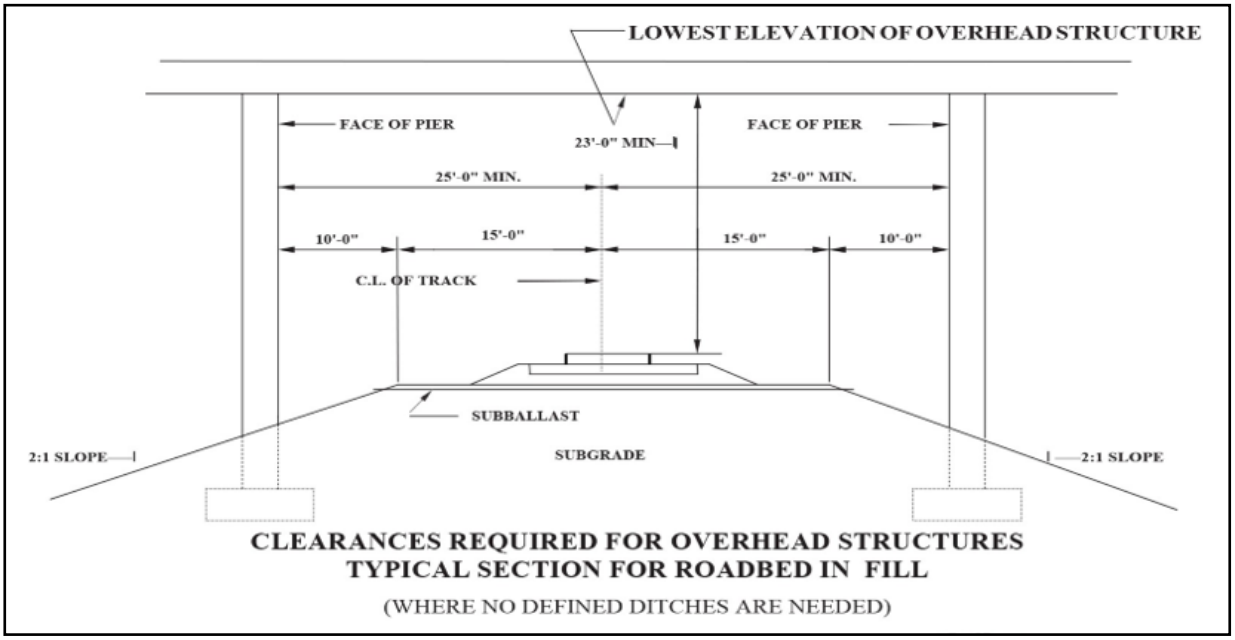
Pedestrian Bridge

- Pedestrian overhead bridges shall span the entire width of the Railroad's ROW. Intermediate piers or other supports will not be permitted.
- Pedestrian overhead bridges shall be completely enclosed with protective canopy or by other means to prevent users from dropping debris onto the Railroad's ROW.

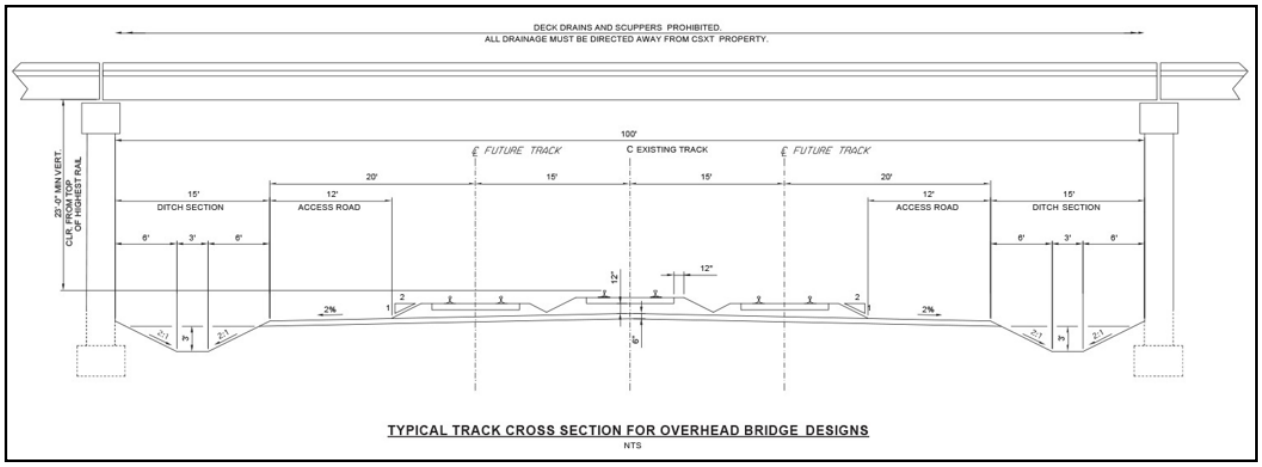


CLEARANCES REQUIRED FOR OVERHEAD STRUCTURES
TYPICAL ROADBED SECTION WITH STANDARD DITCHES

For multiple tracks, standard track centers are fifteen feet (**15′-0″**) wide. An access road may be required to provide thirty-three feet (**33′-0″**) minimum distance from the centerline of the track to the face of the pier.

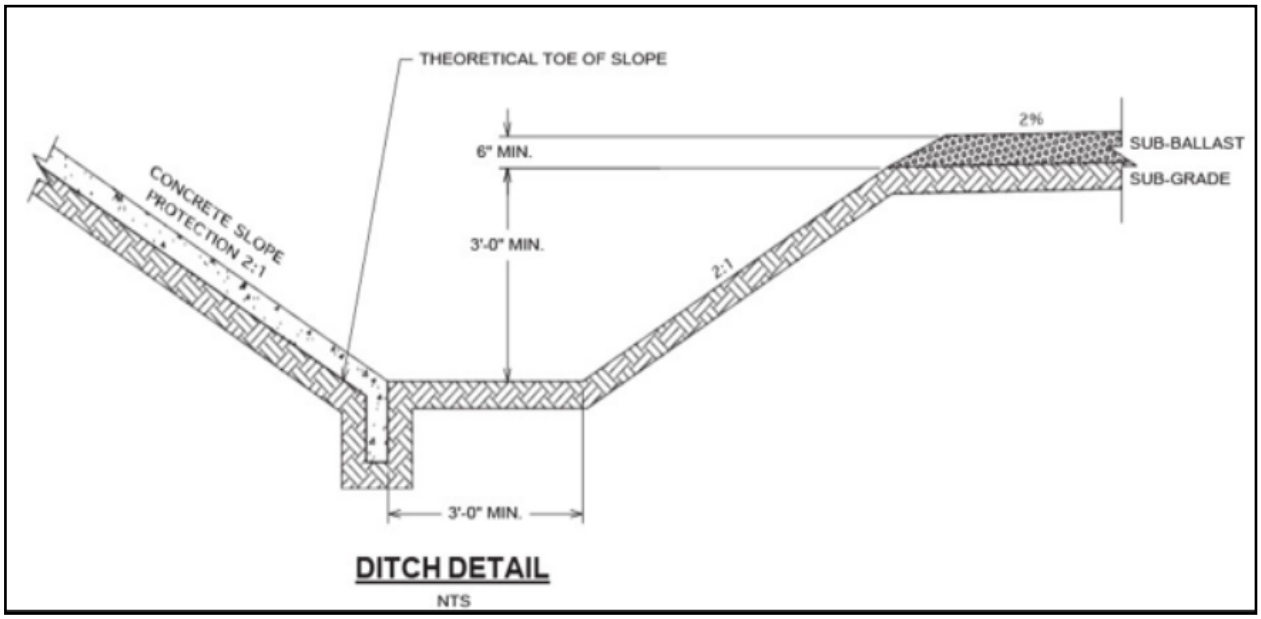


CLEARANCES REQUIRED FOR OVERHEAD STRUCTURES
TYPICAL SECTION FOR ROADBED IN FILL
(WHERE NO DEFINED DITCHES ARE NEEDED)



The following applies to the typical cross section for bridges:

- Clear span width should account for the number of existing tracks at the specific project site. Each additional track adds fifteen feet (**15′-0″**) to the clear span width calculation.
- Horizontal dimensions shown are perpendicular to center of track.
- Crashwalls may be required based on specific parameters.
- Actual required horizontal clearances may need to be increased due to existing roadbed section, location of parallel ditches, hydrological conditions, and future track requirements.
- Theoretical toe of slope is based on the standard roadbed section. Actual toe of slope may vary due to ground line.
- The ditch section shown is the minimum acceptable section.
- The ditch section is to be increased as required by local conditions, based on hydrological and hydraulic studies.
- Horizontal dimensions shown are the minimum that will allow the construction of railroad standard roadbed section.



