DSK

COMMONWEALTH OF MASSACHUSETTS

massDOT
Massachusetts Department of Transportation
Highway Division

CONTRACT DOCUMENTS AND SPECIAL PROVISIONS

PROPOSAL NO.	614177-134228
P.V. =	$1,789,000.00
PLANS	NO

FOR

Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River

in the Town of

NORTHBRIDGE

In accordance with the STANDARD SPECIFICATIONS
for HIGHWAYS and BRIDGES dated 2026

This Proposal to be opened and read: **TUESDAY, MAY 19, 2026 at 2:00 P.M.**

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DOCUMENT 00102

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, MAY 19, 2026 at 2:00 P.M. **
NORTHBRIDGE
Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River
****Date Subject to Change**

PROJECT VALUE = $1,789,000.00

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 $670.00 per ton, Portland cement $452.13 per ton, diesel fuel $4.452 per gallon, and gasoline $2.955 per gallon, and Steel Base Price Index 354.8. 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, APRIL 25, 2026

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 MAP

NORTHBRIDGE
Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River



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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

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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: 03-31-26

NOTICE OF AVAILABILITY

The STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 2026, 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.

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DOCUMENT 00715

SUPPLEMENTAL SPECIFICATIONS

MARCH 31, 2026

The 2026 *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 5.00: CONTROL OF WORK

Subsection 5.03: Conformity with Plans and Specifications
Change the MGL reference in the first sentence to Chapter 30, Section 39I (from Section 39L).

DIVISION II

CONSTRUCTION DETAILS

SECTION 600: HIGHWAY GUARD, FENCES AND WALLS

SUBSECTION 628: IMPACT ATTENUATORS

Subsection 628.82: General
Replace this subsection with the following:

Item number	Description	Unit
628.302	Permanent Impact Attenuator, Non-Redirective, TL-2	Each
628.303	Permanent Impact Attenuator, Non-Redirective, TL-3	Each
628.304	Temporary Impact Attenuator, Non-Redirective, TL-2	Each
628.305	Temporary Impact Attenuator, Non-Redirective, TL-3	Each
628.312	Permanent Impact Attenuator, Redirective, TL-2	Each
628.313	Permanent Impact Attenuator, Redirective, TL-3	Each
628.314	Temporary Impact Attenuator, Redirective, TL-2	Each
628.315	Temporary Impact Attenuator, Redirective, TL-3	Each
628.322	Permanent Impact Attenuator, Low-Maintenance, TL-2	Each
628.323	Permanent Impact Attenuator, Low-Maintenance, TL-3	Each

SECTION 800: TRAFFIC CONTROL DEVICES

SUBSECTION 813: WIRING, GROUNDING AND SERVICE CONNECTIONS

Subsection 813.20: Payment Items
Replace this subsection with the following:

This work shall consist of furnishing and installing wire and cable of the type and size indicated for traffic signals and other traffic control devices, ITS systems, highway lighting and related electrical systems, equipment grounding systems, new ground electrodes or connections to existing ground electrodes, power pedestals, and all materials and equipment necessary to deliver power to such systems.

Service points shown on the plans are approximate only. The Contractor shall determine exact locations for both overhead and underground service access points. The Contractor shall determine riser elevations or connections/routing to manhole facilities from the serving utility, and arrange to complete the service connections.

All work under this Subsection shall comply with the MEC and the National Electrical Safety Code.

Subsection 813.41: Grounding and Bonding Conductions
Replace this subsection with the following:

Grounding and bonding conductors shall conform to M8.16.10: Type 10 Grounding and Bonding Conductors (Solid or Stranded, Insulated or Bare).

Subsection 813.42: Ground Rods
Replace this subsection with the following:

Ground rods shall consist of driven rod(s) conforming to M8.17.0: Ground Rod or other devices approved for the purpose.

Subsection 813.44: Power Pedestal
Add this subsection in numerical order:

A Power Pedestals shall consist of a side-of-post mounted lockable load center enclosure, a load center with circuit breakers, an exterior-mounted electrical meter, signal post and base, equipment bonding, ground rod(s) conforming to 813.42: Ground Rods, and a cement concrete foundation. The enclosure, lock, circuit breakers, signal post and base, and foundation shall all be included in the Shop Drawing submission.

The enclosure shall be rated to meet or exceed NEMA 3R and be suitable for post-mounting and shall be sized appropriately to house the load center. The enclosure shall be capable of being secured with an integrated locking mechanism or by a Contractor-supplied padlock; regardless of locking mechanism, it shall be operated with a #2 key.

The circuit breakers shall be designed for single-phase, 3-wire, 120/240 VAC. Circuit breakers shall provide a means to manually operate a circuit and/or automatically open a circuit that is in overload or short circuit conditions. All circuit breakers shall be UL listed and have CSA certification.

The enclosure shall be furnished with a meter socket installed. The meter socket shall be approved by the servicing electrical utility.

The signal post and base shall conform to M10.05.1: Signal Posts and Bases and the Plans. The Contractor shall supply a square aluminum base with a natural or anodized finish and a Schedule 80 aluminum post with a brushed or spun finish, unless otherwise indicated in the Plans.

The Contractor shall supply mounting equipment recommended by the enclosure manufacturer to side-mount the cabinet to the post.

Bonding for the Power Pedestal shall utilize a #8 AWG or larger ASTM-B3 wire.

The cement concrete foundation shall conform to the Plans and M4.02.0: Concrete Produced by Stationary and Truck Mixers, M4.03.0: Concrete Produced by Volumetric Mixers, M4.06.1: Conventional Concrete, M4.09.0:

Precast, Prestressed, and Prefabricated Concrete Products, M4.11.0: Evaporation Reducing Materials, and M4.12.0: Curing Materials, as applicable.

Subsection 813.64: Power Pedestal
Add this subsection in numerical order:

No work shall commence until Shop Drawings have been approved.

The Power Pedestal Cabinet shall be mounted side-of-post to the Signal Post, per the manufacturer's recommendations. The Power Pedestal Cabinet should be installed directly below the meter socket, per the Plans. If dissimilar metals are present, they shall be electrically insulated to prevent galvanic corrosion.

The Contractor shall supply the appropriate type (single pole or double pole) and number of circuit breakers included within the Power Pedestal Cabinet to provide the recommended AC power to each device receiving power from the Cabinet. The circuit breakers shall be clearly labeled as to which device they are powering (e.g. RRFB-1, RRFB-2, Warning Beacon, Speed Feedback Sign, etc.).

The Power Pedestal shall be grounded and bonded per 813.61: Equipment Grounding and Bonding and 813.62: Grounding Electrodes.

Subsection 813.80.E: Power Pedestal
Add this subsection in numerical order:

Power Pedestals will be measured on the basis of the number of Power Pedestals each furnished and installed.

Subsection 813.81.E: Power Pedestal
Add this subsection in numerical order:

Power Pedestals will be paid for at the contract unit price for each installed in place. This includes all labor and materials required for a working system.

All costs associated with grounding and bonding of Power Pedestals shall be considered incidental to the item.

All costs associated with providing service connections to Power Pedestals shall be paid for under their respective pay items.

Subsection 813.82: Payment Items
Change the unit od measure for items 813.80 and 813.81 to Each and add the following pay item:

813.90	Power Pedestal	Each

DIVISION III

MATERIALS SPECIFICATIONS

SECTION M10: TRAFFIC CONTROL DEVICES

Subsection M10.03.1: Field Monitoring Unit
Add this new subsection:

All Field Monitoring Units (FMU) shall be compatible with the MassDOT Critical Operations Multi-jurisdictional Modular System (MCOMMS), cloud-based management system.

FMUs shall be capable of operating independently from the brand of traffic signal controller, vehicle and pedestrian detection systems, battery backup system (BBS), and any other Ethernet-based, web accessible device present in the traffic signal controller cabinet.

M10.03.1.A: Hardware

The FMU shall communicate via an Ethernet port with an RJ45 connector and have an integrated Ethernet switch with a minimum of four ports.

The FMU shall be powered via standard 120 VAC input power. The FMU shall include an integrated battery and battery charging/monitoring circuit that will allow the FMU to fully function even if all other electrical service to the cabinet has been interrupted. The battery shall continue to supply the FMU with power for a minimum of 5 hours on a single charge.

The FMU shall have an integrated GPS that will allow for automated telemetry without additional configuration. The GPS shall be capable of providing a time sync pulse to the internal clock of a connected traffic signal controller. The FMU shall utilize the integrated GPS to geolocate itself on a map via the FMU management software.

M10.03.1.B: Software

The configuration of the FMU shall be accomplished by accessing FMU management software via an internet browser. It shall be possible to configure the FMU without any special software.

The FMU shall operate without requiring a static IP address. The only configuration required at the FMU is to enter the URL to the host of the FMU management software.

The FMU shall utilize HTTPS protocols and XML data structure for communications with the FMU management software. The data shall be scalable for future expansion; proprietary protocols shall not be used.

M10.03.1.C: Wireless Connectivity

The FMU shall be supplied with an internal 4G LTE cellular modem.

The modem shall support future upgrades to 5G service, when available, and shall be compatible with SIM cards from multiple cellular carriers.

M10.03.1.D: Remote Access

Remote access to any traffic signal cabinet component that has a web interface via the FMU shall not require the end user to create a separate Virtual Private Network (VPN) connection.

<<<<<<<<<<>>>>>>>>>>

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 **11%**
(*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

April 16, 2026

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	$0.55
2	ASTM A27 (AASHTO M103) Steel Castings, H-Pile Points & Pipe Pile Shoes (See Note below.)	$0.76
3	ASTM A668 / A668M (AASHTO M102) Steel Forgings	$0.76
4	ASTM A108 (AASHTO M169) Steel Forgings for Shear Studs	$0.78
5	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Plate	$0.82
6	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Shapes	$0.77
7	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Plate	$0.82
8	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Shapes	$0.77
9	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Plate	$0.85
10	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Shapes	$0.78
11	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W 345W Structural Steel Plate	$0.85
12	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W or 345W Structural Steel Shapes	$0.78
13	ASTM A709/A709M Grade HPS 50W / AASHTO M270M/M270 Grade HPS 50W or 345W Structural Steel Plate	$0.89
14	ASTM A709/A709M Grade HPS 70W / AASHTO M270M/M270 Grade HPS 70W or 485W Structural Steel Plate	$0.96
15	ASTM A514/A514M-05 Grade HPS 100W / AASHTO M270M/M270 Grade HPS 100W or 690W Structural Steel Plate	$1.47
16	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Plate	$0.85
17	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Shapes	$0.78
18	ASTM A276 Type 316 Stainless Steel	$4.42
19	ASTM A240 Type 316 Stainless Steel	$4.42
20	ASTM A148 Grade 80/50 Steel Castings (See Note below.)	$1.52
21	ASTM A53 Grade B Structural Steel Pipe	$0.96
22	ASTM A500 Grades A, B, 36 & 50 Structural Steel Pipe	$0.96
23	ASTM A252, Grades 240 (36 KSI) & 414 (60 KSI) Pipe Pile	$0.76
24	ASTM 252, Grade 2 Permanent Steel Casing	$0.76
25	ASTM A36 (AASHTO M183) for H-piles, steel supports and sign supports	$0.80
26	ASTM A328 / A328M, Grade 50 (AASHTO M202) Steel Sheetpiling	$1.45
27	ASTM A572 / A572M, Grade 50 Sheetpiling	$1.45
28	ASTM A36/36M, Grade 50	$0.82
29	ASTM A570, Grade 50	$0.80
30	ASTM A572 (AASHTO M223), Grade 50 H-Piles	$0.82
31	ASTM A1085 Grade A (50 KSI) Steel Hollow Structural Sections (HSS), heat-treated per ASTM A1085 Supplement S1	$0.96
32	AREA 140 LB Rail and Track Accessories	$0.50

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.

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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.

*** END OF DOCUMENT ***

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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:_____ **Project No.** 614177 **Federal Aid No.:** NFA

Location: NORTHBRIDGE

Project Description: Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River

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

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

MAURA HEALEY
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:**	NORTHBRIDGE
Contract Number:	134228		
Description of Work:	NORTHBRIDGE - Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River		
Job Location:	Mendon Road over the West River		

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	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	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	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 2)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
AIR TRACK OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$41.22	$10.65	$9.75	$9.11	$0.00	$70.73
	6/1/2026	$42.66	$10.65	$9.75	$9.11	$0.00	$72.17
	12/1/2026	$44.10	$10.65	$9.75	$9.11	$0.00	$73.61
	6/1/2027	$45.55	$10.65	$9.75	$9.11	$0.00	$75.06
	12/1/2027	$47.00	$10.65	$9.75	$9.11	$0.00	$76.51
	6/1/2028	$48.50	$10.65	$9.75	$9.11	$0.00	$78.01
	12/1/2028	$50.00	$10.65	$9.75	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$41.22	$10.65	$9.75	$9.21	$0.00	$70.83
	6/1/2026	$42.66	$10.65	$9.75	$9.21	$0.00	$72.27
	12/1/2026	$44.10	$10.65	$9.75	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASBESTOS WORKER (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)	12/1/2025	$44.80	$14.50	$4.30	$6.75	$0.00	$70.35
ASPHALT RAKER LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE	12/1/2025	$58.68	$16.55	$13.35	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.98	$16.55	$13.35	$3.25	$0.00	$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	$61.43	$16.55	$13.35	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER	12/1/2025	$58.68	$16.55	$13.35	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.98	$16.55	$13.35	$3.25	$0.00	$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	$61.43	$16.55	$13.35	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER	12/1/2025	$41.22	$10.65	$9.75	$9.11	$0.00	$70.73
LABORERS	6/1/2026	$42.66	$10.65	$9.75	$9.11	$0.00	$72.17
LABORERS - ZONE 2	12/1/2026	$44.10	$10.65	$9.75	$9.11	$0.00	$73.61
	6/1/2027	$45.55	$10.65	$9.75	$9.11	$0.00	$75.06
	12/1/2027	$47.00	$10.65	$9.75	$9.11	$0.00	$76.51
	6/1/2028	$48.50	$10.65	$9.75	$9.11	$0.00	$78.01
	12/1/2028	$50.00	$10.65	$9.75	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	12/1/2025	$41.22	$10.65	$9.75	$9.21	$0.00	$70.83
LABORERS	6/1/2026	$42.66	$10.65	$9.75	$9.21	$0.00	$72.27
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$44.10	$10.65	$9.75	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
BOILER MAKER	1/1/2024	$48.12	$7.07	$14.60	$6.00	$0.00	$75.79
BOILERMAKERS LOCAL 29							
BOILERMAKERS LOCAL 29							

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

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: BOILER MAKER							
Effective Date: 1/1/2024							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
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)	2/1/2026	$65.81	$12.84	$15.57	$7.33	$0.00	$101.55
BRICKLAYERS LOCAL 3	8/1/2026	$68.01	$12.84	$15.57	$7.33	$0.00	$103.75
BRICKLAYERS LOCAL 3 (WORCESTER)	2/1/2027	$69.41	$12.84	$15.57	$7.33	$0.00	$105.15
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		$32.91	$12.84	$15.57	$7.33	$0.00	$68.65
2 / 60.00		$39.49	$12.84	$15.57	$7.33	$0.00	$75.23
3 / 70.00		$46.07	$12.84	$15.57	$7.33	$0.00	$81.81
4 / 80.00		$52.65	$12.84	$15.57	$7.33	$0.00	$88.39
5 / 90.00		$59.23	$12.84	$15.57	$7.33	$0.00	$94.97
Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)							
Effective Date: 8/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 50.00		$34.01	$12.84	$15.57	$7.33	$0.00	$69.75
2 / 60.00		$40.81	$12.84	$15.57	$7.33	$0.00	$76.55
3 / 70.00		$47.61	$12.84	$15.57	$7.33	$0.00	$83.35
4 / 80.00		$54.41	$12.84	$15.57	$7.33	$0.00	$90.15
5 / 90.00		$61.21	$12.84	$15.57	$7.33	$0.00	$96.95
Apprentice to Journeyworker Ratio: 1:5							
BULLDOZER/GRADER/SCRAPER	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN	12/1/2025	$49.10	$10.65	$9.75	$9.80	$0.00	$79.30
LABORERS	6/1/2026	$50.65	$10.65	$9.75	$9.80	$0.00	$80.85
LABORERS - FOUNDATION AND MARINE	12/1/2026	$52.15	$10.65	$9.75	$9.80	$0.00	$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER	12/1/2025	$47.95	$10.65	$9.75	$9.80	$0.00	$78.15
LABORERS	6/1/2026	$49.50	$10.65	$9.75	$9.80	$0.00	$79.70

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - FOUNDATION AND MARINE	12/1/2026	$51.00	$10.65	$9.75	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN	12/1/2025	$48.28	$10.65	$9.75	$9.80	$0.00	$78.48
LABORERS	6/1/2026	$49.83	$10.65	$9.75	$9.80	$0.00	$80.03
LABORERS - FOUNDATION AND MARINE	12/1/2026	$51.33	$10.65	$9.75	$9.80	$0.00	$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
CARPENTER	3/1/2026	$50.85	$11.08	$11.47	$8.50	$0.00	$81.90
CARPENTERS	9/1/2026	$52.10	$11.08	$11.47	$8.50	$0.00	$83.15
CARPENTERS -ZONE 2 (Eastern Massachusetts)	3/1/2027	$53.35	$11.08	$11.47	$8.50	$0.00	$84.40

Apprentice: CARPENTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.88	$11.08	$0.00	$1.73	$0.00	$35.69
2	45.00	$22.88	$11.08	$0.00	$1.73	$0.00	$35.69
3	55.00	$27.97	$11.08	$0.00	$3.40	$0.00	$42.45
4	55.00	$27.97	$11.08	$0.00	$3.40	$0.00	$42.45
5	70.00	$35.60	$11.08	$11.41	$5.10	$0.00	$63.19
6	70.00	$35.60	$11.08	$11.41	$5.10	$0.00	$63.19
7	80.00	$40.68	$11.08	$11.44	$6.80	$0.00	$70.00
8	80.00	$40.68	$11.08	$11.44	$6.80	$0.00	$70.00

Apprentice: CARPENTER

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$23.45	$11.08	$0.00	$1.73	$0.00	$36.26
2	45.00	$23.45	$11.08	$0.00	$1.73	$0.00	$36.26
3	55.00	$28.66	$11.08	$0.00	$3.40	$0.00	$43.14
4	55.00	$28.66	$11.08	$0.00	$3.40	$0.00	$43.14
5	70.00	$36.47	$11.08	$11.41	$5.10	$0.00	$64.06
6	70.00	$36.47	$11.08	$11.41	$5.10	$0.00	$64.06
7	80.00	$41.68	$11.08	$11.44	$6.80	$0.00	$71.00
8	80.00	$41.68	$11.08	$11.44	$6.80	$0.00	$71.00

Apprentice to Journeyworker Ratio: 1:5

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CARPENTER WOOD FRAME	10/1/2025	$27.37	$7.38	$4.47	$1.00	$0.00	$40.22
CARPENTERS	10/1/2026	$28.47	$7.38	$4.47	$1.00	$0.00	$41.32
CARPENTERS-ZONE 3 (Wood Frame)							
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	$16.42	$7.38	$0.00	$0.00	$0.00	$23.80
2	60.00	$16.42	$7.38	$0.00	$0.00	$0.00	$23.80
3	65.00	$17.79	$7.38	$0.00	$1.00	$0.00	$26.17
4	70.00	$19.16	$7.38	$0.00	$1.00	$0.00	$27.54
5	75.00	$20.53	$7.38	$3.80	$1.00	$0.00	$32.71
6	80.00	$21.90	$7.38	$3.80	$1.00	$0.00	$34.08
7	85.00	$23.26	$7.38	$3.80	$1.00	$0.00	$35.44
8	90.00	$24.63	$7.38	$3.80	$1.00	$0.00	$36.81

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$17.08	$7.38	$0.00	$0.00	$0.00	$24.46
2	60.00	$17.08	$7.38	$0.00	$0.00	$0.00	$24.46
3	65.00	$18.51	$7.38	$0.00	$1.00	$0.00	$26.89
4	70.00	$19.93	$7.38	$0.00	$1.00	$0.00	$28.31
5	75.00	$21.35	$7.38	$3.80	$1.00	$0.00	$33.53
6	80.00	$22.78	$7.38	$3.80	$1.00	$0.00	$34.96
7	85.00	$24.20	$7.38	$3.80	$1.00	$0.00	$36.38
8	90.00	$25.62	$7.38	$3.80	$1.00	$0.00	$37.80

Apprentice to Journeyworker Ratio: 1:5

CEMENT MASONRY/PLASTERING	1/1/2026	$53.24	$13.35	$16.43	$7.78	$1.80	$92.60
PLASTERERS AND CEMENT MASONS LOCAL 534	7/1/2026	$54.49	$13.35	$16.43	$7.78	$1.80	$93.85
Plasterers and Cement Masons - Zone 1	1/1/2027	$55.94	$13.35	$16.43	$7.78	$1.80	$95.30
	7/1/2027	$57.29	$13.35	$16.43	$7.78	$1.80	$96.65
	1/1/2028	$58.64	$13.35	$16.43	$7.78	$1.80	$98.00

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.62	$13.35	$16.43	$0.00	$0.00	$56.40
2	60.00	$31.94	$13.35	$16.43	$7.78	$1.80	$71.30
3	65.00	$34.61	$13.35	$16.43	$7.78	$1.80	$73.97
4	70.00	$37.27	$13.35	$16.43	$7.78	$1.80	$76.63

Construction

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

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
5	75.00	$39.93	$13.35	$16.43	$7.78	$1.80	$79.29
6	80.00	$42.59	$13.35	$16.43	$7.78	$1.80	$81.95
7	90.00	$47.92	$13.35	$16.43	$0.00	$0.00	$77.70

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$27.25	$13.35	$16.43	$0.00	$0.00	$57.03
2	60.00	$32.69	$13.35	$16.43	$7.78	$1.80	$72.05
3	65.00	$35.42	$13.35	$16.43	$7.78	$1.80	$74.78
4	70.00	$38.14	$13.35	$16.43	$7.78	$1.80	$77.50
5	75.00	$40.87	$13.35	$16.43	$7.78	$1.80	$80.23
6	80.00	$43.59	$13.35	$16.43	$7.78	$1.80	$82.95
7	90.00	$49.04	$13.35	$0.00	$7.78	$0.00	$70.17

Apprentice to Journeyworker Ratio: 1:5

CHAIN SAW OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.88	$16.55	$13.35	$3.25	$0.00	$93.03
	6/1/2026	$61.21	$16.55	$13.35	$3.25	$0.00	$94.36
	12/1/2026	$62.69	$16.55	$13.35	$3.25	$0.00	$95.84
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$37.37	$16.55	$13.35	$3.25	$0.00	$70.52
	6/1/2026	$38.23	$16.55	$13.35	$3.25	$0.00	$71.38
	12/1/2026	$39.18	$16.55	$13.35	$3.25	$0.00	$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DELEADER (BRIDGE) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51

Construction

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

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 2	12/1/2025	$48.00	$10.65	$9.75	$9.65	$0.00	$78.05
	6/1/2026	$49.55	$10.65	$9.75	$9.65	$0.00	$79.60
	12/7/2026	$51.05	$10.65	$9.75	$9.65	$0.00	$81.10
	6/7/2027	$52.65	$10.65	$9.75	$9.65	$0.00	$82.70
	12/6/2027	$54.25	$10.65	$9.75	$9.65	$0.00	$84.30
	6/5/2028	$55.93	$10.65	$9.75	$9.65	$0.00	$85.98
	12/4/2028	$57.60	$10.65	$9.75	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$49.00	$10.65	$9.75	$9.65	$0.00	$79.05
	6/1/2026	$50.55	$10.65	$9.75	$9.65	$0.00	$80.60
	12/7/2026	$52.05	$10.65	$9.75	$9.65	$0.00	$82.10
	6/7/2027	$53.65	$10.65	$9.75	$9.65	$0.00	$83.70
	12/6/2027	$55.25	$10.65	$9.75	$9.65	$0.00	$85.30
	6/5/2028	$56.93	$10.65	$9.75	$9.65	$0.00	$86.98
	12/4/2028	$58.60	$10.65	$9.75	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS LABORERS LABORERS - ZONE 2	12/1/2025	$48.75	$10.65	$9.75	$9.65	$0.00	$78.80
	6/1/2026	$50.30	$10.65	$9.75	$9.65	$0.00	$80.35
	12/7/2026	$51.80	$10.65	$9.75	$9.65	$0.00	$81.85
	6/7/2027	$53.40	$10.65	$9.75	$9.65	$0.00	$83.45
	12/6/2027	$55.00	$10.65	$9.75	$9.65	$0.00	$85.05
	6/5/2028	$56.68	$10.65	$9.75	$9.65	$0.00	$86.73
	12/4/2028	$58.35	$10.65	$9.75	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER LABORERS LABORERS - ZONE 2	12/1/2025	$49.00	$10.65	$9.75	$9.65	$0.00	$79.05
	6/1/2026	$50.55	$10.65	$9.75	$9.65	$0.00	$80.60
	12/7/2026	$52.05	$10.65	$9.75	$9.65	$0.00	$82.10
	6/7/2027	$53.65	$10.65	$9.75	$9.65	$0.00	$83.70
	12/6/2027	$55.25	$10.65	$9.75	$9.65	$0.00	$85.30
	6/5/2028	$56.93	$10.65	$9.75	$9.65	$0.00	$86.98
	12/4/2028	$58.60	$10.65	$9.75	$9.65	$0.00	$88.65

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR	12/1/2025	$48.75	$10.65	$9.75	$9.65	$0.00	$78.80
LABORERS	6/1/2026	$50.30	$10.65	$9.75	$9.65	$0.00	$80.35
LABORERS - ZONE 2	12/7/2026	$51.80	$10.65	$9.75	$9.65	$0.00	$81.85
	6/7/2027	$53.40	$10.65	$9.75	$9.65	$0.00	$83.45
	12/6/2027	$55.00	$10.65	$9.75	$9.65	$0.00	$85.05
	6/5/2028	$56.68	$10.65	$9.75	$9.65	$0.00	$86.73
	12/4/2028	$58.35	$10.65	$9.75	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER	12/1/2025	$48.00	$10.65	$9.75	$9.65	$0.00	$78.05
LABORERS	6/1/2026	$49.55	$10.65	$9.75	$9.65	$0.00	$79.60
LABORERS - ZONE 2	12/7/2026	$51.05	$10.65	$9.75	$9.65	$0.00	$81.10
	6/7/2027	$52.65	$10.65	$9.75	$9.65	$0.00	$82.70
	12/6/2027	$54.25	$10.65	$9.75	$9.65	$0.00	$84.30
	6/5/2028	$55.93	$10.65	$9.75	$9.65	$0.00	$85.98
	12/4/2028	$57.60	$10.65	$9.75	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DIRECTIONAL DRILL MACHINE OPERATOR	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
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 2)							
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	$51.97	$10.08	$11.62	$12.67	$0.00	$86.34
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
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 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DIVER/SLURRY (EFFLUENT)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction)	7/1/2020	$26.77	$6.67	$3.93	$0.00	$0.16	$37.53
DRAWBRIDGE - SEIU LOCAL 888							
DRAWBRIDGE - SEIU LOCAL 888							
ELECTRICIAN	9/7/2025	$48.16	$14.98	$14.30	$5.30	$0.00	$82.74
ELECTRICIANS LOCAL 96	9/6/2026	$49.38	$15.96	$14.57	$5.43	$0.00	$85.34
ELECTRICIANS LOCAL 96							

Construction

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

Apprentice: ELECTRICIAN

Effective Date: 9/7/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$19.26	$14.98	$0.58	$0.00	$0.00	$34.82
2	45.00	$21.67	$14.98	$0.65	$0.00	$0.00	$37.30
3	48.00	$23.12	$14.98	$13.55	$2.54	$0.00	$54.19
4	55.00	$26.49	$14.98	$13.65	$2.92	$0.00	$58.04
5	65.00	$31.30	$14.98	$13.80	$3.45	$0.00	$63.53
6	80.00	$38.53	$14.98	$14.02	$4.24	$0.00	$71.77

Apprentice: ELECTRICIAN

Effective Date: 9/6/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$19.75	$15.96	$0.59	$0.00	$0.00	$36.30
2	45.00	$22.22	$15.96	$0.67	$0.00	$0.00	$38.85
3	48.00	$23.70	$15.96	$13.80	$2.61	$0.00	$56.07
4	55.00	$27.16	$15.96	$13.90	$2.99	$0.00	$60.01
5	65.00	$32.10	$15.96	$14.05	$3.53	$0.00	$65.64
6	80.00	$39.50	$15.96	$14.28	$4.35	$0.00	$74.09

Apprentice to Journeyworker Ratio: 2:3

ELEVATOR CONSTRUCTOR	1/1/2026	$69.23	$16.38	$11.06	$10.70	$0.00	$107.37
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2027	$72.23	$16.48	$11.16	$11.00	$0.00	$110.87
ELEVATOR CONSTRUCTORS LOCAL 41							

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: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2027

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$36.12	$16.48	$0.00	$0.00	$0.00	$52.60
2	55.00	$39.73	$16.48	$11.16	$11.00	$0.00	$78.37
3	65.00	$46.95	$16.48	$11.16	$11.00	$0.00	$85.59

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: ELEVATOR CONSTRUCTOR							
Effective Date: 1/1/2027							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
4 / 70.00		$50.56	$16.48	$11.16	$11.00	$0.00	$89.20
5 / 80.00		$57.78	$16.48	$11.16	$11.00	$0.00	$96.42
Apprentice to Journeyworker Ratio: 1:1							
ELEVATOR CONSTRUCTOR HELPER	1/1/2026	$48.46	$16.38	$11.06	$10.70	$0.00	$86.60
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2027	$50.56	$16.48	$11.16	$11.00	$0.00	$89.20
ELEVATOR CONSTRUCTORS LOCAL 41							
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	11/1/2025	$53.56	$16.05	$13.25	$3.25	$0.00	$86.11
OPERATING ENGINEERS LOCAL 4	5/1/2026	$55.00	$16.05	$13.25	$3.25	$0.00	$87.55
OPERATING ENGINEERS LOCAL 4	11/1/2026	$56.29	$16.05	$13.25	$3.25	$0.00	$88.84
	5/1/2027	$57.72	$16.05	$13.25	$3.25	$0.00	$90.27
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	11/1/2025	$55.17	$16.05	$13.25	$3.25	$0.00	$87.72
OPERATING ENGINEERS LOCAL 4	5/1/2026	$56.62	$16.05	$13.25	$3.25	$0.00	$89.17
OPERATING ENGINEERS LOCAL 4	11/1/2026	$57.92	$16.05	$13.25	$3.25	$0.00	$90.47
	5/1/2027	$59.37	$16.05	$13.25	$3.25	$0.00	$91.92
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY	11/1/2025	$26.03	$16.05	$13.25	$3.25	$0.00	$58.58
OPERATING ENGINEERS LOCAL 4	5/1/2026	$26.88	$16.05	$13.25	$3.25	$0.00	$59.43
OPERATING ENGINEERS LOCAL 4	11/1/2026	$27.64	$16.05	$13.25	$3.25	$0.00	$60.19
	5/1/2027	$28.49	$16.05	$13.25	$3.25	$0.00	$61.04
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIRE ALARM INSTALLER	9/7/2025	$48.16	$14.98	$14.30	$5.30	$0.00	$82.74
ELECTRICIANS LOCAL 96	9/6/2026	$49.38	$15.96	$14.57	$5.43	$0.00	$85.34
ELECTRICIANS LOCAL 96							
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIRE ALARM REPAIR / MAINT/COMMISSIONING	9/7/2025	$48.16	$14.98	$14.30	$5.30	$0.00	$82.74
ELECTRICIANS LOCAL 96	9/6/2026	$49.38	$15.96	$14.57	$5.43	$0.00	$85.34
ELECTRICIANS LOCAL 96							
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIREMAN (ASST. ENGINEER)	12/1/2025	$47.09	$16.55	$13.35	$3.25	$0.00	$80.24
OPERATING ENGINEERS LOCAL 4	6/1/2026	$48.15	$16.55	$13.35	$3.25	$0.00	$81.30
OPERATING ENGINEERS LOCAL 4	12/1/2026	$49.33	$16.55	$13.35	$3.25	$0.00	$82.48
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FLAGGER & SIGNALER (HEAVY & HIGHWAY)	12/1/2025	$28.09	$10.65	$9.75	$9.21	$0.00	$57.70
LABORERS	6/1/2026	$29.21	$10.65	$9.75	$9.21	$0.00	$58.82
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$29.21	$10.65	$9.75	$9.21	$0.00	$58.82
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
FLOORCOVERER	3/1/2024	$48.93	$10.33	$11.47	$8.80	$0.00	$79.53
FLOORCOVERERS LOCAL 2168							
FLOORCOVERERS LOCAL 2168 ZONE II							

Apprentice: FLOORCOVERER

Effective Date: 3/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.47	$10.33	$0.00	$1.76	$0.00	$36.56
2	55.00	$26.91	$10.33	$0.00	$1.76	$0.00	$39.00
3	60.00	$29.36	$10.33	$0.00	$3.52	$0.00	$43.21
4	65.00	$31.80	$10.33	$0.00	$3.52	$0.00	$45.65
5	70.00	$34.25	$10.33	$11.47	$5.28	$0.00	$61.33
6	75.00	$36.70	$10.33	$11.47	$5.28	$0.00	$63.78
7	80.00	$39.14	$10.33	$11.47	$7.04	$0.00	$67.98
8	85.00	$41.59	$10.33	$11.47	$7.04	$0.00	$70.43

Apprentice Notes

Steps are 750 hrs.

Apprentice to Journeyworker Ratio: 1:1

FORK LIFT/CHERRY PICKER	12/1/2025	$58.68	$16.55	$13.35	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.98	$16.55	$13.35	$3.25	$0.00	$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	$61.43	$16.55	$13.35	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATOR/LIGHTING PLANT/HEATERS	12/1/2025	$37.37	$16.55	$13.35	$3.25	$0.00	$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	$38.23	$16.55	$13.35	$3.25	$0.00	$71.38
OPERATING ENGINEERS LOCAL 4	12/1/2026	$39.18	$16.55	$13.35	$3.25	$0.00	$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	1/1/2026	$49.06	$10.35	$12.00	$12.60	$0.00	$84.01
GLAZIERS LOCAL 35							
GLAZIERS LOCAL 35 (ZONE 2)							

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

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.53	$10.35	$0.00	$0.00	$0.00	$34.88
2	55.00	$26.98	$10.35	$0.00	$6.88	$0.00	$44.21
3	60.00	$29.44	$10.35	$0.00	$7.50	$0.00	$47.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
HOISTING ENGINEER/CRANES/GRADALLS OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.68	$16.55	$13.35	$3.25	$0.00	$91.83
	6/1/2026	$59.98	$16.55	$13.35	$3.25	$0.00	$93.13
	12/1/2026	$61.43	$16.55	$13.35	$3.25	$0.00	$94.58

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

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	65.00	$31.89	$10.35	$0.00	$8.13	$0.00	$50.37
5	70.00	$34.34	$10.35	$12.00	$8.75	$0.00	$65.44
6	75.00	$36.80	$10.35	$12.00	$9.38	$0.00	$68.53
7	80.00	$39.25	$10.35	$12.00	$10.00	$0.00	$71.60
8	90.00	$44.15	$10.35	$12.00	$11.25	$0.00	$77.75

Apprentice to Journeyworker Ratio: 1:1

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$32.88	$0.00	$0.00	$0.00	$0.00	$32.88
2	60.00	$35.87	$16.05	$13.25	$3.25	$0.00	$68.42
3	65.00	$38.86	$16.05	$13.25	$3.25	$0.00	$71.41
4	70.00	$41.85	$16.05	$13.25	$3.25	$0.00	$74.40
5	75.00	$44.84	$16.05	$13.25	$3.25	$0.00	$77.39
6	80.00	$47.82	$16.05	$13.25	$3.25	$0.00	$80.37
7	85.00	$50.81	$16.05	$13.25	$3.25	$0.00	$83.36
8	90.00	$53.80	$16.05	$13.25	$3.25	$0.00	$86.35

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$32.99	$0.00	$0.00	$0.00	$0.00	$32.99
2	60.00	$35.99	$16.55	$13.35	$3.25	$0.00	$69.14
3	65.00	$38.99	$16.55	$13.35	$3.25	$0.00	$72.14
4	70.00	$41.99	$16.55	$13.35	$3.25	$0.00	$75.14
5	75.00	$44.99	$16.55	$13.35	$3.25	$0.00	$78.14
6	80.00	$47.98	$16.55	$13.35	$3.25	$0.00	$81.13
7	85.00	$50.98	$16.55	$13.35	$3.25	$0.00	$84.13
8	90.00	$53.98	$16.55	$13.35	$3.25	$0.00	$87.13

Apprentice to Journeyworker Ratio: 1:6

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

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	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)	9/7/2025	$48.16	$14.98	$14.30	$5.30	$0.00	$82.74
ELECTRICIANS LOCAL 96	9/6/2026	$49.38	$15.96	$14.57	$5.43	$0.00	$85.34
ELECTRICIANS LOCAL 96							
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR)	7/1/2025	$43.48	$12.94	$11.01	$8.72	$2.13	$78.28
SHEETMETAL WORKERS LOCAL 63	7/1/2026	$43.48	$13.24	$11.01	$9.92	$2.13	$79.78
SHEETMETAL WORKERS LOCAL 63	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)	3/1/2026	$55.90	$13.10	$9.71	$8.06	$0.00	$86.77
PLUMBERS LOCAL 4							
PLUMBERS LOCAL 4							
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HVAC MECHANIC	3/1/2026	$55.90	$13.10	$9.71	$8.06	$0.00	$86.77
PLUMBERS LOCAL 4							
PLUMBERS LOCAL 4							
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS	12/1/2025	$41.22	$10.65	$9.75	$9.11	$0.00	$70.73
LABORERS	6/1/2026	$42.66	$10.65	$9.75	$9.11	$0.00	$72.17
LABORERS - ZONE 2	12/1/2026	$44.10	$10.65	$9.75	$9.11	$0.00	$73.61
	6/1/2027	$45.55	$10.65	$9.75	$9.11	$0.00	$75.06
	12/1/2027	$47.00	$10.65	$9.75	$9.11	$0.00	$76.51
	6/1/2028	$48.50	$10.65	$9.75	$9.11	$0.00	$78.01
	12/1/2028	$50.00	$10.65	$9.75	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY)	12/1/2025	$41.22	$10.65	$9.75	$9.21	$0.00	$70.83
LABORERS	6/1/2026	$42.66	$10.65	$9.75	$9.21	$0.00	$72.27
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$44.10	$10.65	$9.75	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
INSULATOR (PIPES & TANKS)	9/1/2025	$54.31	$14.75	$9.52	$10.09	$0.00	$88.67
HEAT & FROST INSULATORS LOCAL 6	9/1/2026	$57.38	$14.75	$9.52	$10.09	$0.00	$91.74
HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)							

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$27.16	$14.75	$9.27	$5.05	$0.00	$56.23
2	60.00	$32.59	$14.75	$9.32	$6.05	$0.00	$62.71

Construction

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

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	70.00	$38.02	$14.75	$9.37	$7.06	$0.00	$69.20
4	80.00	$43.45	$14.75	$9.42	$8.07	$0.00	$75.69

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$28.69	$14.75	$9.27	$5.05	$0.00	$57.76
2	60.00	$34.43	$14.75	$9.32	$6.05	$0.00	$64.55
3	70.00	$40.17	$14.75	$9.37	$7.06	$0.00	$71.35
4	80.00	$45.90	$14.75	$9.42	$8.07	$0.00	$78.14

Apprentice to Journeyworker Ratio: 1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (WORCESTER AREA)	9/16/2025	$57.57	$9.05	$12.75	$14.50	$0.00	$93.87

Apprentice: IRONWORKER/WELDER

Effective Date: 9/16/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$34.54	$9.05	$12.75	$4.50	$0.00	$60.84
2	75.00	$43.18	$9.05	$12.75	$4.50	$0.00	$69.48
3	85.00	$48.93	$9.05	$12.75	$4.50	$0.00	$75.23

Apprentice to Journeyworker Ratio: 1:4

JACKHAMMER & PAVING BREAKER OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01

For apprentice rates see "Apprentice- LABORER"

LABORER LABORERS LABORERS - ZONE 2	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98
	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76

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
1	60.00	$25.03	$10.15	$9.50	$9.11	$0.00	$53.79
2	70.00	$29.20	$10.15	$9.50	$9.11	$0.00	$57.96
3	80.00	$33.38	$10.15	$9.50	$9.11	$0.00	$62.14
4	90.00	$37.55	$10.15	$9.50	$9.11	$0.00	$66.31

Apprentice: LABORER

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.15	$10.65	$9.75	$9.11	$0.00	$54.66
2	70.00	$29.34	$10.65	$9.75	$9.11	$0.00	$58.85
3	80.00	$33.53	$10.65	$9.75	$9.11	$0.00	$63.04
4	90.00	$37.72	$10.65	$9.75	$9.11	$0.00	$67.23

Apprentice to Journeyworker Ratio: 1:5

LABORER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$40.47	$10.65	$9.75	$9.21	$0.00	$70.08
	6/1/2026	$41.91	$10.65	$9.75	$9.21	$0.00	$71.52
	12/1/2026	$43.35	$10.65	$9.75	$9.21	$0.00	$72.96

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.03	$10.15	$9.50	$9.21	$0.00	$53.89
2	70.00	$29.20	$10.15	$9.50	$9.21	$0.00	$58.06
3	80.00	$33.38	$10.15	$9.50	$9.21	$0.00	$62.24
4	90.00	$37.55	$10.15	$9.50	$9.21	$0.00	$66.41

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.15	$10.65	$9.75	$9.21	$0.00	$54.76
2	70.00	$29.34	$10.65	$9.75	$9.21	$0.00	$58.95
3	80.00	$33.53	$10.65	$9.75	$9.21	$0.00	$63.14
4	90.00	$37.72	$10.65	$9.75	$9.10	$0.00	$67.22

Apprentice to Journeyworker Ratio: 1:5

LABORER: CARPENTER TENDER	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
LABORERS - ZONE 2	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: CEMENT FINISHER TENDER	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98
LABORERS	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
LABORERS - ZONE 2	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	12/1/2025	$40.56	$10.65	$9.75	$9.65	$0.00	$70.61
LABORERS	6/1/2026	$42.00	$10.65	$9.75	$9.65	$0.00	$72.05
LABORERS - ZONE 2	12/7/2026	$43.44	$10.65	$9.75	$9.65	$0.00	$73.49
	6/7/2027	$44.89	$10.65	$9.75	$9.65	$0.00	$74.94
	12/6/2027	$46.34	$10.65	$9.75	$9.65	$0.00	$76.39
	6/5/2028	$47.84	$10.65	$9.75	$9.65	$0.00	$77.89
	12/4/2028	$49.34	$10.65	$9.75	$9.65	$0.00	$79.39
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98
LABORERS	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
LABORERS - ZONE 2	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	12/1/2025	$40.47	$10.65	$9.75	$9.11	$0.00	$69.98

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS LABORERS - ZONE 2	6/1/2026	$41.91	$10.65	$9.75	$9.11	$0.00	$71.42
	12/1/2026	$43.35	$10.65	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.80	$10.65	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.25	$10.65	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.75	$10.65	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.25	$10.65	$9.75	$9.11	$0.00	$78.76

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	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS LABORERS - ZONE 2	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21

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

MARBLE & TILE FINISHERS	2/1/2026	$52.08	$12.84	$15.57	$5.78	$0.00	$86.27
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	8/1/2026	$53.84	$12.84	$15.57	$5.78	$0.00	$88.03
	2/1/2027	$54.96	$12.84	$15.57	$5.78	$0.00	$89.15

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.04	$12.84	$15.57	$5.78	$0.00	$60.23
2	60.00	$31.25	$12.84	$15.57	$5.78	$0.00	$65.44
3	70.00	$36.46	$12.84	$15.57	$5.78	$0.00	$70.65
4	80.00	$41.66	$12.84	$15.57	$5.78	$0.00	$75.85
5	90.00	$46.87	$12.84	$15.57	$5.78	$0.00	$81.06

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.92	$12.84	$15.57	$5.78	$0.00	$61.11
2	60.00	$32.30	$12.84	$15.57	$5.78	$0.00	$66.49
3	70.00	$37.69	$12.84	$15.57	$5.78	$0.00	$71.88
4	80.00	$43.07	$12.84	$15.57	$5.78	$0.00	$77.26
5	90.00	$48.46	$12.84	$15.57	$5.78	$0.00	$82.65

Apprentice to Journeyworker Ratio: 1:5

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
MARBLE MASONS,TILELAYERS & TERRAZZO MECH	2/1/2026	$67.97	$12.84	$15.57	$7.99	$0.00	$104.37
BRICKLAYERS LOCAL 3	8/1/2026	$70.17	$12.84	$15.57	$7.99	$0.00	$106.57
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2027	$71.57	$12.84	$15.57	$7.99	$0.00	$107.97

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.99	$12.84	$15.57	$7.99	$0.00	$70.39
2	60.00	$40.78	$12.84	$15.57	$7.99	$0.00	$77.18
3	70.00	$47.58	$12.84	$15.57	$7.99	$0.00	$83.98
4	80.00	$54.38	$12.84	$15.57	$7.99	$0.00	$90.78
5	90.00	$61.17	$12.84	$15.57	$7.99	$0.00	$97.57

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$35.09	$12.84	$15.57	$7.99	$0.00	$71.49
2	60.00	$42.10	$12.84	$15.57	$7.99	$0.00	$78.50
3	70.00	$49.12	$12.84	$15.57	$7.99	$0.00	$85.52
4	80.00	$56.14	$12.84	$15.57	$7.99	$0.00	$92.54
5	90.00	$63.15	$12.84	$15.57	$7.99	$0.00	$99.55

Apprentice to Journeyworker Ratio: 1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES)	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 2)	1/5/2026	$46.86	$10.58	$11.47	$10.00	$0.00	$78.91
MILLWRIGHTS LOCAL 1121							
MILLWRIGHTS LOCAL 1121 - Zone 2							

Apprentice: MILLWRIGHT (Zone 2)

Effective Date: 1/5/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$25.77	$10.58	$0.00	$5.50	$0.00	$41.85
2	65.00	$30.46	$10.58	$0.00	$6.50	$0.00	$47.54
3	75.00	$35.15	$10.58	$11.47	$7.50	$0.00	$64.70