Undergrade Bridge Criteria

AREMA shall serve as the overarching authority for recommended practice in designing railroad bridges. The intent of this document is to provide criteria that supplements, modifies, and/or supersedes the applicable sections of AREMA for designing undergrade railway bridges that are to be owned and/or operated on by the Railroad. Additionally, these requirements help guide an outside party through the necessary procedures for interacting with the Railroad and delivering an acceptable structure that is constructible, inspectable, maintainable, long lasting, and reliable.

General

Bridge shall be designed in accordance with the applicable specifications from the current edition of AREMA. Applicable sections may include, but are not limited to, the following:

- Chapter 8 Concrete Structures and Foundations
- Chapter 9 Seismic Design for Railway Structures
- Chapter 15 Steel Structures

Special Considerations

- AREMA recommendations for dampproofing and deck waterproofing.
- Coating of structural steel shall be performed in accordance with AREMA.
- Bridge shall be located to provide optimal railroad geometry.

Construction Specifications

- Shall be in accordance with AREMA recommendations for fabrication and erection.
- Items not covered by shall be governed by applicable DOT specifications from the commonwealth, district, province, or state where the bridge is being constructed.

Non-traditional bridge systems require written notice of acceptance by the Railroad. The proposed use of such a system shall be presented for review with thorough investigation, data, and detailed engineering justification.

Bridge Layout

The general plan drawing of the bridge shall show the Railroad valuation stations at the front face of backwalls, and centerline of piers or bents, along the centerline of the bridge. Distance from front face of low milepost backwall to low milepost nearest the bridge shall also be shown. The following criteria will serve as a guide for labeling the bridge layout.

- Railroad bridges are laid out in direction of increasing milepost, increasing from left to right on plans.
- Plans should denote the railroad direction and the nearest significant terminal or junction leading away from either end of the bridge.
- For through plate and truss bridges, the substructures are numbered starting with zero and increasing in the direction of increasing mileposts.
- Superstructures are numbered starting with 1 and increasing in the direction of increasing mileposts.
- Floor systems of through plate girder, through truss, and deck truss spans are numbered starting with 0 and increasing in the direction of increasing mileposts.
- Bridge components are numbered from left to right facing the direction of increasing milepost.

Low mile post backwall GPS coordinates shall be detailed on plans in degrees-minutes-seconds or decimal format with precision to six decimal places.

For bridges on curves, the girders, abutments, and piers shall be located with reference to chords.

Clearances

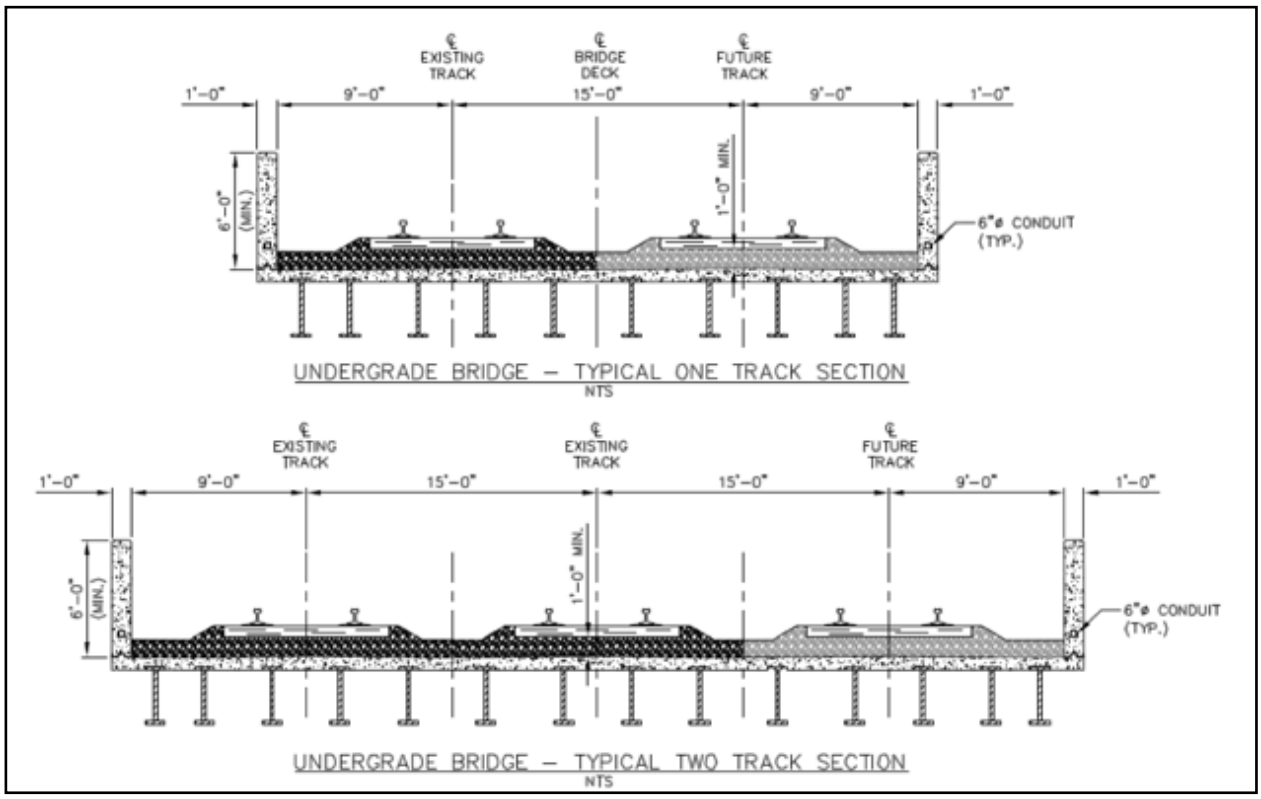
Under Bridge Vehicular Clearances

- Undergrade structures shall be designed to ensure that the structure will be protected from oversized or unauthorized loads by providing sufficient vertical clearance and protective devices. Provide a minimum vertical clearance over the entire roadway width for all new or reconstructed structures as follows:
  - Sixteen feet six inches (**16′-6″**) for steel superstructure with 5 or more beams or 4 or more deck plate girders per track.
  - Seventeen feet six inches (**17′-6″**) for steel through plate girders or less than 4 deck plate girders per track with bolted bottom flanges.
  - Twenty feet (**20′-0″**) for steel through plate girders or less than 4 deck plate girders per track with welded bottom flanges.
  - Vertical clearance must not be violated due to the deflection of the superstructure.
- Roadway profile and design roadway vehicle information shall be provided and considered in vertical clearance design.

Bridge Clearances

- Standard clearances on the bridge shall not be modified without written notice of approval by the Railroad. Any proposed modification shall be furnished with detailed engineering justification for review.
- Commonwealth, district, provincial, or state clearance laws must not be violated. Legal requirements must be upheld unless written permission for waiver is provided by the appropriate regulatory authority.
- Adequate clearance and capacity shall be provided for a future track.
- Track centers shall not be closer than fifteen feet (**15′-0″**).

- Minimum horizontal clearance on the bridge shall be provided as shown below:



- Standard clearances are for tangent track and increases must be provided to account for effects from curvature and superelevation.

Design Loads

Railroad bridges shall be designed for all loads specified in AREMA.

Live loads for steel structures shall consider both the **Cooper E80** loading and the alternate live load with full diesel impact, whichever produces the greater stress. Live loads for concrete structures shall consider **Cooper E80** loading with full diesel impact.

All bridges shall be designed with non-composite interaction between superstructure and deck. Mechanical connections shall be provided as necessary to satisfy design load requirements.

The weight of the minimum ballast depth one foot (**1′-0″**) plus an additional two feet (**2′-0″**) of ballast below the tie shall be included when computing the dead load of the structure.

Plans and Submittals

Preliminary Plans

- An electronic copy of type, size, and location (TS&L) plans shall be submitted to the Railroad for review and acceptance. The TS&L plan shall show plan view, elevation, and typical cross section of the proposed structure. Railroad acceptance must be granted before proceeding with design.
- Furnish cross sections showing the AREMA clearance envelope, topographic map with contours, and soil exploration data along with TS&L plans. Railroad acceptance must be granted before proceeding with design.

- The Railroad will assign a bridge designation (railroad, region, subdivision, MP) when TS&L plans are reviewed. This bridge designation shall be shown on all drawings.