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: MILLWRIGHT (Zone 2)							
Effective Date: 1/5/2026							
Step / Percent		**Apprentice Base Wage**					
4 / 85.00		$39.83	$10.58	$11.47	$8.50	$0.00	$70.38
Apprentice Notes							
Step 1&2 Appr. indentured after 1/6/2020 receive no pension,							
Apprentice to Journeyworker Ratio: 1:4							
MORTAR MIXER	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	12/1/2025	$25.08	$16.55	$13.35	$3.25	$0.00	$58.23
OPERATING ENGINEERS LOCAL 4	6/1/2026	$25.67	$16.55	$13.35	$3.25	$0.00	$58.82
OPERATING ENGINEERS LOCAL 4	12/1/2026	$26.34	$16.55	$13.35	$3.25	$0.00	$59.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OILER (TRUCK CRANES, GRADALLS)	12/1/2025	$31.05	$16.55	$13.35	$3.25	$0.00	$64.20
OPERATING ENGINEERS LOCAL 4	6/1/2026	$31.77	$16.55	$13.35	$3.25	$0.00	$64.92
OPERATING ENGINEERS LOCAL 4	12/1/2026	$32.57	$16.55	$13.35	$3.25	$0.00	$65.72
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OTHER POWER DRIVEN EQUIPMENT - CLASS II	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS)	1/1/2026	$59.56	$10.35	$12.00	$12.50	$0.00	$94.41
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							
Apprentice: PAINTER (BRIDGES/TANKS)							
Effective Date: 1/1/2026							
Step / Percent		**Apprentice Base Wage**					
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

Construction

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

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
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) *	1/1/2026	$50.46	$10.35	$12.00	$12.60	$0.00	$85.41

* 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 2

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	$25.23	$10.35	$0.00	$0.00	$0.00	$35.58
2	55.00	$27.75	$10.35	$0.00	$6.93	$0.00	$45.03
3	60.00	$30.28	$10.35	$0.00	$7.56	$0.00	$48.19
4	65.00	$32.80	$10.35	$0.00	$8.19	$0.00	$51.34
5	70.00	$35.32	$10.35	$12.00	$8.82	$0.00	$66.49
6	75.00	$37.85	$10.35	$12.00	$9.45	$0.00	$69.65
7	80.00	$40.37	$10.35	$12.00	$10.08	$0.00	$72.80
8	90.00	$45.41	$10.35	$12.00	$11.34	$0.00	$79.10

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	1/1/2026	$48.52	$10.35	$12.00	$12.60	$0.00	$83.47

PAINTERS LOCAL 35
PAINTERS LOCAL 35 - ZONE 2

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	$24.26	$10.35	$0.00	$0.00	$0.00	$34.61
2	55.00	$26.69	$10.35	$0.00	$6.93	$0.00	$43.97
3	60.00	$29.11	$10.35	$0.00	$7.56	$0.00	$47.02
4	65.00	$31.54	$10.35	$0.00	$8.19	$0.00	$50.08
5	70.00	$33.96	$10.35	$12.00	$8.82	$0.00	$65.13
6	75.00	$36.39	$10.35	$12.00	$9.45	$0.00	$68.19
7	80.00	$38.82	$10.35	$12.00	$10.08	$0.00	$71.25
8	90.00	$43.67	$10.35	$12.00	$11.34	$0.00	$77.36

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journeyworker Ratio: 1:1							
PAINTER / TAPER (BRUSH, NEW) *	1/1/2026	$49.06	$10.35	$12.00	$12.60	$0.00	$84.01
* 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 2							

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	$24.53	$10.35	$0.00	$0.00	$0.00	$34.88
2	55.00	$26.98	$10.35	$0.00	$6.93	$0.00	$44.26
3	60.00	$29.44	$10.35	$0.00	$7.56	$0.00	$47.35
4	65.00	$31.89	$10.35	$0.00	$8.19	$0.00	$50.43
5	70.00	$34.34	$10.35	$12.00	$8.82	$0.00	$65.51
6	75.00	$36.80	$10.35	$12.00	$9.45	$0.00	$68.60
7	80.00	$39.25	$10.35	$12.00	$10.08	$0.00	$71.68
8	90.00	$44.15	$10.35	$12.00	$11.34	$0.00	$77.84

Apprentice to Journeyworker Ratio: 1:1							
PAINTER / TAPER (BRUSH, REPAINT)	1/1/2026	$47.12	$10.35	$12.00	$12.60	$0.00	$82.07
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

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	$23.56	$10.35	$0.00	$0.00	$0.00	$33.91
2	55.00	$25.92	$10.35	$0.00	$6.93	$0.00	$43.20
3	60.00	$28.27	$10.35	$0.00	$7.56	$0.00	$46.18
4	65.00	$30.63	$10.35	$0.00	$8.19	$0.00	$49.17
5	70.00	$32.98	$10.35	$12.00	$8.82	$0.00	$64.15
6	75.00	$35.34	$10.35	$12.00	$9.45	$0.00	$67.14
7	80.00	$37.70	$10.35	$12.00	$10.08	$0.00	$70.13
8	90.00	$42.41	$10.35	$12.00	$11.34	$0.00	$76.10

Apprentice to Journeyworker Ratio: 1:1							
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	12/1/2025	$40.47	$10.65	$9.75	$9.21	$0.00	$70.08
LABORERS	6/1/2026	$41.91	$10.65	$9.75	$9.21	$0.00	$71.52
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.35	$10.65	$9.75	$9.21	$0.00	$72.96
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER	1/1/2026	$40.78	$16.17	$21.78	$0.00	$0.00	$78.73
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	$41.78	$16.17	$21.78	$0.00	$0.00	$79.73
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	$41.78	$16.17	$23.52	$0.00	$0.00	$81.47

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	1/1/2027	$41.78	$16.77	$23.52	$0.00	$0.00	$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2) For apprentice rates see "Apprentice- PILE DRIVER"	8/1/2024	$51.97	$10.08	$11.62	$12.67	$0.00	$86.34
PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	$51.97	$10.08	$11.62	$12.67	$0.00	$86.34

Apprentice: PILE DRIVER

Effective Date: 8/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$23.39	$10.08	$0.00	$2.53	$0.00	$36.00
2	55.00	$28.58	$10.08	$0.00	$5.07	$0.00	$43.73
3	70.00	$36.38	$10.08	$11.62	$7.60	$0.00	$65.68
4	80.00	$41.58	$10.08	$11.62	$10.14	$0.00	$73.42

Apprentice to Journeyworker Ratio: 1:5

PIPELAYER LABORERS LABORERS - ZONE 2 For apprentice rates see "Apprentice- LABORER"	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
PIPELAYER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
PLUMBER & PIPEFITTER PLUMBERS LOCAL 4 PLUMBERS LOCAL 4	3/1/2026	$55.90	$13.10	$9.71	$8.06	$0.00	$86.77

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$22.36	$13.10	$0.00	$0.00	$0.00	$35.46
2	50.00	$27.95	$13.10	$0.00	$0.00	$0.00	$41.05
3	60.00	$33.54	$13.10	$0.00	$0.00	$0.00	$46.64
4	70.00	$39.13	$13.10	$0.00	$8.06	$0.00	$60.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PLUMBER & PIPEFITTER							
Effective Date: 3/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
5 / 80.00		$44.72	$13.10	$0.00	$8.06	$0.00	$65.88
Apprentice to Journeyworker Ratio: 1:3							
PNEUMATIC CONTROLS (TEMP.) PLUMBERS LOCAL 4 PLUMBERS LOCAL 4	3/1/2026	$55.90	$13.10	$9.71	$8.06	$0.00	$86.77
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
PNEUMATIC DRILL/TOOL OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
POWDERMAN & BLASTER LABORERS LABORERS - ZONE 2	12/1/2025	$41.47	$10.65	$9.75	$9.11	$0.00	$70.98
	6/1/2026	$42.91	$10.65	$9.75	$9.11	$0.00	$72.42
	12/1/2026	$44.35	$10.65	$9.75	$9.11	$0.00	$73.86
	6/1/2027	$45.80	$10.65	$9.75	$9.11	$0.00	$75.31
	12/1/2027	$47.25	$10.65	$9.75	$9.11	$0.00	$76.76
	6/1/2028	$48.75	$10.65	$9.75	$9.11	$0.00	$78.26
	12/1/2028	$50.25	$10.65	$9.75	$9.11	$0.00	$79.76
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	$41.47	$10.65	$9.75	$9.21	$0.00	$71.08
	6/1/2026	$42.91	$10.65	$9.75	$9.21	$0.00	$72.52
	12/1/2026	$44.35	$10.65	$9.75	$9.21	$0.00	$73.96
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
POWER SHOVEL/DERRICK/TRENCHING MACHINE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.68	$16.55	$13.35	$3.25	$0.00	$91.83
	6/1/2026	$59.98	$16.55	$13.35	$3.25	$0.00	$93.13
	12/1/2026	$61.43	$16.55	$13.35	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
PUMP OPERATOR (DEWATERING, OTHER) OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$37.37	$16.55	$13.35	$3.25	$0.00	$70.52
	6/1/2026	$38.23	$16.55	$13.35	$3.25	$0.00	$71.38
	12/1/2026	$39.18	$16.55	$13.35	$3.25	$0.00	$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER TEAMSTERS 170 TEAMSTERS 170 - Dauphinais (Bellingham)	1/1/2025	$27.60	$11.26	$6.15	$0.00	$0.00	$45.01
RECLAIMERS OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
RIDE-ON MOTORIZED BUGGY OPERATOR LABORERS LABORERS - ZONE 2	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
ROLLER/SPREADER/MULCHING MACHINE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) ROOFERS LOCAL 33 ROOFERS LOCAL 33	2/1/2026	$53.53	$14.53	$12.67	$9.03	$0.00	$89.76

Apprentice: ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.77	$14.53	$6.52	$9.03	$0.00	$56.85
2	60.00	$32.12	$14.53	$12.67	$9.03	$0.00	$68.35
3	65.00	$34.79	$14.53	$12.67	$9.03	$0.00	$71.02
4	75.00	$40.15	$14.53	$12.67	$9.03	$0.00	$76.38
5	85.00	$45.50	$14.53	$12.67	$9.03	$0.00	$81.73

Apprentice Notes

** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1

Apprentice to Journeyworker Ratio: 1:5

ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 33 ROOFERS LOCAL 33	2/1/2026	$53.78	$14.53	$12.67	$9.03	$0.00	$90.01

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- ROOFER"							
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
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	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	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

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	1/1/2027	$42.53	$16.77	$23.52	$0.00	$0.00	$82.82
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 550 SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1	1/1/2026	$72.05	$13.45	$7.45	$18.25	$0.00	$111.20

Apprentice: SPRINKLER FITTER

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	35.00	$25.22	$13.45	$13.84	$0.00	$0.00	$52.51
2	40.00	$28.82	$13.45	$14.75	$0.00	$0.00	$57.02
3	45.00	$32.42	$13.45	$15.67	$0.00	$0.00	$61.54
4	50.00	$36.03	$13.45	$16.57	$0.00	$0.00	$66.05
5	55.00	$39.63	$13.45	$17.49	$0.00	$0.00	$70.57
6	60.00	$43.23	$13.45	$18.40	$0.00	$0.00	$75.08
7	65.00	$46.83	$13.45	$19.32	$0.00	$0.00	$79.60
8	70.00	$50.44	$13.45	$20.22	$0.00	$0.00	$84.11
9	75.00	$54.04	$13.45	$21.15	$0.00	$0.00	$88.64
10	80.00	$57.64	$13.45	$22.05	$0.00	$0.00	$93.14

Apprentice Notes

Apprentice entered prior 9/30/10:

Apprentice to Journeyworker Ratio: 1:3

STEAM BOILER OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2026	$66.89	$12.84	$15.57	$8.02	$0.00	$103.32
	8/1/2026	$69.09	$12.84	$15.57	$8.02	$0.00	$105.52
	2/1/2027	$70.49	$12.84	$15.57	$8.02	$0.00	$106.92

Apprentice: TERRAZZO FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.45	$12.84	$15.57	$8.02	$0.00	$69.88
2	60.00	$40.13	$12.84	$15.57	$8.02	$0.00	$76.56
3	70.00	$46.82	$12.84	$15.57	$8.02	$0.00	$83.25
4	80.00	$53.51	$12.84	$15.57	$8.02	$0.00	$89.94

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: TERRAZZO FINISHERS							
Effective Date: 2/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
5 / 90.00		$60.20	$12.84	$15.57	$8.02	$0.00	$96.63

Apprentice: TERRAZZO FINISHERS							
Effective Date: 8/1/2026							
Step	**Percent**	**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1	50.00	$34.55	$12.84	$15.57	$8.02	$0.00	$70.98
2	60.00	$41.45	$12.84	$15.57	$8.02	$0.00	$77.88
3	70.00	$48.36	$12.84	$15.57	$8.02	$0.00	$84.79
4	80.00	$55.27	$12.84	$15.57	$8.02	$0.00	$91.70
5	90.00	$62.18	$12.84	$15.57	$8.02	$0.00	$98.61

Apprentice to Journeyworker Ratio: 1:5

TEST BORING DRILLER	12/1/2025	$51.95	$10.65	$9.75	$9.80	$0.00	$82.15
LABORERS	6/1/2026	$53.50	$10.65	$9.75	$9.80	$0.00	$83.70
LABORERS - FOUNDATION AND MARINE	12/1/2026	$55.00	$10.65	$9.75	$9.80	$0.00	$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	12/1/2025	$48.07	$10.65	$9.75	$9.80	$0.00	$78.27
LABORERS	6/1/2026	$49.62	$10.65	$9.75	$9.80	$0.00	$79.82
LABORERS - FOUNDATION AND MARINE	12/1/2026	$51.12	$10.65	$9.75	$9.80	$0.00	$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	12/1/2025	$47.95	$10.65	$9.75	$9.80	$0.00	$78.15
LABORERS	6/1/2026	$49.50	$10.65	$9.75	$9.80	$0.00	$79.70
LABORERS - FOUNDATION AND MARINE	12/1/2026	$51.00	$10.65	$9.75	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS/PORTABLE STEAM GENERATORS	12/1/2025	$58.02	$16.55	$13.35	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.30	$16.55	$13.35	$3.25	$0.00	$92.45
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.74	$16.55	$13.35	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	1/1/2026	$41.82	$16.17	$21.78	$0.00	$0.00	$79.77
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	$42.82	$16.17	$21.78	$0.00	$0.00	$80.77
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	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	12/1/2025	$60.18	$10.65	$9.75	$10.25	$0.00	$90.83
LABORERS	6/1/2026	$61.73	$10.65	$9.75	$10.25	$0.00	$92.38
LABORERS (COMPRESSED AIR)	12/1/2026	$63.23	$10.65	$9.75	$10.25	$0.00	$93.88
For apprentice rates see "Apprentice- LABORER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	12/1/2025	$62.18	$10.65	$9.75	$10.25	$0.00	$92.83
LABORERS	6/1/2026	$63.73	$10.65	$9.75	$10.25	$0.00	$94.38
LABORERS (COMPRESSED AIR)	12/1/2026	$65.23	$10.65	$9.75	$10.25	$0.00	$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	12/1/2025	$52.25	$10.65	$9.75	$10.25	$0.00	$82.90
LABORERS	6/1/2026	$53.80	$10.65	$9.75	$10.25	$0.00	$84.45
LABORERS (FREE AIR TUNNEL)	12/1/2026	$55.30	$10.65	$9.75	$10.25	$0.00	$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	12/1/2025	$54.25	$10.65	$9.75	$10.25	$0.00	$84.90
LABORERS	6/1/2026	$55.80	$10.65	$9.75	$10.25	$0.00	$86.45
LABORERS (FREE AIR TUNNEL)	12/1/2026	$57.30	$10.65	$9.75	$10.25	$0.00	$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	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
VOICE-DATA-VIDEO TECHNICIAN	9/7/2025	$36.12	$14.98	$13.94	$3.97	$0.00	$69.01
ELECTRICIANS LOCAL 96	9/6/2026	$37.04	$15.96	$14.20	$4.07	$0.00	$71.27
ELECTRICIANS LOCAL 96							

Apprentice: VOICE-DATA-VIDEO TECHNICIAN

Effective Date: 9/7/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.06	$14.98	$0.54	$3.97	$0.00	$37.55
2	55.00	$19.87	$14.98	$0.60	$3.97	$0.00	$39.42
3	60.00	$21.67	$14.98	$13.51	$3.97	$0.00	$54.13
4	65.00	$23.48	$14.98	$13.56	$3.97	$0.00	$55.99
5	70.00	$25.28	$14.98	$13.62	$3.97	$0.00	$57.85
6	75.00	$27.09	$14.98	$13.67	$3.97	$0.00	$59.71
7	80.00	$28.90	$14.98	$13.73	$3.97	$0.00	$61.58
8	85.00	$30.70	$14.98	$13.78	$3.97	$0.00	$63.43

Apprentice: VOICE-DATA-VIDEO TECHNICIAN

Effective Date: 9/6/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$18.52	$15.96	$0.56	$4.07	$0.00	$39.11
2	55.00	$20.37	$15.96	$0.61	$4.07	$0.00	$41.01
3	60.00	$22.22	$15.96	$13.76	$4.07	$0.00	$56.01
4	65.00	$24.08	$15.96	$13.81	$4.07	$0.00	$57.92
5	70.00	$25.93	$15.96	$13.87	$4.07	$0.00	$59.83
6	75.00	$27.78	$15.96	$13.92	$4.07	$0.00	$61.73
7	80.00	$29.63	$15.96	$13.98	$4.07	$0.00	$63.64

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: VOICE-DATA-VIDEO TECHNICIAN							
Effective Date: 9/6/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
8 / 85.00		$31.48	$15.96	$14.03	$4.07	$0.00	$65.54
Apprentice to Journeyworker Ratio: 1:1							
WAGON DRILL OPERATOR	12/1/2025	$40.72	$10.65	$9.75	$9.11	$0.00	$70.23
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.11	$0.00	$71.67
LABORERS - ZONE 2	12/1/2026	$43.60	$10.65	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$45.05	$10.65	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.50	$10.65	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$48.00	$10.65	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.50	$10.65	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	12/1/2025	$40.72	$10.65	$9.75	$9.21	$0.00	$70.33
LABORERS	6/1/2026	$42.16	$10.65	$9.75	$9.21	$0.00	$71.77
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.60	$10.65	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
WASTE WATER PUMP OPERATOR	12/1/2025	$58.68	$16.55	$13.35	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$59.98	$16.55	$13.35	$3.25	$0.00	$93.13
OPERATING ENGINEERS LOCAL 4	12/1/2026	$61.43	$16.55	$13.35	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
WATER METER INSTALLER	3/1/2026	$55.90	$13.10	$9.71	$8.06	$0.00	$86.77
PLUMBERS LOCAL 4							
PLUMBERS LOCAL 4							
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"							

Marine Drilling

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BLASTER MARINE DRILLING MARINE DRILLING	1/1/2018	$41.82	$7.63	$2.35	$1.25	$0.00	$53.05
BOAT CAPTAIN MARINE DRILLING MARINE DRILLING	1/1/2018	$33.87	$7.63	$2.35	$0.95	$0.00	$44.80
BOAT CAPTAIN / Over 1,000 hp MARINE DRILLING MARINE DRILLING	1/1/2018	$38.06	$7.63	$2.35	$1.25	$0.00	$49.29
CORE DRILLER MARINE DRILLING MARINE DRILLING	1/1/2018	$31.43	$7.63	$2.25	$0.65	$0.00	$41.96
CORE DRILLER HELPER MARINE DRILLING MARINE DRILLING	1/1/2018	$28.47	$7.63	$2.35	$0.65	$0.00	$39.10
DRILLER MARINE DRILLING MARINE DRILLING	1/1/2018	$39.70	$7.63	$2.35	$1.25	$0.00	$50.93
ENGINEER MARINE DRILLING MARINE DRILLING	1/1/2018	$39.69	$7.63	$2.25	$1.25	$0.00	$50.82
HELPER MARINE DRILLING MARINE DRILLING	1/1/2018	$34.24	$7.63	$2.35	$0.65	$0.00	$44.87
MACHINIST MARINE DRILLING MARINE DRILLING	1/1/2018	$38.88	$7.63	$2.35	$0.95	$0.00	$49.81
OILER - MARINE DRILLING MARINE DRILLING MARINE DRILLING	1/1/2018	$34.24	$7.63	$2.35	$0.65	$0.00	$44.87
TUG DECKHAND MARINE DRILLING MARINE DRILLING	1/1/2018	$27.61	$7.63	$2.35	$0.65	$0.00	$38.24
WELDER MARINE DRILLING MARINE DRILLING	1/1/2018	$38.88	$7.63	$2.35	$0.95	$0.00	$49.81

Op Eng Marine (Dredging Work)

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BOAT OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$29.26	$7.63	$2.35	$0.95	$0.00	$40.19
CERTIFIED WELDER OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$31.09	$7.63	$2.35	$1.25	$0.00	$42.32
CHIEF WELDER/ CHIEF MATE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.02	$7.63	$2.35	$1.25	$0.00	$44.25
DERRICK / SPIDER / SPILLBARGE OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.02	$7.63	$2.35	$1.25	$0.00	$44.25
DRAG BARGE OPERATOR / WELDER / MATE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$30.24	$7.63	$2.35	$0.95	$0.00	$41.17
ENGINEER / ELECTRICIAN OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.02	$7.63	$2.35	$1.25	$0.00	$44.25
LICENSED BOAT OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.02	$7.63	$2.35	$1.25	$0.00	$44.25
LICENSED TUG OPERATOR OVER 1000HP OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$38.18	$7.63	$2.35	$1.25	$0.00	$49.41
MAINTENANCE ENGINEER OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.03	$7.63	$2.35	$1.25	$0.00	$44.26
OILER - MARINE DIVISION OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$24.30	$7.63	$2.35	$0.65	$0.00	$34.93
OPERATOR / LEVERMAN OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$38.18	$7.63	$2.35	$1.25	$0.00	$49.41
RODMAN / SCOWMAN OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$24.30	$7.63	$2.35	$0.65	$0.00	$34.93
SHOREMAN / DECKHAND OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$24.30	$7.63	$2.35	$0.65	$0.00	$34.93

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.

DOCUMENT A00801

SPECIAL PROVISIONS

NORTHBRIDGE

Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River

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 the 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 *2026 Standard Specifications for Highways and Bridges, the Supplemental Specifications* contained in this book, the *Construction Standard Details* in effect as of January 2026, the *1990 Standard Drawings for Signs and Supports*, the 2015 *Overhead Signal Structure and Foundation Standard Drawings*, the *11th Edition of the Manual on Uniform Traffic Control Devices (MUTCD)* and the *January 2026 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 under this contract includes cleaning (full removal of existing coating) and painting of all structural steel within the superstructure of the subject bridge, including all bearings. The scope also includes steel repairs, partial and full depth deck repairs, substructure repairs, reconstruction of the joints, upgrading of the bridge railing and approach transitions, as well as milling and repaving of the bridge deck and roadway approaches.

Additional work includes applying elastomeric protective coating to concrete surfaces at the Pier, within the limits shown on the drawings and as directed by the Engineer.

The bridge is currently closed to all traffic and will remain closed until the completion of the work under this contract. The scope of work includes securing the bridge and maintaining the existing detour for the duration of the project.

The milling limits, as shown on the drawings, shall include removal of all existing HMA to expose the bare concrete deck surface. Final paving will be performed after completion of concrete work at the joints and any necessary deck repairs, followed by the installation of asphaltic bridge joint and saw cut joints.

When authorized by the Engineer, work under this Contract also includes providing various artisans, as specified in Item 100.1 "Base Labor Rate", along with the necessary materials, equipment, and engineering services.

SCOPE OF WORK (Continued)

All materials and equipment shall be approved by the Engineer prior to work commencing. Where work directed by the Engineer is not in the list of bid items, the work will be paid for as Non-Bid Items and Item 100.1 Base Labor Rate (Time and Materials).

All work shall be performed within, and accessed by, existing State, City or Town roadway layouts. No rights to enter on, or occupy, private property have been acquired for this project.

WORK SCHEDULE

All proposed work hours shall conform to Subsection 7.09 and be subject to the written approval of the Engineer.

Work schedule during the day shall be based on a normal 8-hour day (7:00 AM to 3:00 PM), 5-day week (Monday to Friday). Work schedules deviating from the normal work schedule above will be subject to prior approval by the Engineer. Approval shall be in writing.

Nighttime Work

Night work is not anticipated for this project. Any work requiring extended or nighttime hours must be approved by the Engineer.

Approval for work beyond the scheduled hours will be granted only under special conditions that justify extended hours, as determined by the Engineer. Work shall not exceed the standard 8-hour workday unless prior approval is obtained from the Engineer for that specific day or in accordance with an approved schedule. No additional compensation will be provided for work performed during nighttime hours or for extended shifts.

These time periods include all activities related to the setup and breakdown of any temporary traffic zone or control patterns employed.

No operations, personnel, or equipment will be allowed on the roadways except during working hours. Under no circumstances shall work be left unattended outside of working hours without safety measures in place. All pertinent traffic warning devices, safety equipment and traffic barriers must be installed and maintained at all times.

The Contractor shall schedule work to ensure the final coat of paint is not damaged by other operations. Any damage to coatings due to other Contractor's operations shall be repaired at the Contractor's expense.

The Contractor shall schedule the work with consideration that zinc primer alone left exposed may deteriorate over a season. If the zinc primer is left exposed the contractor will be responsible for any surface preparation or rework needed prior to the application of the intermediate and final coats. Consideration should be given to applying the full three-coat system in a single season in all areas that do not require steel repairs, to limit rework as much as practical.

Portable Changeable Message Signs are to be positioned as directed by Engineer for notification fourteen (14) days in advance of the work.

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.

SITE ACCESS

No separate payment will be made for access roads to get equipment or personnel to the work site or for staging access to repair areas, etc., but all costs in connection therewith shall be included in the Contract.

The clean and paint containment system shall also be designed to provide the Contractor with access beneath the structure for tasks including beam-end repairs, forming and casting deck and fascia/curbs concrete, and bridge railing installation. The system shall additionally protect and contain debris, such as concrete chips, preventing it from falling into the waters below. Full compensation for the design, supply, installation, maintenance and use of this system shall be included under Item 961.201.

FENCING

For the safety and security of the construction site, all areas under construction shall be fenced off each night to prevent unauthorized access. Compensation for nightly site security measures shall be considered incidental to the work items included in this contract.

NONCONFORMING COMPRESSIVE STRENGTH OF CEMENT CONCRETE

Concrete with compressive strength test results failing to attain the limits specified in Table 901.64-3 of 901.64.B: Acceptance Testing shall be evaluated for structural adequacy and serviceability at the Contractors' expense. The Department will review all production records, the concrete test records, petrographic analysis report, field notes, and the placement records for the concrete in question. If the Engineer determines the material is found to be adequate to remain in place, payment shall be adjusted in accordance with the following formula:

$$P = \frac{2(fc - f'c)(UP)(Q)}{f'c}$$

Where:

P = pay adjustment for substandard concrete
$f'c$ = specified minimum compressive strength at 28 days
fc = substandard concrete cylinder compressive strength at 56 days
Q = quantity of concrete represented by the acceptance cylinders tested
UP = unit contract price or the lump sum breakdown price per cubic yard for the class of concrete involved complete in place

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 Years 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.

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.

HOLIDAY WORK RESTRICTIONS (Continued)

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.

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.

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.

SUBSECTION 8.14 (Continued)

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.

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.

SUBSECTION 8.14 (Continued)

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.

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.

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.

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.

DRAINAGE SEDIMENTS

Drainage sediments shall be handled as directed in Subsection 227, *Drainage System Sediment*, of the Standard Specifications. Any directed work associated with the removal of drainage sediments shall be compensated under Item 100.1 (Base Labor) and contract non-bid items.

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 field conditions and/or Contractor-proposed erection, demolition, staging, or other procedures require work to occur in or otherwise impact water or wetland resource areas, 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 desire commencement of the proposed activity. All environmental submittals, including any Contract with Local, State, or Federal environmental agencies, must be coordinated with the District Environmental Engineer. The Contractor is expected to 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.

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.

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), District Environmental Engineer (DEE), or the project designee.

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. As there is no Federal nexus (Federal funding or permits) for this project, Section 7 consultation was not required or conducted. However, Section 9 of the ESA prohibits anyone from "taking" or harming an endangered species, and the below language shall be adhered to in order to maintain compliance with the ESA.

If any of the project locations require work within U.S. Army Corps of Engineers (ACOE) jurisdictional wetlands, the ACOE will be the lead federal agency for ESA consultation with the U.S. Fish & Wildlife Service (USFWS). Most consultations for the NLEB take 30 days.

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 & Endangered Species Unit Supervisor (David Paulson, david.j.paulson@dot.state.ma.us, 857-262-3378) for questions about project limits, restrictions, or conservation measures.

The Resident Engineer can check on the status of AMM applicability by sending a locus map of the proposed work to MassDOT Highway Division's Environmental Services Section - Wildlife & Endangered Species Unit Supervisor for review and a determination if some of the AMMs and TOY restriction can be waived.

Required AMM for all projects:

- 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 Bat 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.

If temporary lighting is proposed within the project scope, the following AMM is applicable:
Lighting AMM:

- Direct temporary lighting away from suitable habitat during the active season: **April 15 to October 31.**

If the Removal of Trees and/or Woody Vegetation >3-inch in diameter is proposed within the project scope, the following AMMs are applicable:
Tree 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).
- In order to protect northern long-eared bats and their young during their active season, **no tree cutting shall be conducted during the Time of Year (TOY) restriction of April 15 to October 31**.

NORTHERN LONG-EARED BAT AND TRICOLORED BAT PROTECTION(Continued)

- Do not remove **documented** or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or **documented** foraging habitat any time of year (http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/species-information-and-conservation/rare-mammals/northern-long-eared-bat.html).
- The Contractor shall ensure all personnel working in on the project site are aware of all environmental commitments related to NLEB and TCB, including the **TOY** restriction.

If the Bridge Work is proposed within the project scope, the following AMMs are applicable:
Bridge AMMs:

- **Bridge AMM 1** - To completely avoid direct effects to roosting bats, perform any bridge removal, replacement, and/or maintenance work during the winter hibernation period unless a hibernating colony of bats is present (contact your local USFWS Field Office for exact dates). Also, follow Bridge AMM 4.
    - **Note**: Bridge AMM 1 is an avoidance measure for direct effects; the full implementation of which may not always be practicable. **If bridge removal, replacement, and/or maintenance work must be performed outside of the winter hibernation period, then follow Bridge AMMs 2-4.**

- **Bridge AMM 2 - Colony or Assuming Presence of Bats**
    - If assuming presence of bats or if bridge assessment or P/A surveys suggest presence of a colony of bats, and work is conducted during the active season, ensure activity will not disturb bats. The following types of bridge work can generally be conducted with the presence of bats:
        - above deck work where construction equipment or materials do not extend to the underside of deck where bats may be located (e.g., materials that may drip down to underside of deck), or does not include percussives (vibration) or noise levels above general traffic (e.g., road line painting, wing-wall work).
        - below deck work that is conducted away from roosting bats and does not involve percussives or noise level above general traffic (e.g., wing-wall work, some abutment, beam end, scour, or pier repair).

- **Bridge AMM 3 - Small Number of Bats**
    - If bridge assessment or P/A surveys suggest presence of a small number of bats (<5 – not a colony), and work is conducted during the active season, the following types of bridge work can generally be conducted with the presence of bats:
        - above deck work where construction equipment or materials do not extend to the underside of deck where bats may be located (e.g., materials that may drip down to underside of deck), or does not include percussives (vibration) or noise levels above general traffic (e.g., road line painting, wing-wall work).
        - below deck work that is conducted away from roosting bats and does not involve percussives or noise level above general traffic (e.g., wing-wall work, some abutment, beam end, scour, or pier repair).
        - any other bridge removal, replacement, and/or maintenance work (which may include activities with percussives) conducted in the evening while the bats are feeding, starting one hour after sunset, and ending one hour before daylight excluding the hours between 10 p.m. and midnight and keep the light localized.

NORTHERN LONG-EARED BAT AND TRICOLORED BAT PROTECTION(Continued)

Bridge AMM 4 - If assuming presence of bats, or if bridge assessment or P/A surveys suggest presence of bats, ensure suitable roosting habitat is maintained. Suitable roosting sites may be incorporated into the design of a new bridge.

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 before being covered with new concrete.

In bonding new concrete to already set concrete, the surface of the concrete shall be thoroughly cleaned, roughened, and ponded with clean water to achieve Saturated Surface Dry (SSD) condition then it shall then be blown off with oil free compressed air.

EQUIVALENT SINGLE AXLE LOADS (ESALS)

The estimated traffic level to be used for SUPERPAVE HMA mixture designs for this contract, expressed in Equivalent Single Axle Loads (ESALs) for the design travel lane over a 20-year period, is traffic level 2 (0.3-3.0) million 18 kip ESALS.

2026 FIFA WORLD CUP – BOSTON, MASSACHUSETTS

The 2026 FIFA World Cup will be held at Gillette Stadium in Foxborough, related events, and significant tourist events such as Sail Boston and the 250th Anniversary of the United States will be held throughout the region. Matches and Fan Fest and other possible 250th Celebration activities are scheduled through June, July and August 2026. The District will be imposing work and/or traffic restrictions as necessary to minimize impacts during these periods when, as determined by MassDOT, the Contractor's operations could impact vehicular traffic, particularly on interstate highways and major arterials throughout the region and local roads near event sites.

No additional compensation will be allowed for work restrictions except as determined under Subsection 8.10. nor will the Contractor have any claim for related costs, direct or indirect. The Contract time determinations have accounted for potential work restriction during this period and Contractor's should plan accordingly.

Any necessary or emergency work required during this time will require District approval.

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.

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.

GENERAL REQUIREMENTS FOR DEMOLITION AND WORK INVOLVING PAINTED STEEL (Continued)

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.

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 3 Utility/Constructability Engineer — Ross Goodale (857) 368-3204
Ross.A.Goodale@dot.state.ma.us

If available, existing 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 their own investigation 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.

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 3
Select Northbridge, 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

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

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, Railroads.

SUPPLEMENTAL REQUIREMENTS FOR NON-BID ITEMS

(Supplementing Subsection 3.04)

The Contractor will be paid for additional artisans, equipment rental, materials, engineering services and specialty services required to perform the work plus (10%) percent, plus actual increased bond premium.

The Contractor shall be required to furnish certified paid receipts for additional artisans, equipment rental, materials, engineering services and specialty services that are required to perform the work prior to payment by the Department. Increased bond premium for additional artisans, equipment rental, materials, engineering services and specialty services will be paid after a certified paid receipt is submitted showing payment of the increased bond.

NON-BID ITEMS:

For work not covered by the various bid items in this Contract, it is the intent to pay for such related work on a time and materials basis, as directed by the Engineer. The payment for such work is outlined in the following sections: Payment for Materials, Payment for Rental Equipment, Payment for Engineering Services, Payment for Specialty Services/Additional Artisans.

A. PAYMENT FOR MATERIALS

The Contractor will be paid the actual cost for materials that are required to maintain or repair a bridge but are not covered under the Contract bid Items plus ten (10) percent. Any arrangements for the purchase of materials will be considered incidental. Delivery charges will be incidental to the material charges. State and Federal taxes if billed will not be reimbursed by MassDOT. No materials shall be ordered until approved by the Engineer and competitive prices may be required if the Engineer directs.

The District may have surplus materials on hand that could be included into the work.
The transportation of materials and/or parts supplied by MassDOT will be included for payment under Item 100.1.

Payments for the installation of materials and/or parts will be made under Item 100.1
All materials which are necessary to perform the work under the various contract bid items shall be incidental to those Items at no additional compensation.

NON-BID ITEMS (Continued)

B. PAYMENT FOR RENTAL EQUIPMENT

The Contractor will be paid the actual rental cost for the equipment, which may be required to perform certain repair work that has not been included in the contract bid items, plus ten (10) percent. No equipment shall be rented until approved by the Engineer. The rental equipment shall not be part of the tradesman basic toolbox as specified under Item 100.1 Base Labor Rate.

Contractor-owned equipment required under this contract, (with the exception of equipment listed under the various artisans' descriptions in Item 100.1 Base Labor Rate will be reimbursed in the format outlined under Subsection 9.03 "Payment for extra Work" Section C of the Standard Specifications. Rental Equipment will not carry any overtime premium rate after being in full operation for more than 8 hours in a day.

Unless the rented equipment cost includes the operator, the Contractor will receive compensation for the operator of the "Rental Equipment" used for "Related Work" as specified in Item 100.1 Base Labor Rate.

The Contractor must get the authorization of the Resident Engineer before any equipment is rented and competitive prices may be required if the Engineer directs.

All rental equipment and tools shall be in excellent working condition. The Contractor shall not be paid for the time that the equipment is broken down.

The actual cost of rental equipment, including equipment that is required when working from water below (i.e., barge equipped with 60' or higher boom lift, boat, operator, and other safety equipment) shall be judged in accordance with the rate specified in the Rental Blue Book and it is the Contractor's responsibility to provide a copy of this Blue Book to the Department. The rental compensation shall also include the cost of a boat captain/tender crew. The rental for equipment will be paid on an hourly basis and will not carry any overtime rate after eight hours of operation.

All rental equipment and tools which are necessary to prosecute the work under the various contract bid items shall be incidental to those Items at no additional compensation.

C. PAYMENT FOR ENGINEERING SERVICES

Each non-routine structural repair for which there is no Contract bid Item to cover the work, the Contractor shall submit a design by a Professional Engineer of the appropriate discipline registered in Massachusetts (who shall be from the Department's approved consultant list) within one week of notification (seven (7) calendar days after receipt of formal Work Order).

This design shall address all structural defects itemized in the Work Order. It shall be submitted to the Engineer and the proper railroad authority (i.e., Amtrak, MBTA. etc.) when applicable. The Contractor must get the proposed design approved by both the Engineer and proper railroad authority (when applicable) prior to commencing any work.

NON-BID ITEMS (Continued)

The Contractor will be paid the actual cost for the Engineering Services for the structural design by a Professional Engineer of the appropriate discipline registered in Massachusetts, plus ten (10) percent when any Engineering Services are required for work done on a time and materials basis for which there is no bid Item. The Engineer shall approve all engineering costs prior to any design work being undertaken.

All engineering services which are necessary to prosecute the work under the various Contract bid items shall be incidental to those Items at no additional compensation.

Engineering Services Cost Estimate

When engineering designs or other consulting services are deemed necessary by the Engineer, the design firm will submit a cost estimate of the proposed work. This estimate will include the classification, estimated hours needed, and actual hourly rate for each individual anticipated to be used in developing the finished product. The billable rates shall include overhead and profit. Overhead shall be as approved by MassDOT Audit Section or in absence of approved audited rates a maximum 155% shall apply for overhead. The profit fee is 10%. The billable rate shall be calculated using 1.10*(Base Hourly Rate + Base Hourly*Overhead Rate %).

D. PAYMENT FOR SPECIALTY SERVICES/ ADDITIONAL ARTISANS

The Contractor will be paid for any artisans that are not categorized under Item 100.1 “Base Labor Rate” (Regardless of whether the additional artisans are hired by the Contractor as a specialty sub-contractor crew, or as an individual artisan) required to repair or maintain the bridges or any work that has not been included as incidental to any Contract Bid Item plus ten (10) percent. However, no artisans shall be hired until approved by the Engineer and competitive prices may be required if the Engineer so directs. The Contractor will not bid this item. If the Engineer has knowledge of source of additional artisans, which are competitive with the Contractor's choice, then the Contractor may be required to investigate and use an alternative choice.

COST ESTIMATES

Where the scope of a repair task can be adequately determined and described, the Contractor, when directed by the Engineer, shall be required to submit a Cost Estimate for the repair task.

Each Cost Estimate, submitted in writing, shall include an itemized scope of work, a working schedule (including the number of working days and hours worked each day by each category of artisan), work procedures and a NOT-TO-EXCEED cost breakdown itemized by the following: the number and type of workers, the number and type of equipment, barges, materials, specialty contractors, engineering services, traffic controls and police, etc. The Cost Estimate submittal must also state if roadway closures, and waterway and/or bridge closures will be required.

The Engineer will approve each Cost Estimate submittal in writing. A submittal does not guarantee the Contractor will be assigned the work. Payment will be based on actual hours worked at the contractual rates for various items as previously described up to the maximum task amount. Completion of the task is the sole responsibility of the Contractor once the not-to- exceed amount has been reached. Should unforeseen problems develop during the task completion, the Contractor will submit to the Engineer a revised scope of work with a comparison to the original scope of work along with a breakdown of the additional costs for approval by the Engineer.

NON-BID ITEMS (Continued)

Approval for any increases to the agreed upon not-to-exceed cost will be dependent upon the justification of the additional work.

If the Contractor performs work which is not provided for in this Contract, or which was not authorized in writing by the Engineer, said Contractor shall receive no compensation for such work.

The management of the project and generating Cost Estimates, including such items as the planning of repair details, hiring of subcontractors, meetings with affected parties, scheduling of required artisans, purchasing of the necessary materials and the arrangement of equipment rentals, etc., will be considered incidental to the work and as such, no additional compensation will be provided.

RATES OF PAYMENT

Payment for Non-Bid Items and Item 100.1 Base Labor Rate will be made for time spent on the project doing actual work on the Department'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 to find out how much material, equipment, tools, etc., may be needed for the work.

All equipment, materials, engineering costs and artisans' compensation which are necessary to prosecute the work under the various contract bid items shall be incidental to those bid Items at no additional compensation.

Note: For work covered by bid items in this contract and those not covered, there may be situations where the Department has pertinent materials or equipment stockpiled. The Department reserves the right to utilize these materials or equipment as seen fit in the prosecution of the work.

The Contractor will be reimbursed for the total actual cost (plus a percentage markup as indicated) for materials, equipment rental, additional artisans and engineering services required for related work directed by the Engineer. Artisans will be compensated as specified in Item 100.1 "Base Labor Rate". The Contractor will not bid the materials, equipment rental, additional artisan, and engineering services Items.

Payment for Non-Bid Items will be based on bills submitted, covering all charges for labor, materials, and equipment according to the respective terms of the contract. Bills covering the total charges incurred in any given month are to be submitted by the fifteenth of the following month for processing.

The Contractor is encouraged to submit bills/invoices of all charges to the Engineer by the 15th of the following month. It shall be required that the Contractor furnish certified copies of any or all payrolls for the Contract, showing the name, address, and occupational classification of each employee on said works, the hours worked by, and the wages paid to such employee.

ITEM 100.1 BASE LABOR RATE HOUR

The Contractor shall provide competent artisans, possessing all pertinent licenses and/or certifications, as required by the Engineer, to maintain and repair various components of the bridges. As described more fully below, included in this Item will be a tool kit for each trade with incidental tools, special apparel and any required personal safety equipment, and a vehicle for each trade with no additional charge to the Department. The Contractor shall submit to the Engineer all pertinent licenses and/or certifications for each artisan prior to the commencement of any work. Failure to provide the pertinent licenses and/or certifications could result in the artisan being compensated at the laborer rate regardless of how the Contractor so compensated him/her.

The payment under this Item will be for the time spent by artisan and the artisan's toolkit only.

Payment will be based upon time spent on the project doing actual work assigned by the Engineer 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.

Payment for equipment (other than the usual artisan toolbox) will be made under payment for equipment rental as stated elsewhere in these special provisions.

All tools and equipment contained in the artisan tool kit shall be in excellent working condition.

Incidental to this item, vehicles are to be supplied for each artisan. If more than one artisan of a certain type (for example, carpenter) is working at a work site, the Contractor needs only supply the minimum vehicles required to transport the artisans, their equipment, any laborers, materials, and supplies. The artisan vehicle(s) shall be capable of transporting materials consistent with the trade. It is the intent under this item for material deliveries to be reimbursable only for bulk items or materials of sufficient quantity as determined by the Engineer. The Contractor shall make his bid with the understanding that ownership and operating costs do not apply and are not reimbursable for the vehicles utilized under the artisan items.

If a separate tool truck is utilized, such vehicle shall also be considered incidental to this item.

Any additional vehicles the Engineer deems necessary will be paid for under the rental equipment item. If it is the Contractor's policy for the artisans to use their personal vehicles for the above purposes, no additional vehicles are required.

Equipment and tools that are part of the artisan's toolbox are as follows:

LABORER

Small hand tools, handheld power tools, chipping hammer, eye shields, gloves, protective clothing, generators as necessary to run the equipment and equipment that is normally used in the trade.

ITEM 100.1 (Continues)

CARPENTER

Hammer, framing square, tape measure, pouch, levels, hand saws, power saws, all electric power tools, air tools and generators and compressors as necessary to run the equipment. Saw blades and drill bits are also included.

CEMENT MASON

All trowels, floats, Chipping Hammers, Wire Brushes, Trowels, Floats, Reinforcing Tie Wires, Mortar Boards, Jointing Tools and Buckets, mortar board and mixing tub/buckets, and other hand tools as necessary to complete masonry patching work.

IRON WORKER/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.

BACKHOE OPERATOR

Operator shall have all licenses and certifications required by the Commonwealth of Massachusetts for the equipment they will be operating. Operators shall be in possession of their licenses at all times and show it to the Engineer when requested. Typical equipment includes a backhoe, skid-steer loader, and front-end loader.

Equipment which does not require a special license or certification for its operation shall be considered incidental to the artisan using it.

METHOD OF MEASUREMENT

Item 100.1 will be measured for payment by the Hour.

The Engineer will calculate total Base Labor Rate hours spent on the project by artisans.

Overtime hours will be paid for work exceeding eight (8) consecutive hours per day or forty (40) hours per week and shall be compensated as specified in this Item.

To calculate the total Base Labor Rate hours, the Engineer will modify hours spent by various artisans on the project using adjustment factor(s) described below:

ITEM 100.1 (Continued)

COMPENSATION FACTORS		
ARTISAN	**REGULAR**	**OVERTIME**
LABORER	1.00	1.30
CARPENTER	1.17	1.52
CEMENT MASON	1.32	1.72
IRON WORKER/WELDER	1.34	1.74
BACKHOE OPERATOR	1.31	1.70

If an artisan has an apprentice, then that apprentice's compensation factor shall be determined from the State Wages Apprentice level.

The Compensation Factors above will be used to adjust the number of hours a specific artisan will be paid for, per one (1) hour of work.

Example:

If the time spent on this project by various artisans is:

- Laborer 8 hrs
- Carpenter 4 hrs
- Cement Mason 6 hrs

Then the total hours for "Base Labor Rate" will be calculated as follows:

- "Artisan A(hrs)" x "Compensation Factor A"+
- "Artisan B(hrs)" x "Compensation Factor B" +
- "Artisan C(hrs)" x "Compensation Factor C"

8(hr) x 1.00 + 4(hr) x 1.17 + 6(hr) x 1.32 =
8.00(hr) + 4.68(hr) + 7.92(hr) = 20.60 (hr)

The total hours for "Base Labor Rate" = 20.60 (hr) (billable hours).

BASIS OF PAYMENT

Item 100.1, Base Labor Rate, will be paid for at the Contract unit price per Hour, which price shall include all equipment (usual artisan tool kit), tools required to perform the normal artisans work, all clothing, and safety equipment normally associated with the artisans work.

Any transportation required for an artisan and their toolbox to travel to and from a job site will be incidental to this Item. Ownership and operating costs, fuel and maintenance are not reimbursable for the vehicles and tools utilized under the artisan items.
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ITEM 100.9 **BRIDGE SURVEY** **LUMP SUM**

The work under this item includes conducting a field survey to establish a temporary baseline for layout of the bridge railing, precast bridge transitions, curbs and installation of the approach guardrail in accordance with the design intent and contract drawings.

This work shall also include establishing a benchmark within the project limits to support the Contractor's layout and work plans.

The Surveyor shall conduct the bridge survey in accordance with the "General Survey Guidelines" which can be found at:

General survey guidelines | Mass.gov

All elevations shall be referred to the North American Vertical Datum (NAVD) of 1988.

Deliverables and submittals

The submission of the bridge survey shall include temporary construction baseline plans and cross sections as described above, along with curb tie locations and elevations necessary to maintain the alignment of the roadway.

This work shall be performed under the responsible charge of a Professional Land Surveyor (PLS) registered in the Commonwealth of Massachusetts. The PLS must be available, if necessary, to meet and discuss the survey data and submittals.

BASIS OF PAYMENT

Item 100.9 will be paid for at the Contract unit price per Lump Sum, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

ITEM 107.97 STRUCTURAL STEEL REPAIRS POUND

The work under this Item shall conform to relevant provisions of Subsection 961 and the following:

The work shall include the fabrication, transportation, and furnishing of all materials, including any cutting and removal of deteriorated steel, as well as the erection of steel for the repair of deteriorated beams and girders. The scope also includes the in-kind replacement of deteriorated bracing and/or utility supports, as required and directed by the Engineer.

The final limits of each repair and any additional in-kind replacements shall be confirmed following the 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.

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 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.

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 shown in the plans and as directed by the Engineer. Epoxy filler compound shall be "ITW Philadelphia Resin Repair Compound (RRC)", "Sikadur-31 HI-Mod Gel by Sika", "Splash Zone A-788 by Carboline" or approved equal. The filler compound shall be applied in strict accordance with the manufacturer's specifications.

The Contractor is alerted that the existing paint is likely 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.

CONSTRUCTION METHODS

All work shall be done as directed by and to the satisfaction of the Engineer in accordance with the details approved by the Engineer.

The proposed repair procedure and sequence of the construction operations required to accomplish this work shall be prepared by the Contractor and submitted to the Engineer for approval prior to performing any repairs.

All steel repair dimensions shall be field verified by the Contractor prior to developing shop drawings and fabrication of steel repair components.

ITEM 107.97 (Continued)

The Contractor shall prepare shop drawings using his field measurements. The Engineer will verify the proposed repair limits shown on the shop drawings. Fabrication of repair components shall not be started prior to acceptance of shop drawings.

All steel superstructure members shall be cleaned and receive a prime coat prior to the commencement of steel repairs, in accordance with Subsection 961, "Maintenance Painting of Steel Bridges." The Engineer shall verify the extent of deterioration prior to the fabrication of repair components. Upon completion of the steel repairs at each span and touch-up priming of the repaired areas, the superstructure steel shall be painted with the intermediate and final coats.

All costs of cleaning and coating shall be paid for under Items 961.201.

Welding

All welding shall 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: 2010 and the applicable provisions of the Standard Specifications Subsection 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.

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.

ITEM 107.97 (Continued)

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 or flame 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 provisions of Subsections 961.65, “Worker Protection,” and 961.66, “Environmental Protection and Monitoring,” shall be strictly followed during the performance of this work.

During chemical stripping, a hand-washing facility may be used in place of a decontamination/changing facility. Hazardous materials generated during disassembly shall be collected and disposed of in accordance with Subsection 961.68, “Handling of Hazardous Waste and Reporting Release Programs.” Required submittals shall be provided in accordance with Subsection 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 acceptance 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 develop shop drawings utilizing the field measurements of the replacement/repair areas to confirm bridge components and all other repair dimensions. Fabrication shall not be started 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.

The Contractor shall take adequate measures to prevent debris, tools, or materials from entering adjacent roadway lanes or from falling 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 actual net weight of new steel in Pounds, including nuts, bolt heads and permanent washers installed in the structure, completed, and accepted by the Engineer.

BASIS OF PAYMENT

Item 107.97 will be paid for at the Contract unit price per Pound, which price shall include nuts, bolt heads and permanent washers installed in the structure, completed, and accepted by the Engineer.

Payment shall constitute full compensation for all materials, labor, submittal preparation, equipment, scaffolding, welding, tools, field inspection, submittal preparation, utility support, any localized cleaning and paint removal required to perform repair, and all incidentals costs required to complete the work.

ITEM 120.1 UNCLASSIFIED EXCAVATION CUBIC YARD

The work to be done under this Item shall conform to the relevant provisions of Subsection 120 of the Standard Specification and shall consist of removal and satisfactory disposal of excavated material at the approaches. This work includes excavation required during reconstruction of backwalls and joints and the removal of the existing abutment joint protective course which could be made up of HMA or concrete.

Prior to excavation, the Contractor shall cover all drainage structures that may be affected by the work. These structures shall remain covered until the new concrete has set, and the surrounding area has been thoroughly cleaned.

The edges of the limit of the excavation shall be cut to neat lines by saw cutting or by methods approved by the Engineer, to a minimum depth of 2 inches, and all costs in connection with such work shall be considered as incidental under this Item.

METHOD OF MEASUREMENT

Item 120.1 will be measured for payment at the Contract unit price per cubic yard.

BASIS OF PAYMENT

Item 120.1 will be paid for at the Contract unit price per Cubic Yard, which price shall include all labor, materials, equipment, and incidental costs required to complete the work as required by the Engineer.

Pavement removed within the excavated area shall be incidental to this Item.

ITEM 127.1 REINFORCED CONCRETE EXCAVATION CUBIC YARD
ITEM 127.4 REINFORCED CONCRETE DECK EXCAVATION (FULL DEPTH) SQUARE YARD
ITEM 127.41 REINFORCED CONCRETE DECK EXCAVATION (PARTIAL DEPTH) CUBIC YARD

The work under these Items shall conform to the relevant Provisions of Subsection 120 and 482 of the Standard Specifications and shall consist of full and/or partial depth removal and satisfactory disposal of all disintegrated or otherwise unsatisfactory reinforced concrete from the bridge deck, where and as directed by the Engineer.

Prior to excavation, the Contractor shall cover all drainage structures that may be affected by the work. The structures remain covered until the new concrete has set, and the area has been cleaned.

The Contractor shall take all precautions necessary not to damage that portion of the deck, including reinforcing steel, which is to remain. This includes determining the concrete cover to the steel bars at the edge of each patch prior to excavating concrete.

The edges of all areas where concrete is removed under Items 127.1, 127.4 and 127.41 shall be cut to neat lines by saw cutting or by other methods approved by the Engineer, to a minimum depth of ¾ inch. All costs associated with this work shall be considered incidental to these Items.

For Items 127.4 and 127.41, patch areas shall, where possible, be made rectangular in shape, with horizontal and vertical edges and square corners. For Item 127. 1, the limits of excavation shall be as shown on the drawings and established for the reconstruction of the diaphragms, joints, and end posts.

Unless otherwise indicated on the drawings, the minimum depth of all cement concrete areas to be excavated shall be one (1) inch below the bottom of the top layer of longitudinal reinforcing steel throughout the entire excavated area.

No concrete shall be placed until the approval of the Engineer is given.

Surface preparation and concrete removal equipment shall be of the following types:

(1) Pneumatic and Power-Driven Chipping Hammers: In no event shall any pneumatic or power hammer weighing in excess of twenty-five (25) pounds be used for the removal of concrete. Maximum 15 lb. hammers shall be used once reinforcing steel is exposed.

(2) Abrasive Blasting Equipment: Abrasive Blasting equipment shall be capable of removing rust and old concrete from exposed reinforcing steel when deemed necessary by the Engineer.

During the prosecution of this 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.

Bobcats/Skid Steers will be allowed only to collect debris from the deck surface and will not be allowed to remove concrete from the patch area. All concrete debris shall be removed by hand or

by using hand tools. The smaller pieces may be blown out using an air compressor after first being wetted with water to control airborne particulates.

ITEMS 127.1, 127.4 and 127.41 (Continued)

Also included under these Items are all costs in connection with the cleaning, cutting, and bending of the existing reinforcing steel designated to be retained in the proposed construction. Any existing reinforcing steel damaged or otherwise made unsatisfactory for continued use as a result of the Contractor's operations shall be replaced at the Contractor's expense.

All reinforcing steel with active rusting encountered in the excavation shall be thoroughly cleaned by abrasive blasting and coated with a zinc-rich primer conforming to MassDOT Spec. No. M7.04.11 or as required by the Engineer. Any reinforcing 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 wire ties. Ties are required at every other intersection of transverse and longitudinal reinforcing.

Immediately before preparation for placement of new concrete, the exposed area to be patched shall be free of foreign materials. These materials shall be removed by abrasive blasting and by use of compressed air. No grease, dust, rust, or laitance will be allowed to remain on reinforcing steel and exposed concrete surfaces.

The Contractor shall take all measures necessary to protect pedestrian and vehicular traffic from his construction operations. No debris, tools or incidental equipment of any kind will be permitted to fall into areas where vehicular or pedestrian traffic exists. Any material that accidentally falls into such areas shall be removed immediately.

All excavated materials shall become the property of the Contractor and shall be removed from the job site.

METHOD OF MEASUREMENT

Item 127.1 will be measured at the Contract unit price per Cubic Yard. Item 127.4 will be measured at the Contract unit price per Square Yard.

Item 127.41 will be measured at the Contract unit price per Cubic Yard.

BASIS OF PAYMENT

Item 127.4 will be paid at contract unit price per Square Yard, which price shall include all labor, materials, equipment, sawcutting, cleaning, cutting, and bending of the existing reinforcing steel designated to be retained, forming and all incidental costs required to complete the work.

Item 127.1 and 127.41 will be paid for at the Contract unit price per Cubic Yard respective, which price shall include all labor, materials, equipment, sawcutting, cleaning, cutting, and bending of the existing reinforcing steel designated to be retained, and all incidental costs required to complete the work.

ITEMS 127. 1, 127.4 and 127.41 (Continued)

Items 127.4 and 127.41 will compensate the Contractor for excavation performed on the bridge deck (full depth or partial depth). The furnishing and installation of new reinforcing steel for this work will be compensated under Item 910.1.

Removal of hot mix asphalt and membrane waterproofing above the reinforced concrete deck shall be paid under Item 129.6.

The Contractor will be paid under either Item 127.1, 127.4 or 127.41 for excavated concrete. In no case will the Contractor be paid under more than one Item for the same excavated material.

ITEM 127.12 REINFORCED CONCRETE SUBSTRUCTURE EXCAVATION CUBIC YARD

The work under this Item shall conform to the relevant Provisions of Subsection 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 (piers, abutment and wingwalls) to the general lines identified on the drawings and as directed by the Engineer.

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 into roadway where vehicular or pedestrian traffic exists. Any material that accidentally falls into such areas shall be removed.

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 15 pounds mass shall not be used, unless approved by the Engineer.

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 overcutting square corners.

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 Engineer may then direct the Contractor to provide temporary blocking to support the beam dead loads. This blocking shall be installed to support loading on the substructure prior to continuing excavation. If this work is directed by the Engineer, compensation for the work shall be provided under Item 100.1 (Base Labor Rate) and the appropriate non-bid items.

ITEM 127.12 (Continued)

The Contractor shall limit extent of excavation of the pier caps as shown on the repair sequence contract drawings. If the Contractor exceeds the limits of excavation as shown on the repair sequence contract drawings, then temporary shoring shall be installed to alleviate loading on the substructure, at no additional cost 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 necessary precautions 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.

METHOD OF MEASUREMENT

Item 127.12 will be measured and paid 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 price per Cubic Yard , which price shall include all labor, tools, equipment, materials, sawcutting, cleaning, disposal of all debris and incidental costs required to complete the work.

New reinforcing steel will be paid under Item 910.1

ITEM 129.6 BRIDGE PAVEMENT EXCAVATION SQUARE YARD

The work under this Item shall conform to the relevant provisions of Subsection 120 of the Standard Specifications and the following:

The work under this Item shall consist of the removal and disposal of HMA and membrane waterproofing from the bridge deck, when fully stripping a deck and as required by the Engineer.

The edges of all areas where existing asphalt is removed under this Item shall be sawcut to a depth of 3/4 inch.

The Contractor shall submit to the Engineer for approval the type of machine that will be used. Any bridge deck damaged by the Contractor's operations shall be repaired at the Contractor's own expense.

This Item includes the excavation of the existing asphalt wearing surface on the bridge deck, following milling of the bridge overlay and approach pavements to a depth of 1½ -2" inches. The work involves mechanically removing the remaining wearing surface (approximately 1 inch), along with the protective membrane, to fully expose the concrete deck for inspection, deck repairs, and joint reconstruction.

METHOD OF MEASUREMENT

Item 129.6 will be measured for payment by the Square Yard of actual area of the existing HMA pavement excavated, removed, and properly disposed.

BASIS OF PAYMENT

Item 129.6 will be paid for at the Contract unit price per Square Yard, which price shall include all labor, materials, equipment, excavation and disposal HMA pavement and membrane, and all incidental costs required to complete the work.

ITEM 151. GRAVEL BORROW CUBIC YARD

Work under this item shall conform to the relevant provisions of Subsection 150 and consist of placing gravel borrow at the approaches for joint reconstruction. The Engineer may direct the use of this item where needed for reconstruction of the safety and sidewalk transitions off the bridge, or where guardrail installation requires it.

If approved by the Engineer, the existing materials excavated for the backwall, and joint reconstruction can be reused as backfill materials.

METHOD OF MEASUREMENT

Item 151. Gravel Borrow will be measured for payment per Cubic Yard, complete in place.

BASIS OF PAYMENT

Item 151. shall be paid for at the Contract unit price per Cubic Yard, complete in place, which shall include all labor, materials, tools, equipment, and incidental costs required to complete the work as required by the Engineer.

ITEM 482.31 SAWING AND SEALING JOINTS IN ASPHALT PAVEMENT AT BRIDGES FOOT

The work to be done under this Item consists of making a sealed kerf across the full width of the finished asphalt pavement at bridge abutments where called for on the Plans. The shape, width, and depth of the kerf shall be as shown on the drawings.

Prior to the start of the asphalt pavement operation, the Contractor shall place a mark on each curb or barrier on either side of the paved roadway. These marks shall be aligned with the actual end of the bridge deck and shall be placed so that they will not be covered or otherwise obscured by the asphalt pavement.

After the completion of the paving operation, the Contractor shall snap a straight chalk line on the pavement between these two marks. The Contractor shall then saw cut the pavement along this line to the depth, width and shape shown on the Plans. The equipment shall be approved by the Engineer prior to commencing work.

After completing the saw cutting, the Contractor shall clean the saw groove of any dust and debris with an oil free air blast. If the groove was wet sawn, the groove shall be cleaned with a water blast to remove any remaining slurry and debris, vacuumed with a Wet-or-Dry vacuum to remove any standing water, and then dried with an air blast from a Hot-Air-Lance.

Once the groove is clean and dry, the Contractor shall fill it completely with a hot-applied bituminous crack sealer meeting the requirements of M3.05.2 in accordance with the manufacturer's application instructions and restrictions regarding ambient and material temperatures. The crack sealer shall be thoroughly cured prior to opening the road to traffic. To reduce tackiness, only boiler slag aggregate (black beauty) shall be scattered over the sealer when deemed necessary by the Engineer. Conventional sand shall not be used for this purpose.

METHOD OF MEASUREMENT

Item 482.31 will be measured for payment by the Foot, of the actual number of feet of kerf sawed and sealed in the asphalt pavement surface, complete in place.

BASIS OF PAYMENT

Item 482.31 will be paid for at the Contract unit price per Foot, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

ITEM 630.2 HIGHWAY GUARD REMOVED AND DISCARDED FOOT

Work under this item shall conform to the relevant provisions of Subsection 630 and shall consist of removing the existing concrete posts and cable components of the approach guardrail and disposing of all guardrail materials off-site.

The removal limits shall encompass all cable guardrail and concrete posts forming the continuous runs approaching and departing the bridge, generally extending as outlined below or as directed by the Engineer:

- 530 FT – At the southwest corner
- 450 FT – At the northwest corner
- 970 FT – At the southeast corner
- 730 FT – At the northeast corner

The station and offset of the existing guardrail and HMA curb shall be documented through survey to ensure proper placement of the proposed guardrail system. Payment for the field survey and installation support shall be included under Item 100.9.

The removal of existing guardrail shall be coordinated with installation of new TL 2 guardrail proposed for the project.

METHOD OF MEASUREMENT

Item 630.2 will be measured for payment per Foot.

BASIS OF PAYMENT

Item 630.2 will be paid for at the Contract unit price per Foot, which price shall include all labor, materials, equipment, and incidental costs required to complete the work as required by the Engineer.

Material disposal shall be in accordance with applicable local bylaws, as well as state and federal regulations.

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 computer computers system (one for Resident Engineer and one for the Assistant Resident Engineer) a digital camara and 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 capable of allow 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 a 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 throughout 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	600 x 600 dpi capability.
LCD touch panel display	30 pages per minute print speed (color).
50 page reversing automatic document feeder	4 Paper Trays Standard (RADF) (not including the bypass tray).
Reduction/enlargement capability	Automatic duplexing
Ability to copy and print 11" x 17" paper size	Finisher with staple functions
Email and network pc connectivity	Standard Ethernet. Print Controller
Microsoft and Apple compatibility	Scan documents to PDF, PC and USB
Ability to overwrite latent images on hard drive	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 systems, 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.

All computers must have an internet access account. DSL (digital subscriber line) is preferred where available. If DSL is not available, a cable internet service provider will be acceptable. Only high-speed internet access will be provided.

METHOD OF MEASUREMENT

Item 740. will be measured for payment per Month.

BASIS OF PAYMENT

Item 740. will be measured and paid at the Contract unit price per Month.

Payment for this Item shall be as outlined in Subsection 740.81 of the Standard Specifications.

ITEM 767.12 COMPOSITE FILTER TUBES FOOT

The work under this item shall conform to the relevant provisions of Subsections 670, 751 and 767 of the Standard Specifications and shall include the furnishing and placement of a Composite Filter Tubes for sediment control as shown on the drawings and as directed by the Engineer.

Twelve-inch diameter (after installation) compost filter tubes with biodegradable natural fabric (i.e., cotton, jute, burlap) are intended to be the primary sedimentation control barrier. Photo biodegradable fabric shall not be used.

Composite Filter Tubes shall be installed in the approximate location as shown on the plans and as required so that no excavated or disturbed soil can enter the waterways.

Barriers shall be staked and/or wedged as specified herein and according to the Manufacturer's instructions. Barriers shall be securely in contact with existing soil such that there is no flow beneath the barrier.

Compost material inside the filter tube shall meet M1.06.0.

The outer tube fabric shall be made of 100% biodegradable materials (i.e., cotton, hemp or jute) and shall have a knitted mesh with openings that allow for sufficient water flow and effective sediment capture.

Tubes shall be tamped, but not trenched, to ensure good contact with soil. When reinforcement is necessary, tubes shall be stacked as shown on the drawings.

Composite Filter Tubes shall be dismantled and/or removed, as required, when construction work is complete.

METHOD OF MEASUREMENT

Item 767.12 will be measured for payment per Foot.

BASIS OF PAYMENT

Item 767.12 will be paid for at the contract unit price per Foot.

The Contract price shall include all material, labor, tools, equipment, and incidental costs required to complete the work to the satisfaction of the Engineer. The Contract price shall also include required maintenance, dismantling and disposal of composite filter tubes upon completion all the work.

ITEM 904.31 PRECAST CONCRETE HIGHWAY GUARDRAIL TRANSITION EACH

The work under this Item consists of fabricating, transporting and installing a MassDOT Standards Precast Concrete Highway Guardrail Transitions and includes all necessary labor, materials, and equipment to complete the work as shown on the drawings. The Precast Concrete Highway Guardrail Transitions shall meet the requirements of Section M4: Cement Concrete and Related Materials, except as noted or supplemented herein.

MATERIALS

Controlled Low Strength Material (CLSM), Structural Non-Excavatable, shall conform to the requirements of Section 501 of the MassDOT Standard Specifications. CLSM materials shall meet the applicable provisions of Section M4.08.0.

Lifting devices shall comply with the requirements of PCI MNL-116, Manual for Quality Control for Plants and Production of Structural Precast Concrete Products, published by the Precast/Prestressed Concrete Institute.

VERTICAL ADJUSTMENT ASSEMBLY

Vertical Adjustment Assembly details and material requirements shall be as shown on the plans. Alternate devices may be used provided that they are adjustable and can support the anticipated loads. The design of the leveling devices, with necessary calculations, shall be submitted to the Engineer of Record for approval.

CONSTRUCTION METHODS – PLANT FABRICATION

Pre-Production Meeting

The Contractor shall notify the MassDOT Research and Materials Section to determine if a pre-production meeting will be required to review the specification, shop drawings, curing plan, schedule, and discuss any specific requirements. The meeting shall be held prior to scheduling a MassDOT Inspector (refer to M4.09.4 Department Acceptance), and at least seven (7) days prior to the scheduled casting of any Precast Concrete Bridge Element or control section. The Contractor shall schedule the meeting, which shall include representatives of the Fabricator and MassDOT.

Reinforcement

The reinforcing bars shall be installed in accordance with Subsection 901.35, including tolerances for cover and horizontal spacing of bars. Components of mechanical reinforcing bar splicers shall be set with the tolerances shown on the plans. The reinforcing bars and mechanical reinforcing bar splicers shall be assembled into a rigid cage that will maintain its shape in the form and which will

not allow individual reinforcing bars to move during the placement of concrete. This cage shall be secured in the form so that the clearances to all faces of the concrete, as shown on the plans, shall be maintained.

Tolerances

Fabrication shall comply with tolerances specified on the plans. Tolerances for steel reinforcement placement shall be in accordance with Subsection 901.35. In the absence of specifications on the plans, tolerances shall comply with the latest version of the PCI MNL 135, Precast Tolerance Manual.

ITEM 904.31 (Continued)

Forms

Concrete shall be cast in rigidly constructed forms, which will maintain the Precast Concrete Bridge Elements within specified tolerances to the shapes, lines and dimensions shown on the approved fabrication drawings. Forms shall be constructed from flat, smooth, non-absorbent material and shall be sufficiently tight to prevent the leakage of the plastic concrete. When wood forms are used, all faces in contact with the concrete shall be laminated or coated with a non-absorbent material. All worn or damaged forms, which cause irregularities on the concrete surface or damage to the concrete during form removal, shall be repaired or replaced before being reused. If threaded inserts are cast into the elements for support of formwork, the inserts shall be recessed a minimum of 1 inch and shall be plugged after use with a grout of the same color as that of the precast cement concrete.

CONSTRUCTION METHODS – FIELD CONSTRUCTION

General

All of the Contractor's field personnel involved in the erection and assembly of the Precast Concrete Bridge Elements shall have knowledge of and follow the approved Erection Procedure.

Prior to installation, the following documentation shall be reviewed and confirmed by the MassDOT Resident Engineer or designee:

(a) QC Compressive Strength Test Report Forms attaining Design Strength, fc' for the Precast Concrete Bridge Element's representative sublot.
(b) Certificate of Compliance generated by the Fabricator as described under the Fabricator Quality Control section.
(c) QC Inspection Reports signed by the Quality Control Manager.

Field construction staff shall verify that the Resident Engineer has accepted all Precast Concrete Bridge Elements prior to installation.

Erection Procedure

Prior to the erection, the Contractor shall submit an Erection Procedure for approval by the Engineer. This submittal shall include computations and drawings for the transport, hoisting, erection and handling of the Precast Concrete Bridge Elements. The Erection Procedure shall be prepared and stamped by a Professional Engineer registered in the Commonwealth of Massachusetts with working knowledge of the Contractor's equipment, approved shop drawings, and materials to build the bridge.

The Erection Procedure shall be prepared to conform to the requirements of 960.61, Design, Fabrication and Erection and the applicable sections in Chapter 8 of the PCI Design Handbook (eighth edition) for handling, erection, and bracing requirements. At a minimum, the Erection Procedure shall provide:

(a) Minimum concrete compressive strength for handling the Precast Concrete Bridge Elements.
(b) Concrete stresses during handling, transport, and erection.
(c) Crane capacities, pick radii, sling geometry, and lifting hardware.

ITEM 904.31 (Continued)

(d) Verification that the equipment can handle all pick loads and weights with the required factor of safety.
(e) Evaluation of construction sequence and evaluation of any geometric conflicts in the lifting of the Precast Concrete Bridge Elements and setting them as shown on the plans.
(f) Design of crane supports including verification of subgrade for support.
(g) Location and design of all temporary bracing that will be required during erection.

Once the precast concrete Highway guardrail transition has been set to the correct horizontal and vertical alignment, the supporting soil shall be filled with Controlled Low-Strength Material – Structural Non-Excavatable to the limits as shown on the plans.

Curing of grout or concrete shall be performed in strict accordance with the specifications and manufacturer's recommendations. Filling shall not be completed in cold weather when either the ambient temperature or the precast member's temperature is below the manufacturer's recommendation. No localized heating of either the precast members or of the air surrounding the element will be permitted in an attempt to reach application temperatures.

Survey and Layout

Working points, working lines, and benchmark elevations shall be established prior to placement of all elements. The Contractor is responsible for field survey as necessary to complete the work. MassDOT reserves the right to perform an additional independent survey. If discrepancies are found, the Contractor may be required to verify previous survey data.

Preparation of Closure Pours and Grouted Keyways

Immediately prior to erecting the precast concrete Highway guardrail transition, the closure pours and grouted keyways shall be cleaned at the job site of all dust, dirt, carbonation, laitance, and other potentially detrimental materials which may interfere with the bonding of the closure pour concrete or grout and precast concrete using a high-pressure water blast. Any exposed reinforcing steel in the precast concrete shall be protected from damage during the cleaning of the keyways.

Damaged epoxy coating of steel reinforcement shall be repaired, and the reinforcing steel shall be cleaned as directed by the Engineer. The surfaces of the closure pours and grouted keyways shall be wetted so that the surfaces shall have a Saturated Surface Dry (SSD) condition for at least 24 hours prior to the placement of the closure pour concrete.

METHOD OF MEASUREMENT

Item 904.31 will be measured for payment by the unit each, Precast Concrete Highway Guardrail Transition, complete in place.

BASIS OF PAYMENT

Items 904.31 will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

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 127.1. 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 by 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 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 at the locations shown on the drawings or as required by the Engineer.

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. Reinforcing Steel Dowel Manufacturers shall be listed on MassDOT's Qualified Construction Materials List. 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.

ITEM 912. (Continued)

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.

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 by the 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 961.201 CLEAN (FULL REMOVAL) AND PAINT STEEL BRIDGE NO. N-21-008 (1D0) LUMP SUM

The work under this Item shall conform to the relevant provisions of Subsections 960.63 and 961 of the Standard Specifications, and the following:

This work shall consist of cleaning and painting exposed structural steel, which shall include but is not limited to stringers, girders, cross girders, diaphragms, seismic restraints, connection plates and bearings.

This work shall also include any concrete encased end diaphragms which are not to be re-encased, as directed by the Engineer.

Work under Item 961.201 shall include the cleaning (full removal) and painting of all exposed steel at these bridges. All steel will be cleaned to SSPC SP-10 standards.

All steel surfaces to be painted will receive a three (3) coat system approved by MassDOT's Research & Materials Section. The colors of the primer, intermediate and finish coats shall have a definite color contrast between them and be subject to the approval of the Engineer.

Steel repairs, if any, required by the Engineer, shall be completed before steel surfaces receive the intermediate and topcoat applications. The Contractor shall be required to clean and prime beam ends prior to any structural steel repairs required by the Engineer, which will be paid under Item 107.97.

The Contractor shall provide safe access for inspection after the steel has been cleaned and primed.

CONSTRUCTION METHODS

The Contractor shall clean all exposed surfaces of the abutment seats and pier caps by high-pressure water washing, to the satisfaction of the Engineer. All costs associated with cleaning, including debris collection, removal, disposal, and high-pressure washing of abutment and pier seats and pier caps, shall be considered incidental to Pay Item 961.201.

Pigeon Waste/Debris Removal & Cleaning Abutment Seats & Pier Caps.

The Contractor shall first remove all accumulation of sediment, debris, and pigeon waste from the tops of abutment bridge seats (including drainage troughs), pier caps, steel members, and other areas where work is being performed as directed by the Engineer.

The Contractor shall clean all exposed surfaces of abutment seats and pier caps by power washing with water pressure not less than 2200 psi, at nozzle, and flow rate not less than 2.0 gallons of water per minute to the acceptance 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.

Incidental to this Item will be the cleaning and removal of any accumulated materials in the areas to be cleaned and painted.

ITEMS 961.201 (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.

BASIS OF PAYMENT

Item 961.201 will be paid for at the contract unit price Lump Sum, which price shall include all labor, materials, equipment, design and installation of the required containment system/work platform, removal and disposal of accumulated pigeon waste and other toxic contaminants, temporary removal and resetting the anti-missile fencing to access the steel for painting, and all incidental costs required to complete the work.

Partial payments of the lump sum will be made in accordance with Section 961.80 of the Standard Specifications.

Partial payments shall be made only after any inspections associated with the phase have been completed and signed.

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 for this item includes applying an elastomeric acrylic protective coating to bridge abutments, wingwalls, pier caps, and pier walls, within the limits indicated on the plans and as directed by the Engineer.

The coating shall be applied in as a minimum of two coats, except where otherwise specified for pier caps on the drawings.

A minimum 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 "DOVER SKY" for barriers and "Gray" for the substructure. This color is from the SikaGard Color Chart and has been approved by the District Bridge Engineer. This color must be exactly reproduced as certified by the manufacturer in order to be allowed to use the Flexxide or Colorastic coatings (at this time Flexxide has matching color samples that have been pre-approved).

PREPARATION & PROTECTION OF SURFACES

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. The 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 dry film thickness (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.

ITEM 971.2 MODIFIED ASPHALTIC BRIDGE JOINT SYSTEM FOOT

The work under this Item shall conform to the relevant provisions of Subsection 971, as modified below and as follows.

The work under this Item shall include preparation and installation of a multi-component joint system. The work under this Item differs from the requirements contained in Subsection 971 as follows:

1. A pre-compressed seal joint system shall be used in place of the backer rod.
2. An air gap between the binder and pre-compressed seal shall be maintained through the section at the roadway.
3. A non-woven fabric material shall be used in place of the bridge plate.

Incidental to this Item shall be the placement of a pre-compressed seal joint system and non-sag joint sealer above the pre-compressed seal through the safety curb and sidewalk.

At locations where the seal is exposed on a sidewalk a non-sag joint sealer shall be installed over the width of the pre-compressed seal itself flush with the top of sidewalk.

MATERIALS

ASPHALTIC BINDER, COMPACTED AGGREGATE, AND NON-SAG JOINT SEALER

Materials for the Asphaltic Binder and Aggregate for the Modified Asphaltic Bridge Joint System shall meet the requirements specified in the following Subsections of Division III, Materials:

Polyurethane Joint Sealer, Non-Sag.....M9.14.4
Asphaltic Binder for Asphaltic Bridge Joint System.....M9.17.0
Aggregate for Asphaltic Bridge Joint System.....M9.17.1

PRE-COMPRESSED SEAL JOINT SYSTEM

The pre-compressed seal joint system assembly shall consist of a preformed/pre-compressed seal epoxy adhesive, injected silicone sealant bands, all combined in manner required by the manufacturer's specification and to form a continuous watertight seal.

The materials comprising the pre-compressed seal joint system shall be capable of accommodating minimum movements of +50%, -50% (Total 100%) of nominal material size.

Depth and installation of seal shall be as recommended by manufacturer.

The preformed, pre-compressed, self-expanding, sealant system with silicon pre-coated surface shall be comprised of three components:

1. Cellular polyurethane foam impregnated with hydrophobic 100% acrylic (to be certified in writing by independent laboratory tested FTIR and DSC analysis to be free in composition of any waxes or wax compounds), water based emulsion, factory coated with highway-grade, fuel resistant silicone;

ITEM 971.2 (Continued)

2. Field-applied epoxy adhesive primer;
3. Field-injected silicone sealant bands.

Impregnation agent is to have proven non-migratory characteristics. Silicone coating to be highway-grade, low-modulus, fuel resistant silicone applied to the impregnated foam sealant at a width greater than maximum allowable joint extension and which when cured and compressed will form a bellow. Size of the seal shall be as recommended by manufacturer for the specific location and may vary along the length of the joint. The foam seal shall be installed into manufacturer's standard field-applied epoxy adhesive. The seal system is to be recessed from the deck surface such that after the field applied injection band of silicone is installed between the substrates and the foam, the highest part of the pre-applied silicone facing will be below the deck surface.

Changes in plane and direction at locations, such as gutter line and face of barriers, shall be executed using factory-fabricated "universal 90" or custom transition assemblies supplied by the manufacturer of the pre-compressed seal. Transitions shall be warranted to be watertight at inside and outside corners through the full movement capabilities of the product.

The contractor shall certify in writing that the expansion joint seal system is capable of withstanding 150°F for three hours while compressed down to the minimum of movement capability dimension of the basis of design product (-50 percent of nominal material size) without evidence of any bleeding of impregnation medium from the material, and that the same material after the heat stability test will self-expand to the maximum of movement capability dimension of

the basis-of-design product (+50 percent of nominal material size) within 24 hours at room temperature 68°F.

The Contractor shall submit measurements of the joint at a given temperature for the District Bridge Engineer to confirm the modified asphaltic plug joint does not need an adjustment of the joint opening or seal size. The joint opening shall be 1½" at 50 degrees for a 2" pre-compressed seal.

All material for the pre-compressed joint seal system shall be stored indoors, in a dry area out of direct sunlight at room temperature.

BRIDGING MATERIALS

The bridging material shall be a nonwoven fabric compatible with paving operations.

The Contractor shall use one of the following products unless otherwise approved by the Engineer:

1. Mirafi MPV500 Paving Fabric manufactured by Tencate Mirafi Geosynthetics
2. TerraTex OLI manufactured by Hanes Geo Component
3. US 100 P manufactured by USFabrics
4. FX42A/O manufactured by Carthage Mills
5. Or approved equal meeting the material requirements below.

ITEM 971.2 (Continued)

Property	Test Method	Minimum Value
Grab Tensile Strength	ASTM D-4632	100 lbs
Grab Tensile Elongation	ASTM D-4632	50%
Asphalt Retention	ASTM D-4160	0.20 gal / SY
Melting Point	ASTM D-276	300° F
UV Resistance @ 500 Hours	ASTM D-4355	70%

ANTI-TACKING MATERIAL

The anti-tacking material shall be a fine graded granular material with 100% passing the 3/16" sieve and no more than 5% passing the #200 when tested in accordance with AASHTO T-27.

CONSTRUCTION METHODS

Any existing joint removal, deck reconstruction and wearing surface placement shall take place in advance of the new joint installation. Any existing concrete to remain below the joint shall be inspected for signs of deterioration. If necessary, deteriorated sections of concrete and steel shall be repaired as directed by the Engineer and shall be paid under separate Item(s).

Prior to the start of the asphalt pavement operation, the Contractor shall place a marks on each curb or barrier on either side of the paved roadway. These marks shall be aligned with the proposed edges of the bridge joint, based on the joint opening, and shall be placed so that they will not be covered or otherwise obscured by the asphalt pavement. A 19 inch strip of roofing felt shall be centered over the joint location prior to the placement of any waterproofing membrane or asphalt pavement.

Any membrane waterproofing and wearing surface shall be placed uniformly across the deck and joint locations.

After the completion of the paving operation, the Contractor shall snap a straight chalk line on the pavement between these marks. The Contractor shall then saw cut the pavement along this lineand the wearing surface and membrane waterproofing shall be removed within the limits of the proposed joint system.

The Contractor shall protect the blockout from damage by equipment and construction operations. If the entire length of the joint system cannot be installed in the same shift, a bond breaker (such as tar paper) shall be placed in the blockout and the blockout filled with compacted hot mix asphalt. When the joint system is to be installed the HMA and bond breaker shall be removed, and the block cleaned.

ITEM 971.2 (Continued)

Prior to installation of the joint system, the joint opening should be sandblasted to a CSP of 3-6 and blown clean using compressed air. The compressed air shall be free of moisture and oil. To ensure cleanliness, the joint walls shall be wiped clean with a solvent-dampened, lint-free rag to the depth of the bottom of the pre-compressed seal material plus one inch (1") to remove any dust remaining. The joint gap shall be inspected for cleanliness by The Engineer. Should any contaminates remain, the joint must be re-cleaned.

The pre-compressed seal, epoxy adhesive, and injected silicone sealant band shall be installed in accordance with the contract drawings. The pre-compressed seal joint system shall be continuous through median barriers, and parapets. Continuity of seal shall be achieved through the use of factory-fabricated universal or custom transitions supplied by the pre-compressed joint seal manufacturer. Install silicone corner beads and silicone band forced down alongside of pre-compressed seal on both sides.

The bridging material shall only be installed after the materials of the pre-compressed seal joint are fully cured and set for at least thirty (30) minutes.

Place tack coat, binder or primer (as specified by the manufacturer) on deck surfaces and install bridging material in accordance with the manufacturer's recommendations. There shall be no joints or laps in the paving fabric material.

The minimum ambient air temperature shall be 40°F and rising during any installation of the joint components.

Following the completion of the installation of the binder, the finished joint shall be dusted with anti-tacking material. Non-sag joint sealer shall be applied in sidewalk, median and barrier joints where applicable.

The Contractor shall be responsible for removing all binder material that leaks through the joint and is deposited on any bridge component, including underside of decks, headers, beams, diaphragms, bearings, abutments, and piers.

QUALITY CONTROL

MANUFACTURER'S FIELD REPRESENTATIVE

The Contractor shall arrange with the pre-compressed seal joint system's manufacturer or distributor to have the services of a competent field representative at the work site prior to any installation to instruct the work crews in the proper installation procedures. 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 system 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.

A qualified employee of the asphaltic binder manufacturer or an installer certified by the manufacturer and approved by the Department shall be at the job site prior to the beginning of the joint construction process to instruct the work crews in proper join construction procedures and shall remain on the job site for the duration of the installation of the asphaltic material.

ITEM 971.2 (Continued)

The manufacturer's field representatives must be fully qualified to perform the work and shall be subject to the approval of the Engineer.

The Contractor shall be completely responsible for the expense of the service of the required field representatives, and the bid contract price shall be full compensation for all costs in connection therewith.

QUALITY CONTROL PLAN

The Contractor shall submit a Quality Control Plan at least 30 days before the start of work to the Engineer for approval.

The submittal shall include:

The qualifications of the installer.
List of manufactured materials and their properties
Material Certificates and Certificates of Compliance for the asphalt binder, aggregate and pre-compressed seal joint.
Detailed installation procedure
List of the specific equipment to be used for the installation.

The Quality Control Plan must fully comply with the specifications and address all anticipated field conditions, including periods of inclement weather. The Contractor’s QC personnel will perform Quality Control inspection and testing of polymeric modified asphalt binder heating, blending, placement, compaction, and finishing.

The Installer shall have previously demonstrated the ability to have successfully produced a joint of similar nature and shall provide documentation of a working joint to the Department.

The Contractor shall provide a daily field QC Inspection Report to the Engineer within 48 hours of the work. The report shall include at a minimum the weather conditions during installation, material temperature, materials details, and pictures (or videos) of each step from preparation to open to traffic.

METHOD OF MEASUREMENT

Item 971.2 will be measured for payment by the Foot, as measured along the joint centerline between curb lines complete in place.

The joint treatment at the curb and sidewalk shall be considered incidental to the work done under this Item.

BASIS OF PAYMENT

Item 971.2 will be paid at the contract unit bit price per Foot, which price shall be considered full compensation for the installation of the Modified Asphaltic Bridge Joint System including all labor, material, equipment, manufacturer’s representative, and all items incidental to the satisfactory completion of the work.

Removal of existing joints and materials will be paid for under separate Items.

ITEM 974.33 METAL BRIDGE RAILING REMOVED AND REPLACED WITH S3-TL4 BRIDGE RAILING LUMP SUM

The work under this Item shall conform to the relevant provisions of Subsection 901 and 975 of the Standard Specifications and the specific requirements stipulated below for the component parts of this Item. For those component parts where no specific requirement is stipulated, the Standard Specifications shall apply except for payment.

Work under this Item shall consist of furnishing all labor, materials, and equipment required to satisfactorily complete the replacement of the existing metal bridge railing, including, but not limited to, the following:

- Removal and proper disposal of the existing metal bridge railing
- Furnishing and installing MassDOT Standard Bridge Railing, Type S3-TL4
- All associated work necessary to complete the installation, including drilling and grouting of bridge railing anchors

The work does not include any items for which separate payment is provided in the Proposal. Payment for materials shown on the Plans as part of the replacement of this railing, or for materials incidental to the replacement and not specifically included for payment under another Item, shall be considered incidental to the work performed under this Item and shall be included in the unit price for this Item.

Any required instrument surveying for layout of the bridge railing shall be considered incidental to the installation of the bridge railing and shall be included for payment under this Item.

REMOVAL AND DISPOSAL OF EXISTING METAL RAILING

The work to be done under this Heading shall conform to the relevant provisions of the Standard Specifications, supplemented and amended as follows:

The work shall include dismantling, removal, and off-site disposal of all components of the existing metal bridge railing.

A dismantling procedure shall be prepared by the Contractor and submitted to the Engineer for approval.

The Contractor is hereby advised that the Department has not tested the existing railing system for lead-based paint; the Contractor shall be responsible for determining whether the system contains lead and for complying with all applicable regulations.

Upon dismantling the railing, the existing anchors shall be cut and ground flush with the concrete surface and touched up with galvanizing repair compound. A methacrylate sealant shall also be applied (ponded) around each anchor assembly to seal any existing cracks in and around the anchor holes.

ITEM 974.33 (Continued)

DRILLING AND GROUTING ANCHORS

The work to be done under this Heading shall conform to the relevant provisions of Subsection 901 of the Standard Specifications, supplemented and amended as follows:

The work shall consist of drilling holes, furnishing, installing, and grouting galvanized anchors into the existing bridge parapets to secure the new steel bridge railing (Type S3-TL4), in accordance with the Contract Drawings or as directed by the Engineer.

The anchor embedment shall be sufficient to fully develop 125% of the anchor's yield strength. The embedment length, the method and equipment used to drill the dowel holes, and the diameter of the drilled holes shall, at a minimum, conform to the manufacturer's recommendations and shall be submitted to the Engineer for approval.

CONSTRUCTION METHODS

The contractor shall layout the posts' location and use baseplate template to locate the holes for drilling. All holes shall be air or diamond core drilled. The inner surfaces of the diamond core drilled 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 grout shall be selected for the application from the MassDOT Qualified Construction Material List (QCML) reviewed and approved by the Engineer.

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.

The Contractor shall perform on site a minimum of two (2) tests of the anchors (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

ITEM 974.33 (Continued)

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.

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.

METAL BRIDGE RAILING (3 RAIL), STEEL (TYPE S3-TL4)

The work to be done under this Heading shall conform to the relevant provisions of Subsection 975 of the Standard Specifications, supplemented and amended as follows:

The work shall include furnishing and installing a MassDOT Standard Bridge Railing, Type S3-TL4, to replace the existing metal railing, in accordance with the applicable Material Specifications, fabrication requirements, and installation procedures, as shown on the Contract Drawings and as directed by the Engineer.

BASIS OF PAYMENT

Items 974.33 will be paid for at the Contract unit price per Lump Sum, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

SCHEDULE OF BASIS FOR PARTIAL PAYMENT

Ten days after the Notice to proceed the Contractor shall submit on his/her proposal form a schedule of unit prices for the major component Sub-Items that make up Item 974.33 "METAL BRIDGE RAILING REMOVED AND REPLACED WITH S3-TL4 BRIDGE RAILING" as well as his/her total Lump Sum bid price.

The Item Lump Sum breakdown quantities provided in the proposal form are estimated and not guaranteed. The total of all partial payments to the Contractor shall equal the Lump Sum contract price regardless of the accuracy of the quantities furnished by the Engineer for the individual bridge components. The cost of labor and materials for any Item not listed but required to complete

ITEM 974.33 (Continued)

the work shall be considered incidental to Item 974.33, and no further compensation will be allowed.

METAL BRIDGE RAILING REMOVED AND REPLACED WITH S3-TL4 BRIDGE RAILING

Sub-Item	Description	Qty.	Unit	Unit Price	Total
974.32	METAL BRIDGE RAILING REMOVED AND DISCARDED	296	FT		
912.3	DRILLING AND GROUTING ANCHORS	196	EA		
975.1	METAL BRIDGE RAILING (3 RAIL), STEEL (TYPE S3-TL4)	296	FT		
TOTAL LUMP SUM FOR ITEM 974.33 =					

It should be noted that the S3-TL4 bridge railing is designated as S3-MTL4 when all components of the system, including the anchorage, are designed and detailed to conform to the Manual for Assessing Safety Hardware (MASH) testing requirements. In this case, the MassDOT Type S3 steel railing is used with a modification to the anchorage; therefore, the designation S3-TL4 is used even though the steel railing detailing remains unchanged.

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DRAWINGS AND SKETCHES

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MassDOT Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

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DISTRICT 3
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LOCUS MAP

SCALE: N.T.S.

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

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Proposal No. 614177-134228

GENERAL NOTES:

1. THE WORK SHALL BE DONE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION "2026 STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES".