Construction Work Plans

- The Railroad may require construction work plans to be submitted, particularly when work is being performed in the proximity of an active track, with potential to foul.
- All construction work plans shall be submitted in accordance with the Construction Submission Criteria (**see Section 1.11**).

Material Submissions

- Structural steel shop drawings shall be provided for review and acceptance prior to ordering material. Welding procedures shall be submitted with the structural steel shop drawings.
- Concrete mix designs shall be submitted for review and acceptance prior to ordering material.
- Third party testing reports shall be provided for review and acceptance in a timely manner.
- All other materials shall be provided in accordance with the plans. All materials shall be reviewed and approved by the agency or its representative. Proposed changes are subject to review and acceptance. Approved material submissions shall be furnished to the Railroad for confirmation and project documentation.

Final Plans

- Provide electronic set of final signed and sealed design plans and calculations for acceptance.
- Submit special provisions or special specifications for acceptance.
- Provide an electronic set of as-built plans to the Railroad upon completion of construction. All changes shall be noted and clearly called out on a redlined set of as-built plans. All pages shall be clearly marked “AS-BUILT” and include the date of completion.

Construction Considerations

After a construction contract is awarded, a copy of the contract shall be provided to the Railroad.

Maintenance of Railroad Traffic

- It is essential that the construction be performed with minimum interference to rail traffic. Continuity of safe rail operations will be required for the duration of the project.
- The agency’s design engineer should contact the PPD in the preliminary design stage to determine railroad operational requirements. The most effective method of maintaining traffic is to temporarily reroute traffic around the construction site using detour tracks. Detour tracks will be required where feasible. If detour tracks cannot be provided, the new superstructure shall be constructed adjacent to final location and rolled into place. Construction plans shall show complete details of temporary bridges and/or roll-in structure.
- A detailed construction procedure for maintaining traffic shall be shown on the plans. When construction requires total interruption of rail traffic, an estimate of the time required will be shown in the procedure. This interval must be within the approved time frame furnished by PPD.
- Prior to the start of construction, written approval from the Railroad for the construction procedure must be secured.

Bridge Decks

Walkways and Parapets

- Deck shall be a uniform ballast pan across all tracks and provide for a ballast walkway between all tracks and on the field side of the exterior tracks. Intermediate curbs shall not be permitted.
- All exterior walkways shall utilize the uniform ballast pan and be equipped with a **72-inch**-tall parapet wall, measured from top surface of bridge deck. Parapet walls should each include two six-inch ducts to accommodate signal and utility needs.
- Walkways and parapets shall be designed to satisfy the requirements specified by AREMA.

Minimum ballast depth shall be one foot (**1′-0″**) measured from top of deck waterproofing to the bottom of tie at the centerline of the low rail. This dimension shall be clearly labeled on cross section drawings.

On bridges, timber crossties (**7″ x 9″ x 8′6″**) shall be used, spaced at **19″** centers. Alternatively, concrete crossties may be used also at **20″** centers or steel crossties may be used at **24″** centers.

Track material shall be subject to review by the Railroad at project expense.

Steel Deck Plates

- Steel deck plates shall be shop welded with a pair of **5/16-inch** continuous fillet welds to each floor beam or deck girder. Deck units shall be shop assembled with multiple beams per unit, and areas to be field welded shall be masked and field painted after welding is complete.
- The closing deck plate between adjacent deck units shall be fillet welded to the beams with continuous **5/16-inch** fillet welds at each beam. After deck plates are welded to the beam, space between deck plates shall be filled at the joint with material compatible with deck waterproofing membrane.
- The minimum thickness of steel deck plates shall be as follows:

Plate Thickness	Maximum Clear Distance Between Beams
½ inch	1′-6″
5/8 inch	2′-0″
¾ inch	2′-4″

- For multiple deck girders with steel deck plates:
  - Provide a welded field splice in the deck plate at or near the centerline of bearing of the girders. Provide a closing deck plate from the abutments to this field splice that is normal to the girders and normal to the long direction of the main deck plates. This will avoid splicing deck plates over the back wall.
  - Outside girders shall be spaced such that deck plates will not overhang the flange of the outside girders by more than 2 inches and a concrete parapet wall shall be provided. The wall shall be securely anchored to the deck girder and have a minimum width of **12 inches** at the top.

Concrete Decks

- Bridge deck shall have adequate anchorage to the bridge superstructure. Shear studs shall not be permitted.
- The outside edge of the slab shall be not more than one foot six inches (**1′-6″**) from the centerline of the outside (fascia) girder.
- Provide a drip edge on the outside edge, bottom face of the deck slab.

Deck Drainage & Waterproofing

- Top surface of waterproofing protection shall have a minimum transverse slope of **1/8″** per foot with a crown at the centerline of the deck.
- Top surface of waterproofing protection shall have a minimum longitudinal slope of **0.5%.**
- Concrete decks shall be designed and constructed to provide the required slopes and to direct water to deck drains.
- When the deck is level or slopes less than **0.5%,** underlayment is to be used to provide required slopes.
- Deck drains shall be cast iron and downspouts shall be ductile iron. Deck drains shall have a grate or perforated cover. Downspouts shall be provided with cleanouts at each change in direction.
- All bridge decks shall be waterproofed using membrane waterproofing.
- All deck joints between spans shall be watertight.
- Waterproofing shall be applied to the entire surface of the deck and the bottom three feet (**3′-0″**) of inside faces of parapets or curb plates. Materials and construction are to be in accordance with AREMA, Chapter 8.

Superstructure

All bridges shall be composed of simple spans. Continuous spans are prohibited, and skewed spans are discouraged.

Design shall provide accommodations for future maintenance. Jacking locations as well as jack sizing shall be specifically denoted and laid out in the bridge plans. Jacks shall be sized to accommodate full dead load, including future ballast.

Welded Plate Girders

- A full penetration groove weld shall be used for flange to web connection.
- No more than two flange section transitions will be permitted without special permission.
- When a lateral bracing system is required as recommended by AREMA, girder connections shall be bolted.
- Jacking stiffeners are required at all end diaphragms. These locations must be specifically called out in the plans.
- Bearing stiffeners shall be welded or milled to bear for both top and bottom flanges.
- All cross frames shall be designed in accordance with AREMA recommendations.

Through Plate Girders

- Through plate girder bridges are only permitted for double track bridges. The use of intermediate girders in double track applications will not be permitted.
- Floor beam brackets (or knee braces) are stiffened diagonal plates that are bolted to the top flange of the floor beams and to vertical stiffeners on the through girder and shall be designed to satisfy AREMA recommendations.
- All stringers shall frame into floor beams.
- End floor beams and connections shall be designed such that the bridge can be jacked up by placing jacks between the end floor beams and pier or abutment. Jacking stiffeners shall be provided at points of jacking.

- Intermediate floor beams shall frame into the girder web using double connection angles and high strength bolts.
- All stringers shall have top and bottom flanges clipped at an angle not greater than **45 degrees** to permit field removal and installation.

Substructure

Design shall provide accommodations for future maintenance. Jacking locations as well as jack sizing shall be specifically denoted and laid out in the bridge plans.

Abutments and Wing Walls

- Abutment shall be designed in accordance with recommendations of AREMA, Chapter 8.
- The minimum abutment width shall be sufficient to provide for fifteen feet (**15′-0″**) track centers and standard road bed section.
- Wing walls shall be designed to support 2 horizontal to 1 vertical embankment slope as well as a level approach to the bridge walkways. MSE and sheet pile walls are not permissible.
- Provide minimum clearance necessary between end of structural steel and face of backwalls to accommodate expansion, but not less than two inches at each end.
- Provide keyways and water stops at all construction joints. Water stops shall be a hollow bulb **PVC 9″ X 3/8″** (**bulb ¾ inch inside diameter, 1½ inch outside diameter**) continuous across joint.
- Two feet of porous backfill, measured horizontally, shall be provided full height below sub-ballast, behind all abutments and wing walls.
- Provide adequate drainage behind abutments and wing walls utilizing perforated pipe drains at the base of the abutments and wing walls. When abutment geometry does not allow for perforated pipe drains, weep holes may be required.
- Non-perforated pipe shall be connected to the perforated pipe and drain away from the bridge with a **1% minimum slope.**

Piers

- Width of pier shall be minimum four feet (**4′-0″**), measured at the bearing seat.