2. THE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER DOCUMENTATION AVAILABLE AT THE TIME OF DESIGN, INCLUDING ORIGINAL BRIDGE DESIGN PLANS. THE CONTRACTOR SHALL FIELD VERIFY ACTUAL FIELD CONDITIONS THAT MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THESE DRAWINGS. ALL MODIFICATIONS TO ADDRESS FIELD CONDITIONS SHALL BE APPROVED BY THE ENGINEER.

3. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE ACCURACY AND FIT OF THE WORK AND THUS SHALL DETERMINE WHAT MEASUREMENTS ARE REQUIRED. WHERE REQUIRED, THE CONTRACTOR SHALL DEVELOP SHOP DRAWINGS UTILIZING THE FIELD MEASUREMENTS OF THE REPLACEMENT AND REPAIR AREAS TO CONFORM THE BRIDGE COMPONENTS AND ALL OTHER REPAIR DIMENSIONS. THE CONTRACTOR SHALL NOT ORDER ANY MATERIALS OR BEGIN FABRICATIONS UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER.

4. AREAS OUTSIDE THE LIMITS OF THE PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.

5. THE BRIDGE IS CLOSED TO TRAFFIC AND WILL REMAIN CLOSED FOR THE DURATION OF THE CONTRACT. WORK ZONE SETUPS SHALL COMPLY WITH STANDARD DETAILS AND THE STANDARD SPECIFICATIONS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF ALL EXISTING MATERIALS TO BE REMOVED FROM THE STRUCTURE AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH THE SPECIFICATIONS.

7. THE EXISTING BRIDGE PLANS ARE AVAILABLE FOR REVIEW AT THE DISTRICT OFFICE OF THE BRIDGE DESIGN SECTION. PLANS SHOULD BE MADE AVAILABLE VIA BIDX OR THROUGH ELECTRONIC TRANSMISSION.

8. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN COMPOSITE FILTER TUBES FOR EROSION CONTROL AT ALL FOUR QUADRANTS OF THE BRIDGE AS DIRECTED BY THE ENGINEER. EROSION CONTROL SHALL BE PLACED TO PREVENT SEDIMENT AND RUNOFF FROM IMPACTING ADJACENT AREAS, WATERWAYS, AND DRAINAGE SYSTEMS. THE CONTRACTOR SHALL INSPECT AND MAINTAIN ALL EROSION CONTROL MEASURES AND REPAIR OR REPLACE THEM AS NEEDED OR AS DIRECTED BY THE ENGINEER. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE COMPENSATED UNDER CONTRACT BID ITEM 767.12.

9. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A LINED PIT OR CONTAINMENT AREA WITHIN THE BRIDGE APPROACH FOR WASHING OUT CONCRETE TRUCKS. THE CONTAINMENT SHALL BE DESIGNED TO PREVENT RUNOFF TO SURROUNDING AREAS, INCLUDING SOILS, DRAINS, AND WATERWAYS. ALL WASHOUT MATERIALS SHALL REMAIN IN THE CONTAINMENT AREA UNTIL FULLY HARDENED. ONCE SOLIDIFIED, THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF THE MATERIAL AND CLEAN THE AREA IN ACCORDANCE WITH APPLICABLE REGULATIONS. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND INCLUDED IN THE BID ITEMS.



PAVEMENT NOTES:

1. THE EXISTING BRIDGE OVERLAY THICKNESS IS VARIES AND MEASURED $2\frac{5}{8}$" AT CURB AND $3\frac{3}{4}$" AT SAFETY CURB.

2. MILL $1\frac{1}{2}$"± OF HMA AT THE APPROACH PAVEMENT TO THE LIMITS SHOWN ABOVE. MILL THE BRIDGE OVERLAY TO LEAVE NO MORE THAN 1" OF PAVEMENT ON THE BRIDGE DECK (ITEM 415.4).

3. EXCAVATE THE REMAINING HMA OF THE DECK, INCLUDING THE PROTECTIVE MEMBRANE, TO FULLY EXPOSE THE CONCRETE DECK FOR INSPECTION, DECK REPAIRS, AND JOINT RECONSTRUCTION (ITEM 129.6).

4. UPON COMPLETION OF BRIDGE REPAIRS AND PRIOR TO INSTALLATION OF THE MODIFIED ASPHALTIC PLUG JOINT AND SAW AND SEAL JOINT, INSTALL $1\frac{1}{4}$" BRIDGE PROTECTIVE COURSE (ITEM 450.701) AND PAVE THE BRIDGE AND APPROACHES WITH $1\frac{1}{4}$" BRIDGE SURFACE COURSE (ITEM 450.601).

PROJECT MILL AND PAVE LIMITS

SCALE: N.T.S.

MassDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

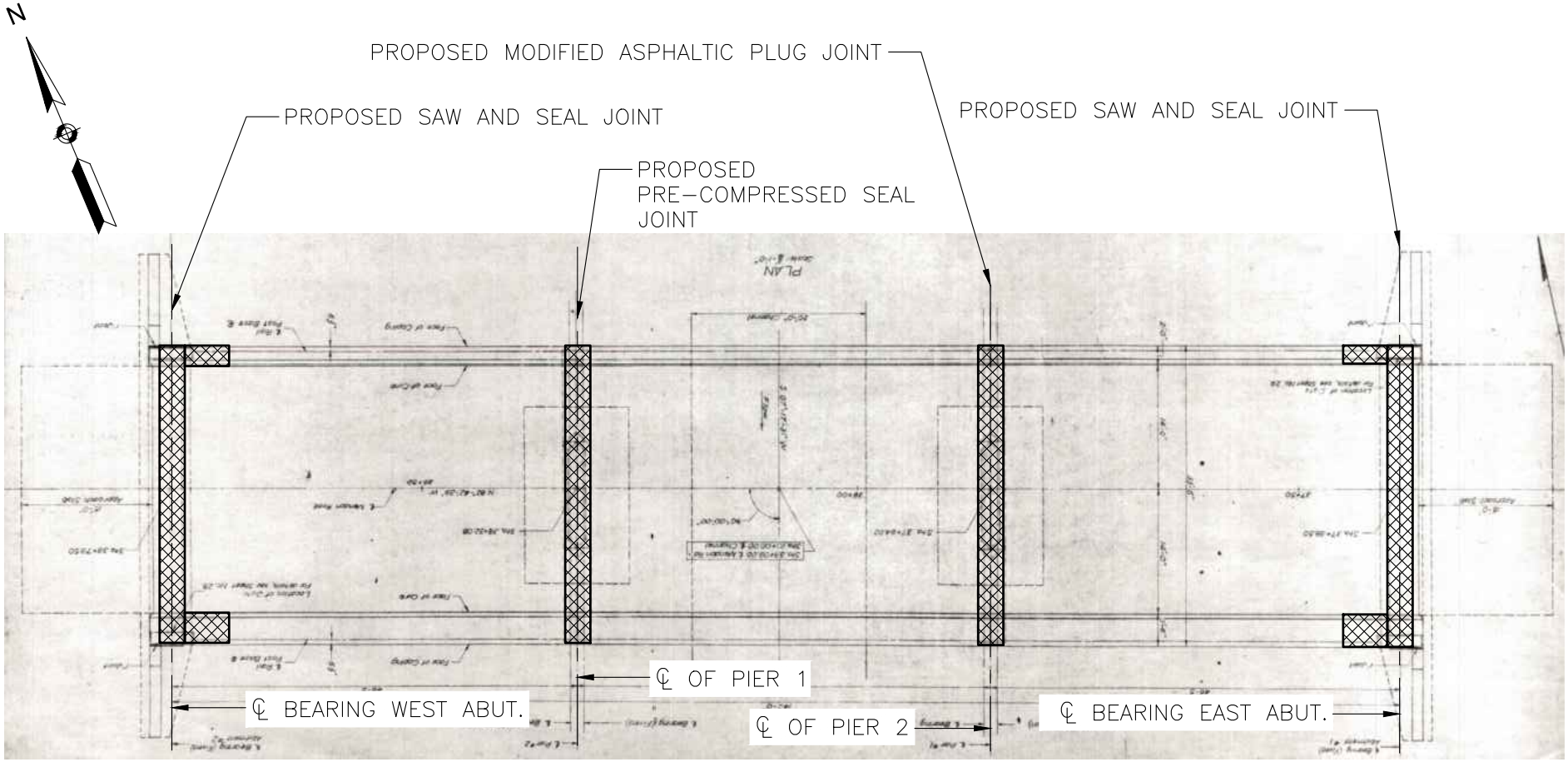
SUBJECT: PROJECT MILL AND PAVE LIMITS

SHEET: 5 OF 59
DRAWN BY: ME
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CHECKED BY: JON
DATE: 4/16/2026

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A00803-6

Proposal No. 614177-134228



JOINT REPAIR LOCATIONS

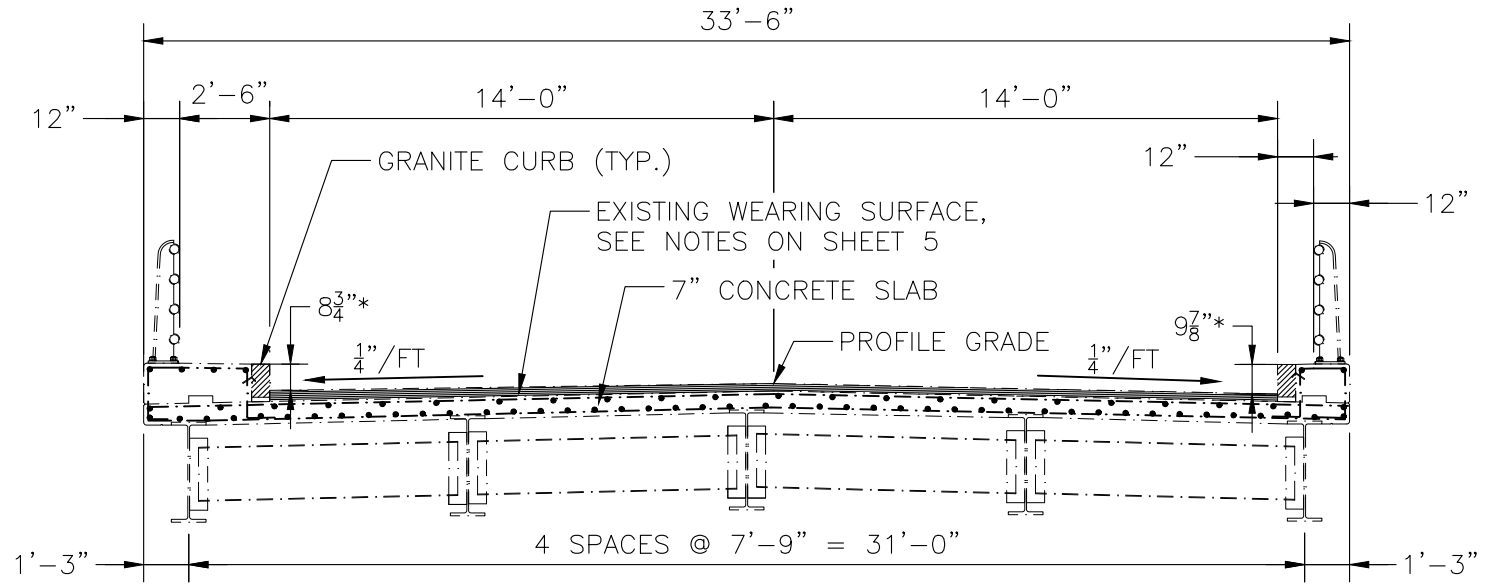
SCALE: N.T.S.

massDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 6 OF 59
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	SUBJECT: JOINT REPAIR LOCATIONS	CHECKED BY: JON DATE: 4/16/2026

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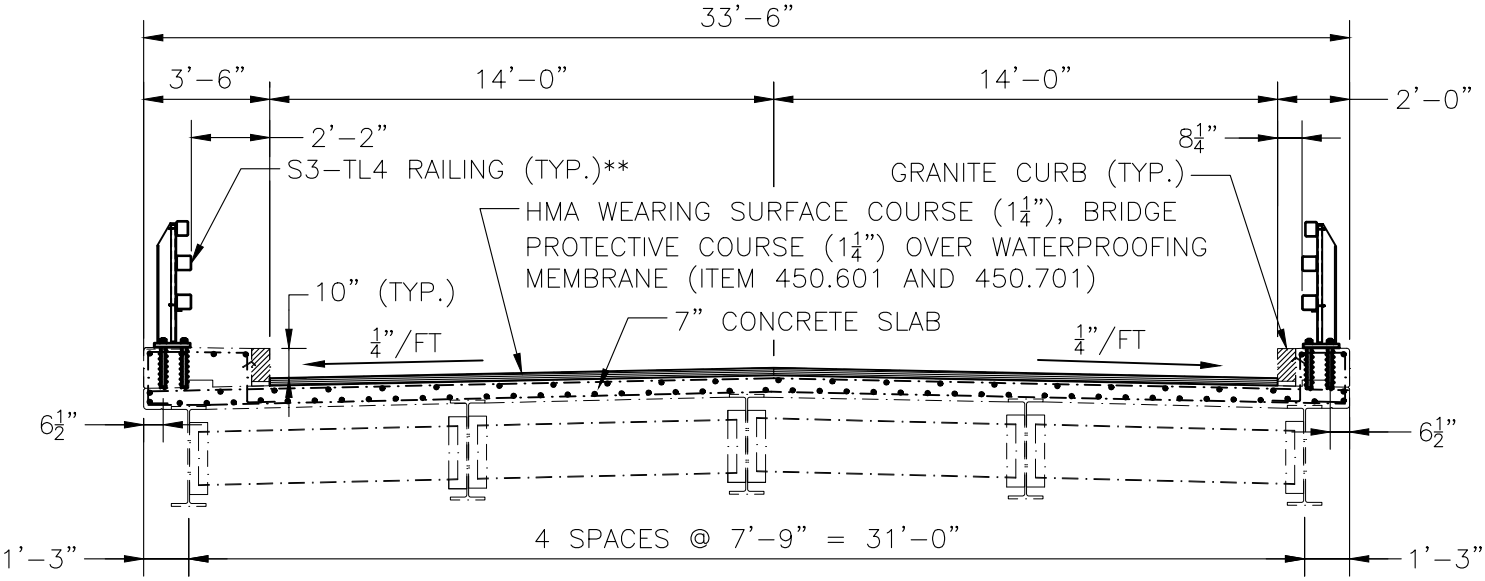
Proposal No. 614177-134228



* EXISTING CURB REVEAL PER BRIDGE INSPECTION REPORT DATED 9/11/2023.

EXISTING CROSS SECTION

SCALE: $\frac{3}{16}$" = 1'-0"



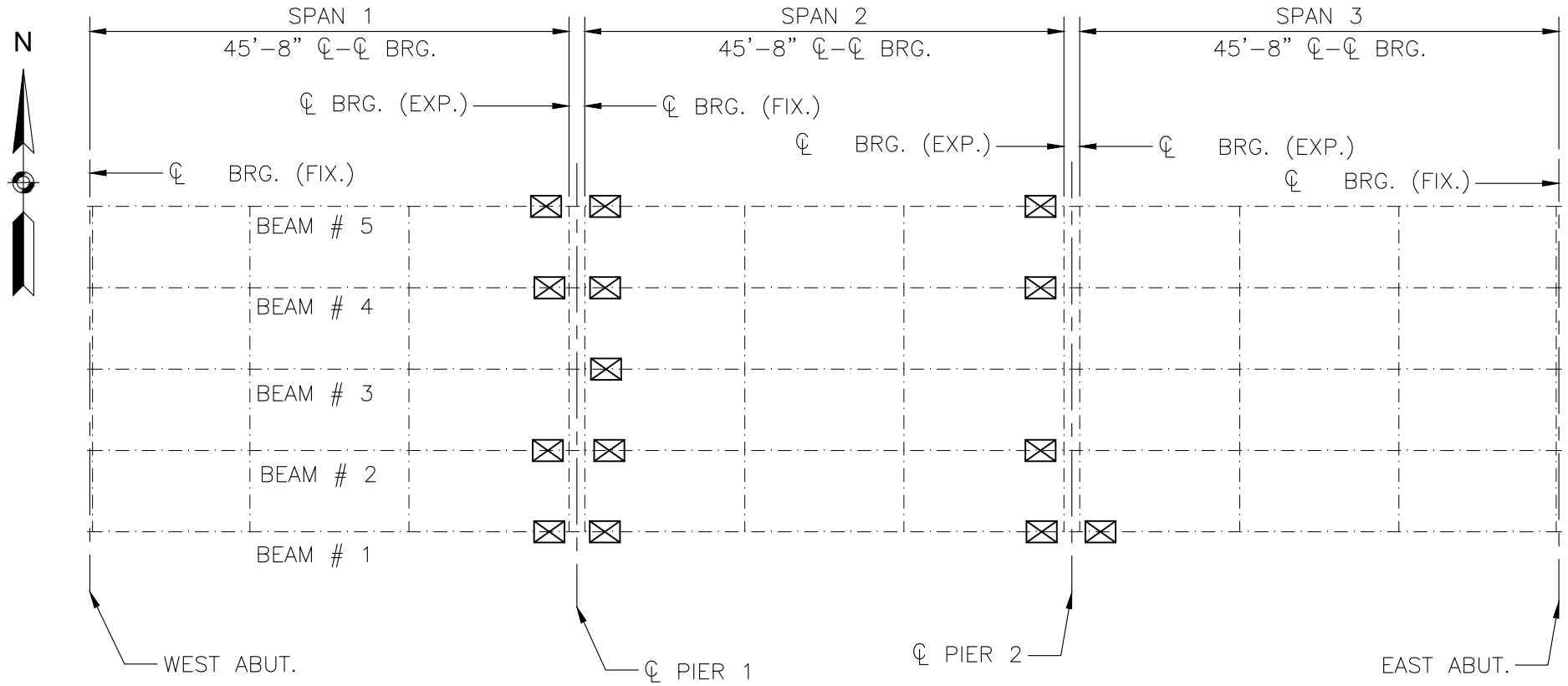
**IT SHOULD BE NOTED THAT THE S3-TL4 BRIDGE RAILING IS DESIGNATED AS S3-MTL4 WHEN ALL COMPONENTS OF THE SYSTEM, INCLUDING THE ANCHORAGE, ARE DESIGNED AND DETAILED TO CONFORM TO THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) TESTING REQUIREMENTS. IN THIS CASE, THE MASSDOT TYPE S3 STEEL RAILING IS USED WITH A MODIFICATION TO THE ANCHORAGE; THEREFORE, THE DESIGNATION S3-TL4 IS USED EVEN THOUGH THE STEEL RAILING DETAILING REMAINS UNCHANGED.

PROPOSED CROSS SECTION

SCALE: $\frac{3}{16}$" = 1'-0"

MassDOT Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 7 OF 59
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LEGEND

☒ DENOTED BEAM END REPAIR LOCATION

BEAM END REPAIR LOCATIONS

SCALE: N.T.S.

NOTES:

1. LOCATIONS SHOWN REPRESENT ANTICIPATED BEAM REPAIR LOCATIONS. FINAL LOCATIONS AND LIMITS WILL BE DETERMINED AFTER STEEL IS CLEANED AND PRIMED. REFER TO "STRUCTURAL STEEL REPAIR NOTES" ON SHEET 29 – 30, AND ITEM 960.2 FOR CONTRACT REQUIREMENT.

2. SPAN AND BEAM NUMBERING CONVENTION FOLLOWS BRIDGE ORIENTATION MARKED IN BRIDGE INSPECTION REPORT DATED 9/11/2023.

3. BEAM END REPAIR LOCATIONS ARE DENOTED PER HOWARD STEIN HUDSON (HSH) DESIGN DETAILS.

MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 8 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: STEEL REPAIR LOCATIONS	CHECKED BY: JON DATE: 4/16/2026

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A00803-9

Proposal No. 614177-134228

DECK REPAIR NOTES:

1. AFTER STRIPPING THE EXISTING PAVEMENT AND WATERPROOFING MEMBRANE FROM THE BRIDGE DECK, INSPECT THE DECK TO IDENTIFY AREAS OF FULL AND PARTIAL DEPTH DECK REPAIRS. THE FINAL LIMITS OF DECK REPAIRS TO BE DETERMINED BY THE ENGINEER.

2. REPLACE DETERIORATED DECK CONCRETE AND EXISTING TEMPORARY CONCRETE PATCHES, SUCH AS DURACAL PATCHES, WITH NEW CONCRETE AS DIRECTED BY ENGINEER. EXISTING DECK CONCRETE PATCHES IN SOUND CONDITION NEED NOT BE REMOVED UNLESS OTHERWISE DIRECTED OR DETERMINED BY THE ENGINEER.

3. CONCRETE EXCAVATION ASSOCIATED WITH THE BRIDGE DECK REPAIRS SHALL BE PAID FOR UNDER ITEM 127.4, REINFORCED CONCRETE DECK EXCAVATION (FULL DEPTH), AND/OR ITEM 127.41, REINFORCED CONCRETE DECK EXCAVATION (PARTIAL DEPTH).

4. ALL CONCRETE USED IN THE DECK REPAIRS SHALL BE 5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE (ITEM 905.2) AS INDICATED ON THE PLANS.

5. THE CONCRETE DECK REPAIR IS EXPECTED TO BE PERFORMED DURING APPROVED CONTRACT WORK HOURS.

6. ANY DETERIORATED REINFORCEMENT WITH MORE THAN 25% SECTION SHALL BE REPLACED IN KIND. SEE JOINT REPAIR NOTES FOR ADDITIONAL INFORMATION AND MISCELLANEOUS DETAILS FOR LAP LENGTHS.

7. ALL NEW REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60, UNLESS OTHERWISE NOTED ON THE PLANS. ALL NEW REINFORCING STEEL SHALL BE EPOXY COATED.

8. ALL BRIDGE DECK REPAIRS SHALL BE COMPLETED PRIOR TO PAVING THE BRIDGE. CONCRETE WASTE AND WASH WATER MUST BE COLLECTED IN WATERTIGHT CONTAINERS AND REMOVED FROM THE SITE AFTER DRYING. ALL CONSTRUCTION DEBRIS MUST BE PROPERLY CONTAINED AND TAKEN OFF-SITE.

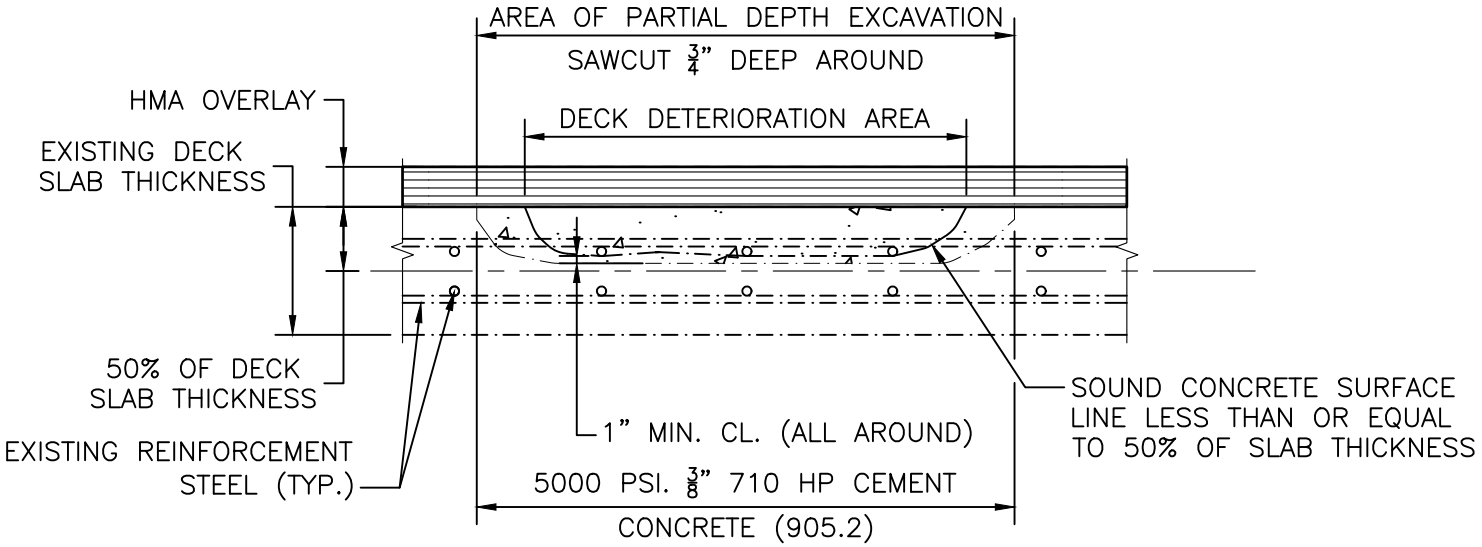
9. BEFORE STARTING DECK CONCRETE REPAIRS, ACCESS/CONTAINMENT SYSTEM SHALL BE DESIGNED TO FUNCTION AS SHIELDING AND SHALL BE IN PLACE BENEATH THE STRUCTURE TO PREVENT DEBRIS FROM ENTERING THE WATERWAY. IF ANY DEBRIS DOES ENTER THE WATER, IT MUST BE REMOVED IMMEDIATELY. THE ACCESS/CONTAINMENT SYSTEM IS INCLUDED FOR PAYMENT UNDER ITEM 961.201.

A00803-10

Proposal No. 614177-134228

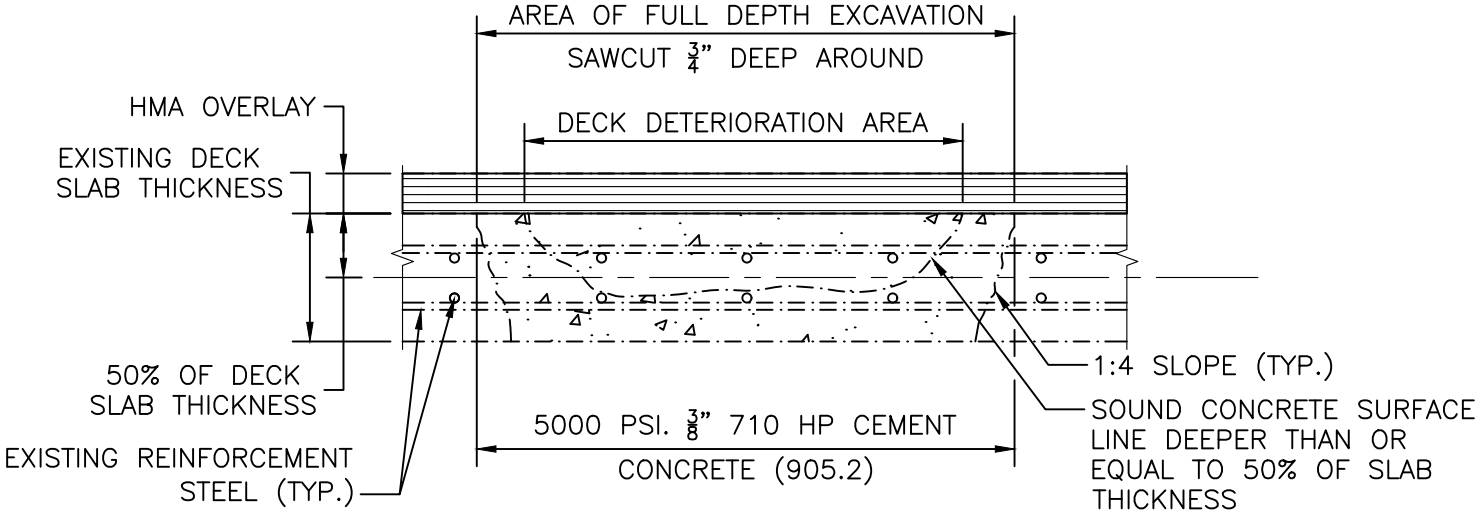
MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 9 OF 59
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	SUBJECT: DECK REPAIR NOTES	CHECKED BY: JON DATE: 4/16/2026

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TYPICAL PARTIAL DEPTH DECK REPAIR DETAIL

SCALE: 1" = 1'–0"



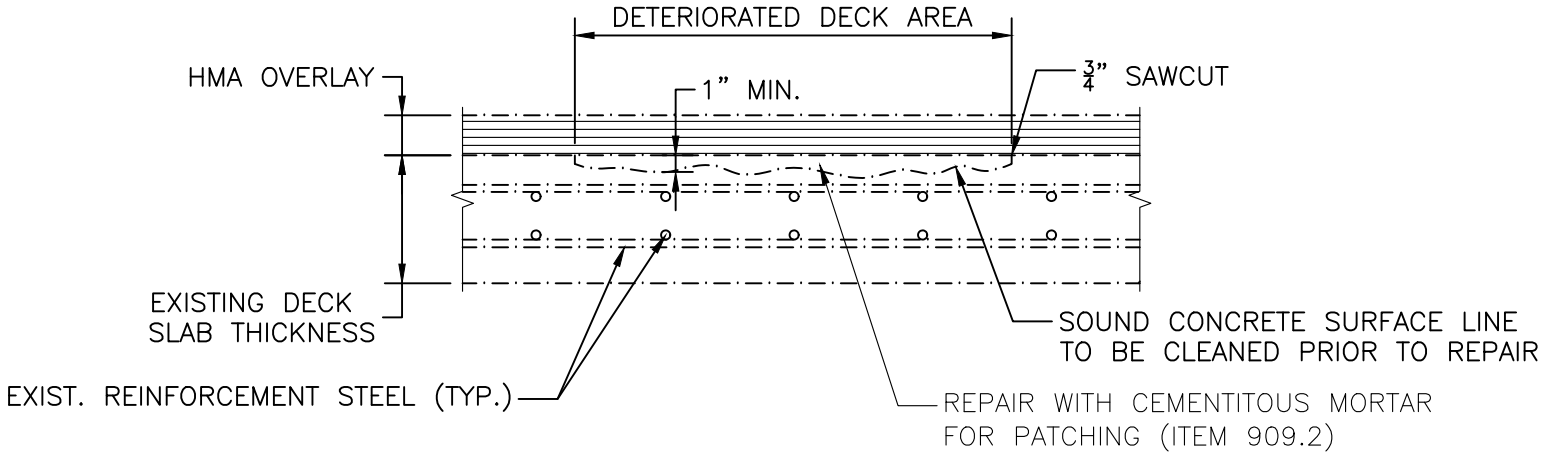
TYPICAL FULL DEPTH DECK REPAIR DETAIL

SCALE: 1" = 1'–0"

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MassDOT Massachusetts Department of Transportation Highway Division
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SUBJECT: DECK REPAIR DETAILS	CHECKED BY: JON DATE: 4/16/2026

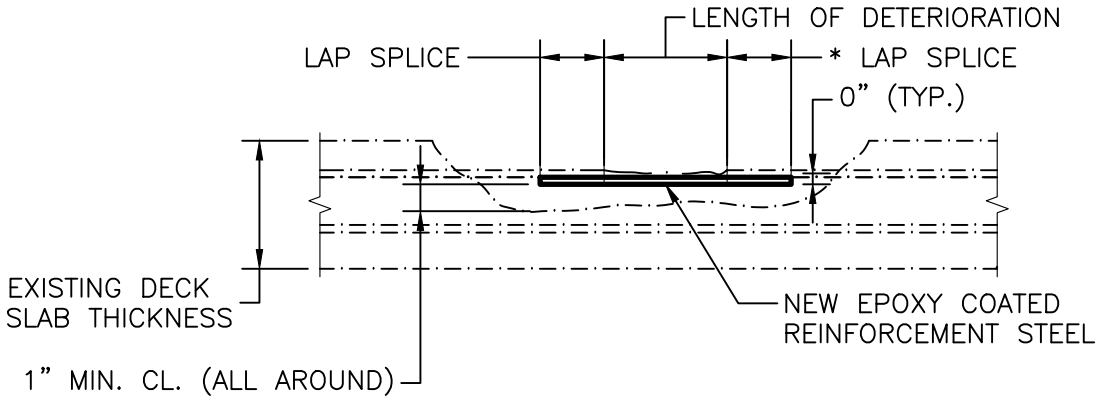


NOTE:

IF REINFORCING BARS ARE EXPOSED, THEN COMPLETE REPAIR AS A PARTIAL DEPTH REPAIR WITH 1" EXCAVATED BENEATH THE EXPOSED BARS.

TYPICAL MINOR SPALL REPAIR

SCALE: 1" = 1'–0"



TYPICAL DETERIORATED REINFORCEMENT STEEL REPAIR

SCALE: 1" = 1'–0"

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		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: TYPICAL MINOR SPALL AND DETERIORATED REINFORCEMENT STEEL REPAIR	CHECKED BY: JON DATE: 4/16/2026

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A00803-12

Proposal No. 614177-134228

JOINT RECONSTRUCTION NOTES:

1. UNLESS NOTED OTHERWISE THE FINAL TRANSVERSE, LONGITUDINAL, AND DEPTH LIMITS OF JOINT REPAIRS TO BE DETERMINED BY THE ENGINEER IN THE FIELD ACCORDING TO THE DECK, BACKWALL, AND APPROACH SLAB CONDITIONS AFTER PAVEMENT AND WATERPROOFING MEMBRANE REMOVAL.

2. CONCRETE EXCAVATION ASSOCIATED WITH THE JOINT REPAIR OR RECONSTRUCTION AND THE DEMOLITION OF EXISTING CONCRETE END DIAPHRAGMS, AND/OR ENDPOSTS (WHERE INDICATED ON THE DRAWINGS OR DIRECTED BY THE ENGINEER) SHALL BE PAID FOR UNDER ITEM 127.1 (LIMITS 1'–1" AT ABUTMENTS, 2'–5" AT PIERS), REINFORCED CONCRETE EXCAVATION.

3. CONCRETE EXCAVATION FOR TOP OF BACKWALL AND/OR APPROACH SLAB SHALL BE PAID UNDER ITEM 127.1. THE CONCRETE EXCAVATION FOR FULL OR PARTIAL DEPTH DECK REPAIRS SHALL BE PAID UNDER ITEM 127.4, OR 127.41, RESPECTIVELY. REMOVAL OF CONCRETE PATCHES IN THE ROADWAY APPROACH, WHETHER MILDLY REINFORCED OR NOT, SHALL NOT BE CONSIDERED REINFORCED CONCRETE EXCAVATION AND SHALL BE PAID UNDER ITEM 120.1.

4. ALL CONCRETE USED FOR JOINT RECONSTRUCTION EFFORTS SHALL BE 5,000 PSI, $\frac{3}{8}$ IN., 710 HP CEMENT CONCRETE (ITEM 905.2). WHERE SHALLOW REPAIRS (LESS THAN 2") TO BACKWALL AND/OR APPROACH SLAB IS REQUIRED PER THE ENGINEER, SMOOTHEN THE TOP SURFACE WITH CEMENTITIOUS MORTAR FOR PATCHING (ITEM 909.2). THE CONCRETE WORK AT EACH JOINT REPAIR SHALL BE COMPLETED IN ONE CONTINUOUS PLACEMENT

5. ALL CONCRETE USED IN THE DIAPHRAGM ENCASEMENT RECONSTRUCTION, SHALL BE 5,000 PSI, $\frac{3}{8}$ IN., 710 HP CEMENT CONCRETE (ITEM 905.2) AND SHALL BE PLACED IN ONE POUR.

6. ALL NEW REINFORCING STEEL SHALL BE EPOXY COATED AND CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60, UNLESS OTHERWISE NOTED ON THE PLANS. ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS
1. NONE	16"	17"	21"
2. 12" OF CONCRETE BELOW BAR	18"	22"	27"
3. COATED BARS, COVER < 3db, OR CLEAR SPACING < 6db	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"

IF THE ABOVE BARS ARE SPACED 6" OR MORE ON CENTER, THE LAP LENGTH SHALL BE 80% OF THE LAP LENGTH GIVEN ABOVE. ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ALL REINFORCING BARS AND SUPPORTING DEVICES SHALL BE COATED, UNLESS OTHERWISE NOTED.

7. THE CONCRETE CLEAR COVER FOR NEW REBAR SHALL NOT BE LESS THAN EXISTING COVER, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

8. MECHANICAL BAR SPLICERS SHALL BE USED TO CONNECT NEW TRANSVERSE REINFORCEMENT. THE BAR SPLICERS WILL BE COMPENSATED PER POUND UNDER ITEM 910.1.

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JOINT RECONSTRUCTION NOTES (CONT.):

9. RETAIN EXISTING REINFORCEMENT UNLESS OTHERWISE NOTED. ALL EXISTING REINFORCEMENT TO BE REUSED SHALL BE CLEANED AND COATED.

10. ANY DETERIORATED REINFORCEMENT WITH MORE THAN 25% SECTION LOSS SHALL BE REPLACED IN KIND.

11. THE LAP LENGTH FOR ANY NEW #5 TRANSVERSE DECK REINFORCEMENT SHALL BE 30". ALL OTHER REPLACEMENT BARS SHALL BE LAPPED TO EXISTING REINFORCEMENT WITH A MINIMUM LAP LENGTH OF 30 BAR DIAMETERS OR AS INDICATED IN THE TABLE ABOVE (WHICHEVER IS GREATER).

12. IF EXISTING REINFORCEMENT CANNOT BE REUSED OR LAPPED, DRILL AND GROUT NEW REINFORCEMENT INTO EXISTING CONCRETE (ITEM 912). EMBEDMENT LENGTH SHALL BE IN ACCORDANCE WITH THE GROUT MANUFACTURER'S SPECIFICATION IN ORDER TO ATTAIN EQUIVALENT MINIMUM LAP LENGTHS.

13. ALL MEMBRANE WATERPROOFING (ITEM 966.) SHALL BE IN ACCORDANCE WITH THE STANDARD AND SUPPLEMENTAL SPECIFICATIONS FOR BRIDGE DECK REPAIRS, UNLESS NOTED OTHERWISE OR DIRECTED BY THE ENGINEER.

14. PROTECTIVE COURSE TO BE HOT MIX BINDER COURSE FOR BRIDGES (ITEM 451), PLACED IN 3" LAYERS AND COMPACTED WITH A MECHANICAL HAND-GUIDED TAMPER AFTER PLACING MEMBRANE WATERPROOFING.

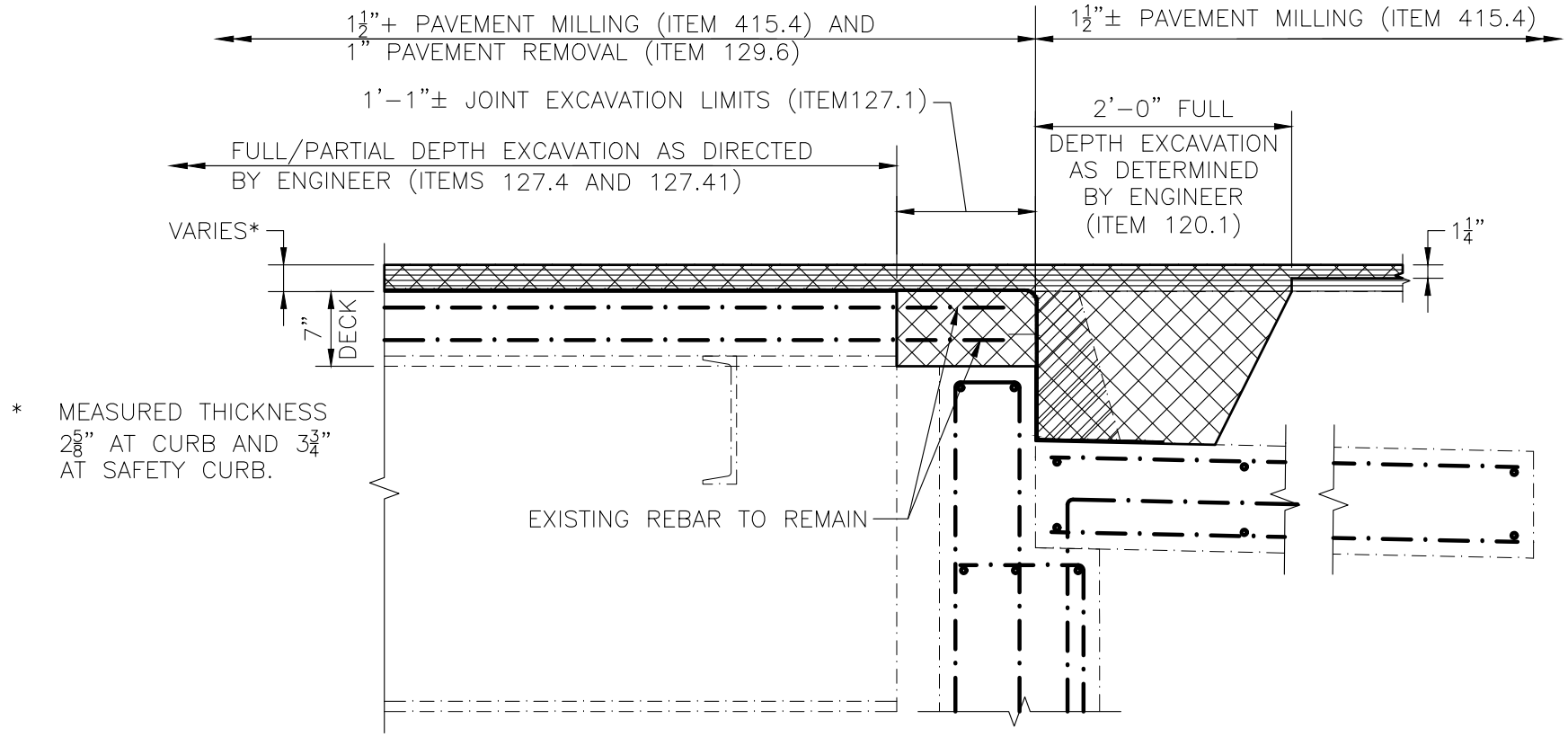
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massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: JOINT RECONSTRUCTION NOTES – 2

SHEET: 13 OF 59
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NOTES:

1. REFER TO NOTES 1 AND 2 ON SHEET 5 FOR REQUIREMENTS ON MILLING DEPTH AND PAVEMENT REMOVAL.
2. BACKWALL EXCAVATION MAY BE REQUIRED; EXCAVATION LIMITS TO BE ESTABLISHED BY ENGINEER.
3. THE EXCAVATION FOR THE JOINT AND BACKWALL REPAIRS SHALL BE PAID FOR UNDER ITEM 127.1 "REINFORCED CONCRETE EXCAVATION"

EXISTING JOINT AT ABUTMENT

SCALE: ¾" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

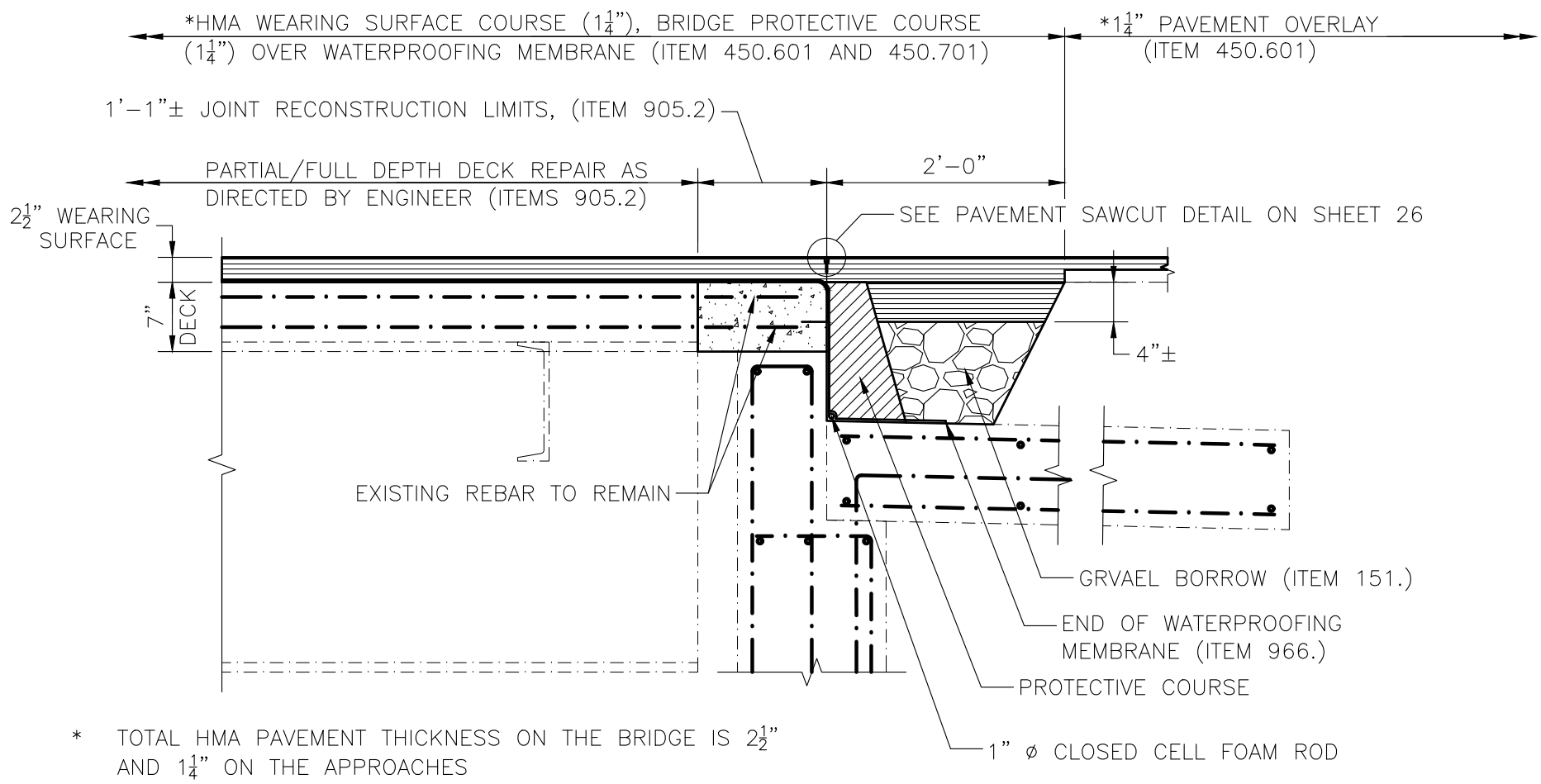
SUBJECT: EXISTING JOINT AT ABUTMENT

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CHECKED BY: JON
DATE: 4/16/2026

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A00803-15

Proposal No. 614177-134228



* TOTAL HMA PAVEMENT THICKNESS ON THE BRIDGE IS 2½" AND 1¼" ON THE APPROACHES

PROPOSED SAW AND SEAL JOINT AT ABUTMENT

SCALE: ¾" = 1'–0"

A00803-16

Proposal No. 614177-134228

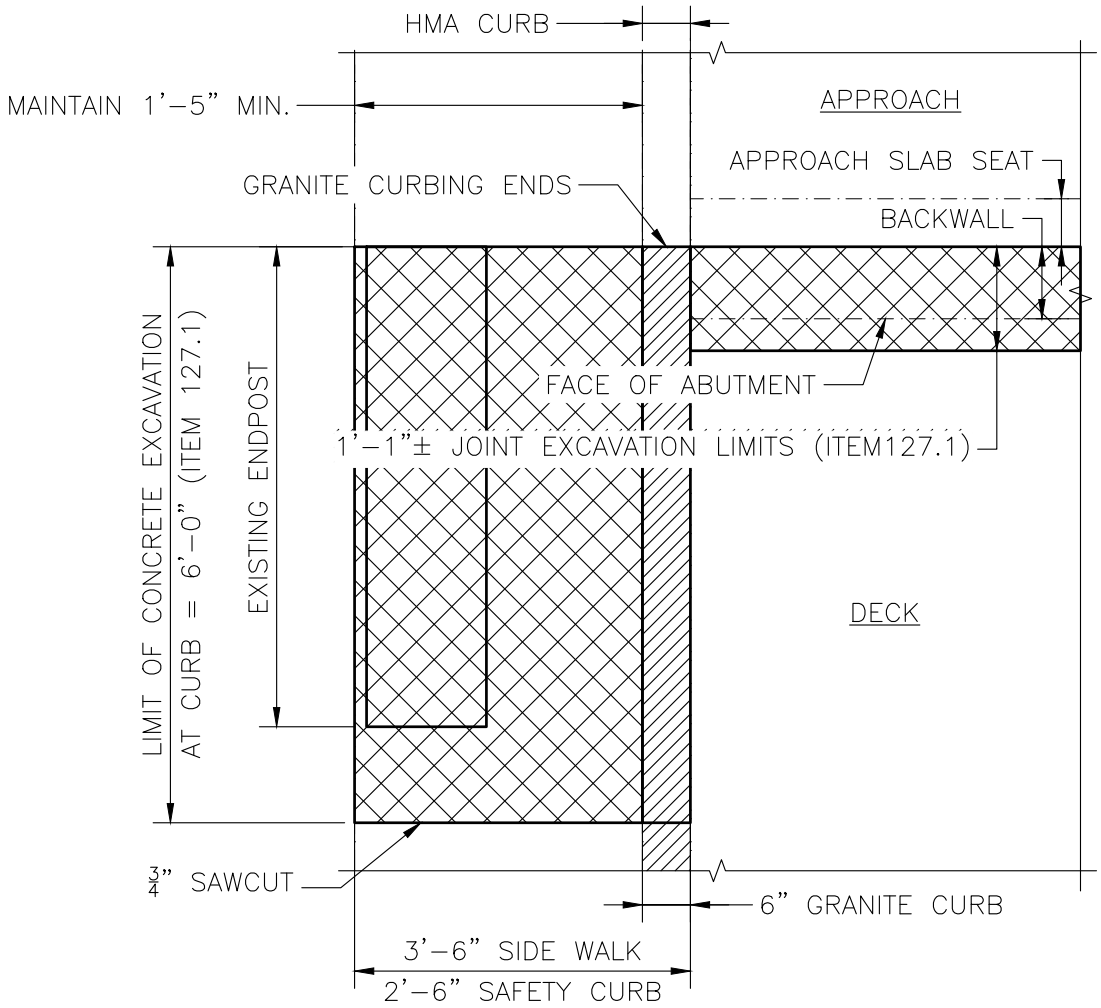
massDOT Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: PROPOSED SAW AND SEAL JOINT AT ABUTMENT

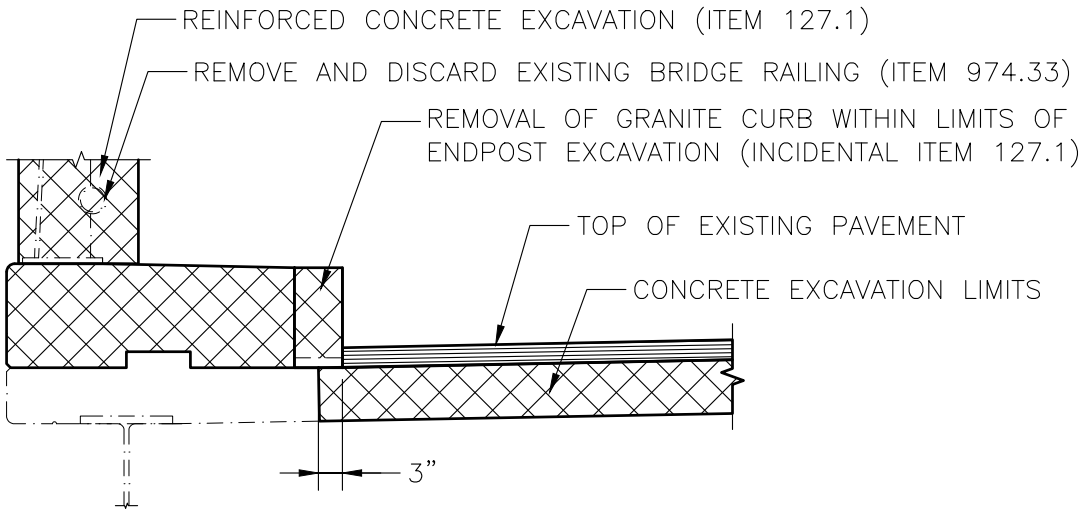
SHEET: 15 OF 59
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PLAN VIEW

SCALE: ½" = 1'–0"

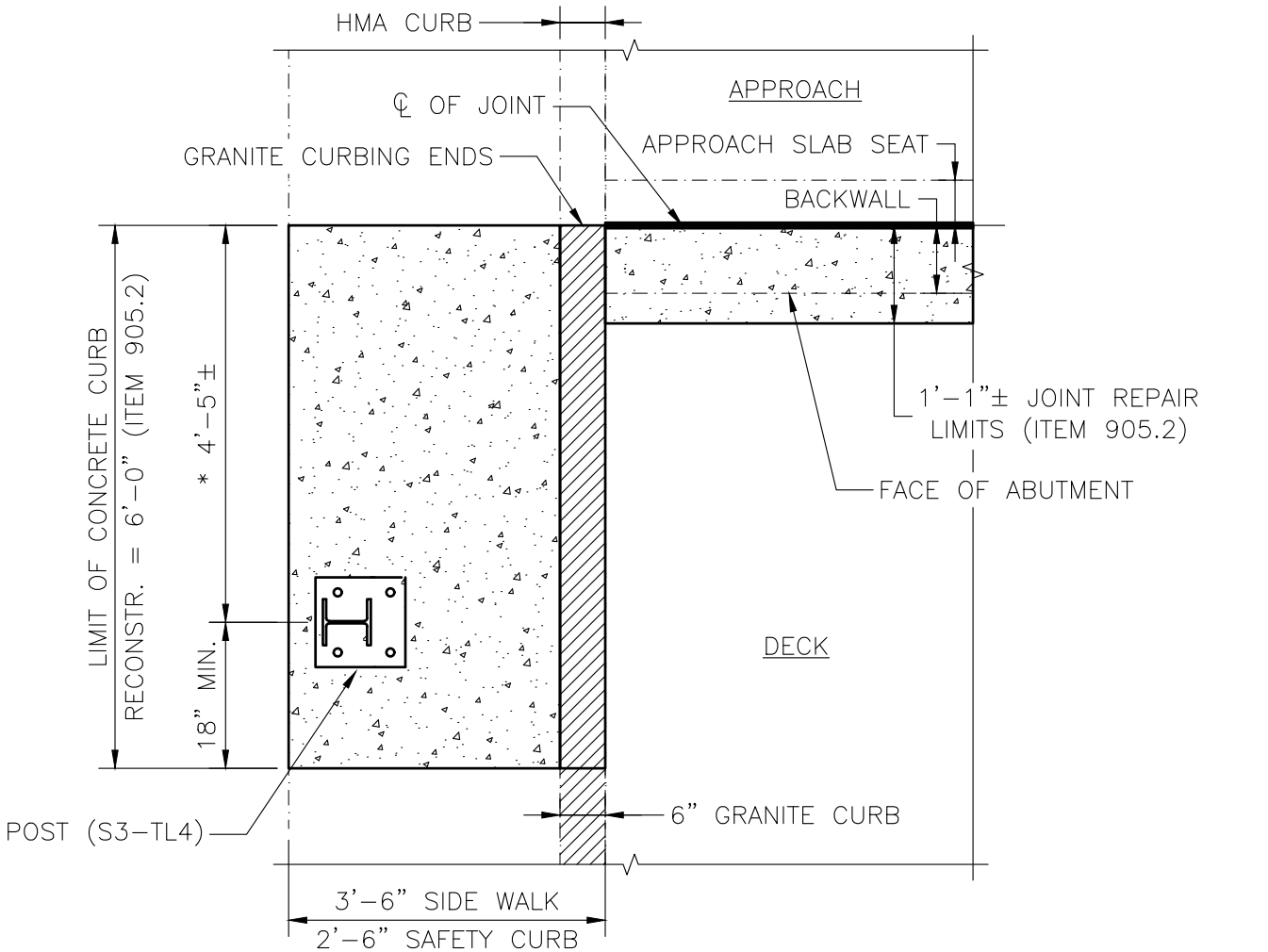


SIDEWALK/SAFETY CURB – DECK SIDE VIEW

SCALE: ½" = 1'–0"

massDOT Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 16 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: EXISTING JOINT AT ABUTMENT – SIDEWALK/SAFETY CURB	CHECKED BY: JON DATE: 4/16/2026

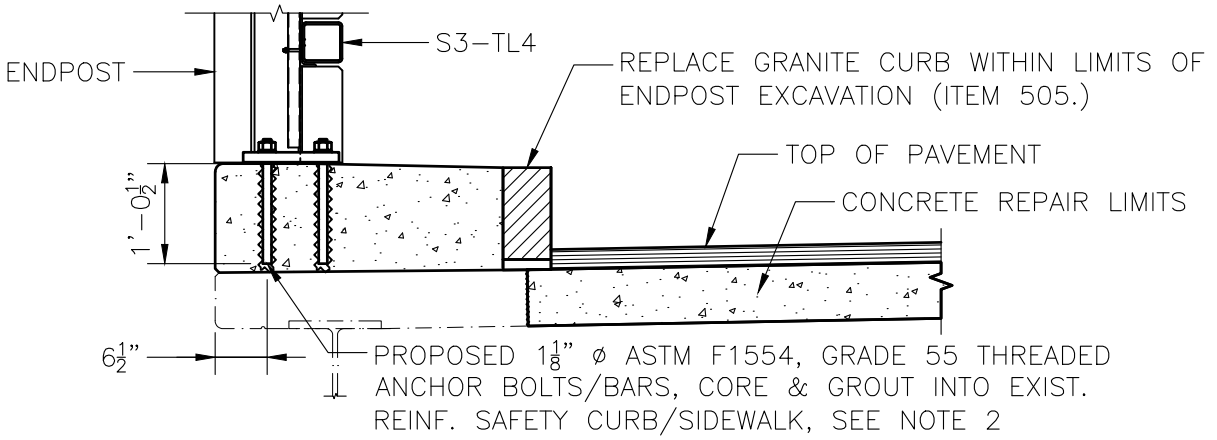
S:\D3\BRIDGE\DESIGN–REVIEW PROJECTS\DESIGN PHASE STRUCTURE MAINTENACE\10.0_SITE SPECIFIC PROJECT\FY 26 SHAREFAIREXTRA\NORTHBRIDGE 614177\DWG_1\3–11–2025 MAIN.DWG



PLAN VIEW

SCALE: $\frac{1}{2}$" = 1'–0"

* POST LAYOUT TO BE FIELD VERIFIED BY THE CONTRACTOR



NOTES:

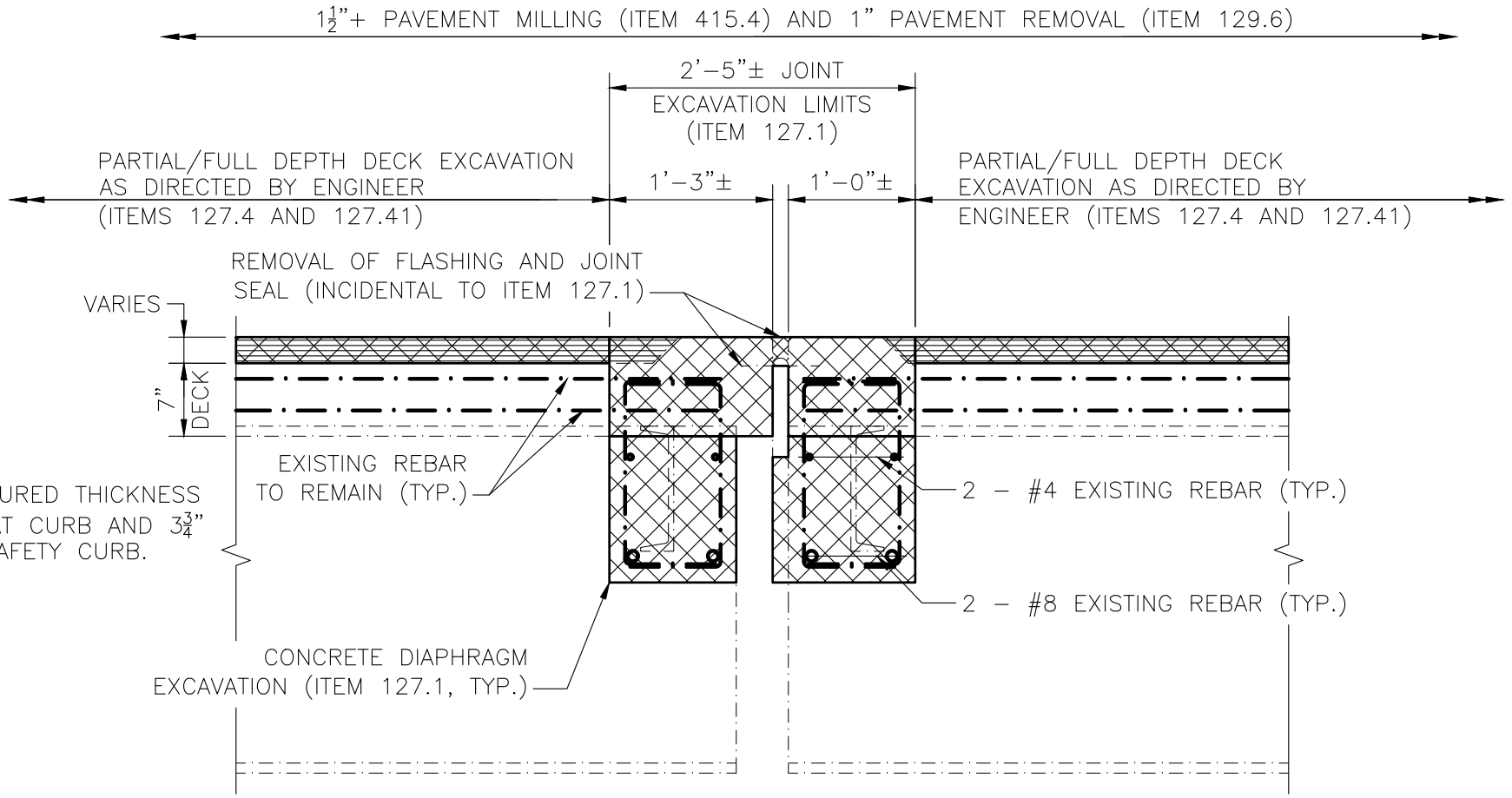
1. REBARS ARE NOT SHOWN FOR CLARITY. EXISTING REBARS TO REMAIN.
2. AT THE CONTRACTOR'S OPTION, ANCHOR COULD BE SET WITH A PLATE SEE SHEET 28 FOR ALTERNATE ANCHORAGE DETAILS.

SIDEWALK VIEW – DECK SIDE

SCALE: $\frac{1}{2}$" = 1'–0"

massDOT Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER SUBJECT: PROPOSED SAW AND SEAL JOINT AT ABUTMENT – SIDEWALK/SAFETY CURB	SHEET: 17 OF 59 DRAWN BY: ME DATE: 4/16/2026 CHECKED BY: JON DATE: 4/16/2026

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* MEASURED THICKNESS $2\frac{5}{8}$" AT CURB AND $3\frac{3}{4}$" AT SAFETY CURB.

NOTE:

THE EXCAVATION FOR THE JOINT REPAIR (LIMITS SHOWN ABOVE) INCLUDING REMOVAL OF DIAPHRAGM ENCASEMENT AT THE PIER SHALL BE PAID FOR UNDER ITEM 127.1 "REINFORCED CONCRETE EXCAVATION"

EXISTING JOINT AT PIER

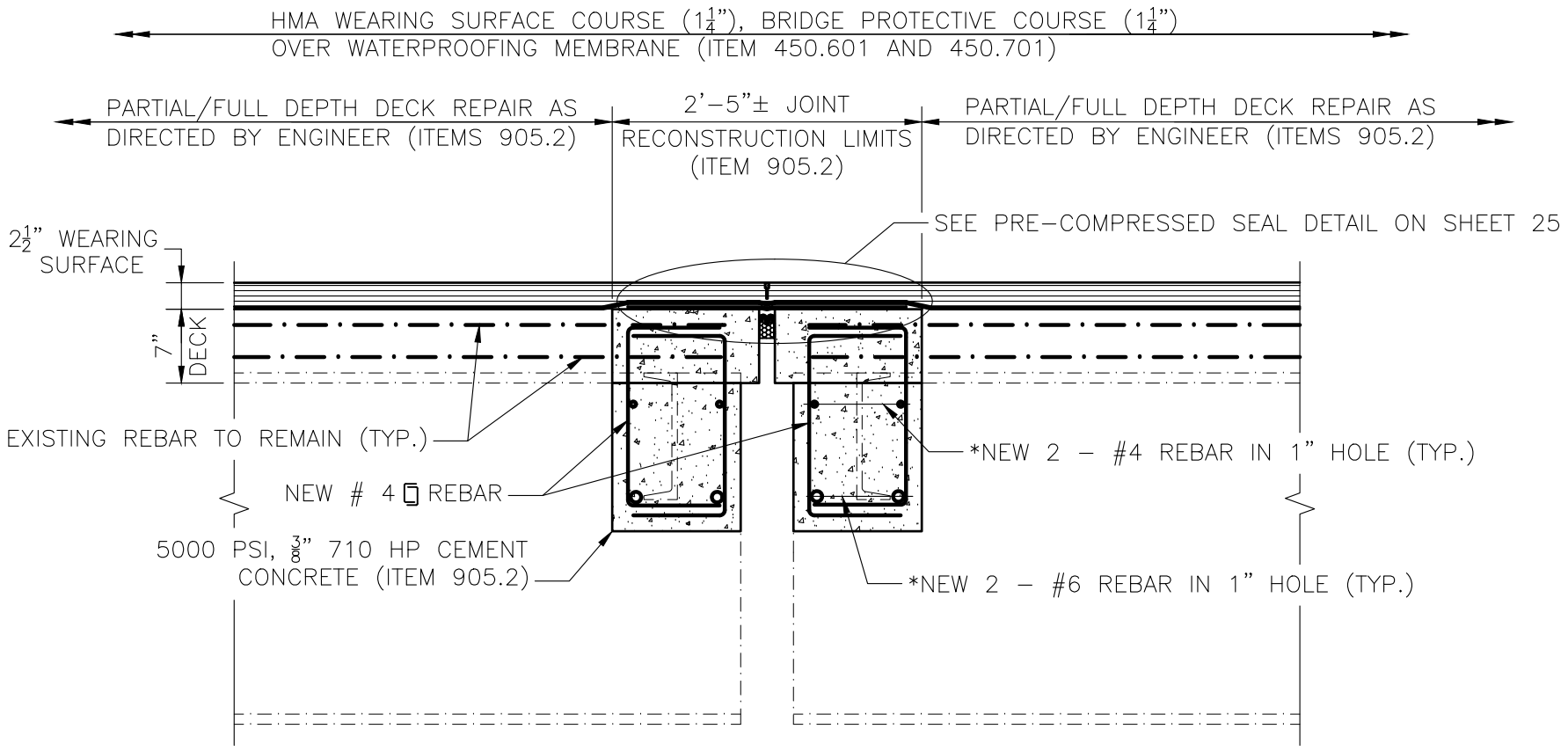
SCALE: $\frac{3}{4}$" = 1'–0"

MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 18 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: EXISTING JOINT AT PIER	CHECKED BY: JON DATE: 4/16/2026

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A00803-19

Proposal No. 614177-134228



* IF REQUIRED OR DIRECTED BY THE ENGINEER LAP TRANSVERSE REBAR AT MIDDLE OF THE BAY.

PROPOSED PRE–COMPRESSED SEAL JOINT AT PIER 1

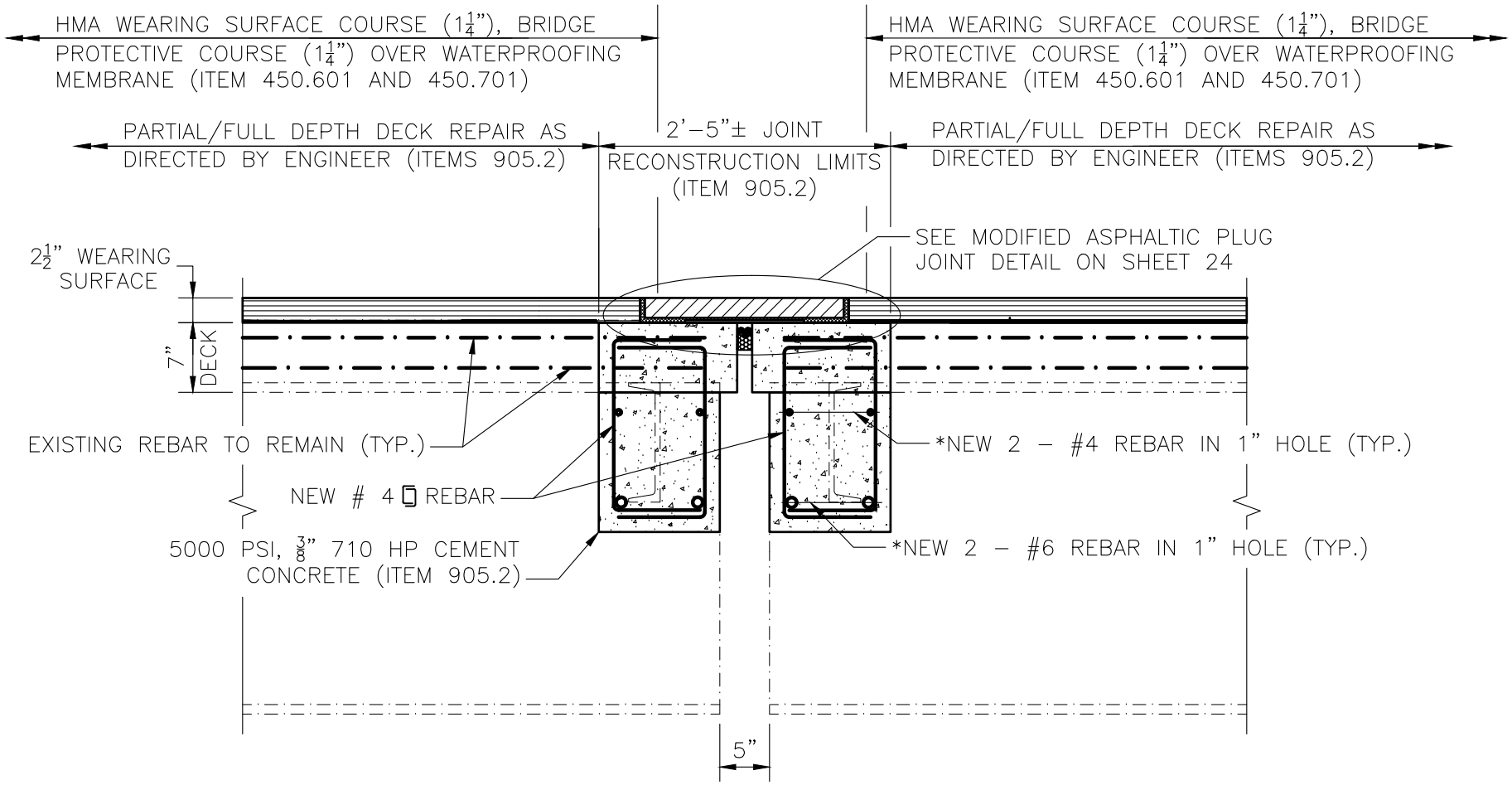
SCALE: ¾" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 19 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: PROPOSED PRE–COMPRESSED SEAL JOINT AT PIER 1	CHECKED BY: JON DATE: 4/16/2026

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A00803-20

Proposal No. 614177-134228



* IF REQUIRED OR DIRECTED BY THE ENGINEER LAP TRANSVERSE REBAR AT MIDDLE OF THE BAY.

PROPOSED MODIFIED ASPHALTIC PLUG JOINT AT PIER 2

SCALE: ¾" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

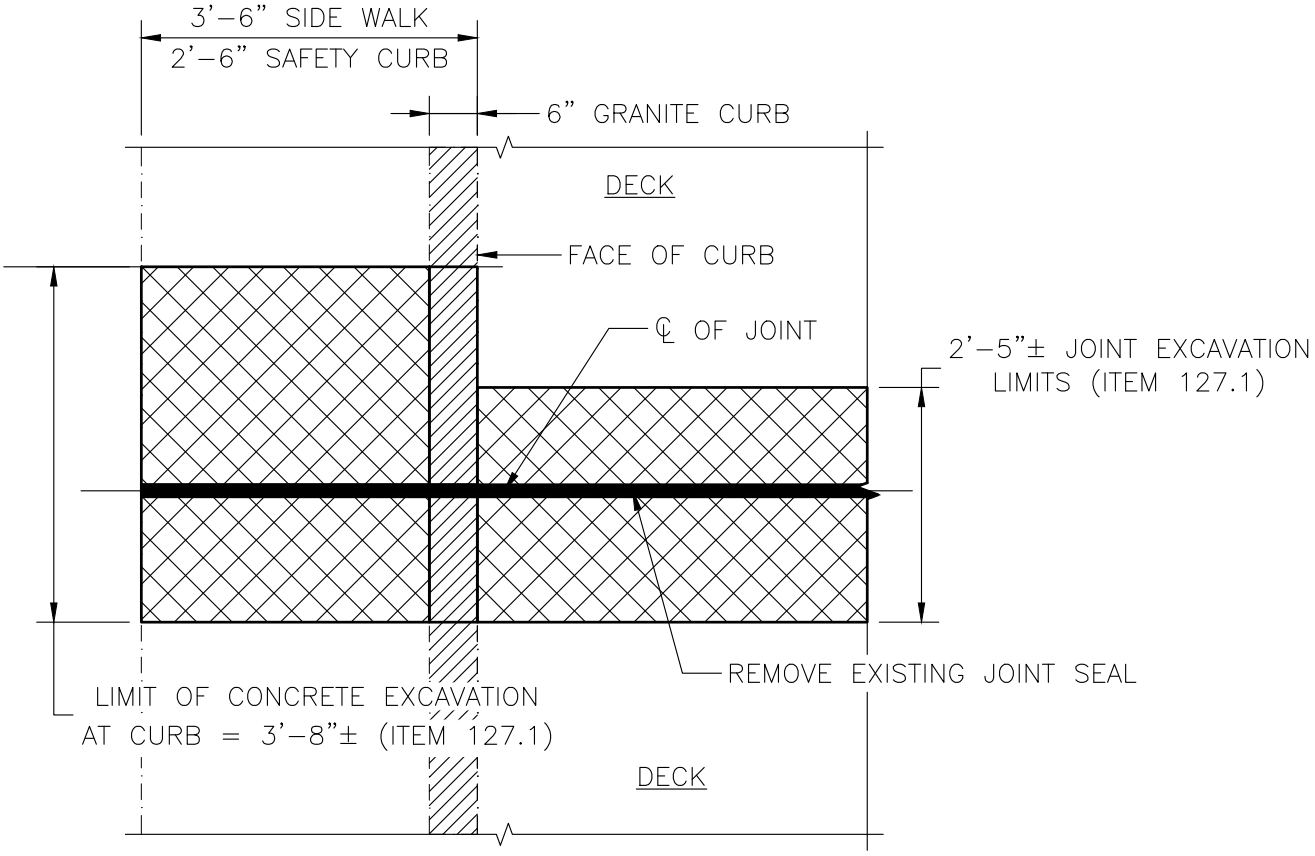
SUBJECT: PROPOSED MODIFIED ASPHALTIC PLUG JOINT AT PIER 2

SHEET: 20 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

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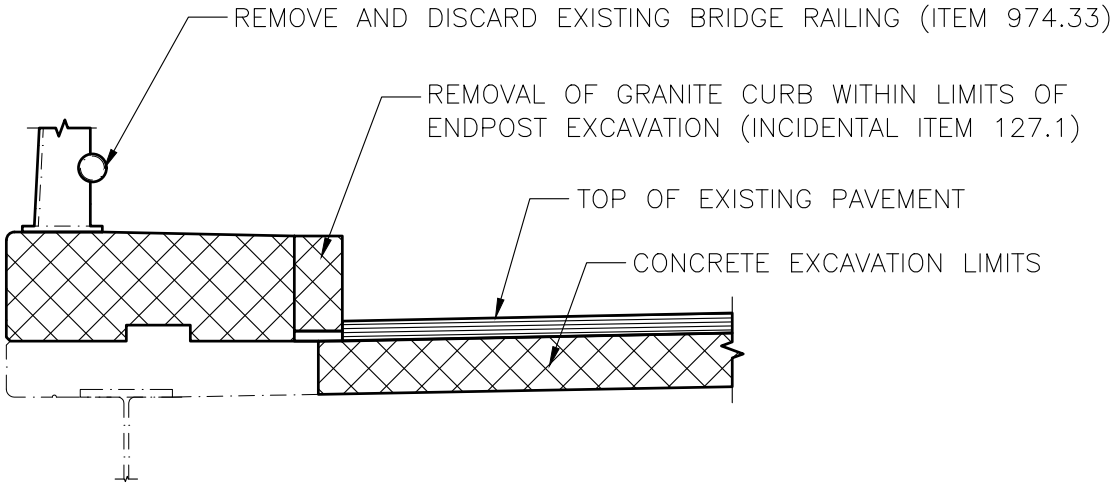
A00803-21

Proposal No. 614177-134228



PLAN VIEW

SCALE: $\frac{1}{2}$" = 1'–0"

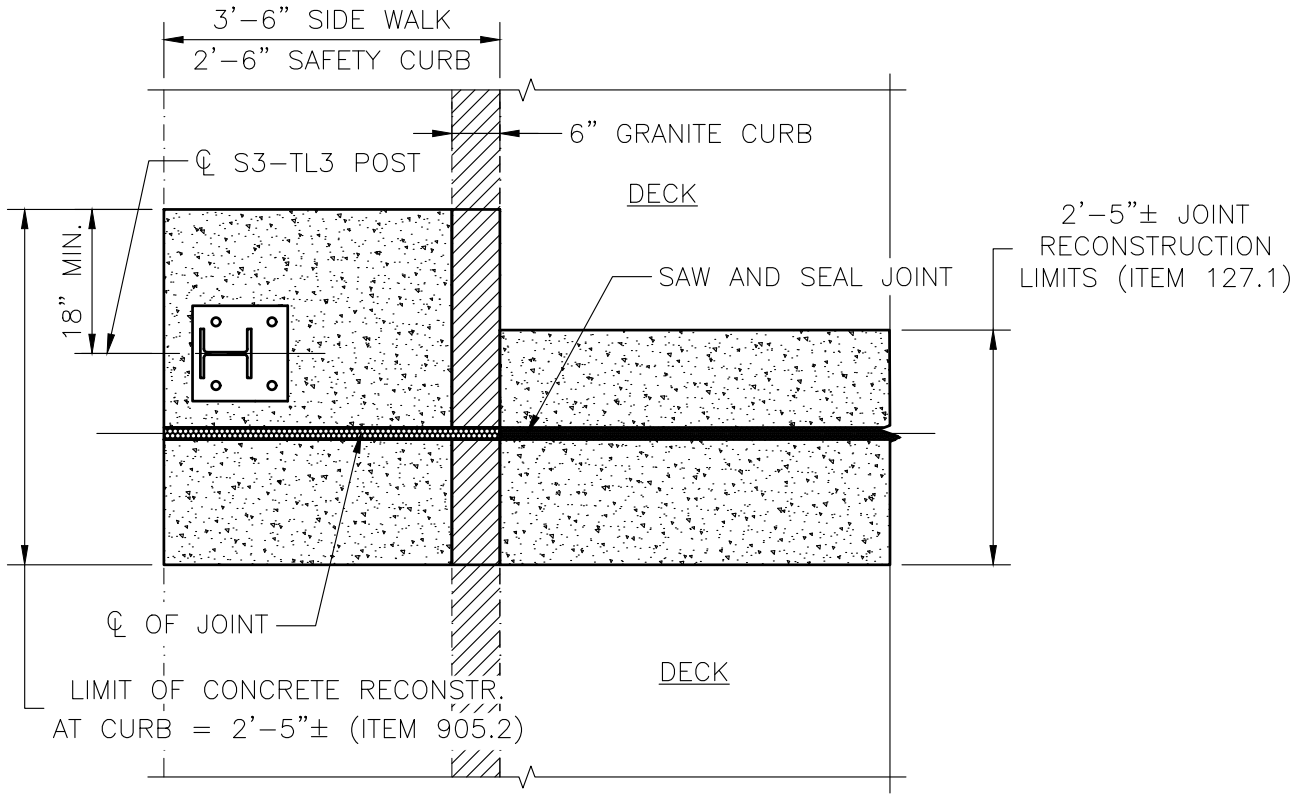


SIDEWALK VIEW – DECK SIDE

SCALE: $\frac{1}{2}$" = 1'–0"

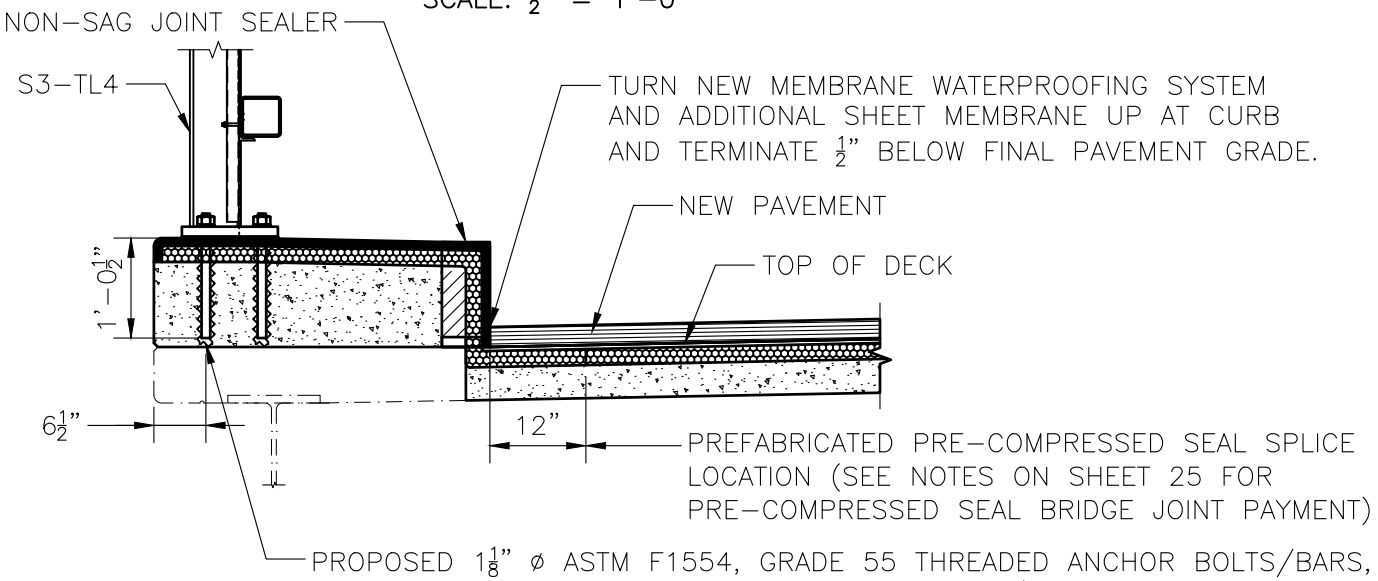
MassDOT Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER SUBJECT: EXISTING JOINT AT PIER – SIDEWALK/SAFETY CURB	SHEET: 21 OF 59 DRAWN BY: ME DATE: 4/16/2026 CHECKED BY: JON DATE: 4/16/2026

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PLAN VIEW

SCALE: $\frac{1}{2}$" = 1'–0"



NOTES:

1. REBARS ARE NOT SHOWN FOR CLARITY. EXISTING REBARS TO REMAIN.

2. AT THE CONTRACTOR'S OPTION, ANCHOR COULD BE SET WITH A PLATE SEE SHEET 28 FOR ALTERNATE ANCHORAGE DETAILS.

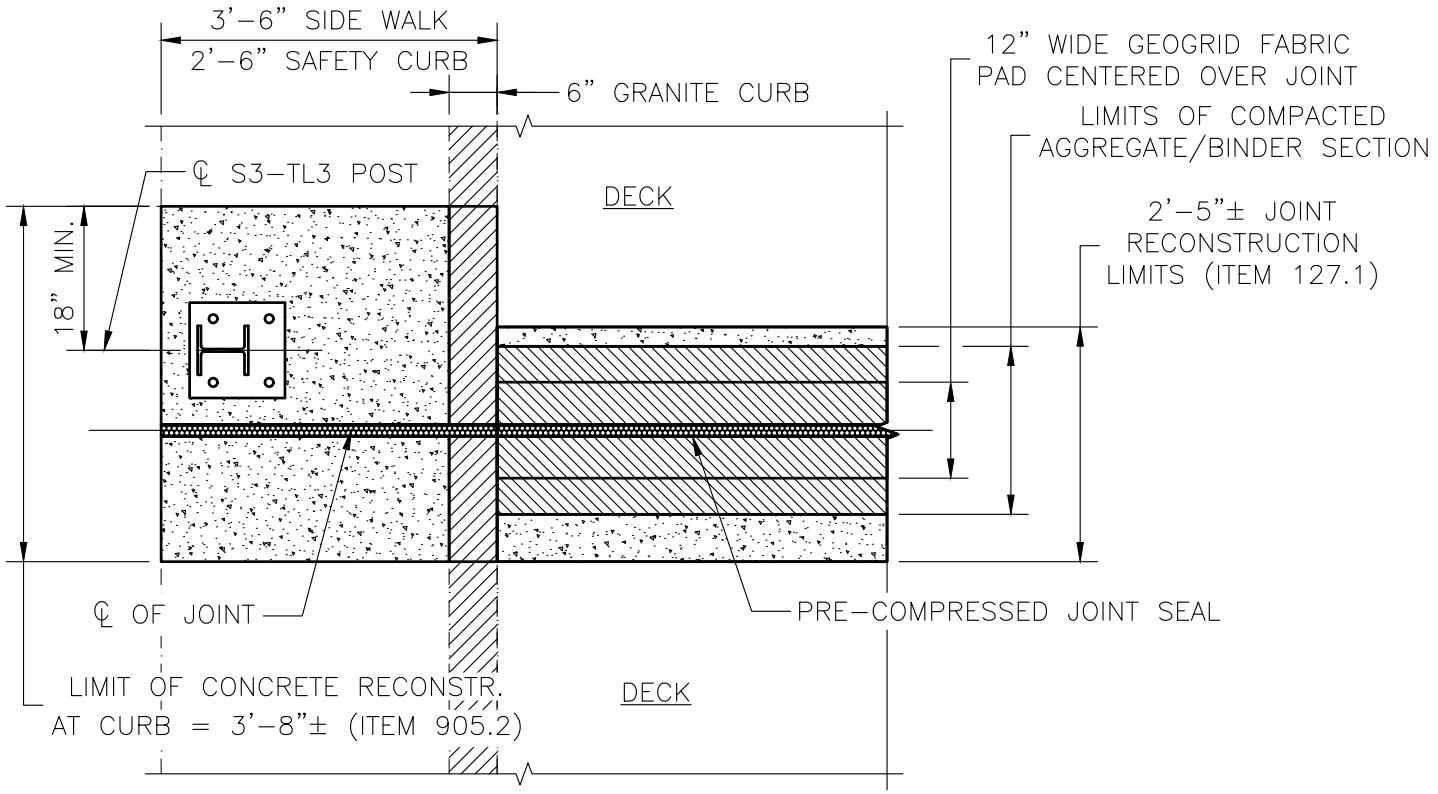
SIDEWALK VIEW – DECK SIDE

SCALE: $\frac{1}{2}$" = 1'–0"

massDOT Highway Division
DISTRICT 3
BRIDGE SECTION

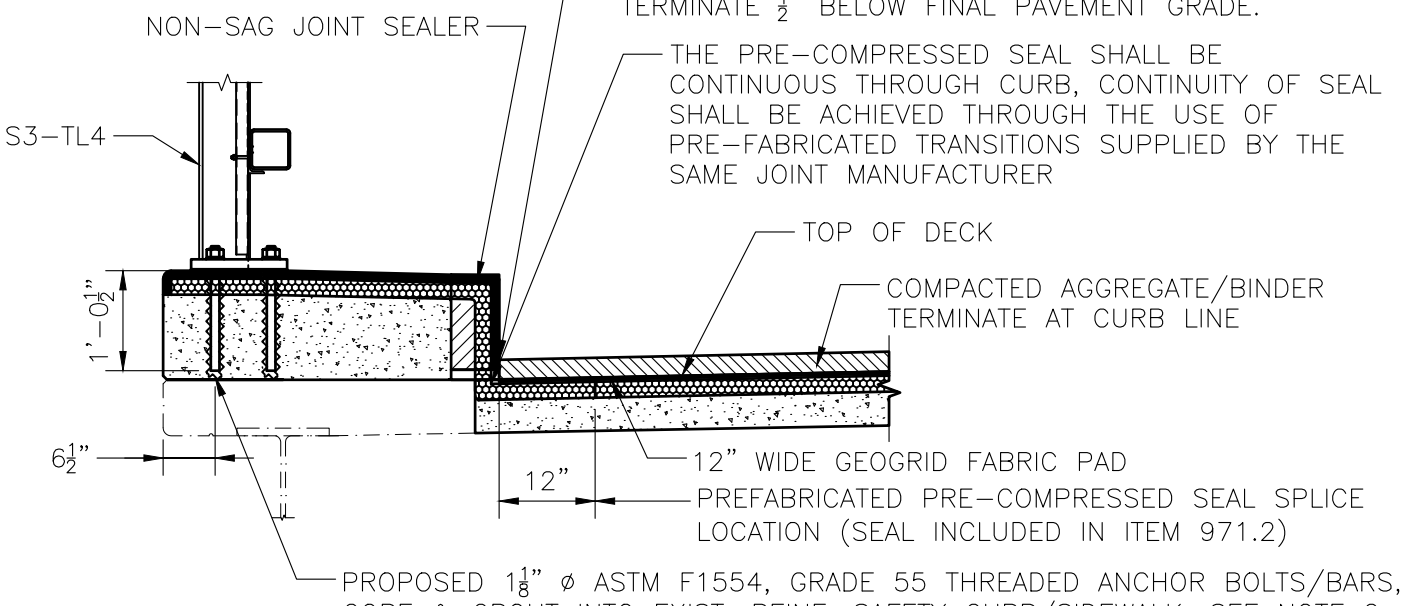
PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 22 OF 59
SUBJECT: PROPOSED PRE–COMPRESSED SEAL JOINT AT PIER 1 – SIDEWALK/SAFETY CURB	DRAWN BY: ME DATE: 4/16/2026
	CHECKED BY: JON DATE: 4/16/2026

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PLAN VIEW

SCALE: $\frac{1}{2}$" = 1'–0"



NOTES:

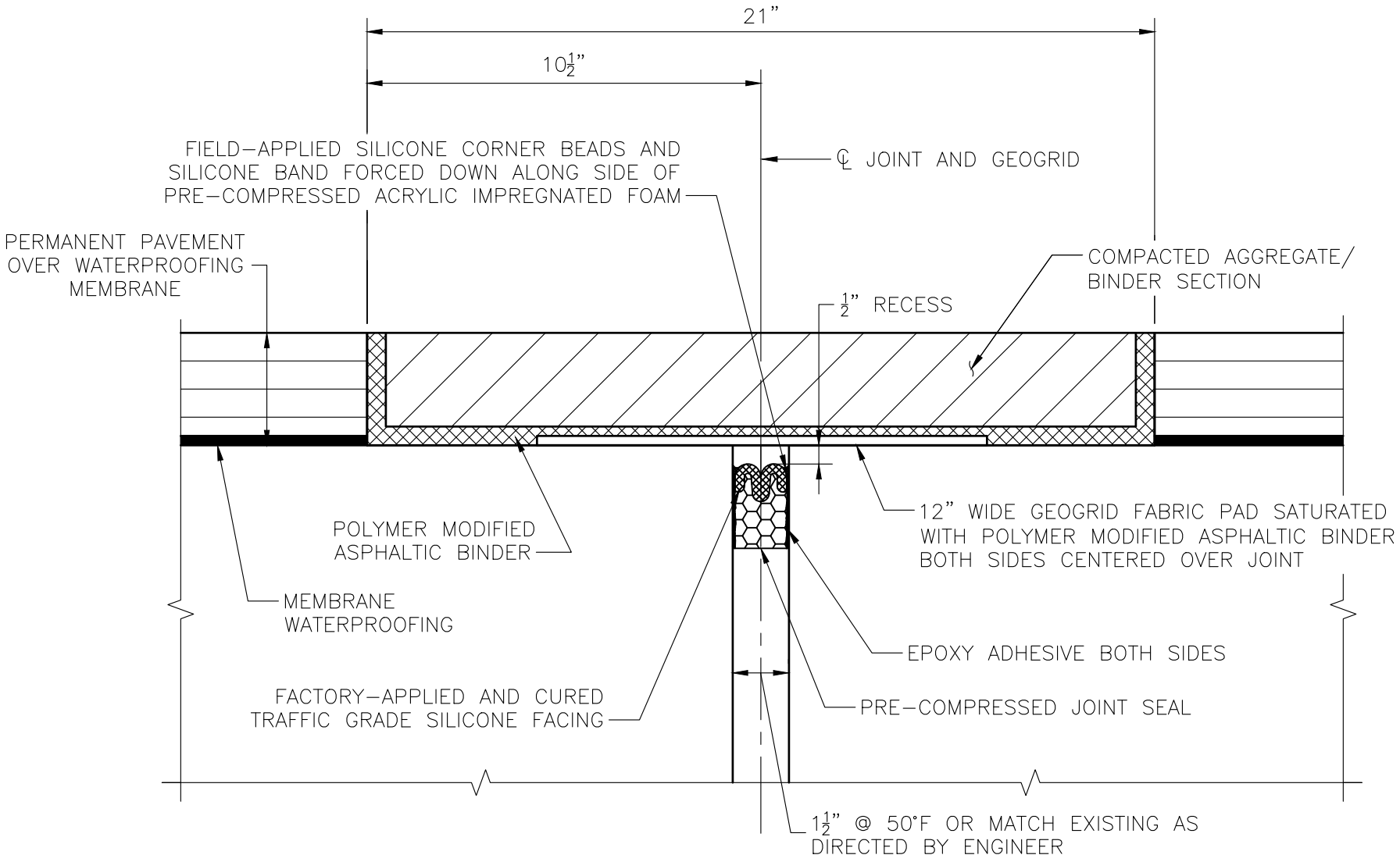
1. REBARS ARE NOT SHOWN FOR CLARITY. EXISTING REBARS TO REMAIN.
2. AT THE CONTRACTOR'S OPTION, ANCHOR COULD BE SET WITH A PLATE SEE SHEET 28 FOR ALTERNATE ANCHORAGE DETAILS.