Section 2.06 – Cleaning and Painting of Bridges

Summary

Requests are occasionally made by outside parties for various beautification projects, including painting of overhead and undergrade bridges. These requests are considered on a case-by-case basis by the Railroad. The cost of painting and future aesthetic maintenance will be the responsibility of the project sponsor proposing to paint the bridge.

All work over railroad property has the potential to impact rail operations. The Railroad will review bridge painting and cleaning projects to ensure environmental and engineering standards are met. This review, flagging protection, and construction monitoring costs will be paid for by the project sponsor.

Process

- Project sponsor engages a public entity (unless the public entity is the sponsor).
- Sponsor contacts PPD to identify objective.

- Agency/sponsor and the Railroad enter into applicable contracts.
- PPD assigns GEC to receive and review submittals.
- Agency contractor to request ROE.
- Agency/sponsor indicates number of days on/over/around railroad property.
- GEC supplies estimate to complete, including flagmen coverage.
- GEC helps to coordinate an onsite flagman.
- Project work (onsite CEI may be required).
- Site cleanup.
- The Railroad and agency signoff.

General

All proposals must comply with the Railroad's safety and environmental regulations and must not impact railroad property or operations. The public agency or its designee will be responsible for maintenance of the painted surfaces, including aesthetic damage caused by highway vehicles and vandalism. The Railroad will incur no costs or liabilities as a result of the project.

A written request by the party wishing to undertake such a project should be forwarded to the PPD for handling. The request should include information about the situation and the project objectives to assist with completion of the review. The following information should be included:

- The project sponsor and public agency that will execute appropriate agreements for implementation as well as future maintenance of the painted surfaces.
- Paint specifications, including color of the paint, that meet the Railroad's standards and methods for surface preparation, cleanup, and paint application.
- Qualifications and experience of the painting contractor. The Railroad will accept state qualified bridge painting contractors working for the responsible agency or company.
- The materials removed during the surface preparation must not impact the surrounding area, including ground, water, or air. Materials must not be stored on railroad property.
- Control of paint overspray and vapors during application. The work must be done complying with appropriate regulations and overspray controlled to prevent damage to adjacent property and vehicles in the area.
- Containment system cleanup and disposal of all paint and other material removed from the bridge. The cleanup and disposal of material from the surface preparation for painting and actual painting must comply with all appropriate regulations.
- Pictures and conceptual drawing should be submitted with the initial request from the community to simplify the initial review and comment by the Railroad.
- Work site safety plan, including keeping all personnel away from the tracks and fall protection measures where required.

Section 2.07 – Quiet Zones

Summary

The Railroad will fully comply with the train horn rules as specified by the FRA, which provides requirements for the sounding of locomotive horns when approaching public highway-rail grade crossings.
The rule also provides guidance for conditions under which a public authority with jurisdiction over the roadway crossing railroad tracks may apply for and establish Quiet Zones. A Quiet Zone is a section of a rail line that contains one or more consecutive public crossings at which locomotive horns are not routinely sounded. (For full details on the rules, please visit the FRA web site at **www.fra.dot.gov** or contact the FRA's Office of Safety at **202-493-6299**). While the complete responsibility for completion of a Quiet Zone analysis and application rests with the public authority, it should be done in conjunction with the Railroad.

Each crossing has a unique DOT inventory identification number posted at the crossing. There is often more than one crossing on the same road. The crossing number (i.e., 654321D) must be used to identify the specific crossing in all communications with the Railroad to reduce possible confusion about the specific location.
The rule clearly defines requirements that must be satisfied by the public authority requesting that a Quiet Zone be established or continued.

Process

- Agency contacts the FRA on intent.
- Agency contacts PPD on intent.
- Agency/sponsor issues a legal reimbursement document or PE agreement.
- PPD assigns GEC.
- GEC will schedule a diagnostic review with agency/PPD/FRA/state DOT.
    - Please plan out your SSMs and ASMs in the FRA calculator prior to the site review.
- PPD to provide OOM for all SSMs and ASMs dictated by the review.
- Agency works with FRA to establish a notice of intent (NOI).
- Agency mails NOI and FRA calculator to PPD.
    - Please note that the estimate for ASMs and SSMs in the calculator is to not account for actual railroad expenses. For these, refer to OOM from PPD.
- All designs of ASMs and SSMs are reviewed by the Railroad at the expense of the agency.
- All ASMs and SSMs requiring modifications to the Railroad or signal system will be designed by the Railroad at the agency's expense (**see Section 2.03**).
- GEC supplies estimate to complete (including flagmen coverage if needed).
- Agency issues NTP for construction with a legal reimbursement document or construction agreement.
- Project work is completed (CEI may be required).
- The Railroad places "No Horn" signs.
- Agency and the Railroad signoff.
- Agency coordinates with FRA for final review.
- Agency works with FRA on notice of establishment (NOE).
- Agency mails certified copy of NOE to FRA/PPD/and state DOT.
- The Railroad complies within timeframe set in the rule.
- FRA database is updated.

DOCUMENT A00820

Massachusetts Department of Transportation
Conditions of Custody

REQUEST FOR RELEASE OF MASSDOT AUTOCAD FILES FORM
(Only to be used following award of contract)

City/Town: CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD Project File Number: 613219

Contract Number: 132950

Project Description: Bridge Preservation of 26 Bridges along I-91

All AutoCAD files are provided solely as a courtesy to facilitate public access to information. MassDOT attempts to provide current and accurate information but cannot guarantee so. MassDOT provides such documents, files or other data "as is" without any warranty of any kind, either expressed or implied, including but not limited to, accuracy, reliability, omissions, completeness and currentness. The Commonwealth of Massachusetts and its Consultants shall not be liable for any claim for damages, including lost profits or other consequential, exemplary, incidental, indirect or special damages, relating in any way to the documents, files or other data accessible from this file, including, but not limited to, claims arising out of or related to electronic access or transmission of data or viruses. Because data stored on electronic media can deteriorate undetected or be modified without our knowledge, MassDOT cannot be held liable for its completeness or correctness. MassDOT makes no representation as to the compatibility of these files beyond the version of the stated CAD software.

By signing this form, I agree that it shall be my responsibility to reconcile this electronic data with the conformed contract documents, and that only the conformed contract documents shall be regarded as legal documents for this Project. I understand that this authorization does not give me the right to distribute the files. I agree to the terms above and wish to receive the AutoCAD files.

This signed form shall be emailed to the Highway Design Engineer at the MassDOT -Highway Division at the following email address:

DOTHighwayDesign@dot.state.ma.us
Attn: AutoCAD Files

Name of person requesting AutoCAD files: _____

Affiliation/Company: _____

Address: _____

_____

Telephone number: _____

Email address: _____

Signature/Date: _____

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DOCUMENT A00844

U.S. FISH AND WILDLIFE SERVICE

NLAA CONCURRENCE VERIFICATION LETTER

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To: 02/26/2025 19:28:55 UTC
Project code: 2025-0058967
Project Name: 613219 - BRIDGE PRESERVATION OF 26 BRIDGES ALONG I-91

Federal Nexus: yes
Federal Action Agency (if applicable): Federal Highway Administration

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for '613219 - BRIDGE PRESERVATION OF 26 BRIDGES ALONG I-91'

Dear Emily Puglisi:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on February 26, 2025, for '613219 - BRIDGE PRESERVATION OF 26 BRIDGES ALONG I-91' (here forward, Project). This project has been assigned Project Code 2025-0058967 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (DKey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid. Note that conservation measures for northern long-eared bat and tricolored bat may differ. If both bat species are present in the action area and the key suggests more conservative measures for one of the species for your Project, the Project may need to apply the most conservative measures in order to avoid adverse effects. If unsure which conservation measures should be applied, please contact the appropriate Ecological Services Field Office.***

Determination for the Northern Long-Eared Bat and Tricolored Bat

Based on your IPaC submission and a standing analysis completed by the Service, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat (*Myotis septentrionalis*)	Endangered	NLAA
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	NLAA

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that consultation on the Action is complete for northern long-eared bat and/or tricolored bat and no further action is necessary unless either of the following occurs:

- new information reveals effects of the action that may affect the northern long-eared bat or tricolored bat in a manner or to an extent not previously considered; or,
- the identified action is subsequently modified in a manner that causes an effect to the northern long-eared bat or tricolored bat that was not considered when completing the determination key.

15-Day Review Period

As indicated above, the Service will notify you within 15 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for the northern long-eared bat and/or tricolored bat. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the identified Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that we did not anticipate when developing the key. In such cases, the identified Ecological Services Field Office may request additional information to verify the effects determination reached through the Northern Long-eared Bat and Tricolored Bat DKey.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

You may coordinate with our Office to determine whether the Action may affect the species and/or critical habitat listed above. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the New England Ecological Services Field Office and reference Project Code 2025-0058967 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

613219 - BRIDGE PRESERVATION OF 26 BRIDGES ALONG I-91

2. Description

The following description was provided for the project '613219 - BRIDGE PRESERVATION OF 26 BRIDGES ALONG I-91':

> 613219 - CHICOPEE- HOLYOKE- NORTHAMPTON- SPRINGFIELD- WEST SPRINGFIELD- BRIDGE PRESERVATION OF 26 BRIDGES ALONG I-91
> This project will comprise of deck, superstructure, and substructure repairs in kind to restore bridges to state of good repair. The project limits are from the I-91 crossing over B&M Railroad/US-5/SR 10 in Northampton (northern limit) to the US-20 crossing at I-91 in Springfield (southern limit).
> Tricolored Bat: Proposed Endangered Species only. The project action will not jeopardize the continued existence of the proposed species.
> Monarch Butterfly: Proposed Threatened Species only. The project action will not jeopardize the continued existence of the proposed species.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.2266805,-72.63705965662815,14z

DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for a least one species covered by this determination key.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

   Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   Yes

7. FHWA, FRA, and FTA have completed a range-wide programmatic consultation for transportation- related actions within the range of the Indiana bat, northern long-eared bat and tricolored bat.

   Does your proposed action fall within the scope of this programmatic consultation?

   Note: If you are unsure, but your action is transportation related, please select "Yes" and use the FHWA, FRA, FTA Assisted Determination Key (FHWA DKey) in IPaC to determine if the programmatic consultation is applicable to your action. Return to this key and answer ‘no’ to this question if it is not.

   No

8. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   Yes

9. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

10. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

    No

11. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

12. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

    No

13. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

    No

14. Will the action cause effects to a bridge?

    Note: Covered bridges should be considered as bridges in this question.

    Yes

15. Has a site-specific bridge assessment following USFWS guidelines been completed?

    Note: For information on conducting a bridge/structure assessment, please see Appendix K in the USFWS' Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines at:https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines Additional resources can be found at: https://www.fws.gov/media/bats-and-transportation-structures-references-and-additional-resources and a training video is located at: https://www.youtube.com/watch?v=iuFwkT7q8Ws.

    Yes

16. Was evidence of bat use found during the bridge assessment?

    No

    SUBMITTED DOCUMENTS

    - *613219_I91_Bridge_Assessment.pdf https://ipac.ecosphere.fws.gov/project/BDPUMT3XANHHRBELPAJ5EIME7I/projectDocuments/157597773*

17. Did you coordinate with your local Ecological Services Field Office (ESFO) and receive approval of the bridge assessment results? If NO, please contact the appropriate local ESFO before completing this determination key.

    Yes

18. Will the action result in effects to a culvert or tunnel at any time of year?

    No

19. Are trees present within 1000 feet of the action area?

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

20. Does the action include the intentional exclusion of bats from a building or structure?

    Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

    No

21. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

    No

22. Will the action cause construction of one or more new roads open to the public?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

23. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic permanently or temporarily on one or more existing roads?

    Note: For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

    No

24. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

25. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

    Note: For information regarding NSF/ANSI 60 please visit https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects

    No

26. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

    No

27. Will the action include drilling or blasting?

    Yes

28. Will the drilling or blasting produce noise or vibrations above existing background levels that will affect suitable summer habitat for northern long-eared bats and/or tricolored bats?

    Note: Additional information defining suitable suitable summer habitat for the northern long-eared bat and/or tricolored bat, can be found in Appendix A in the USFWS' Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines

    No

29. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

    No

30. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

    No

31. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

    Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

32. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

33. Will the action cause an increase in the extent of suitable forested habitat exposed to artificial lighting?

    No

34. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

    Yes

35. Will the proposed action occur exclusively in an already established and currently maintained utility right-of-way?

    No

36. Does the action include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property? See hazard tree note at the bottom of the key for text that will be added to response letters

    Note: A "hazard tree" is a tree that is an immediate threat to lives, public health and safety, or improved property.

    No

37. Does the project intersect with the 0- 9.9% forest density category?

    Automatically answered
    Yes

38. Does the project intersect with the 10.0- 19.9% forest density category map?

    Automatically answered
    Yes

39. Does the project intersect with the 20.0- 29.9% forest density category map?

    Automatically answered
    Yes

40. Does the project intersect with the 30.0- 100% forest density category map?

    Automatically answered
    Yes

41. Will the action cause trees to be cut, knocked down, or otherwise brought down across an area greater than 0.5 acre in total extent?

    No

42. Will the action cause trees to be cut, knocked down, or otherwise brought down across an area greater than 5 acres in total extent?

    No

43. Will the proposed action result in the use of prescribed fire?

    Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

    No

44. Does the action area intersect the northern long-eared bat species list area?

    Automatically answered
    Yes

45. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

    Automatically answered
    No

46. [Semantic] Is the action area located within 150 feet of a documented northern long-eared bat roost site?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

47. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
    If unsure, answer "Yes."

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

48. Are any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming suitable for northern long-eared bat roosting (i.e., live trees and/or snags ≥3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities)?

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

49. Will any tree cutting/trimming or other knocking or bringing down of trees occur during the **Summer Occupancy season** for northern long-eared bats in the action area?

    Note: Bat activity periods for your state can be found in Appendix L of the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines.

    No

50. Does the action area intersect the tricolored bat species list area?

    Automatically answered
    Yes

51. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

52. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?
    (If unsure, answer ""Yes."")

    Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (Tillandsia usneoides), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines.

    Yes

53. Do any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pine trees)?

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

54. Will any tree cutting/trimming or other knocking or bringing down of trees be conducted during the Pup Season for tricolored bat?
    Note: Bat activity periods for your state can be found in Appendix L of the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines.

    No

55. Do you have any documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

0.1

IPAC USER CONTACT INFORMATION

Agency: Massachusetts Department of Transportation
Name: Emily Puglisi
Address: 10 Park Plaza
City: Boston
State: MA
Zip: 02116
Email emily.a.puglisi@dot.state.ma.us
Phone: 6178964424

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

DOCUMENT A00875

POLICY DIRECTIVE P-22-001
AND
POLICY DIRECTIVE P-22-002

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massDOT Massachusetts Department of Transportation Highway Division

Number: P-22-001
Date: 9/23/22

POLICY DIRECTIVE

Jonathan Gulliver (signature on original)
HIGHWAY ADMINISTRATOR

Off-Site Stockpiling of Soil from MassDOT Construction Projects

Purpose

The purpose of this Policy Directive is to formally establish a policy and procedures for managing and stockpiling soil generated and transported from MassDOT construction projects. This Policy Directive does not supersede any Federal, State, or Local regulations.

Date of Effect

This Policy Directive is effective immediately for all projects, including active construction projects.

For active construction projects and for other projects advertised prior to October 15, 2022, changes to the contract documents needed to implement the requirements of this Policy Directive will be considered on a case-by-case basis and shall be approved by the District Highway Director, as necessary.

For projects advertised on or after October 15, 2022, MassDOT will include the requirements and implementation procedures of this Policy Directive in the construction contract documents.

Policy Requirements

This policy is intended to prevent the off-site relocation of excavated soil generated from MassDOT projects to areas near residential receptors and to control potential fugitive dusts and/or contaminants. To that end, excavated soil may not be moved from the project site without knowledge of the content of the material. Knowledge may include visual field observations for presence of staining, odor, and/or debris, screening with a photoionization detector (PID), laboratory analysis, and/or site history. Pavement millings and other non-soil materials are not subject to the requirements of this Policy Directive.

Moving soil from a MassDOT project site to a temporary off-site storage location must be approved in writing by the District Highway Director.

The Contractor must select a storage location that is at least 500 feet away from residential receptors, as defined herein to include, but not be limited to, residential dwellings, residentially

zoned property, schools, daycare facilities, playgrounds, parks, recreational areas, hospitals, elderly housing and convalescent facilities.

Temporary off-site storage of excavated soil from a MassDOT project is only permissible at a location approved and permitted by MassDOT. The temporary storage location should be located within the same municipality where the soil was excavated, where possible. Stockpiled soil must be securely covered, and appropriate measures must be taken to minimize fugitive dust and erosion.

Signs indicating the source of the soil, the date the soil was generated, and contact information must be erected and maintained until the stockpiled soils are transported to a disposal facility or reused on the project site.