SIDEWALK VIEW – DECK SIDE

SCALE: $\frac{1}{2}$" = 1'–0"

MassDOT Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER SUBJECT: PROPOSED MODIFIED ASPHALTIC PLUG JOINT AT PIER 2 – SIDEWALK/SAFETY CURB	SHEET: 23 OF 59 DRAWN BY: ME DATE: 4/16/2026 CHECKED BY: JON DATE: 4/16/2026

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MODIFIED ASPHALTIC PLUG JOINT DETAIL

SCALE: 3" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: MODIFIED ASPHALTIC PLUG JOINT DETAIL

SHEET: 24 OF 59

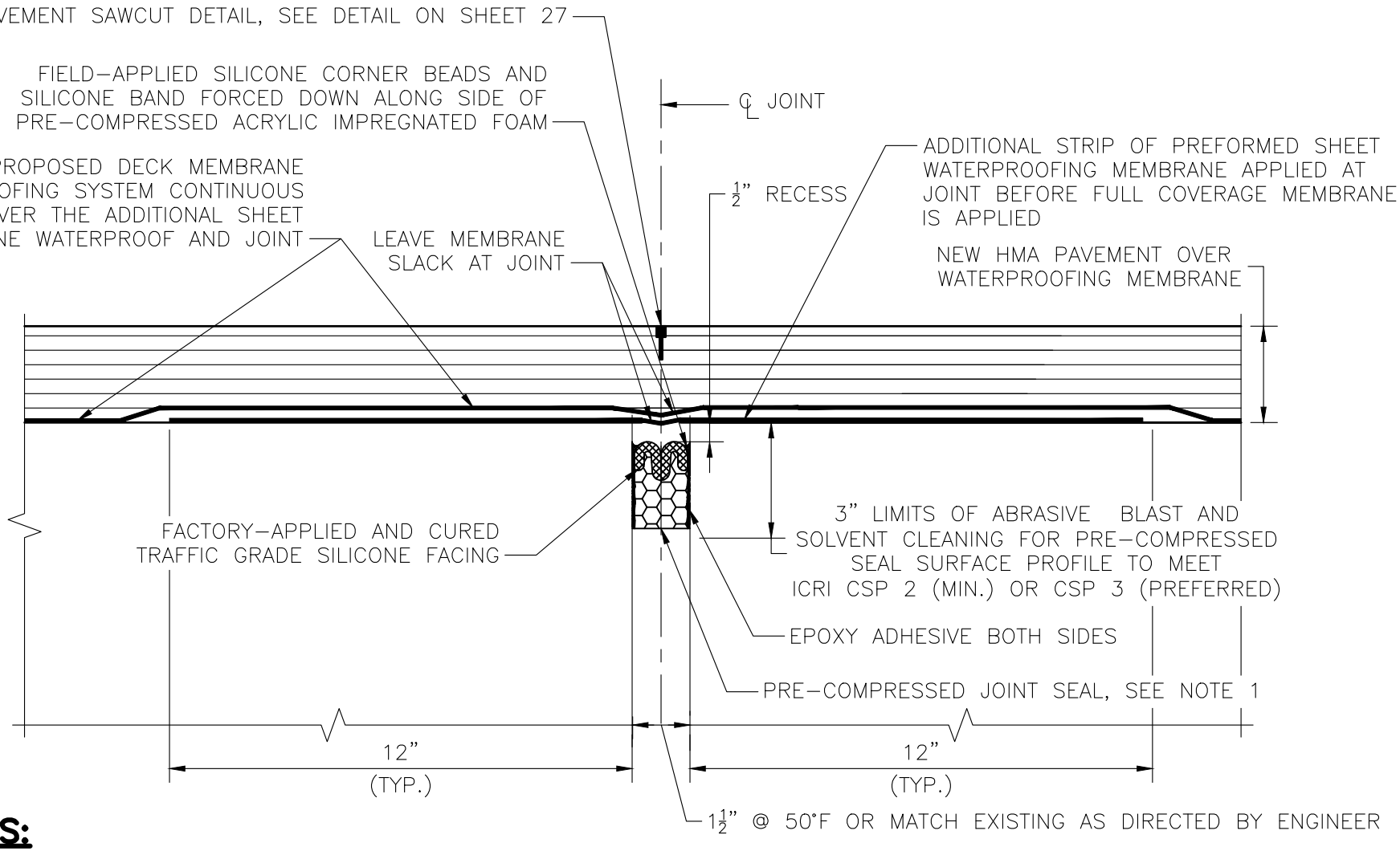
DRAWN BY: ME
DATE: 4/16/2026

CHECKED BY: JON
DATE: 4/16/2026

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A00803-25

Proposal No. 614177-134228



NOTES:

1. THE INSTALLATION AND MATERIALS FOR THIS PRE–COMPRESSED BRIDGE JOINT SEAL SYSTEM SHALL BE COMPENSATED ON A TIME AND MATERIALS (T&M) BASIS UNDER THE BASE LABOR RATE (ITEM 100.1) AND NON–BID ITEMS.

2. SAWING AND SEALING JOINTS IN ASPHALT PAVEMENT SHALL BE PAID UNDER ITEM 482.31.

PRE–COMPRESSED SEAL BRIDGE JOINT DETAIL

SCALE: 3" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: PRE–COMPRESSED SEAL BRIDGE JOINT DETAIL

SHEET: 25 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

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A00803-26

Proposal No. 614177-134228

PRE-COMPRESSED SEAL JOINT NOTES:

1. THE DIMENSIONS OF THE PRE-COMPRESSED SEAL SHALL BE BASED ON THE MANUFACTURER'S RECOMMENDATIONS FOR THE GIVEN JOINT OPENING AND MOVEMENT.

2. THE INSTALLATION AND SPLICING OF THE PRE-COMPRESSED SEAL SHALL FOLLOW THE MANUFACTURER'S INSTRUCTIONS.

3. THE JOINT OPENING SHALL BE FREE OF ALL CONTAMINANTS, SUCH AS GREASE, DUST AND DIRT. PRIOR TO SEAL SYSTEM INSTALLATION, THE JOINT WALLS SHALL BE BLOWN CLEAN WITH OIL FREE COMPRESSED AIR AND WIPED CLEAN WITH A CLEAN WET CLOTH TO THE BOTTOM OF THE PRE-COMPRESSED SEAL MATERIAL PLUS 1" TO REMOVE ANY DUST REMAINING. JOINT WALL SHALL BE ABRASIVE BLAST AND SOLVENT CLEANED.

4. THE PRE-COMPRESSED SEAL SYSTEM SHALL BE CONTINUOUS THROUGH SIDEWALKS AND SAFETY CURBS AS APPROPRIATE TO THE CONDITIONS AT HAND. CONTINUITY OF SEAL SHALL BE ACHIEVED THROUGH THE USE OF FACTORY-FABRICATED UNIVERSAL OR CUSTOM TRANSITIONS SUPPLIED BY THE PRE-COMPRESSED SEAL MANUFACTURER.

5. THIS PRE-COMPRESSED BRIDGE JOINT SEAL SYSTEM SHALL BE COMPENSATED ON A TIME AND MATERIALS (T&M) BASIS UNDER THE BASE LABOR RATE (ITEM 100.1) AND NON-BID ITEMS.

MODIFIED ASPHALTIC PLUG JOINT CONSTRUCTION SEQUENCE:

1. CENTER 19" WIDE STRIP OF ROOFING FELT OVER THE JOINT LOCATION FOR TEMPORARY AND PERMANENT PAVEMENT PLACEMENT.

2. AFTER THE WEARING SURFACE IS INSTALLED, SAW CUT AND REMOVE THE HMA WEARING SURFACE AND MEMBRANE WATERPROOFING TO THE LIMITS REQUIRED.

3. CLEAN AND PREPARE THE JOINT WALL SURFACES FOR THE PRE-COMPRESSED SEAL INSTALLATION. SEE PRE-COMPRESSED SEAL NOTES FOR DETAIL.

4. COAT THE SURFACES OF THE BLOCK-OUT WITH THE POLYMER MODIFIED ASPHALTIC BINDER.

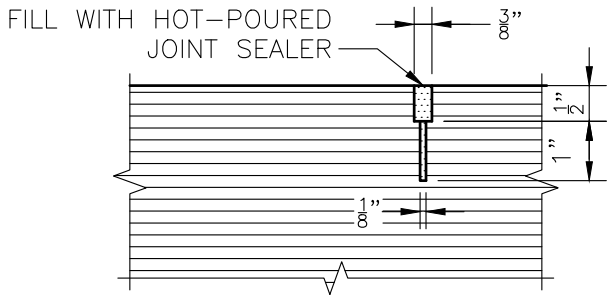
5. CENTER 12" WIDE GEOGRID FABRIC PAD OVER JOINT AND COAT THEIR SURFACES WITH THE POLYMER MODIFIED ASPHALTIC BINDER.

6. PLACE COMPACTED AGGREGATE/BINDER TO FILL ALL VOIDS AND OBTAIN A FINAL AND EVEN SURFACE WITH THE ADJACENT WEARING SURFACE.

7. IT IS NOT NECESSARY TO CONSTRUCT THE JOINT AT MEAN TEMPERATURE, HOWEVER, IF DIRECTED BY THE ENGINEER, THE MANUFACTURER SHOULD BE CONSULTED FOR INSTALLATION GUIDELINES FOR EXTREME CLIMATE CONDITIONS.

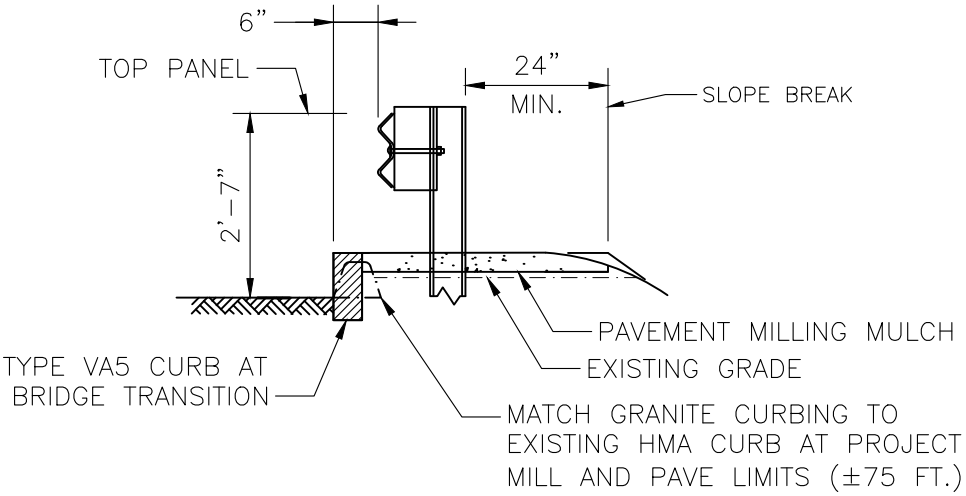
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MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER SUBJECT: PRE-COMPRESSED SEAL JOINT NOTES AND MODIFIED ASPHALTIC PLUG JOINT CONSTRUCTION SEQUENCE	SHEET: 26 OF 59 DRAWN BY: ME DATE: 4/16/2026 CHECKED BY: JON DATE: 4/16/2026



PAVEMENT SAWCUT DETAIL

SCALE: 3" = 1'-0"

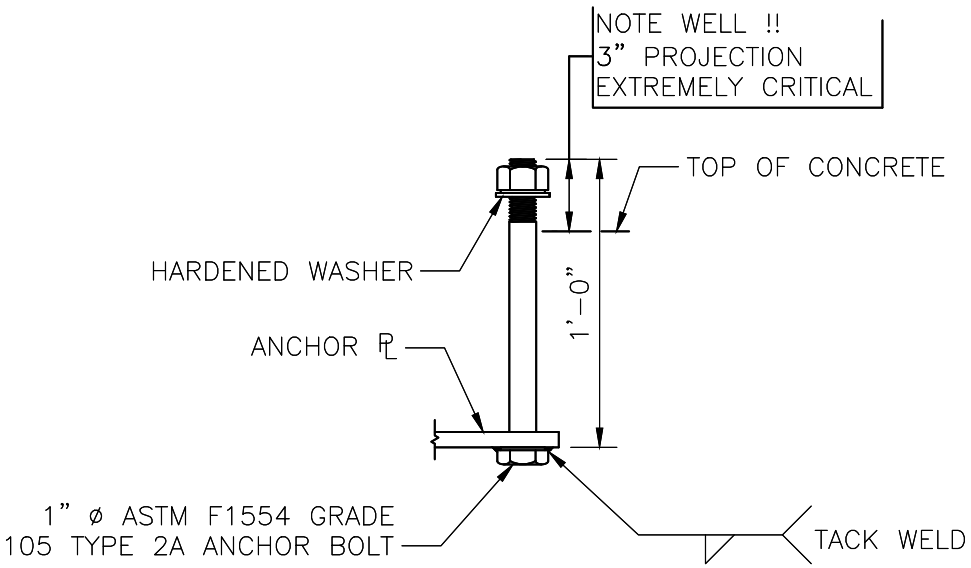


GRANITE CURB TRANSITION TO HMA CURB – SECTION

SCALE: 3/8" = 1'-0"

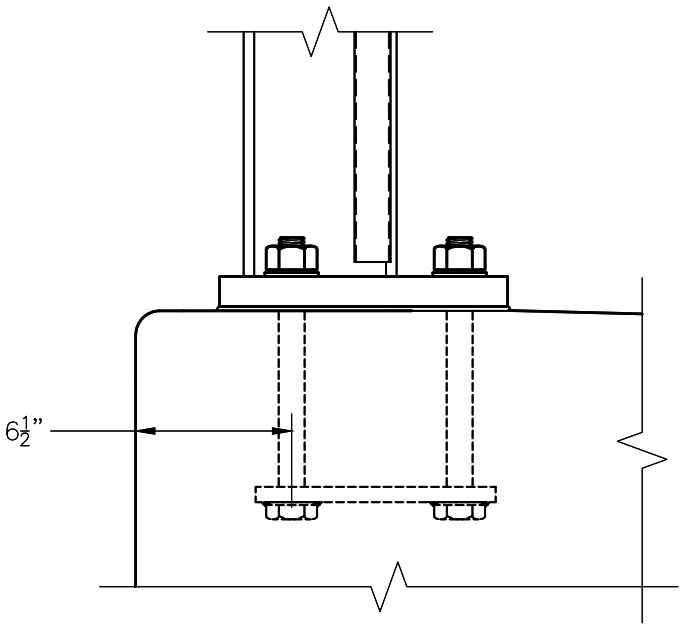
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MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 27 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: MISCELLANEOUS DETAIL – 1	CHECKED BY: JON DATE: 4/16/2026



ANCHOR BOLT

SCALE: 1½" = 1'-0"



ALTERNATE ACHORAGE

SCALE: 1½" = 1'-0"

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MassDOT Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 28 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: MISCELLANEOUS DETAIL – 2	CHECKED BY: JON DATE: 4/16/2026

STRUCTURAL STEEL REPAIR NOTES:

1. REMOVE ANY END DIAPHRAGM CONCRETE AND REINFORCING THAT INTERFERES WITH STEEL REPAIRS.

2. CLEAN THE CONTACT SURFACES OF EXISTING STEEL IN ACCORDANCE WITH SPECIAL PROVISIONS. THE CONTACT SURFACES SHALL BE FREE OF PAINT, OIL, AND GREASE, AND SHALL PROVIDE THE NECESSARY SLIP RESISTANCE FOR CLASS A SLIP CRITICAL CONNECTIONS.

3. ENGINEER TO INSPECT CLEANED REPAIR AREA AND VERIFY REPAIR LIMITS BASED ON CONDITIONS EXPOSED BY CLEANING.

4. THE BEAM SHALL BE INSPECTED FOR DAMAGE DUE TO CONTRACTOR OPERATIONS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

5. 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 SHALL BE APPLIED TO THE DETERIORATED AREAS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL THE METHODS, PROCEDURES, AND MATERIALS TO BE USED FOR THE WORK.

   B. THE REPAIR COMPOUND SHALL ONLY BE APPLIED TO THOSE 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 REPAIRED 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 SHALL BE SECURED IN PLACE USING POSITIONING BOLTS TENSIONED TO A SNUG TIGHT CONDITION AND CLAMPS OR OTHER MECHANICAL MEANS TO BRING THE PLIES OF THE EXISTING STEEL AND NEW STEEL INTO FIRM CONTACT. WELDING IS PROHIBITED UNLESS OTHERWISE SPECIFIED ON THE DRAWING.

   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 REQUIREMENTS OF SECTION 960.61.A.5.B OF THE 2026 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION.

   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 PRODUCT SHALL BE ONE OF THE FOLLOWING OR AN APPROVED EQUAL: ITW REPAIR COMPOUND MANUFACTURED BY: ITW PERFORMANCE POLYMERS, SIKADUR 31, HI-MOD GEL MANUFACTURED BY: SIKA CORPORATION, DEVCON PLASTIC STEEL PUTTY (A) MANUFACTURED BY: ITW PERFORMANCE POLYMERS.

6. STEEL ELEMENTS FOR REPAIR SHALL BE BOLTED TO EXISTING STEEL SURFACES.

7. STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 50. IT SHALL BE CONSIDERED A MAIN MEMBER AND CONFORM TO THE CHARPY V-NOTCH REQUIREMENTS OF AASHTO M270 ZONE T2.

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MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 29 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: STRUCTURAL STEEL REPAIR NOTES – 1	CHECKED BY: JON DATE: 4/16/2026

STRUCTURAL STEEL REPAIR NOTES (CONT.):

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 AND PAINT REPAIRED AREA PER SPECIAL PROVISIONS.

10. SEAL PERIMETER OF ALL STEEL WITH SILICONE CAULK.

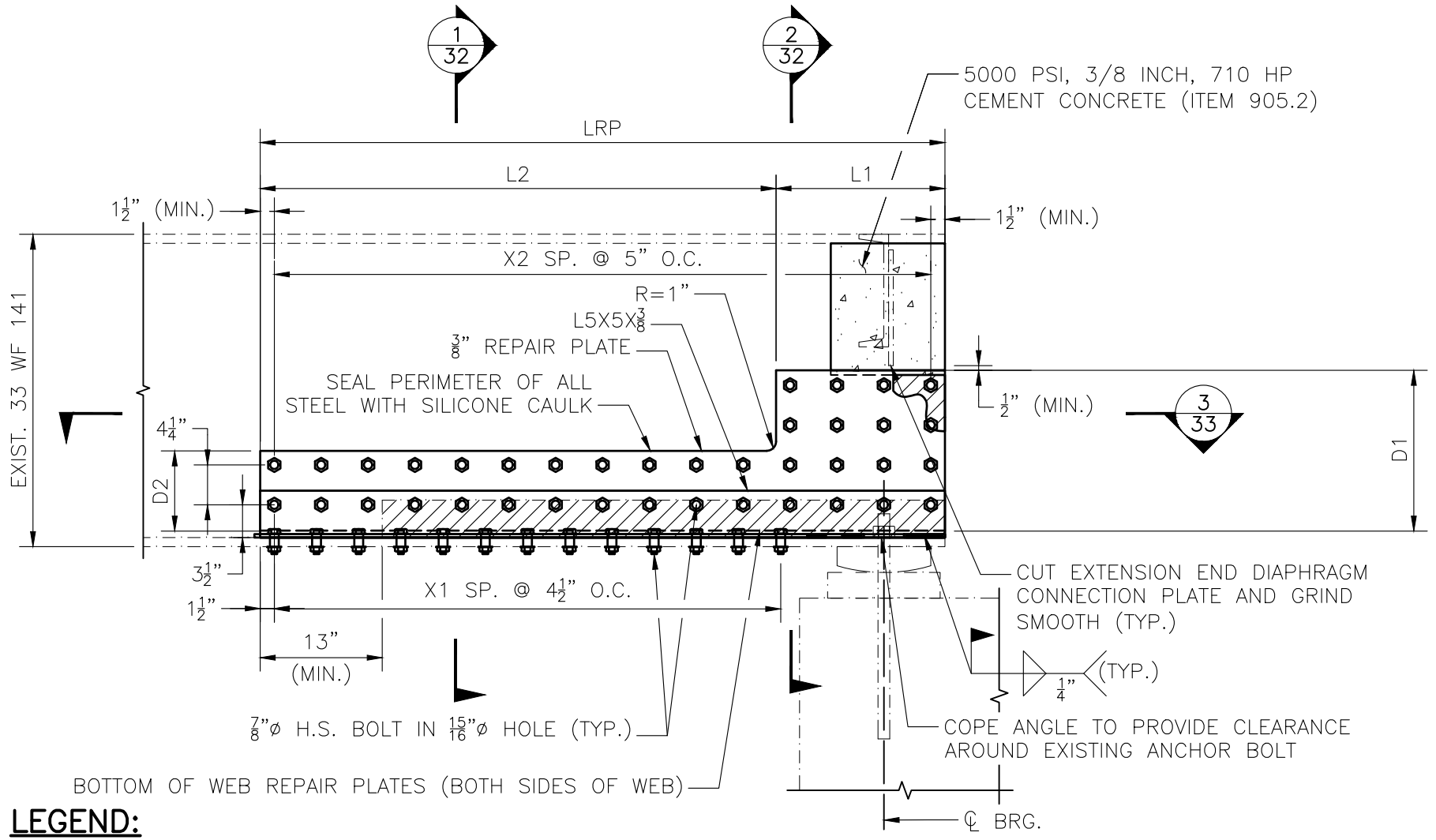
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MassDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: STRUCTURAL STEEL REPAIR NOTES – 2

SHEET: 30 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026



LEGEND:

AREA OF SECTION LOSS

TYPICAL BEAM END REPAIR
(FIXED BEARING SHOWN, EXPANSION BEARING SIMILAR)

SCALE: ¾" = 1'–0"

NOTE:

STRUCTURAL STEEL REPAIR DETAILS WAS DESIGNED BY HOWARD STEIN HUDSON (HSH)

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

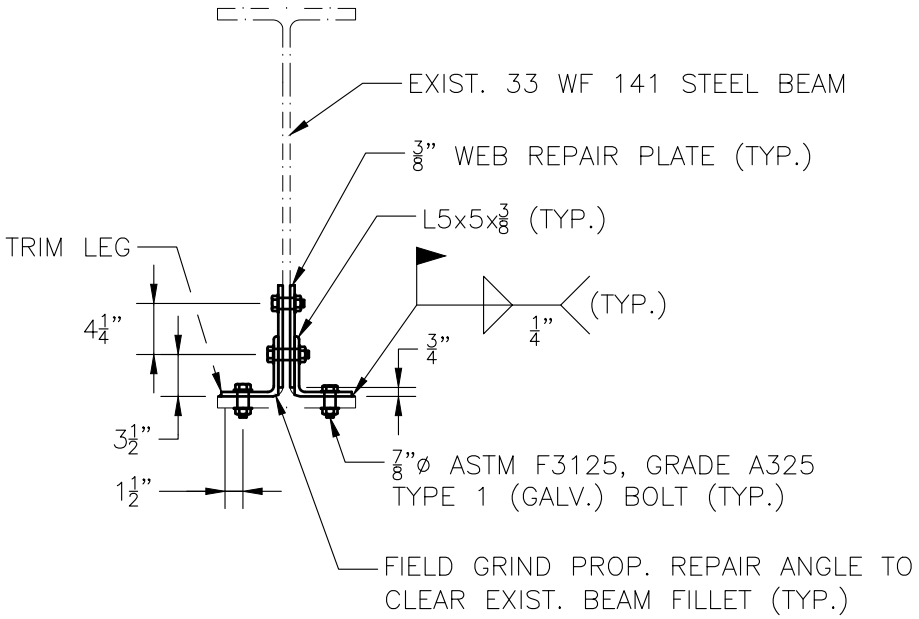
SUBJECT: TYPICAL BEAM END REPAIR – 1

SHEET: 31 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

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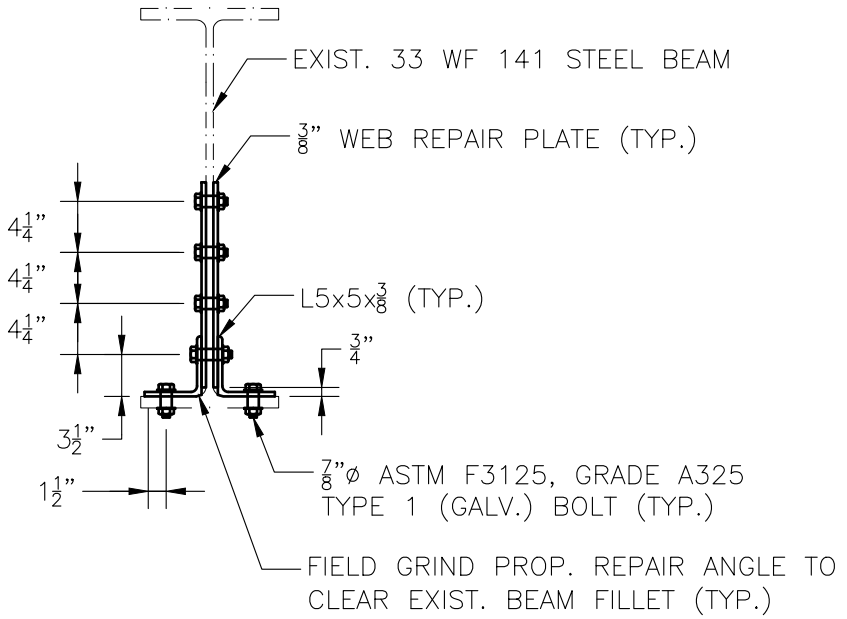
A00803-32

Proposal No. 614177-134228



SECTION 1

SCALE: 3/4" = 1'–0"



SECTION 2

SCALE: 3/4" = 1'–0"

NOTE:

STRUCTURAL STEEL REPAIR DETAILS WAS DESIGNED BY HOWARD STEIN HUDSON (HSH)

MassDOT Massachusetts Department of Transportation Highway Division

DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: TYPICAL BEAM END REPAIR – 2

SHEET: 32 OF 59

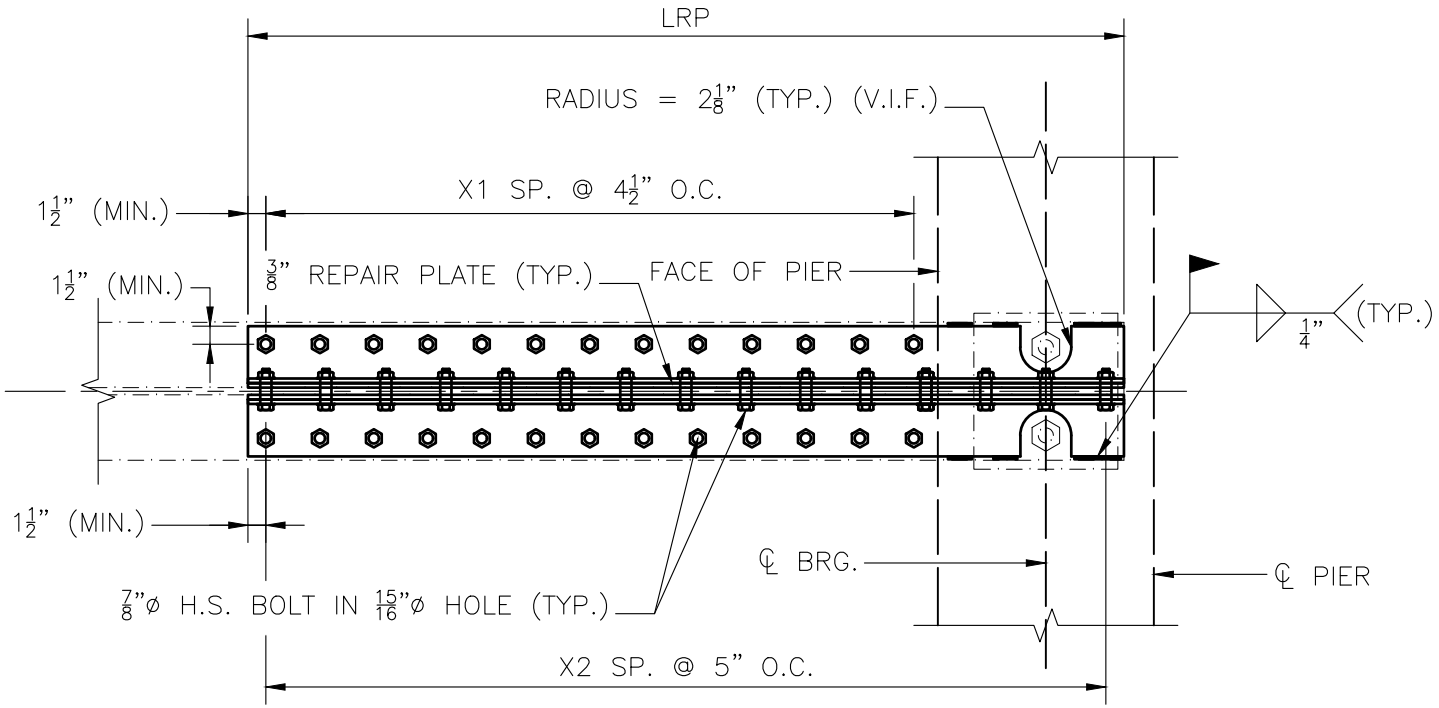
DRAWN BY: ME
DATE: 4/16/2026

CHECKED BY: JON
DATE: 4/16/2026

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A00803-33

Proposal No. 614177-134228



SECTION 3

SCALE: ¾" = 1'–0"

NOTE:

STRUCTURAL STEEL REPAIR DETAILS WAS DESIGNED BY HOWARD STEIN HUDSON (HSH)

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: TYPICAL BEAM END REPAIR – 3

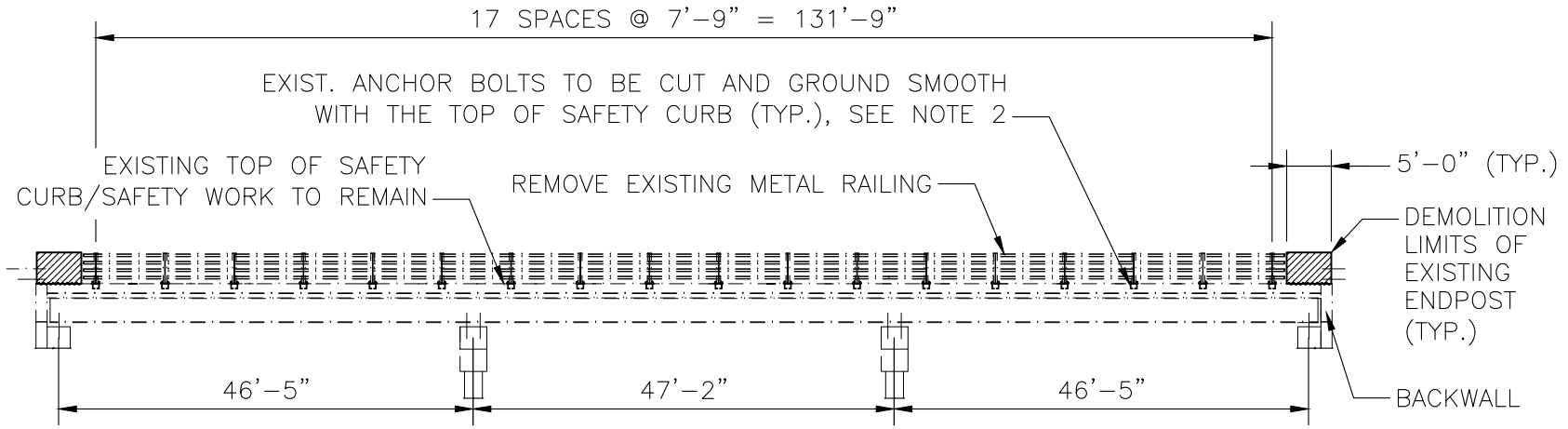
SHEET: 33 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

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BEAM END REPAIR TABLE									
SPAN	LOCATION	BEAM NO.	LRP	L1	L2	D1	D2	X1	X2
1	PIER 1	BEAM 1	9'-0"	1'-6"	7'-6"	1'-5"	$8\frac{1}{2}$"	19	21
		BEAM 2	6'-1"		4'-7"			12	14
		BEAM 4	5'-3"		3'-9"			9	12
		BEAM 5	8'-2"		6'-8"			17	19
2	PIER 1	BEAM 1	5'-3"		3'-9"			9	12
		BEAM 2	5'-3"		3'-9"			9	12
		BEAM 3	5'-3"		3'-9"			9	12
		BEAM 4	5'-3"		3'-9"			9	12
		BEAM 5	8'-2"		6'-8"			17	19
		BEAM 1	9'-0"		7'-6"			19	21
		BEAM 2	5'-3"		3'-9"			9	12
		BEAM 4	5'-3"		3'-9"			9	12
		BEAM 5	5'-3"		3'-9"			9	12
3	PIER 2	BEAM 1	4'-0"		2'-6"			4	9

NOTE:

BEAM END REPAIR TABLE WAS PRODUCED BY HOWARD STEIN HUDSON (HSH)



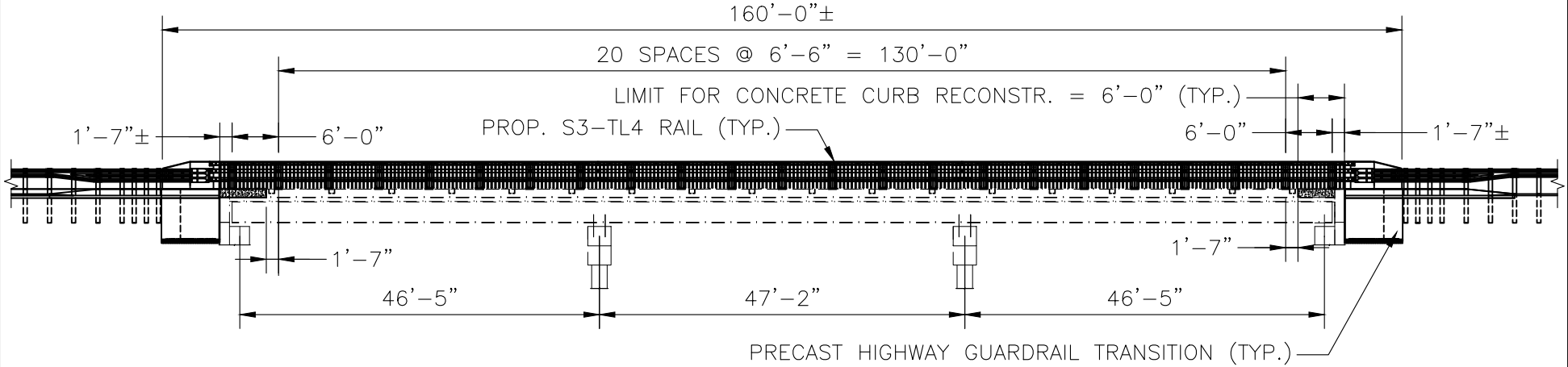
NOTES:

1. REFERENCE MASSDOT CONSTRUCTION STANDARD DRAWINGS E401.5.1 TO E401.5.4 FOR BRIDGE RAIL TO HIGHWAY GUARDRAIL STANDARD DETAILS.

2. APPLY METHYL METHACRYLATE SEALER TO SEAL TOP OF EXISTING RAILING ANCHORAGE.

EXISTING ELEVATION VIEW

SCALE: 1" = 20'-0"



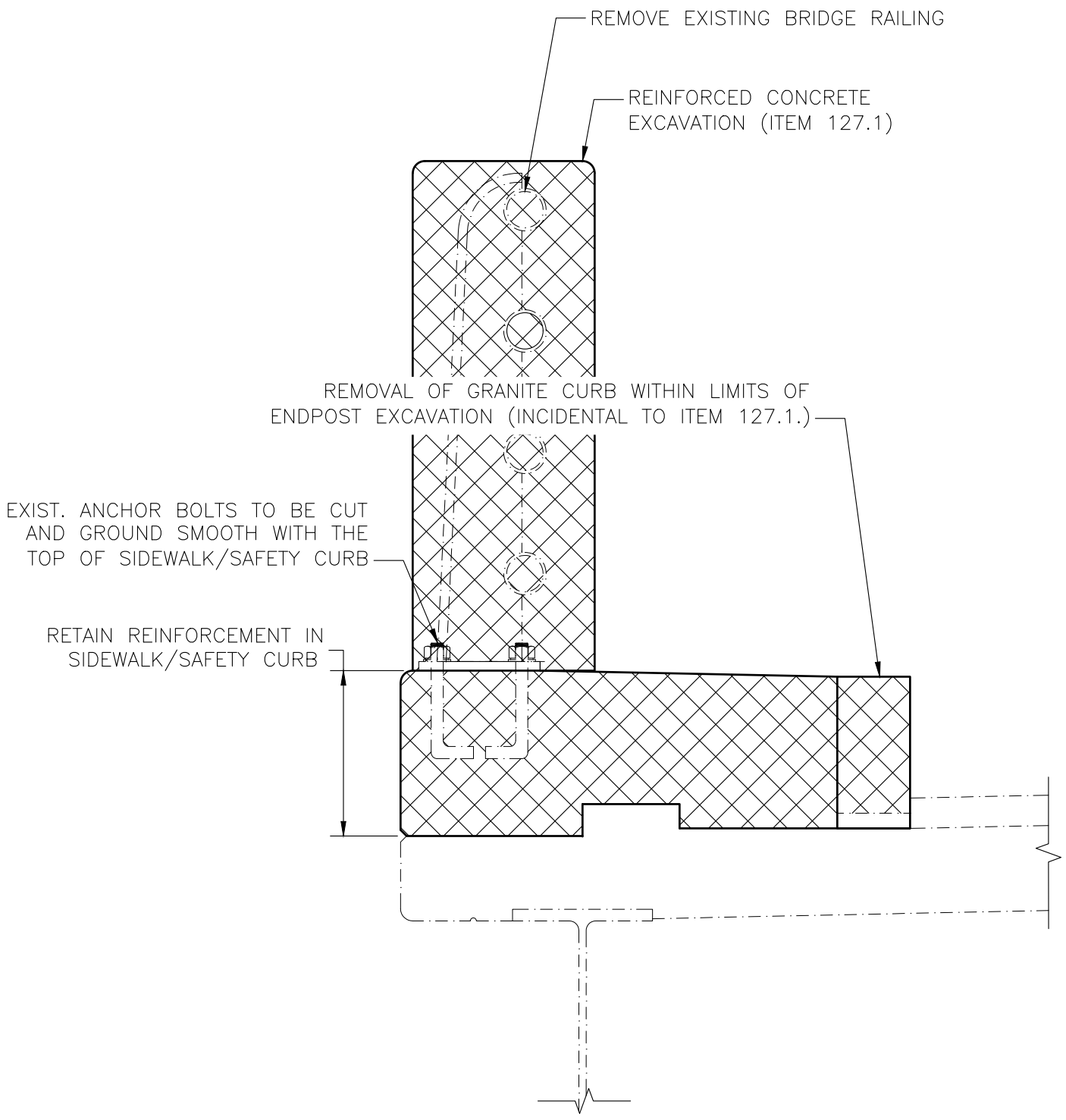
PROPOSED ELEVATION VIEW

SCALE: 1" = 20'-0"

MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 35 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: EXISTING AND PROPOSED ELEVATION VIEW	CHECKED BY: JON DATE: 4/16/2026

A00803-36

Proposal No. 614177-134228

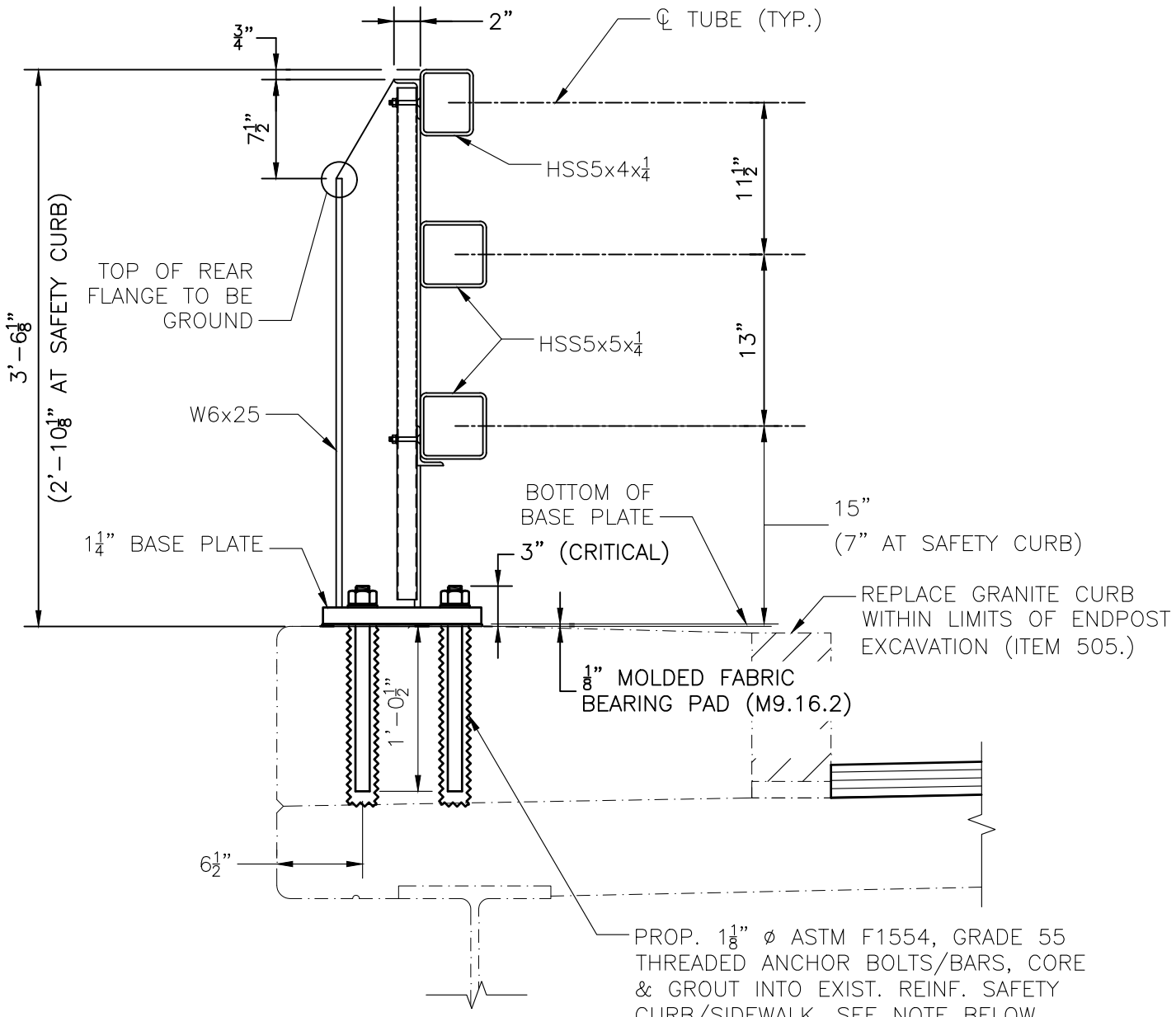


EXISTING RAILING /END POST AT SIDEWALK SHOWN (SAFETY CURB SIMILAR)

SCALE: 1" = 1'-0"

MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 36 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: EXISTING RAILING/END POST AT SIDEWALK SHOWN (SAFETY CURB SIMILAR)	CHECKED BY: JON DATE: 4/16/2026

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NOTE:

DRILL 1¾" DIAMETER, 13" LONG HOLES INTO EXISTING SAFETY CURB/SIDEWALK FOR PLACEMENT OF THREADED ANCHOR BOLTS/BARS AS SHOWN OR AS RECOMMENDED BY THE GROUT MANUFACTURER. PRIOR TO PLACEMENT OF GROUT AND ANCHOR BOLTS, THE DRILL HOLES SHALL BE CLEANED AND PREPARED IN ACCORDANCE WITH THE CHOSEN GROUT MANUFACTURER'S WRITTEN SPECIFICATIONS.