Implementation Procedures

To ensure that off-site storage of excavated soils is managed properly on MassDOT projects, this policy requires the following:

1. **Off-Site Stockpile Storage Locations**
    a. The Contractor shall provide proposed off-site storage locations to the Engineer for approval at least 30 days prior to transporting soil off site. Off-site storage locations should be in the same municipality as the work site.
    b. The Contractor shall keep excavated soil on site until adequately characterized to the satisfaction of the Engineer.
    c. The Contractor shall provide notification of the approved off-site storage location to the local Board of Health and the Town Manager's/Mayor's Office at least 7-days prior to transporting soil off site.
    d. The Contractor shall provide the Engineer with at least 3-days' notice prior to transporting soil off site.
    e. For off-site storage locations on MassDOT property, the Contractor is required to obtain an Access Permit through the District Permits Office prior to storage of soil or other materials. MassDOT will issue these permits at no cost to the Contractor. Information to be submitted by the Contractor as part of the permit application shall include:
        i. A description of material to be stored off-site, including available analytical data;
        ii. A figure of the location with distances to residences and residential receptors; and
        iii. Anticipated duration of temporary storage.
    f. Stockpile locations should not be within 500 feet of residential receptors (e.g., residential dwellings, residentially zoned property, schools, daycare facilities, playgrounds, parks, recreational areas, hospitals, elderly housing and convalescent facilities).
        i. If the stockpile location must be within 500 feet of residential receptors, then soil must be less than RCS-1 (per 310 CMR 40.1600) and free of potentially hazardous or regulated items.

g. For off-site storage locations on non-MassDOT property, the Contractor must notify the property owner(s) at least 7 days prior to transporting material.
h. Exceptions to these rules will be reviewed by MassDOT and may be approved by the District Highway Director on a case-by-case basis.

2. Off-Site Stockpile Management

a. The Contractor shall keep soil stockpiles on impermeable surfaces (e.g., asphalt or concrete) or on 10-mil polyethylene sheeting.
b. The Contractor shall cover soil stockpiles with 10-mil polyethylene sheeting and surround with a berm made of hay bales, straw wattles, or similar.
    i. Piles that are actively being worked on must be covered and re-secured at the end of the work shift.
c. The Contractor shall label stockpiles with signs, including:
    i. Location of origin (including any Release Tracking Numbers)
    ii. Stockpile ID number (including MassDOT District office-assigned tracking ID, if different)
    iii. Date of initial accumulation
    iv. Applicable telephone numbers for the Contractor and MassDOT.
d. The Contractor shall mitigate fugitive dust at storage locations under the direction of an appropriately trained/certified environmental professional.
e. The Contractor shall remedy noncompliance with this policy within 48 hours.
f. The Contractor shall remedy noncompliance with this policy on the SAME DAY for potentially hazardous material, as determined by the Engineer.
g. The Contractor shall handle excavated soil according to federal, state, and local regulations.
h. The Contractor shall use appropriate shipping documents for all movements of excavated soil on public roadways (e.g., Bill of Lading, Material Shipping Record, Manifest, Asbestos Waste Shipment Record, etc.).

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massDOT
Massachusetts Department of Transportation
Highway Division

Number: P-22-002
Date: 9/23/22

POLICY DIRECTIVE

Jonathan Gulliver (signature on original)
HIGHWAY ADMINISTRATOR

Use of MassDOT Property for Staging and other Construction-Related Operations

Purpose

This Policy Directive is intended to address the use of MassDOT property by MassDOT Contractors for construction staging and other construction-related operations that are not specifically defined in the construction contract. Such use of MassDOT property will only be allowed if permitted by the District Office in accordance with 700 CMR 13.00, Approval of Access to MassDOT Highways and Other Property. This includes the use of MassDOT property for staging, laydown, and storage of equipment and materials, including soil excavated from a project site.

This Policy Directive requires the Contractor/applicant to obtain a Non-Vehicular Access Permit from MassDOT to use MassDOT property for these purposes.

This Policy Directive is effective immediately and applies to all MassDOT construction projects.

General Permit Considerations and Conditions

In addition to other normal MassDOT Access Permit procedures, MassDOT shall consider the following during the application, review, implementation and monitoring processes of Access Permits required by this Policy Directive:

- Storage and placement of the Contractor's equipment and materials should not be allowed within the clear zone of the roadway.
- Stockpiled soils should not be located within 500 feet of residential receptors, as defined herein to include, but not be limited to, residential dwellings, residentially zoned property, schools, daycare facilities, playgrounds, parks, recreational areas, hospitals, elderly housing and convalescent facilities.
- The Contractor/applicant shall identify the access/egress locations of the proposed storage areas. MassDOT will only approve locations determined to be safe for roadway users, construction workers and the general public.
- The Contractor may be required to submit a Traffic Management Plan and/or Lighting Plan for MassDOT review and approval as part of the permit application, depending on the proposed use of the area.

- The Contractor shall submit the permit application through MassDOT's online State Highway Access Permit System (SHAPS).
- MassDOT will waive the permit application fee for any application received from a MassDOT Contractor for any permit required by this Policy Directive and will waive any subsequent amendment and extension fees that may otherwise be required.
- MassDOT will review the permit application in accordance with applicable standard procedures and will apply standard permit terms and conditions, as necessary.
- The Resident Engineer will verify that the permit is approved before allowing the Contractor to use the affected area for the requested purpose.
- Areas permitted are for use by the approved applicant only and are not to be shared with or used by other vendors. Subcontractors specifically engaged with the applicant working on the specific MassDOT project will be allowed to use the area in accordance with the terms of the permit.
- Permits are issued on an annual basis and will require the Contractor to file for an extension each year to continue use.

Exemptions from Permit Requirements

Equipment and materials being used for active construction operations and located within the work zone of the construction contract are exempt from this permit requirement, provided they do not interfere with the safety or operation of the roadway or the work zone. Examples of these types of exempt uses are:

- Equipment and materials parked or stored within a protected (barriered) work zone.
- Materials placed in the work zone prior to same-day installation or use.
- Soils excavated temporarily and scheduled to be replaced, such as for trenching operations or for installation of drainage structures.

DAILY FORCE WORK REPORT
CSD-123

Proposal No. 613219-132950

DAILY WORK FORCE REPORT

massDOT Massachusetts Department of Transportation Highway Division

***UTILITY* - Force Account:** _____ NAME OF UTILITY CO.

Force Account Agreement #: _____

Agreement Date: _____

Eligible for Reimbursement _____ % ☐ Yes ☐ No

AND

***SUBCONTRACTOR* - Time & Materials:** _____ * NAME OF SUB-CONTRACTOR

Note: * All Sub-Contractors work force shall be tracked individually and separately from the Utility, on a separate Daily Work Force Report.

DATE OF WORK PERFORMED:

Project Description/Town or City: _____ Project #: _____ Contract #: _____

General Description of Work Performed, and Location:

LABOR

NAME (FIRST LAST)	CLASSIFICATION	No.	TIME WORKED	HOURS REG'R	HOURS O.T.	HOURS TOTAL
			to			
			to			
			to			
			to			
			to			
			to			
			to			
			to			
			to			

EQUIPMENT

DESCRIPTION / MODEL / MAKE / YEAR	NOTES	No.	TIME WORKED	HOURS REG'R	HOURS STAND BY	HOURS TOTAL
			to			
			to			
			to			
			to			
			to			
			to			
			to			
			to			

MATERIAL

DESCRIPTION	INVOICE #	$ AMOUNT

SALVAGE / CREDIT DESCRIPTION	INV. #	QNTY. / UNIT		$ AMOUNT

POLICE

NAME (FIRST LAST)	CLASSIFICATION		TIME WORKED	HOURS REG'R	HOURS O.T.	HOURS TOTAL
			to			
			to			
			to			
			to			
			to			

RECEIVED: _____ SIGNED _____

TITLE: _____ TITLE: _____

MassDOT - Highway Division Utility Company Representative (or) Subcontractor

DATE: _____ DATE: _____

Note: The signatures above constitute acknowledgment of labor, materials, and equipment used, and shall not be construed as approval of any request for payment or claim, or acceptance of work.

DOCUMENT B00420

PROPOSAL

CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD

For: **Bridge Preservation of 26 Bridges along I-91**

COMMONWEALTH OF MASSACHUSETTS

LOCATION

The work referred to herein is in the Cities of CHICOPEE, HOLYOKE, NORTHAMPTON, SPRINGFIELD and WEST SPRINGFIELD in Hampden and Hampshire Counties, in the Commonwealth of Massachusetts, and is shown by the locus map (Document 00331) in the Proposal Pamphlet, the work locations extend as follows:

City	Bridge No.	Facility Carried	Facility Intersected
Northampton	N-19-066 (10E)	I-91 SB Ramp	US-5/SR 10/N. King St.
Northampton	N-19-065 (10A & 10B)	I-91 SB & NB	I-91 Ramp & GWRR
Northampton	N-19-064 (10C & 10D)	I-91 SB & NB	Damon Rd.
Northampton	N-19-063 (109)	I-91 SB	Norwottock Rail Trail
Northampton	N-19-062 (107)	I-91 SB	SR9/Bridge Street
Northampton	N-19-062 (106)	I-91 NB	SR9/Bridge Street
Northampton	N-19-061 (104 & 105)	I-91 SB & NB	Old Ferry Road
Holyoke	H-21-053 (0YL & 0YM)	I-91 SB & NB	SR 141 WB/Hampden Street
Holyoke	H-21-054 (0YN & 0YP)	I-91 SB & NB	Bemis Road
Holyoke	H-21-051 (0YG & 0YF)	I-91 SB & NB	Scott Tower Road
Holyoke	H-21-049 (0YD)	I-91 SB	US-202/Cherry Street
Holyoke	H-21-049 (0YE)	I-91 NB	US-202/Cherry Street
West Springfield	W-21-046 (10X)	I-91 SB & NB	I-91 Ramp
West Springfield	W-21-047 (10W)	I-91 SB & NB	US-5/Riverdale Street
Chicopee	C-13-037 (0X2)	I-91 SB & NB	I-391 Ramp
Springfield	S-24-085 (10T)	I-91 SB & NB	Noble Street
Springfield	S-24-080 (10R)	I-91 SB & NB	SR 116/Main Street
Springfield	S-24-078 (10P)	I-91 SB & NB	Huntington Street
Springfield	S-24-079 (10Q)	I-91 SB & NB	Gerena School
Springfield	S-24-087 (10M)	US-20/Plainfield Street	I-91 SB & NB

The contract prices shall include the furnishing of all materials (except as otherwise herein specified), the performing of all the labor requisite or proper, the providing of all necessary machinery, tools, apparatus and other means of construction, the doing of all the abovementioned work in the manner set forth, described and shown in the specifications and on the drawings for the work, and in the form of contract, and the completion thereof within **884 CALENDAR DAYS** upon receipt of a Notice to Proceed, except that if the completion date falls between December 1 and March 15 then the same number of days beyond December 1st will be extended after March 15th.

The Work of this project is described by the following Items and quantities.

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massDOT Massachusetts Department of Transportation Highway Division

CMS Contract Management System

Project # 613219	Contract # 132950			
Location : CHICOPEE - HOLYOKE - NORTHAMPTON - SPRINGFIELD - WEST SPRINGFIELD				
Description : Bridge Preservation of 26 Bridges along I-91				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
100.004	70	WELDER AT _____ PER HOUR		
102.21	740	SELECTIVE CLEARING AND GRUBBING AT _____ PER SQUARE YARD		
106.16	52	BRIDGE DECK DRAIN PVC PIPE EXTENSION AT _____ EACH		
106.88	13	JACKING AND SHORING AT _____ EACH		
106.881	14	JACKING AND SHORING REMOVED AND RESET AT _____ EACH		
107.855	520	PRESSURE INJECTION OF CRACKS AT _____ PER FOOT		
107.97	50,190	STRUCTURAL STEEL REPAIRS AT _____ PER POUND		
127.12	72	REINFORCED CONCRETE SUBSTRUCTURE EXCAVATION AT _____ PER CUBIC YARD		
670.	411	FENCE REMOVED AND RESET AT _____ PER FOOT		

Project # 613219	Contract # 132950			
Location : CHICOPEE - HOLYOKE - NORTHAMPTON - SPRINGFIELD - WEST SPRINGFIELD				
Description : Bridge Preservation of 26 Bridges along I-91				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
722.3	1	SCHEDULE OF OPERATIONS (TYPE C) - FIXED PRICE $69,000 AT Sixty Nine Thousand Dollars LUMP SUM	$69,000.00	$69,000.00
740.	29.5	ENGINEER'S FIELD OFFICE AND EQUIPMENT (TYPE A) AT _____ PER MONTH		
748.	1	MOBILIZATION AT _____ LUMP SUM		
851.1	443	TRAFFIC CONES FOR TRAFFIC MANAGEMENT AT _____ PER DAY		
852.	2,324	SAFETY SIGNING FOR TRAFFIC MANAGEMENT AT _____ PER SQUARE FOOT		
852.11	1,260	TEMPORARY PEDESTRIAN BARRICADE AT _____ PER FOOT		
852.12	8	TEMPORARY PEDESTRIAN CURB RAMP AT _____ EACH		
853.1	52	PORTABLE BREAKAWAY BARRICADE TYPE III AT _____ EACH		
853.403	590	TRUCK MOUNTED ATTENUATOR AT _____ PER DAY		

Project # 613219	Contract # 132950			
Location : CHICOPEE - HOLYOKE - NORTHAMPTON - SPRINGFIELD - WEST SPRINGFIELD				
Description : Bridge Preservation of 26 Bridges along I-91				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
853.8	590	TEMPORARY ILLUMINATION FOR WORK ZONE AT _____ PER DAY		
856.	590	ARROW BOARD AT _____ PER DAY		
859.	153,400	REFLECTORIZED DRUM AT _____ PER DAY		
859.1	295	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS AT _____ PER DAY		
905.2	72	5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE AT _____ PER CUBIC YARD		
909.2	1,040	CEMENTITIOUS MORTAR FOR PATCHING AT _____ PER SQUARE FOOT		
910.1	2,360	STEEL REINFORCEMENT FOR STRUCTURES - EPOXY COATED AT _____ PER POUND		
912.	25	DRILLING AND GROUTING DOWELS AT _____ EACH		
913.2	11	CORING AND GROUTING ANCHOR BOLTS AT _____ EACH		

Project # 613219	Contract # 132950			
Location : CHICOPEE - HOLYOKE - NORTHAMPTON - SPRINGFIELD - WEST SPRINGFIELD				
Description : Bridge Preservation of 26 Bridges along I-91				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
961.211	19,609	CLEAN (FULL REMOVAL) AND PAINT STRUCTURAL STEEL AT _____ PER SQUARE FOOT		
964.3	4,160	ELASTOMERIC PROTECTIVE COATING AT _____ PER SQUARE FOOT		
Total Qty:	238,942.5			

DOCUMENT B00842

SCHEDULE OF PARTICIPATION
BY MINORITY OR WOMEN BUSINESS ENTERPRISES (M/WBE)

MASSDOT PROJECT NUMBER: 613219

PROJECT LOCATION: CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD

DATE OF BID OPENING: _____

NAME OF PRIME BIDDER: _____

Name Address and Phone Number of M/WBE	Name of Activity	(a) M/WBE Contractor Activity Amount	(b) M/WBE Other Business Amount	(c) Total amount eligible for credit under rules in Section VIII of the Special Provisions
Total Bid Amount	TOTALS:	$		$
$	M/WBE Percentage of Total bid:	%		%

Column (a) must be at least one-half of the M/WBE percentage goal.

SIGNATURE: _____ Date: _____ Tel No: _____

NAME AND TITLE (PRINT):_____

BIDDERS ARE CAUTIONED TO REVIEW DOCUMENT 00718 -- SPECIAL PROVISION FOR PARTICIPATION BY MINORITY OR WOMEN BUSINESS ENTERPRISES AND SERVICE DISABLED VETERAN OWNED BUSINESS ENTERPRISES.

*** END OF DOCUMENT ***

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DOCUMENT B00843

MINORITY OR WOMEN'S BUSINESS ENTERPRISE PARTICIPATION LETTER OF INTENT
PAGE 1 OF 2

MASSDOT PROJECT NUMBER: 613219

PROJECT LOCATION: CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD

DATE OF BID OPENING: _____

FROM _____
(Minority or Women's Business Enterprise Company)

TO: _____
(Name of Prime Contractor)

1. My company is currently certified as an MBE or WBE by the Massachusetts Supplier Diversity Office, formerly known as the State Office of Minority and Women Business Assistance (SOMWBA). There have been no changes affecting the ownership, control or independence of my company since my last certification review.

2. If any such change occurs prior to my company's completion of this proposed work, I will give written notification to your firm and to the Massachusetts Department of Transportation (MassDOT).