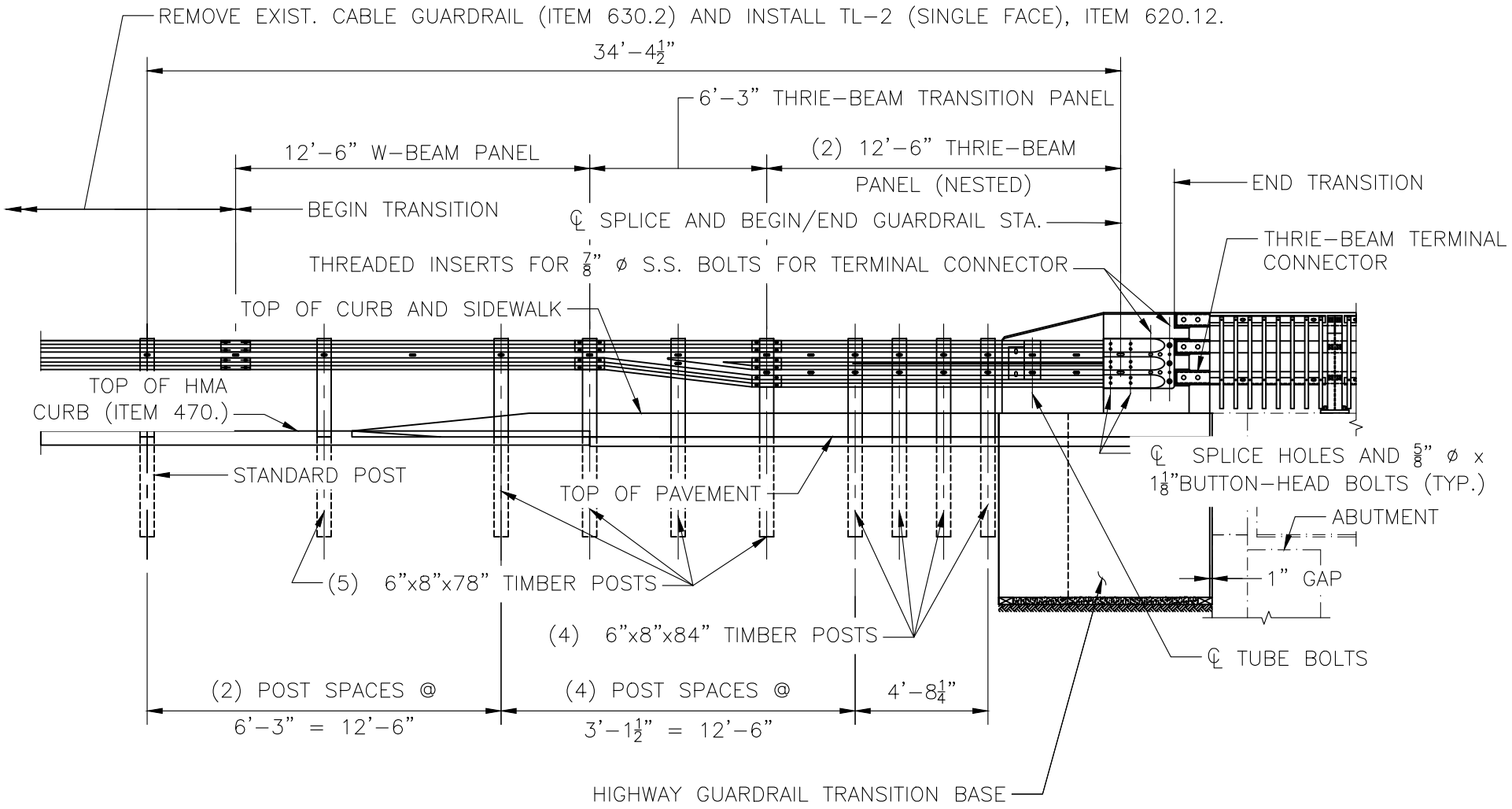
PROPOSED RAILING REPLACEMENT AT SIDEWALK SHOWN (SAFETY CURB SIMILAR)

SCALE: 1" = 1'–0"

S:\D3\BRIDGE\DESIGN–REVIEW PROJECTS\DESIGN PHASE STRUCTURE MAINTENANCE\10.0_SITE SPECIFIC PROJECT\FY 26 SHAREFAIREXTRA\NORTHBRIDGE 614177\DWG_1\3-11-2025 MAIN.DWG

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 37 OF 59
SUBJECT: PROPOSED RAILING REPLACEMENT AT SIDEWALK SHOWN (SAFETY CURB SIMILAR)	DRAWN BY: ME DATE: 4/16/2026
	CHECKED BY: JON DATE: 4/16/2026



TRANSITION TO BRIDGE – ELEVATION

SCALE: $\frac{3}{16}$" = 1'-0"

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

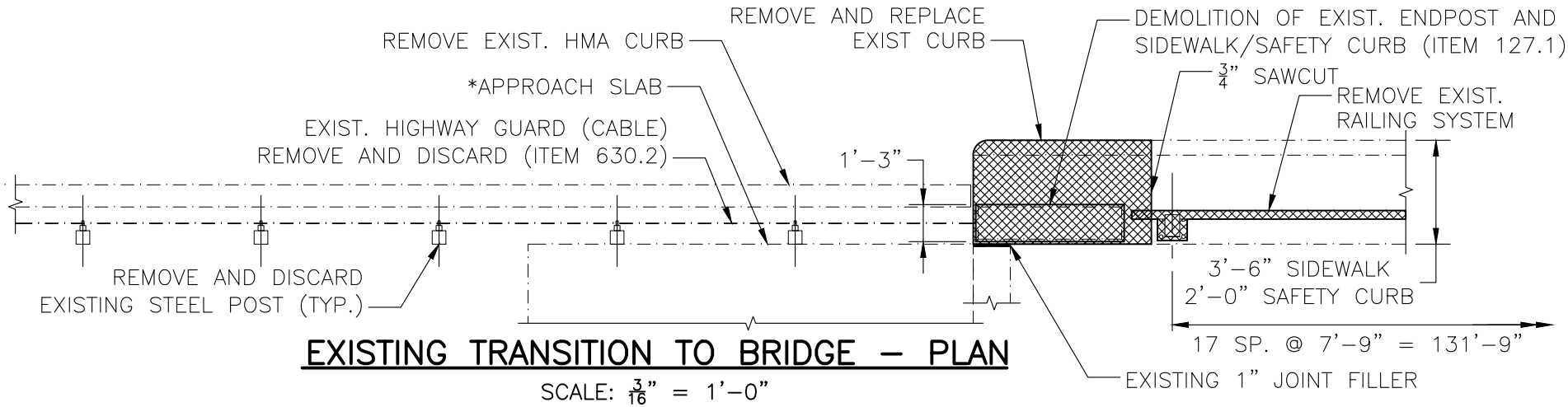
SUBJECT: TRANSITION TO BRIDGE – ELEVATION

SHEET: 38 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

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A00803-39

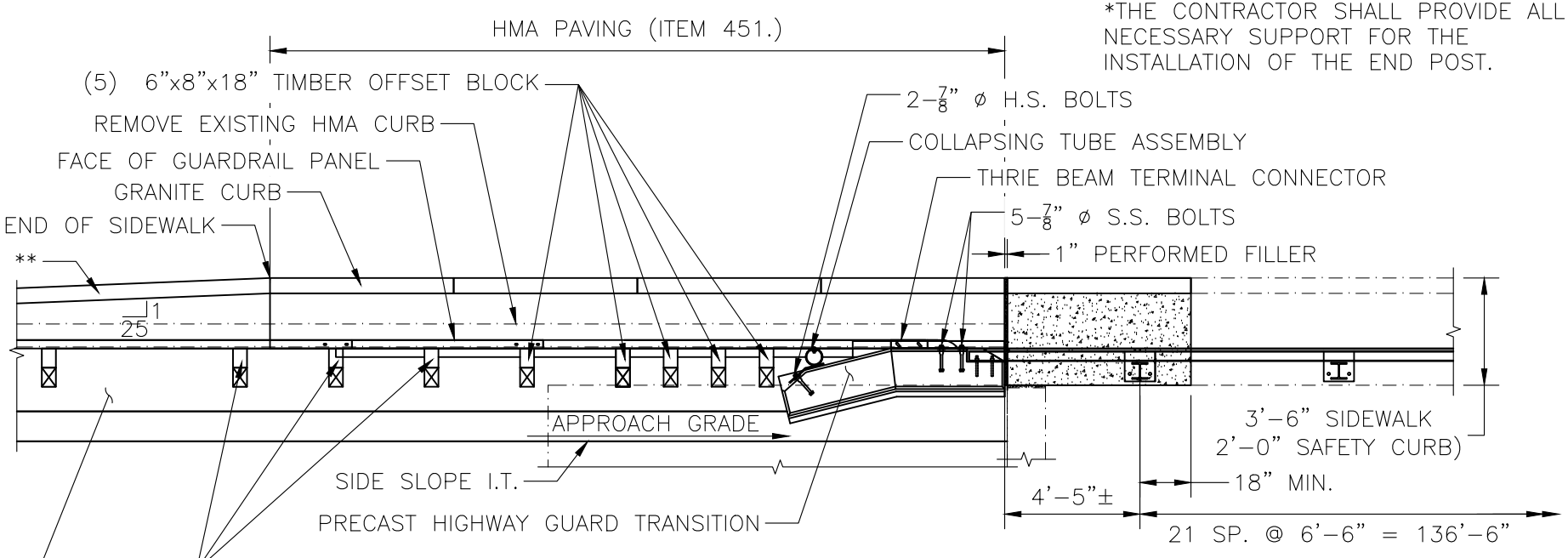
Proposal No. 614177-134228



EXISTING TRANSITION TO BRIDGE – PLAN

SCALE: 3/16" = 1'-0"

*THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SUPPORT FOR THE INSTALLATION OF THE END POST.



** NEW HMA BERM/CURB (ITEM 470), BEGINNING AT THE GRANITE CURB AND TAPERING TO MATCH THE EXISTING HMA BERM/CURB AT THE PROJECT MILL AND PAVE LIMITS (±75 FT).

PROPOSED TRANSITION TO BRIDGE – PLAN

SCALE: 3/16" = 1'-0"

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

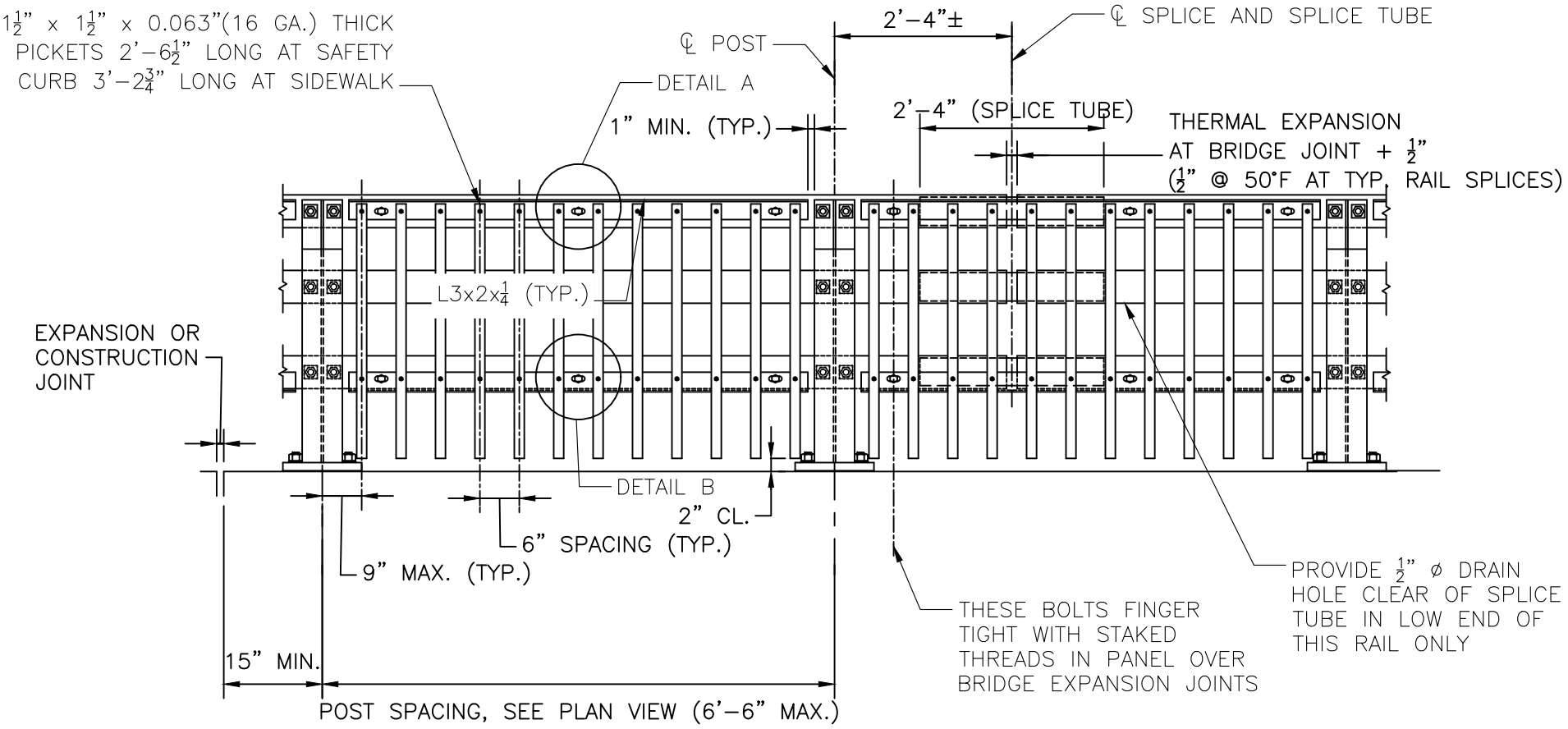
SUBJECT: TRANSITION TO BRIDGE – PLAN

SHEET: 39 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

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Proposal No. 614177-134228



NOTE:
ELEVATION AT SIDEWALK SHOWN. ELEVATION AT SAFETY CURB SIMILAR EXCEPT AS NOTED.

S3–TL4 BRIDGE RAILING ELEVATION

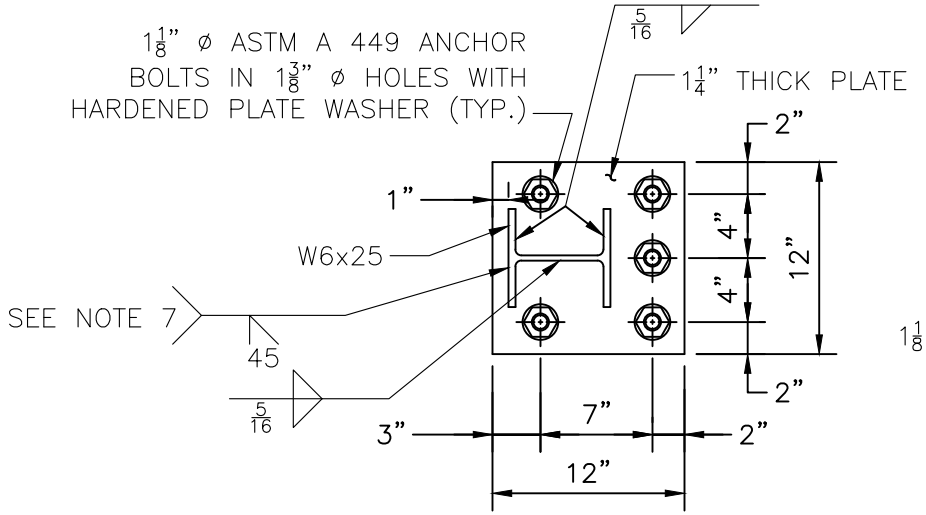
SCALE: ½" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 40 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: S3–TL4 BRIDGE RAILING DETAILS – 1	CHECKED BY: JON DATE: 4/16/2026

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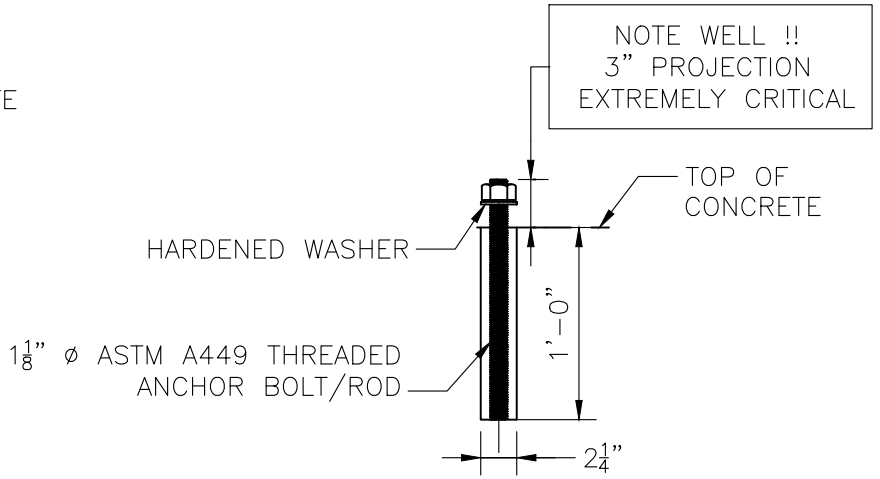
A00803-41

Proposal No. 614177-134228



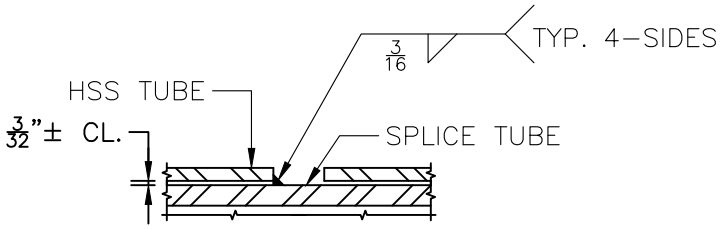
BASE PLATE

SCALE: 1" = 1'–0"



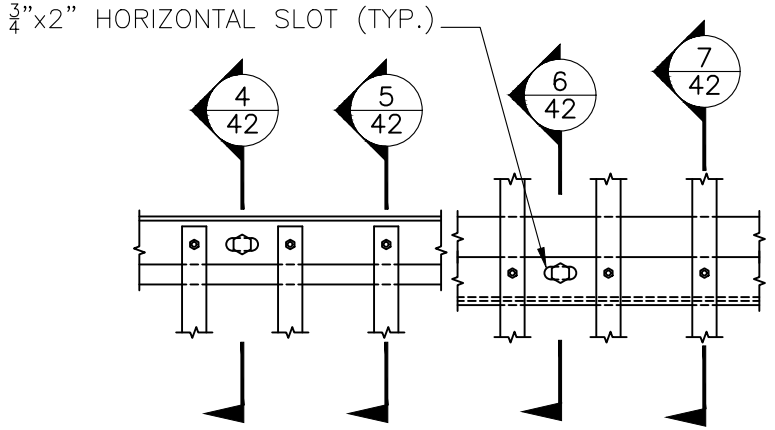
ANCHOR BOLT

SCALE: 1" = 1'–0"



SPLICE DETAIL

SCALE: N.T.S.



DETAIL A DETAIL B

TYPICAL PICKET TO RAIL DETAILS

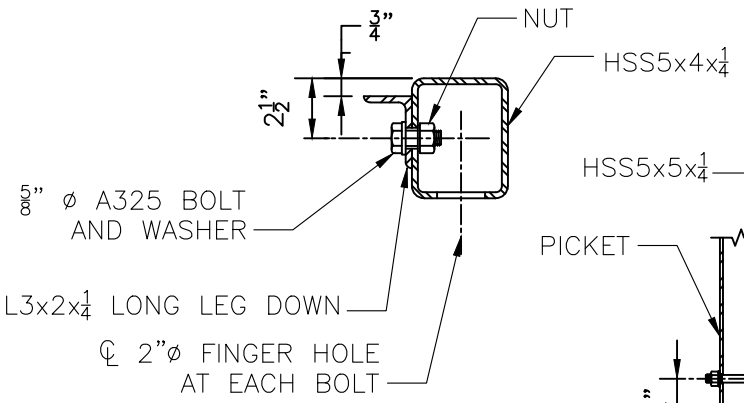
SCALE: 1" = 1'–0"

MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 41 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: S3–TL4 BRIDGE RAILING DETAILS – 2	CHECKED BY: JON DATE: 4/16/2026

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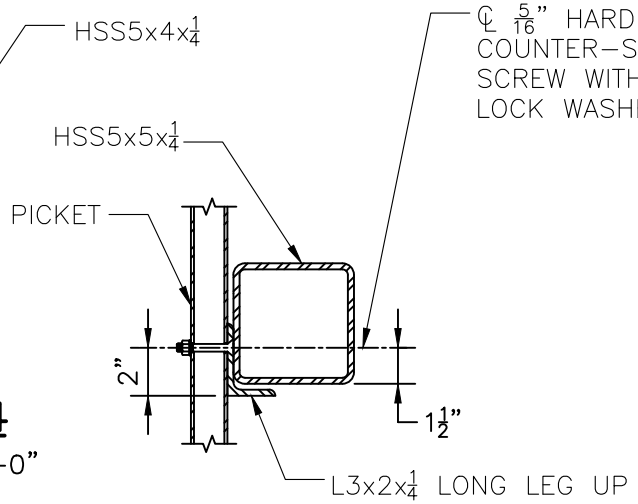
A00803-42

Proposal No. 614177-134228



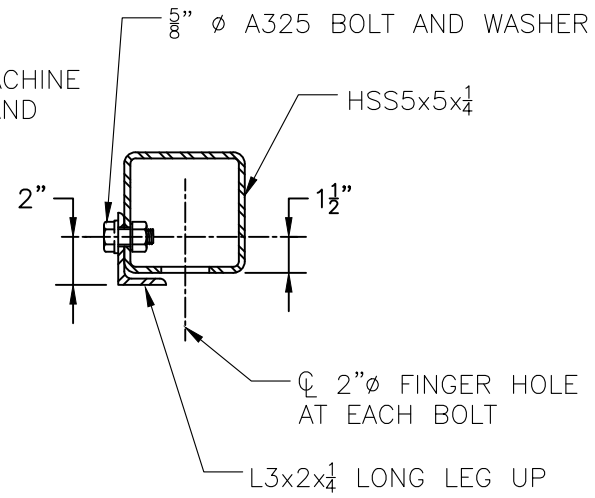
SECTION 4

SCALE: 1 1/2" = 1'–0"



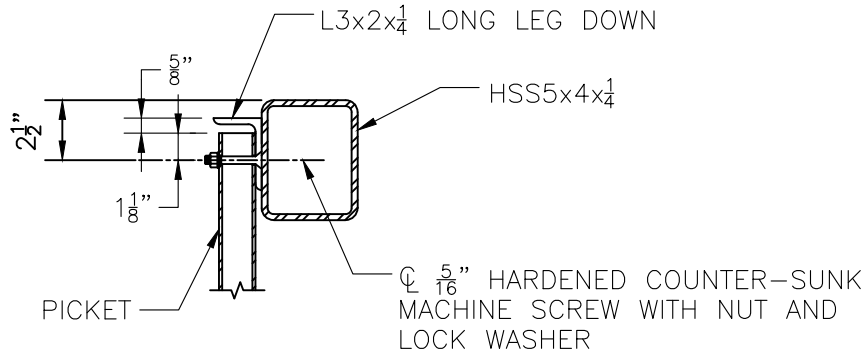
SECTION 7

SCALE: 1 1/2" = 1'–0"



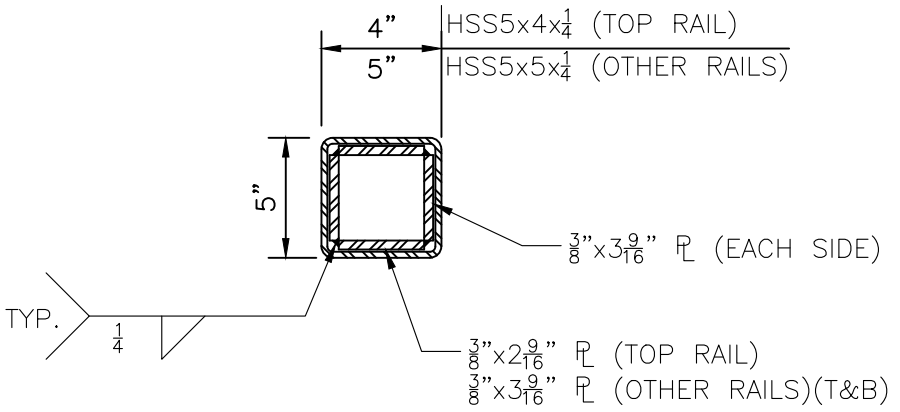
SECTION 6

SCALE: 1 1/2" = 1'–0"



SECTION 5

SCALE: 1 1/2" = 1'–0"



SPLICE TUBE DETAIL

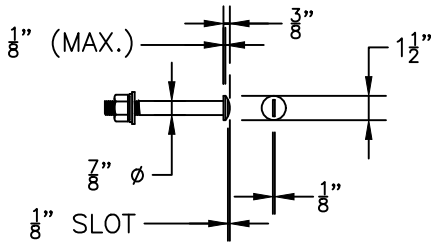
SCALE: 1 1/2" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 42 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: S3–TL4 BRIDGE RAILING DETAILS – 3	CHECKED BY: JON DATE: 4/16/2026

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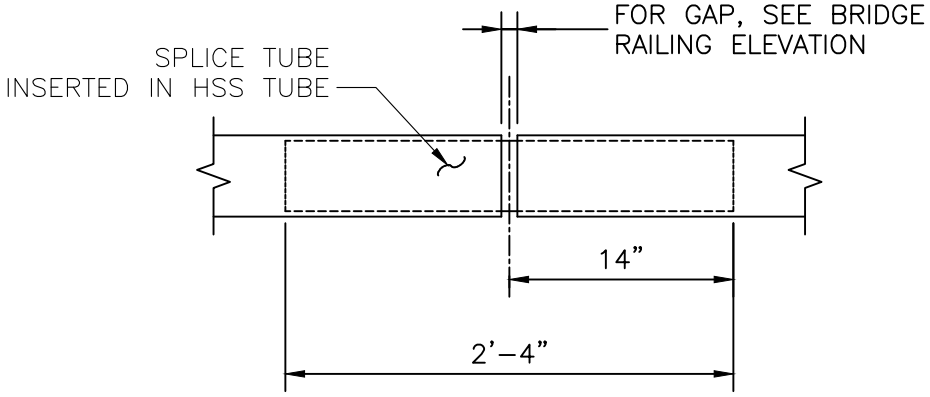
A00803-43

Proposal No. 614177-134228



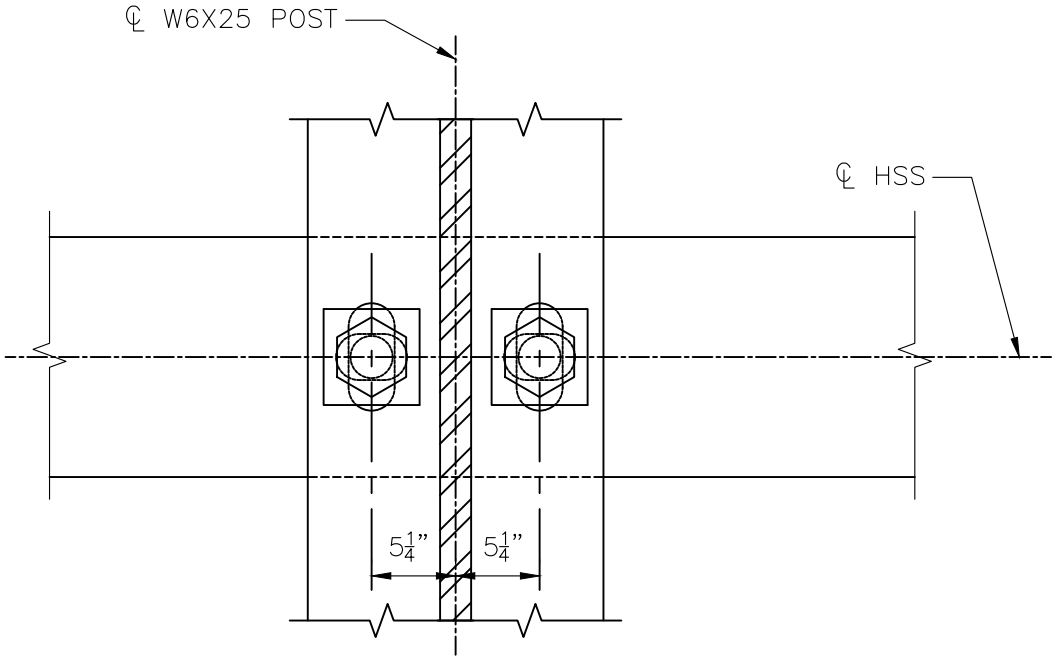
7/8" ø ROUND HEAD BOLT

SCALE: 1" = 1'–0"



TYPICAL SPLICE

SCALE: 1" = 1'–0"



SECTION THRU POST WEB

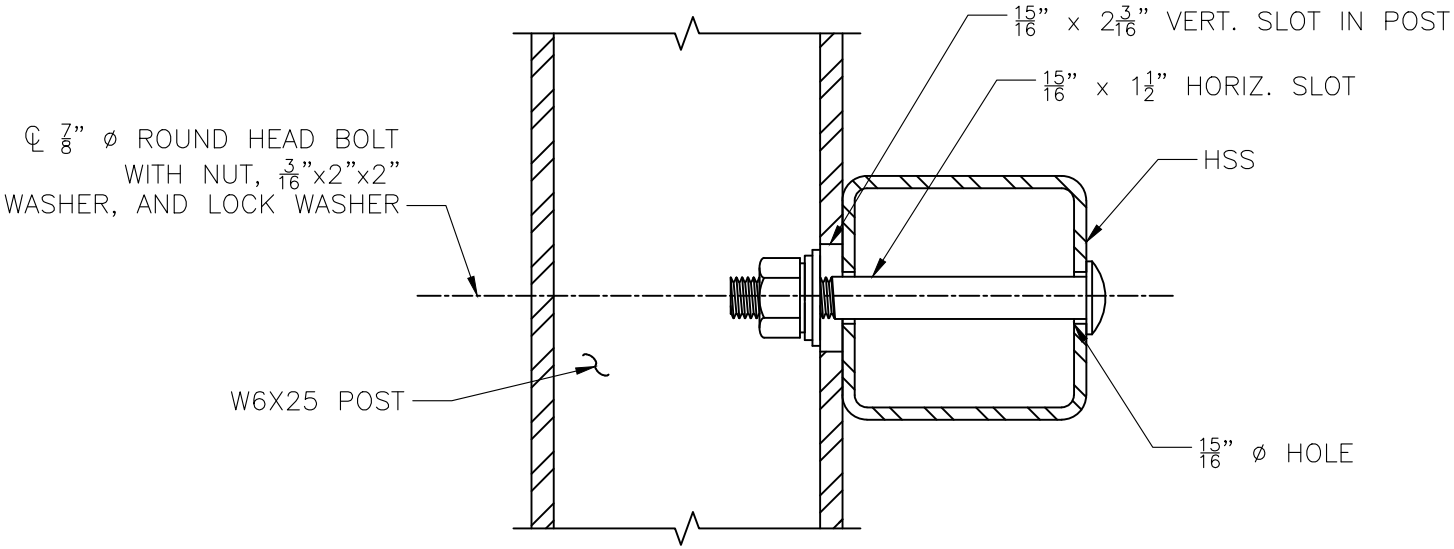
SCALE: 1" = 1'–0"

MassDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 43 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: S3–TL4 BRIDGE RAILING DETAILS – 4	CHECKED BY: JON DATE: 4/16/2026

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A00803-44

Proposal No. 614177-134228



SECTION THRU RAIL

SCALE: 1" = 1'–0"

NOTE:

CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

SCALE: 1" = 1'–0"

A00803-45

Proposal No. 614177-134228

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: S3–TL4 BRIDGE RAILING DETAILS – 5

SHEET: 44 OF 59

DRAWN BY: ME
DATE: 4/16/2026

CHECKED BY: JON
DATE: 4/16/2026

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BRIDGE RAILING NOTES:

1. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING (HSS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 500 WITH A CERTIFIED FY = 50 KSI MINIMUM. THE MINIMUM HORIZONTAL BENDING RADIUS OF THE HSS TUBING SHALL BE 8 FEET. PICKET CARRIER ANGLES, ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE 36. PICKET TUBING SHALL CONFORM TO ASTM A 513 WITH FY = 36 KSI MIN. OR A 500 GRADE B.

2. ALL STEEL (EXCEPT THE FASTENERS) SHALL BE GALVANIZED AND PAINTED DARK BRONZE (FEDERAL STD. 595B COLOR NO. 10045). HEADS OF $\frac{7}{8}$" Ø ROUND HEAD BOLTS SHALL BE PAINTED TO MATCH RAIL.

3. ANCHOR BOLTS CORE HOLES SHALL BE SET WITH TEMPLATES. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN AFTER STEEL IS IN PLACE.

4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF FOUR (4) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN THE PANELS OVER BRIDGE EXPANSION JOINTS.

5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

6. ALL POSTS TO BE PLUMB WHEN PROFILE GRADE EXCEEDS 1.5%. FOR PROFILE GRADES LESS THAN 1.5%, POSTS SHALL BE SET PERPENDICULAR TO GRADE.

7. POST TO FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING. BEVEL OUTSIDE FLANGES OF POST. FIT POST TO BASE PLATE. WELD $\frac{5}{16}$" FILLET ON INSIDE OF FLANGE AND WEB. BACKGOUGE OUTSIDE OF FLANGE TO SOUND METAL. COMPLETE GROOVE WELD WITH MINIMUM OF $\frac{1}{8}$" REINFORCEMENT. WELD IS THE SAME ON BOTH FLANGES.

8. $\frac{7}{8}$" Ø ROUND HEAD BOLTS SHALL CONFORM TO THE CHEMICAL AND PHYSICAL REQUIREMENTS OF ASTM F3125 GRADE 325 TYPE 1 GALVANIZED.

9. DRILL $2\frac{1}{4}$" DIAMETER, 12" LONG HOLES FOR REPLACEMENT OF THREADED ANCHOR BOLTS/RODS AS SHOWN OR RECOMMENDED BY THE GROUT MANUFACTURER. PRIOR TO PLACEMENT OF GROUT AND ANCHOR BOLTS, THE DRILL HOLES SHALL BE CLEANED AND PREPARED IN ACCORDANCE WITH THE CHOSEN GROUT MANUFACTURER'S WRITTEN SPECIFICATIONS.

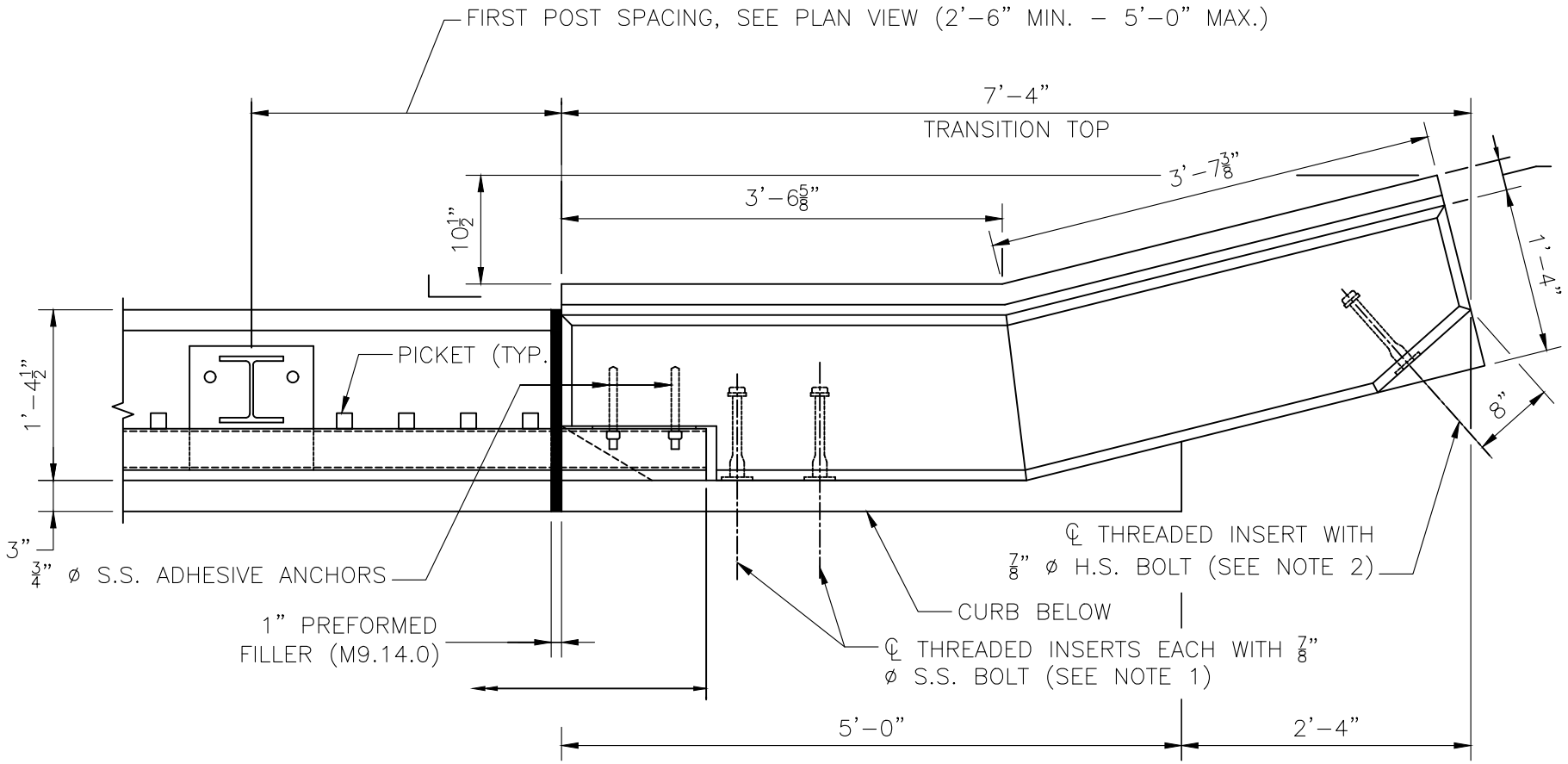
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massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: BRIDGE RAILING NOTES

SHEET: 45 OF 59
DRAWN BY: ME
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CHECKED BY: JON
DATE: 4/16/2026



PLAN AT SAFETY CURB

SCALE: 3/4" = 1'-0"

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE - BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

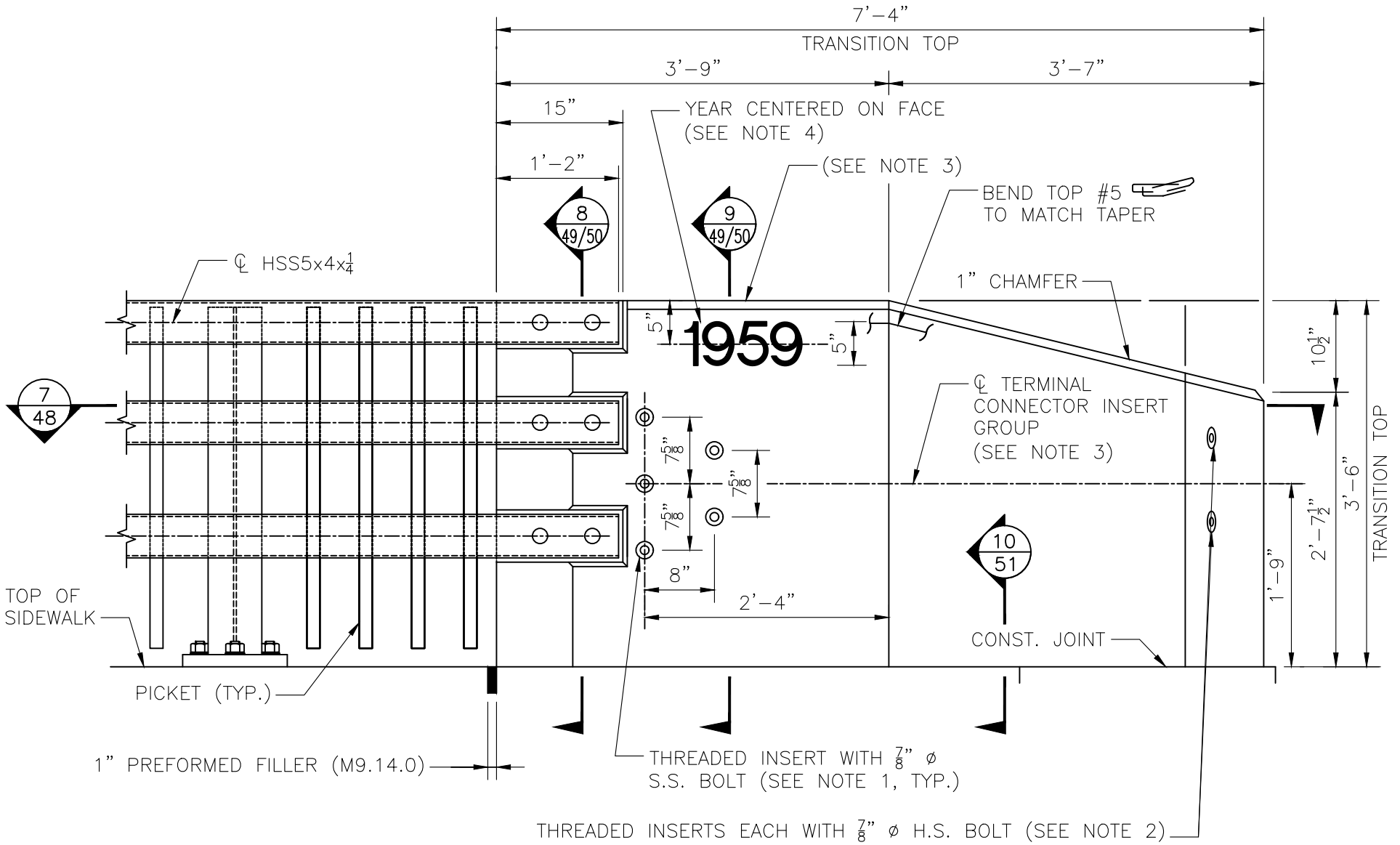
SUBJECT: HIGHWAY GUARDRAIL TRANSITION DETAILS - 1

SHEET: 46 OF 59
DRAWN BY: ME
DATE: 4/16/2026
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ELEVATION AT SAFETY CURB

SCALE: ¾" = 1'-0"

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

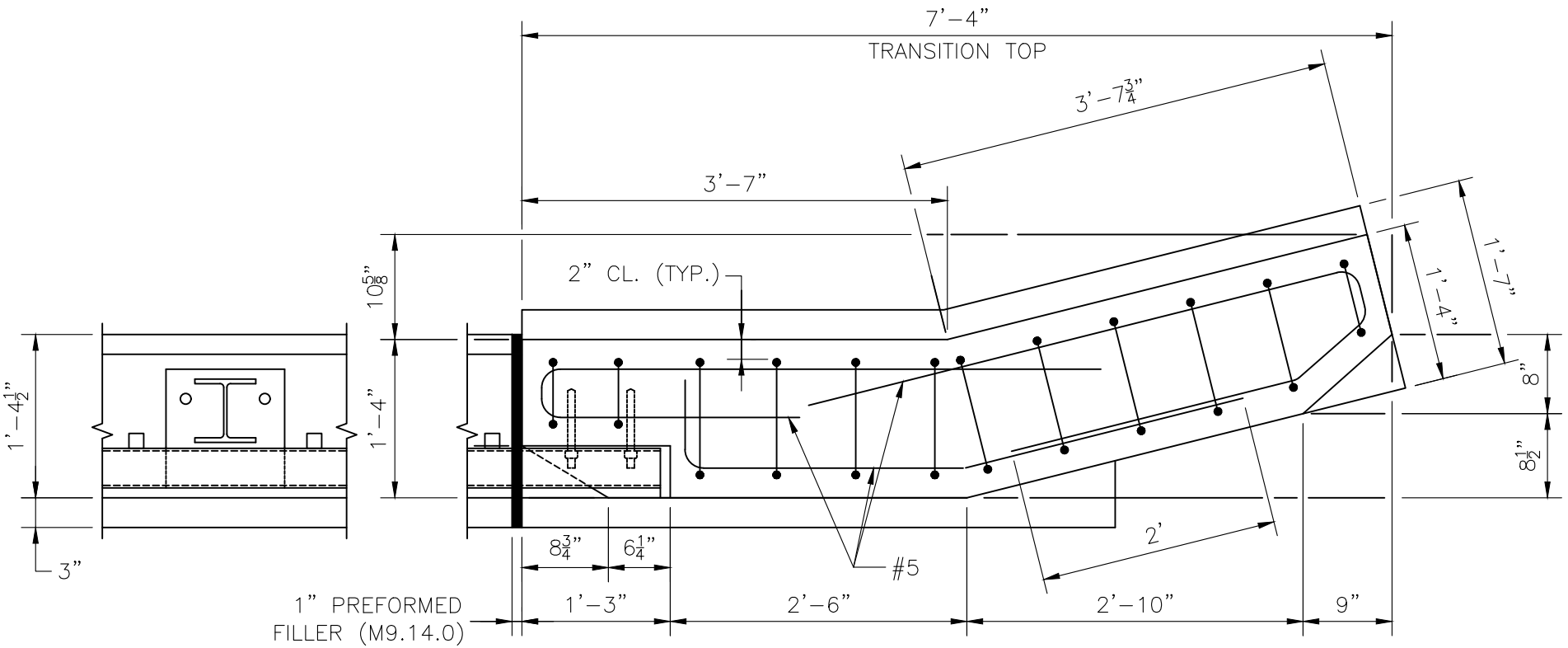
SUBJECT: HIGHWAY GUARDRAIL TRANSITION DETAILS – 2

SHEET: 47 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

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Proposal No. 614177-134228



SECTION 7

SCALE: ¾" = 1'-0"

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DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