3. (For contractor activity only.) My firm will provide to you, upon request, for the purpose of obtaining subcontractor approval from MassDOT; (1) a resume stating the qualifications and experience of the superintendent or foreperson who will supervise on site-work; (2) a list of equipment owned or leased by my firm for use on the project; (3) a list of all projects (public or private) which my firm is currently performing, is committed to perform, or intends to make a commitment to perform. I shall include, for each project, the names and telephone number of a contact person for the contracting organization, the dollar value of the work, a description of the work, and my firm's work schedule for the Project.

4. If you are awarded the Contract, my company intends to enter into an agreement with your firm to perform the items of work or other activity described on the following sheet for the prices indicated.

5. My firm has the ability to manage, supervise and perform the activity described on the following page.

_____ _____
M/WBE Authorized Signature Date

MINORITY OR WOMEN'S BUSINESS ENTERPRISE PARTICIPATION LETTER OF INTENT
PAGE 2 OF 2

MASSDOT PROJECT NUMBER: 613219

PROJECT LOCATION: CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD

DATE OF BID OPENING: _____

NAME OF PRIME BIDDER: _____

Item number if applicable	Description of Activity with notations such as Installation Only, Material Only, or Complete	Quantity	Unit Price	Amount
		TOTAL AMOUNT:		

M/WBE COMPANY NAME: _____

M/WBE AUTHORIZED SIGNATURE: _____

NAME AND TITLE (PRINT): _____

TELEPHONE NUMBER: _____ FAX NUMBER: _____

Rev'd 9/20/19

*** END OF DOCUMENT ***

DOCUMENT B00846

M/WBE OR SDVOBE JOINT CHECK ARRANGEMENT APPROVAL FORM

(to be submitted by Prime Contractor)

Contract No: 132950 **Project No.** 613219

Location: CHICOPEE-HOLYOKE-NORTHAMPTON-SPRINGFIELD-WEST SPRINGFIELD **Bid Opening Date:** _____

Project Description: Bridge Preservation of 26 Bridges along I-91

We have received the attached request for the use of a joint check arrangement from _____ _____ , a M/WBE or SDVOBE on the above- referenced Contract and _____ _____, a Material Supplier/Vendor for the subject Contract. The M/WBE or SDVOBE has complied with the requirements of Special Provision Document 00718. In particular, the M/WBE or SDVOBE has:

- a written agreement with the material supplier/vendor;
- applied for credit with the subject material supplier and has supplied the vendor's response;
- shown that it will place all orders to the subject material supplier/vendor;
- made and retains all decision-making responsibilities concerning the materials; and
- provided a Joint Check Agreement that is acceptable to MassDOT;

As the Contractor for the Project, we agree to issue joint checks (made payable to the Material Supplier/Vendor and the M/WBE or SDVOBE) for payment of sums due pursuant to invoices from the Supplier/Vendor and M/WBE or SDVOBE.

Contractor:

_____ _____
Company Name Signature
Duly Authorized

_____
Printed Name

_____ _____
Date Title

SubContractor:

_____ _____
Company Name Signature –
Duly Authorized

_____
Printed Name

_____ _____
Date Title

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JOINT VENTURE AFFIDAVIT

(All Firms)

- All Information Requested By This Schedule Must Be Answered. Additional Sheets May Be Attached.
- If, there is any change in the information submitted, the Joint Venture parties must inform MassDOT Pre-Qualifications Office (and, if one of the companies is a M/WBE or SDVOBE, the Director of Contract Compliance, Office of Civil Rights) *prior* to such change, in writing, either directly or through the Prime Contractor if the Joint Venture is a subcontractor.
- If the Joint Venture Entity will be the bidder on a prime Contract, it must bid and submit all required documents (insurance, worker's compensation, bonds, etc.) in the name of the Joint Venture Entity.

I. Name of Joint Venture: _____

Type of Entity if applicable (Corp., LLC):_____Filing State _____

Address of joint venture: _____

_____

Phone No(s) for JV Entity: _____E-mail:_____

Contact Person(s)_____

Tax ID/EIN of Joint Venture: _____Vendor Code:_____

II. Identify each firm or party to the Joint Venture:

Name of Firm: _____

Address: _____

Phone : _____E-mail:_____

Contact person(s) _____

Name of Firm: _____

Address: _____

Phone: _____E-mail:_____

Contact Person(s)_____

III. Describe the role(s) of the each party to the Joint Venture:

_____

_____

IV. Attach a copy of the Joint Venture Agreement. The proposed Joint Venture Agreement should include specific details including, but not limited to: (1) the contributions of capital and equipment; (2) work items to be performed by each company's forces, (3) work items to be performed under the supervision of any M/WBE or SDVOBE Venturer; (4) the commitment of management, supervisory and operative personnel employed by the M/WBE or SDVOBE to be dedicated to the performance of the Project; and (5) warranty, guaranty, and indemnification clauses.

V. Attach any applicable Corporate or LLC Votes, Authorizations, etc.

VI. Ownership of the Joint Venture:

A. What is the percentage(s) of each company's ownership in the Joint Venture?

ownership percentage(s): _____

ownership percentage(s): _____

B. Specify percentages for each of the following (provide narrative descriptions and other detail as applicable):

1. Sharing of profit and loss: _____
2. Capital contributions:

(a) Dollar amounts of initial contribution: _____

(b) Dollar amounts of anticipated on-going contributions: _____

(c) Contributions of equipment (specify types, quality and quantities of equipment to be provided by each firm): _____

_____

4. Other applicable ownership interests, including ownership options or other agreements, which restrict or limit ownership and/or control:

_____

_____

5. Provide copies of all other written agreements between firms concerning bidding and operation of this Project or projects or contracts.

6. Identify all current contracts and contracts completed during the past two (2) years by either of the Joint Venture partners to this Joint Venture:

_____

_____

VII. Control of and Participation in the Joint Venture. Identify by name and firm those individuals who are, or will be, responsible for and have the authority to engage in the following management functions and policy decisions. (Indicate any limitations to their authority such as dollar limits and co-signatory requirements.):

A. Joint Venture check signing:

_____

_____

B. Authority to enter Contracts on behalf of the Joint Venture:

_____

_____

C. Signing, co-signing and/or collateralizing loans:

_____

_____

D. Acquisition of lines of credit:

E. Acquisition and indemnification of payment and performance bonds:

F. Negotiating and signing labor agreements:

G. Management of contract performance. *(Identify by name and firm only)*:

1. Supervision of field operations:
2. Major purchases:
3. Estimating:
4. Engineering:

VIII. Financial Controls of Joint Venture:

A. Which firm and/or individual will be responsible for keeping the books of account?

B. Identify the "Managing Partner," if any, and describe the means and measure of their compensation:

C. What authority does each firm have to commit or obligate the other to insurance and bonding companies, financing institutions, suppliers, subcontractors, and/or other parties participating in the performance of this Contract or the work of this Project?

IX. Personnel of Joint Venture: State the approximate number of personnel (by trade) needed to perform the Joint Venture's work under this Contract. Indicate whether they will be employees of the majority firm, M/WBE or SDVOBE firm, or the Joint Venture.

	Firm 1 (number)	Firm 2 (number)	Joint Venture (number)
Trade			
Professional			
Administrative/Clerical			
Unskilled Labor			

Will any personnel proposed for this Project be employees of the Joint Venture?: _____

If so, who: _____

A. Are any proposed Joint Venture employees currently employed by either firm?

Employed by Firm 1: _____ Employed by firm 2 _____

B. Identify by name and firm the individual who will be responsible for Joint Venture hiring: ____

_____

X. Additional Information. Please state any material facts and additional information pertinent to the control and structure of this Joint Venture.

_____

_____

XI. AFFIDAVIT OF JOINT VENTURE PARTIES. The undersigned affirm that the foregoing statements and attached documents are correct and include all material information necessary to identify and explain the terms and operations of our Joint Venture and the intended participation of each firm in the undertaking. Further, the undersigned covenant and agree to provide to MassDOT current, complete and accurate information regarding actual Joint Venture work, payments, and any proposed changes to any provisions of the Joint Venture, or the nature, character of each party to the Joint Venture. We understand that any material misrepresentation will be grounds for terminating any Contract awarded and for initiating action under Federal or State laws concerning false statements.

Firm 1	Firm 2
Signature Duly Authorized	Signature Duly Authorized
Printed Name and Title	Printed Name and Title
Date	Date

*** END OF DOCUMENT ***