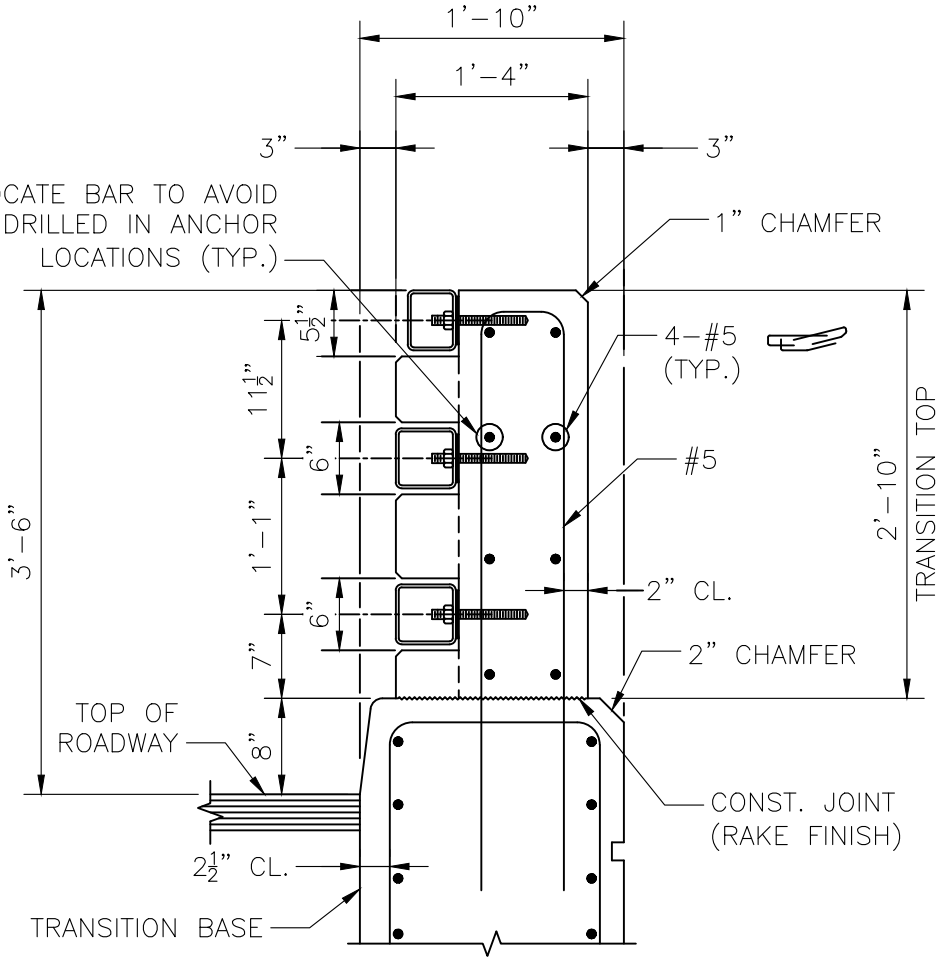
SUBJECT: HIGHWAY GUARDRAIL TRANSITION DETAILS – 3

SHEET: 48 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

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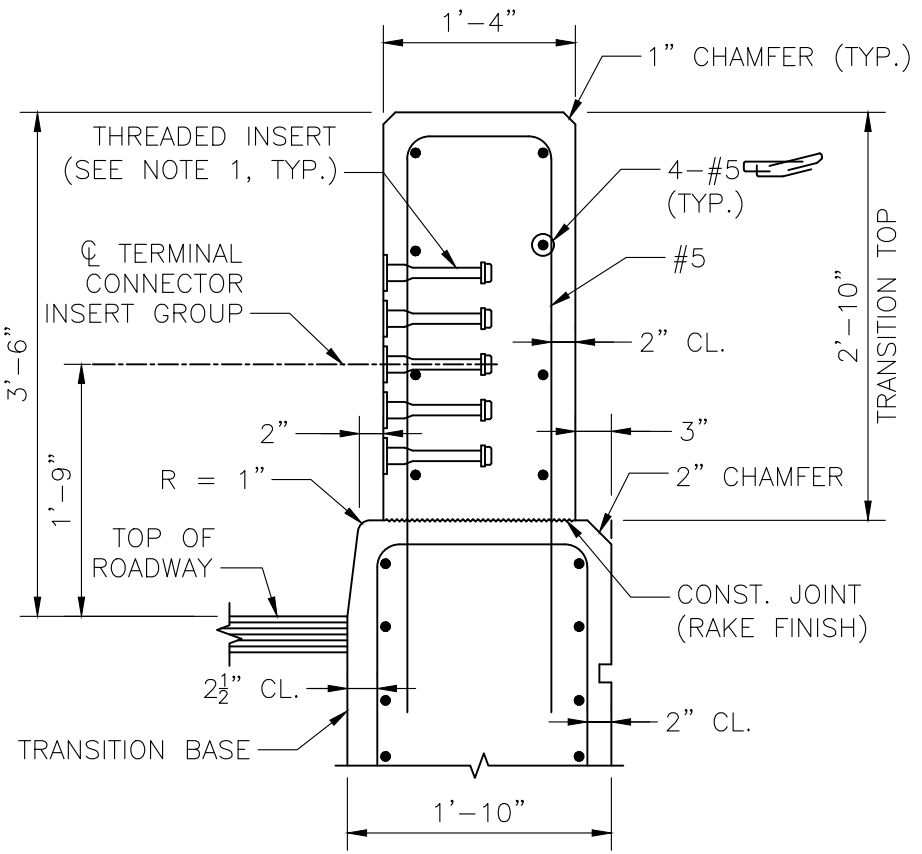
A00803-49

Proposal No. 614177-134228



SECTION 8

SCALE: ¾" = 1'–0"



SECTION 9

SCALE: ¾" = 1'–0"

SECTION AT SAFETY CURB

SCALE: ¾" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: HIGHWAY GUARDRAIL TRANSITION DETAILS – 4

SHEET: 49 OF 59

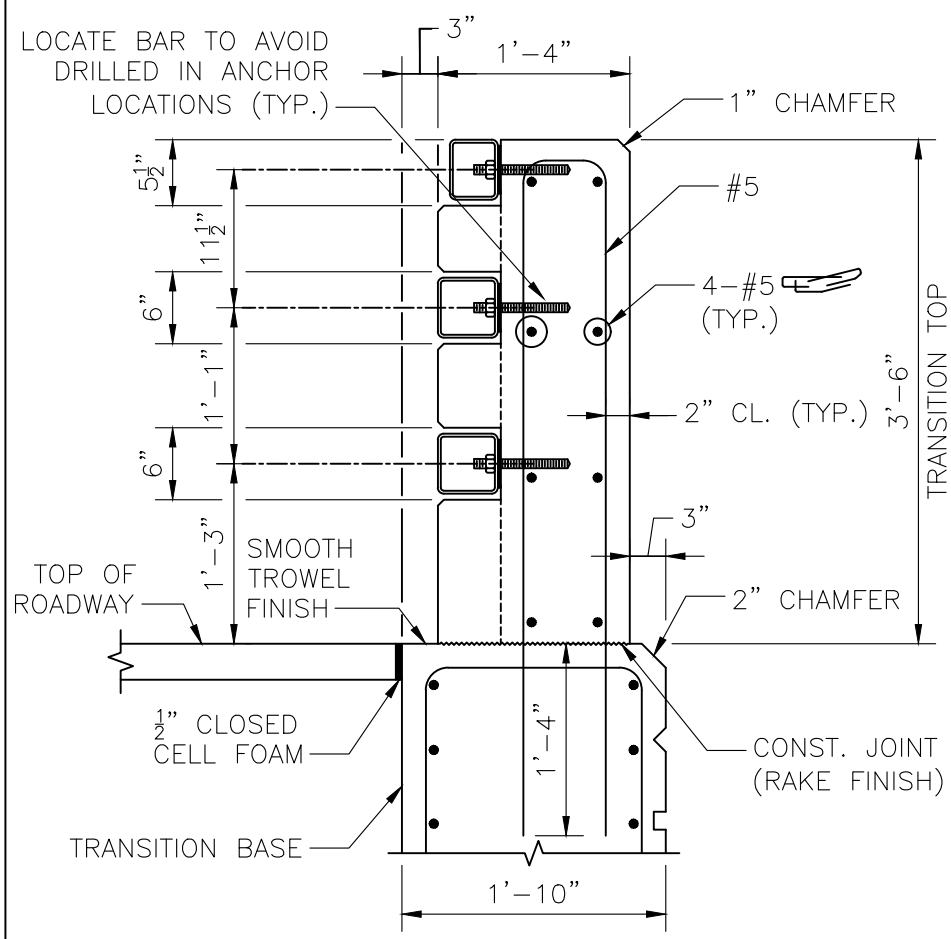
DRAWN BY: ME
DATE: 4/16/2026

CHECKED BY: JON
DATE: 4/16/2026

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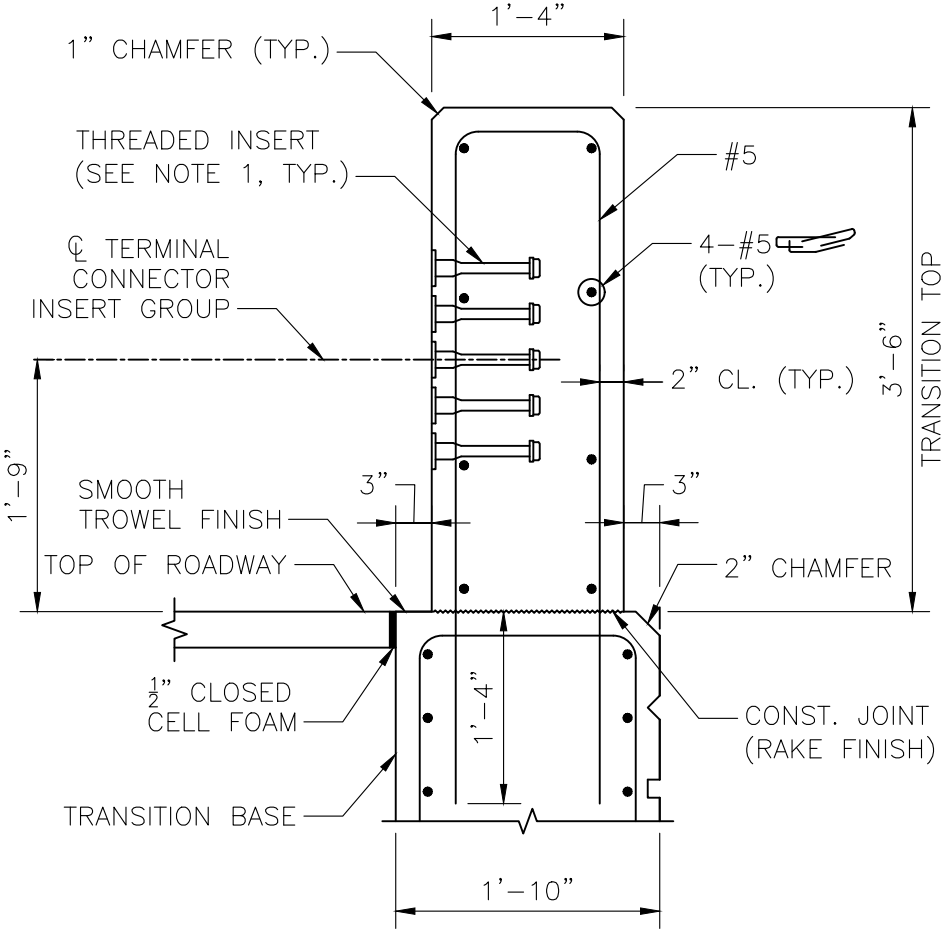
A00803-50

Proposal No. 614177-134228



SECTION 8

SCALE: ¾" = 1'-0"



SECTION 9

SCALE: ¾" = 1'-0"

SECTION AT SIDEWALK

SCALE: ¾" = 1'-0"

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DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: HIGHWAY GUARDRAIL TRANSITION DETAILS – 5

SHEET: 50 OF 59

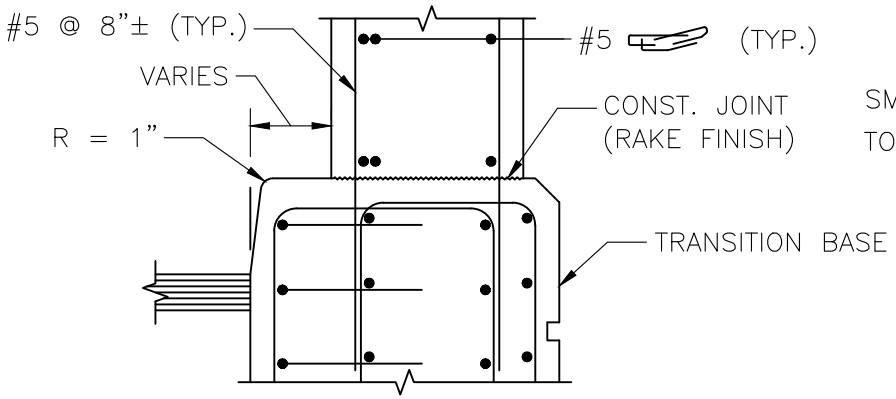
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CHECKED BY: JON
DATE: 4/16/2026

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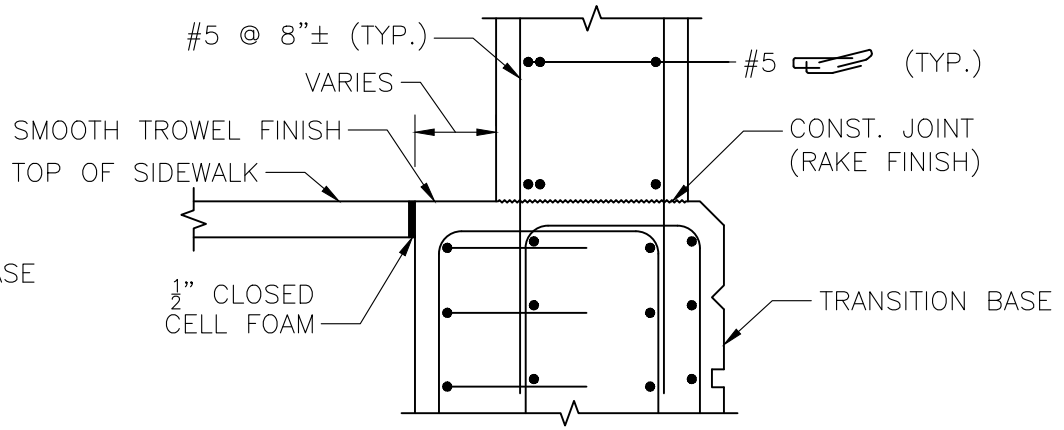


SECTION 10

SCALE: $\frac{3}{4}$" = 1'–0"

SECTION AT SAFETY CURB

SCALE: $\frac{3}{4}$" = 1'–0"



SECTION 10

SCALE: $\frac{3}{4}$" = 1'–0"

SECTION AT SIDEWALK

SCALE: $\frac{3}{4}$" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division

DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: HIGHWAY GUARDRAIL TRANSITION DETAILS – 6

SHEET: 51 OF 59

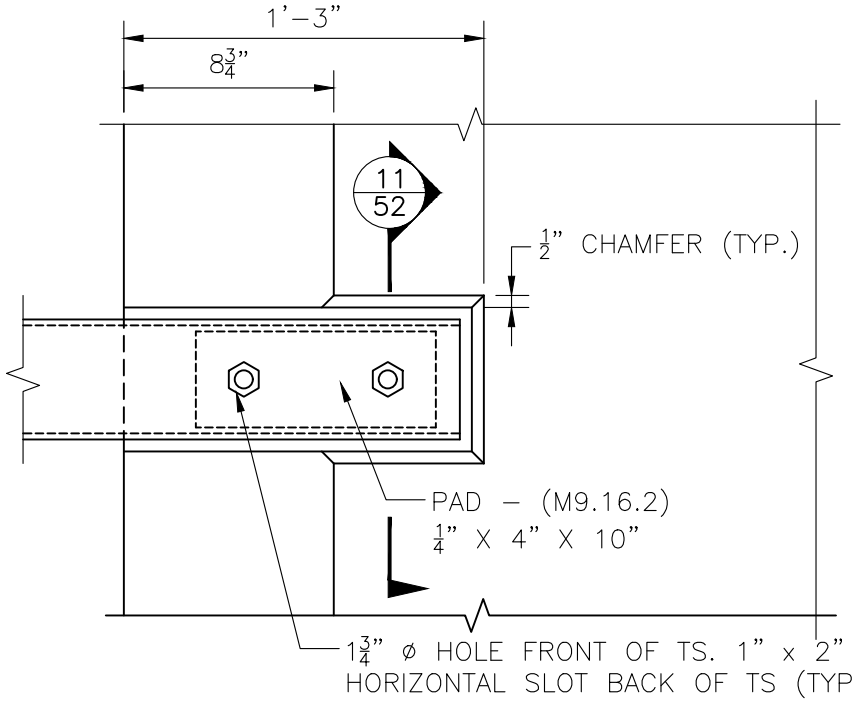
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DATE: 4/16/2026

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DATE: 4/16/2026

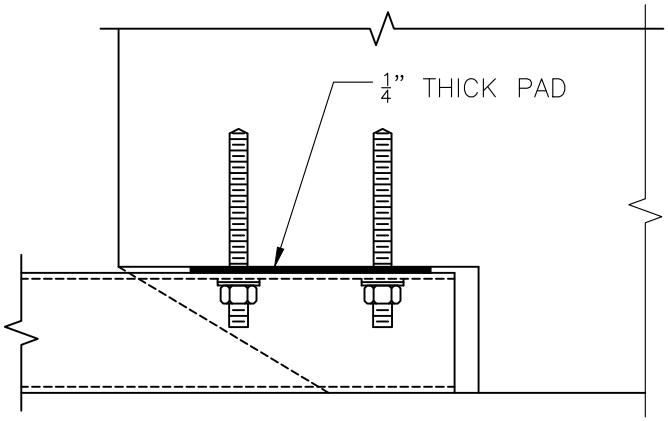
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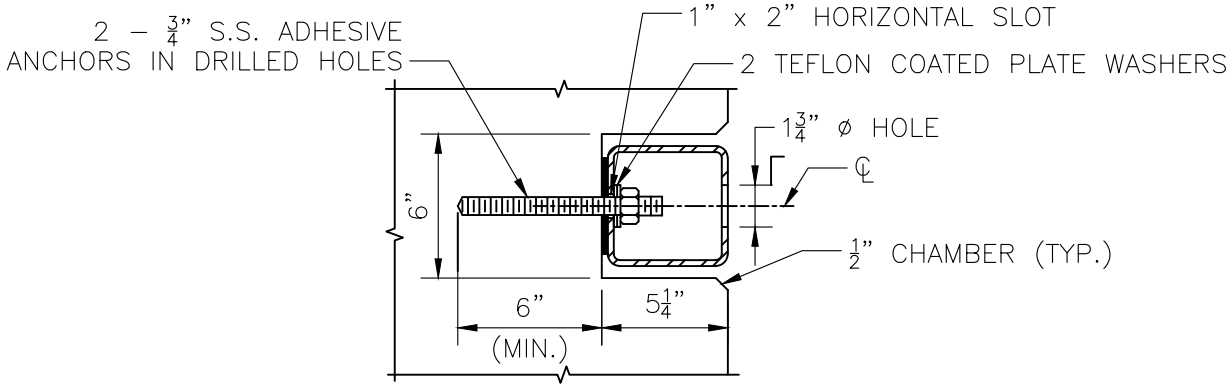
ELEVATION



PLAN

RAIL ATTACHMENT

SCALE: 1½" = 1'–0"



SECTION 11

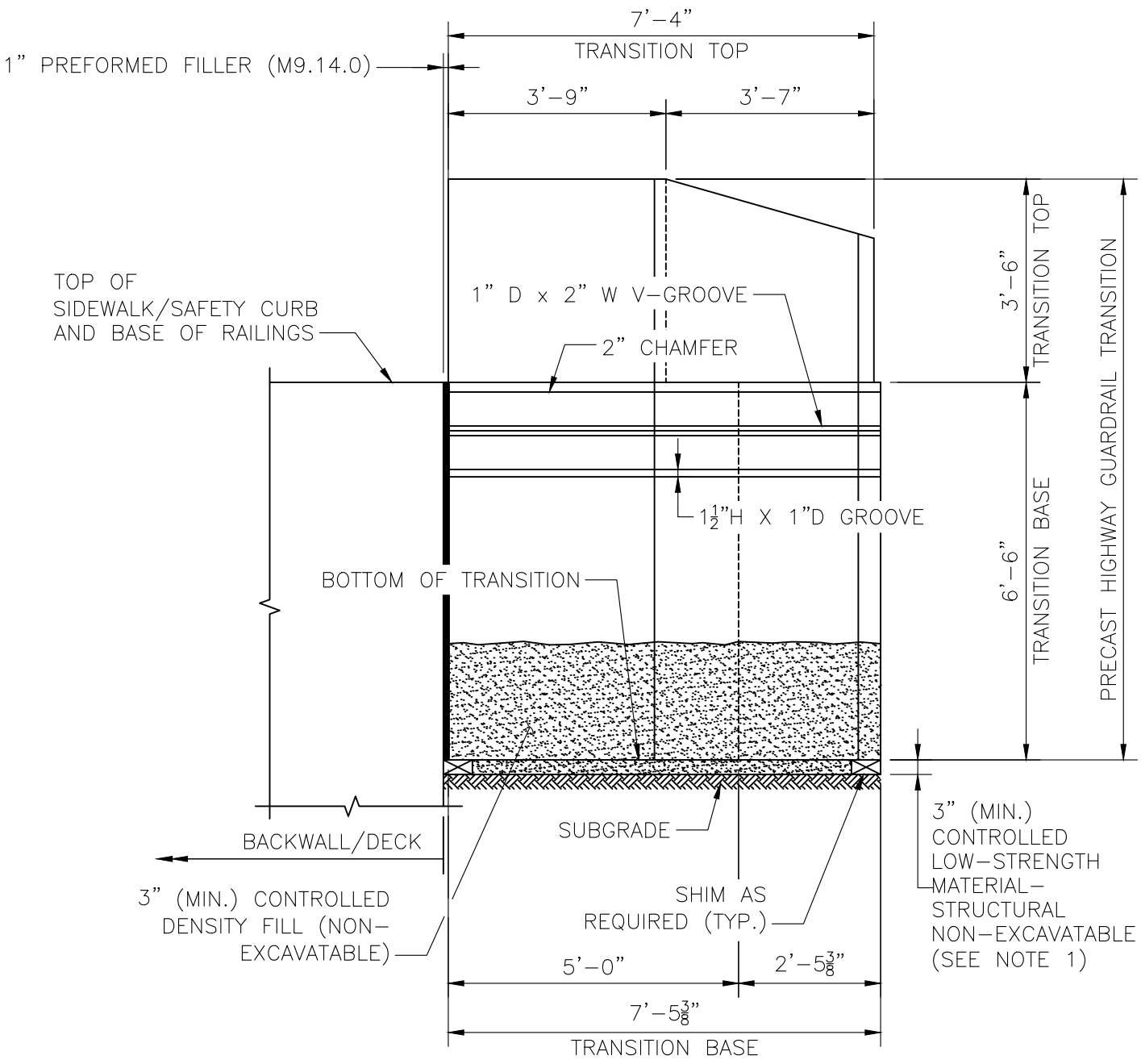
SCALE: 1½" = 1'–0"

massDOT Massachusetts Department of Transportation Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER	SHEET: 52 OF 59
		DRAWN BY: ME DATE: 4/16/2026
	SUBJECT: HIGHWAY GUARDRAIL TRANSITION DETAILS – 7	CHECKED BY: JON DATE: 4/16/2026

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PRECAST GUARDRAIL TRANSITION ELEVATION AT U–WINGWALL

SCALE: ⅜" = 1'–0"

MassDOT Highway Division DISTRICT 3 BRIDGE SECTION	PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER SUBJECT: HIGHWAY GUARDRAIL TRANSITION DETAILS – 8	SHEET: 53 OF 59 DRAWN BY: ME DATE: 4/16/2026 CHECKED BY: JON DATE: 4/16/2026

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HIGHWAY GUARDRAIL TRANSITION NOTES:

1. THREADED INSERTS SHALL BE PREQUALIFIED BY THE MANUFACTURER AS BEING CAPABLE OF DEVELOPING AN ULTIMATE SHEAR CAPACITY OF 20 KIPS PER $\frac{7}{8}$" ø S.S. BOLT. S.S. BOLTS SHALL BE $\frac{7}{8}$" ø X $1\frac{1}{2}$" LONG FULLY THREADED AISI TYPE 304N STAINLESS STEEL. INSERTS FOR $\frac{7}{8}$" ø S.S. BOLTS SHALL BE CAST–IN–PLACE AND GALVANIZED.

2. TOP OF GUARDRAIL TRANSITION, TERMINAL CONNECTOR INSERT GROUP, AND RAIL POCKETS SHALL BE SLOPED TO MATCH THE APPROACH GRADE.

3. USE DATE OF "1959" AS SHOWN.

4. ALL CONCRETE FOR THE HIGHWAY GUARDRAIL TRANSITION SHALL BE 5000 PSI, $\frac{3}{4}$", 685 HP CEMENT CONCRETE.

5. DRILL 2" DIAMETER, $9\frac{1}{2}$" LONG HOLES FOR PLACEMENT OF #5 DOWELS AS SHOWN OR AS RECOMMENDED BY THE GROUT MANUFACTURER. PRIOR TO PLACEMENT OF GROUT AND REINFORCING BARS, THE DRILL HOLES SHALL BE CLEANED AND PREPARED IN ACCORDANCE WITH THE CHOSEN GROUT MANUFACTURER'S WRITTEN SPECIFICATIONS.

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massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N–21–008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: HIGHWAY GUARDRAIL TRANSITION NOTES

SHEET: 54 OF 59
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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" 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" FROM THE FACE OF THE CONCRETE AND REINFORCING STEEL IS NOT ENCOUNTERED.

4. 5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE (ITEM 905.2) SHALL BE USED FOR ALL DEEP PATCH REPAIRS. ALL SHALLOW DEPTH REPAIRS SHALL BE PATCHED WITH CEMENTITIOUS MORTAR FOR PATCHING (ITEM 909.2). CEMENTITIOUS MORTAR SHALL BE 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. SAWCUT ALONG NEAT LINES AROUND REPAIR AREA PRIOR TO CONCRETE EXCAVATION. USE SAWCUT DEPTH OF $\frac{3}{4}$", 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 15 LB. HAMMERS WITH CHISEL POINTS SHALL BE USED FOR CONCRETE REMOVAL. MAXIMUM 15 LB. HAMMERS SHALL BE USED ONCE REINFORCING STEEL IS EXPOSED.

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.

A00803-56

Proposal No. 614177-134228

massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: SUBSTRUCTURE CONCRETE REPAIR NOTES – 1

SHEET: 55 OF 59
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DATE: 4/16/2026
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SUBSTRUCTURE CONCRETE REPAIR NOTES (CONT.):

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. NEW REINFORCEMENT SHALL BE INSTALLED TO SUPPLEMENT EXISTING REINFORCEMENT WHERE THERE IS A LOSS OF 25% OR MORE OF THE ORIGINAL CROSS–SECTIONAL AREA OR WHERE BARS ARE BROKEN, AS DETERMINED BY THE ENGINEER. ADEQUATE LAP LENGTH SHALL BE PROVIDED IN EACH DIRECTION FROM THE AFFECTED AREA. LIMITS OF REPAIR SHALL BE MODIFIED AS NECESSARY TO MEET REINFORCEMENT SPLICE REQUIREMENTS. NEW REINFORCING STEEL SHALL BE PLACED AT THE SAME ELEVATION AS THE EXISTING DETERIORATED OR BROKEN STEEL.

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 (INCIDENTAL TO ITEM 905.2) 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 STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES SECTION 901.65, SUB–SECTION A–2 WILL BE REQUIRED.

SUBSTRUCTURE CONCRETE REPAIR NOTES (CONT.):

18. CONCRETE PIER CAPS, COLUMNS, ABUTMENT SEATS, AND EXPOSED SECTIONS OF ABUTMENT STEMS SHALL (AS DETERMINED BY THE ENGINEER) RECEIVE A CONCRETE PENETRANT/SEALER OR ELASTOMERIC PROTECTIVE COATING (ITEM 964.3) 30 DAYS AFTER ALL REPAIRS HAVE BEEN MADE. CONCRETE PENETRANT/SEALER IS INCIDENTAL TO ITEM 905.2.

19. THE REPAIR OF PIER CAP SHALL BE COMPLETED PRIOR TO THE START OF ANY COLUMN REPAIR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

20. THE CONTRACTOR SHALL FOLLOW THE CONCRETE PIER CAPS AND COLUMNS REPAIR SEQUENCE OUTLINED ON THE PLANS. THE CONTRACTOR WILL HAVE THE OPTION TO SUBMIT AN ALTERNATE REPAIR PROCEDURE FOR REVIEW AND APPROVAL. THE CONTRACTOR MAY ALSO USE TEMPORARY SHORING TO COMPLETE THE REPAIRS IN ONE STAGE. IF SHORING IS PROPOSED TO ACCOMMODATE THE CONTRACTOR'S MEANS AND METHODS OR REPAIR SCHEDULE, NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THIS SHALL REQUIRE APPROVAL OF THE ENGINEER AND THE SHORING WILL BE CONSIDERED INCIDENTAL TO THE REPAIR WORK.

21. THE REPAIR PHASING AND SEQUENCE MAY BE MODIFIED BY THE ENGINEER SO THAT THE SECTIONS WITH WORSE DETERIORATION ARE REPAIRED FIRST.

22. IF THERE IS LESS THAN $1\frac{1}{2}$" CONCRETE COVER, THEN THE CONTRACTOR SHALL BUILD OUT THE FORM TO ENSURE A MINIMUM OF $1\frac{1}{2}$" COVER.

A00803-58

Proposal No. 614177-134228

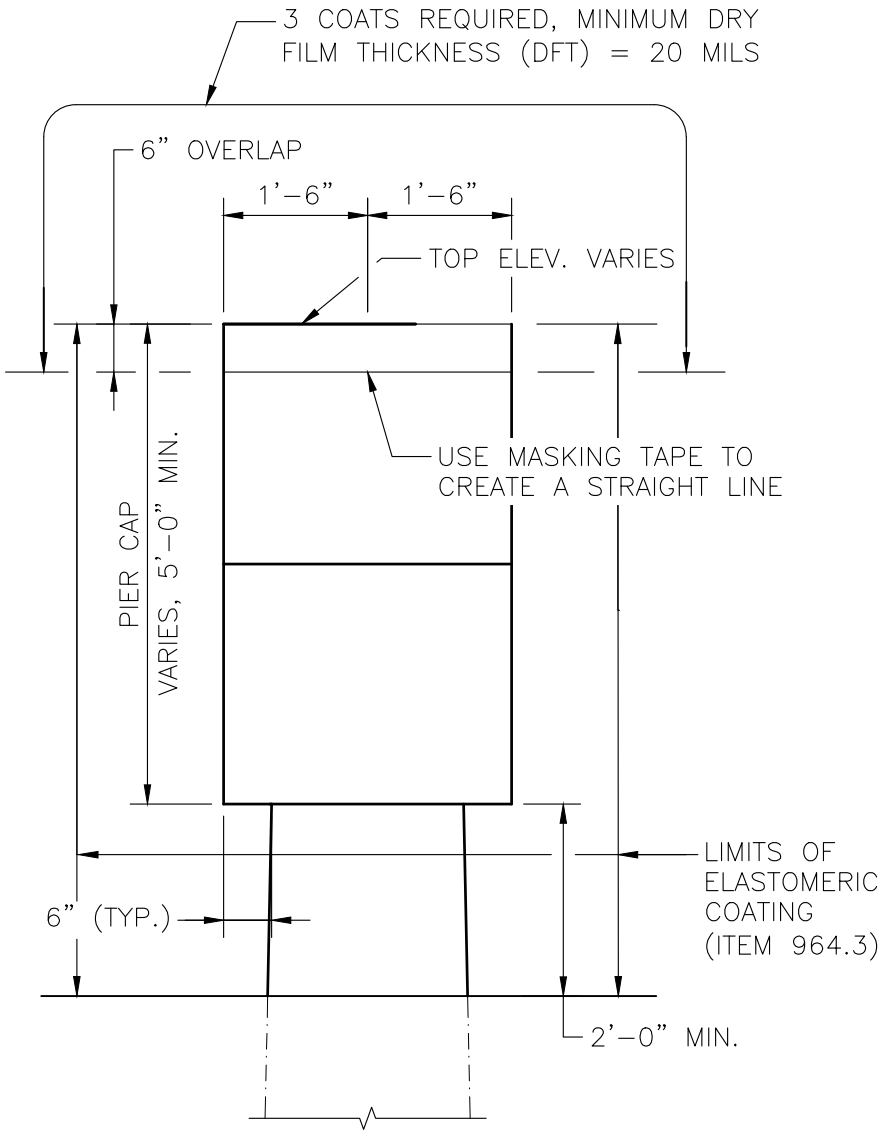
MassDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: SUBSTRUCTURE CONCRETE REPAIR NOTES – 3

SHEET: 57 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

S:\D3\BRIDGE\DESIGN-REVIEW PROJECTS\DESIGN PHASE STRUCTURE MAINTENACE\10.0_SITE SPECIFIC PROJECT\FY 26 SHAREFAIREXTRA\NORTHBRIDGE 614177\DWG_1\3-11-2025 MAIN.DWG



LIMITS OF ELASTOMERIC PROTECTIVE COATING (PIER CAP)

SCALE: $\frac{1}{2}$" = 1'-0"

ELASTOMERIC PROTECTIVE COATING NOTES:

1. THE ELASTOMERIC PROTECTIVE COATING SHALL BE APPLIED TO BRIDGE PIERS, AND OTHER SUBSTRUCTURE ELEMENTS AS DIRECTED BY THE ENGINEER (ITEM 964.3).

2. BRIDGE PIER CAP SHALL ALSO RECEIVE AN ADDITIONAL COAT TO LIMITS AS SHOWN.

3. THE CONTRACTOR SHALL REPAIR ANY SPALLED AND DAMAGED CONCRETE SURFACE UNDER APPROPRIATE ITEMS PRIOR TO APPLYING THE COATING. ANY CONCRETE SURFACE WITH PROFILE AMPLITUDE OF $\frac{1}{8}$" OR MORE, OR AS DIRECTED BY THE ENGINEER, SHALL BE SMOOTHENED. THE CONTRACTOR SHALL SUBMIT THE SMOOTHENING METHOD TO THE ENGINEER FOR APPROVAL. THE CONCRETE SURFACE TO BE SMOOTHENED MAY INCLUDE AREAS FROM THE PREVIOUS REPAIRS. ALL LOOSE MATERIAL SHALL BE REMOVED. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL FILL ANY HOLES AND HONEYCOMB THAT ARE LESS THAN 1/2" IN DIAMETER WITH APPROVED GROUT (REGARDLESS OF DEPTH) TO CREATE A SMOOTH SURFACE PRIOR TO APPLYING THE COATING. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 964.3.

4. ALL NEW CONCRETE SHALL BE CURED FOR A MINIMUM 30 DAYS BEFORE COATING.

5. FOLLOWING THE CURING PERIOD AND PRIOR TO COATING, TEST FOR MOISTURE CONTENT IN THE CONCRETE. 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.

6. PRIOR TO APPLICATION OF WATERPROOF COATING THE CONTRACTOR IS REQUIRED TO SEAL (CAULK) ALONG THE BASE PLATE PERIMETER AND CONCRETE BEAM SEAT.

7. THE CONTRACTOR SHALL PROVIDE COLOR SAMPLE FOR THE ENGINEER'S APPROVAL PRIOR TO ANY APPLICATION.

A00803-59

Proposal No. 614177-134228

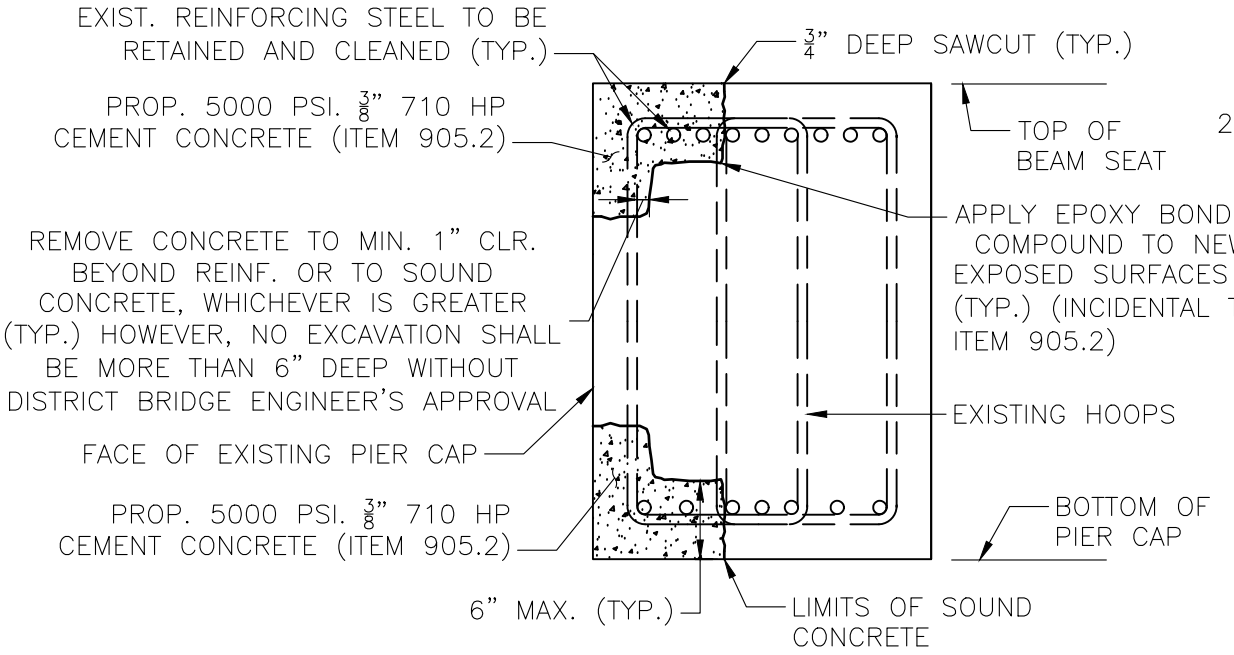
massDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3 BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: LIMITS OF ELASTOMERIC PROTECTIVE COATING (PIER CAP)

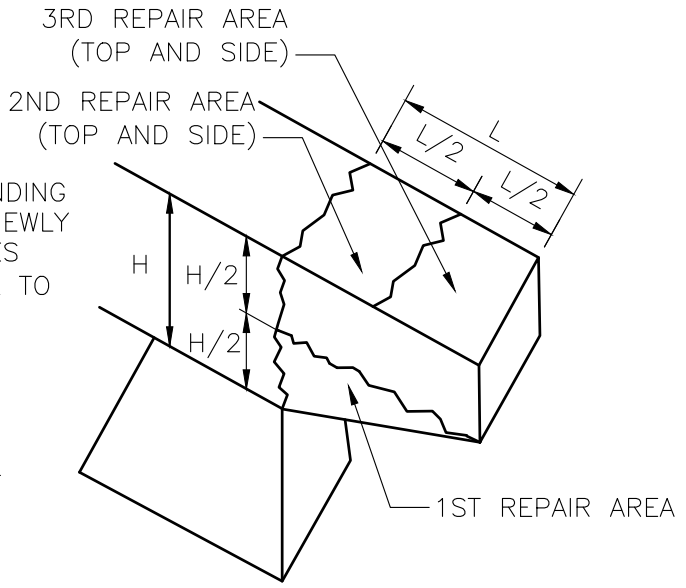
SHEET: 58 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

S:\D3\BRIDGE\DESIGN-REVIEW PROJECTS\DESIGN PHASE STRUCTURE MAINTENACE\10.0_SITE SPECIFIC PROJECT\FY 26 SHAREFAIREXTRA\NORTHBRIDGE 614177\DWG_1\3-11-2025 MAIN.DWG



PIER CAP CONCRETE REPAIR DETAIL

SCALE: N.T.S



PIER CAP OVERHANG CONCRETE REPAIR SEQUENCE

SCALE: N.T.S

PIER CAP OVERHANG REPAIR NOTES:

1. THE PIER CAP OVERHANG REPAIR SHALL ONLY BE PERFORMED AFTER THE CONCRETE PIER CAP REPAIR IN THE TWO ADJACENT COLUMN BAYS IS COMPLETED AND SUFFICIENTLY CURED.

2. INSPECT CONCRETE PIER CAP AND IDENTIFY AREAS IN NEED OF REPAIR. DIVIDE THE CONCRETE PIER CAP OVERHANG INTO REPAIR AREAS AS SHOWN.

3. PERFORM THE REPAIR ON THE DETERIORATED CONCRETE WITHIN THE 1ST REPAIR AREA FIRST. THE REPAIR SHALL FOLLOW THE STEPS OUTLINED ON SHEET 10 (COLUMN DEEP PATCH REPAIR).

4. ONLY AFTER THE REPAIR PATCH WITHIN 1ST REPAIR AREA HAS BEEN CURED FOR AT LEAST 72 HOURS, THE REPAIR ON THE DETERIORATED CONCRETE WITHIN 2ND REPAIR AREA CAN START. START THE CONCRETE REPAIRS WITHIN THE 3RD REPAIR AREA AFTER THE CONCRETE REPAIRS WITHIN 2ND REPAIR AREA HAS BEEN CURED FOR AT LEAST 72 HOURS.

5. NOTIFY THE DISTRICT BRIDGE ENGINEER IF THE OVERHANG LENGTH, L, IS MORE THAN 4 FT, AND/OR THE BEARING DEVICES ARE WITHIN THE OUTER HALF OF THE OVERHANG. ADJUSTMENT TO THE REPAIR AREAS AND/OR SHORING TOWERS MAY BE REQUIRED.

MassDOT Massachusetts Department of Transportation Highway Division
DISTRICT 3
BRIDGE SECTION

PROJECT: 614177, NORTHBRIDGE – BRIDGE PRESERVATION, N-21-008 (1D0), MENDON ROAD OVER THE WEST RIVER

SUBJECT: TYPICAL CONCRETE PIER CAP REPAIR DETAIL AND PIER CAP OVERHANG CONCRETE REPAIR SEQUENCE

SHEET: 59 OF 59
DRAWN BY: ME
DATE: 4/16/2026
CHECKED BY: JON
DATE: 4/16/2026

S:\D3\BRIDGE\DESIGN-REVIEW PROJECTS\DESIGN PHASE STRUCTURE MAINTENACE\10.0_SITE SPECIFIC PROJECT\FY 26 SHAREFAIREXTRA\NORTHBRIDGE 614177\DWG_1\3-11-2025 MAIN.DWG

A00803-60

Proposal No. 614177-134228

DOCUMENT A00804

BRIDGE INSPECTION REPORTS

(ROUTINE AND SPECIAL MEMBER)

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

STRUCTURES INSPECTION FIELD REPORT

ROUTINE & SPECIAL MEMBER INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
03	1D0	N-21-008

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
NORTHBRIDGE	N21008-1D0-MUN-NBI	002.366	A:OPEN	SEP 11, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
HWY MENDON RD		1959	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
WATER WEST RIVER	Urban Minor Arterial	M. Azizi

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	Town Agency	Town Agency	K. Houatchanthara

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	24°C	R. ROGERS, M. DYGON

ITEM 58 — DECK: 4

		DEF
1.Wearing Surface	4	S-A
2.Deck Condition	4	S-A
3.Stay in Place Forms	N	-
4.Curbs	7	-
5.Median	N	-
6.Sidewalks	6	M-P
7.Parapets	N	-
8.Railing	5	S-P
9.Anti Missile Fence	N	-
10.Drainage System	N	-
11.Lighting Standards	N	-
12.Utilities	N	-
13.Deck Joints	4	S-A
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	N	S
	250	220

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: 4

			DEF
1.Stringers		N	-
2.Floorbeams		N	-
3.Floor System Bracing		N	-
4.Girders or Beams		4	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	M-P
8.Cover Plates		N	-
9.Bearing Devices		5	S-A
10.Diaphragms/Cross Frames		5	S-P
11.Rivets & Bolts		6	M-P
12.Welds		6	M-P
13.Member Alignment		7	-
14.Paint/Coating		4	S-A
15.		N	-

Year Painted	1979

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			7	
a. Pedestals	N	N		-
b. Bridge Seats	N	7		-
c. Backwalls	N	7		-
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	H		-
j. Scour	N	8		-
k. Settlement	N	8		-
l.	N	N		-
m.	N	N		-
2. Piers or Bents			5	
a. Pedestals	N	N		-
b. Caps	N	5		S-A
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	6		M-P
e. Pointing	N	N		-
f. Footing	N	H		-
g. Piles	N	H		-
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

RTN(1)7-96

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

ITEM 61 — CHANNEL & CHANNEL PROTECTION — 7

	Dive	Cur	DEF
1.Channel Scour	N	8	-
2.Embankment Erosion	N	8	-
3.Debris	N	7	-
4.Vegetation	N	7	-
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	7	-
7.Aggradation	N	8	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:

Tidal ( ) High ( ) Moderate ( ) Low (X) None ( )

ITEM 61 (Dive Report): N ***ITEM 61 (This Report):*** 7

93b-U/W INSP. DATE: 00/00/0000

ITEM 36 — *TRAFFIC SAFETY*

	36	COND	DEF
A. Bridge Railing	0	5	S-P
B. Transitions	0	N	-
C. Approach Guardrail	0	5	S-P
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: 09/15/2015 **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 Actual Field Measurement

Posted Clearance

	N ft	N in	S ft	S in	meter
		0		0	
		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	N	N
Ladder	N	N
Boat	N	N
Waders	P	N
Inspector 50	Y	Y
Rigging	N	N
Staging	N	N
Traffic Control	P	N
RR Flagger	N	N
Police	Y	Y
Other:		
	N	N

TOTAL HOURS 8

PLANS (Y/N): N

(V.C.R.) (Y/N): N

TAPE#: _____

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 06/01/2014

Inspection data at time of existing rating

I 58: **6** I 59: **5** I 60: **5** Date : 09/24/2013

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].

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

STRUCTURES INSPECTION FIELD REPORT

ROUTINE & SPECIAL MEMBER INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
03	1D0	N-21-008

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	90-ROUTINE INSP. DATE	93*-SPEC. MEMB. INSP. DATE
NORTHBRIDGE	N21008-1D0-MUN-NBI	002.366	Sep 11, 2023	Sep 11, 2023

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	*YR REHAB'D (NON 106)
HWY MENDON RD		1959	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
WATER WEST RIVER	Urban Minor Arterial	M. Azizi

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	Town Agency	Town Agency	K. Houatchanthara

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Cloudy	24°C	R. ROGERS, M. DYGON

WEIGHT POSTING — *Not Applicable* X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 09/15/2015 EJDMT Date: 00/00/0000

Signs In Place (Y=Yes,N=No, NR=Not Required) / Legibility/ Visibility

At bridge E	At bridge W	Advance E	Advance W

PLANS (Y/N): N

(V.C.R.) (Y/N): N

TAPE#: _____

RATING

Rating Report (Y/N): Y Date: 06/01/2014

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: 6 I 59: 5 I 60: 5 I 62: - Date : 09/24/2013

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 58.2 - Deck Condition	N		See remarks in comments section.	4	4	19	37	59	S-A
B	Item 59.4 - Girders or Beams	N	7	See remarks in comments section.	4	4	19	23	36	S-A
C										
D										
E										

List of field tests performed:

	I-58	I-59	I-60	I-62
(Overall Previous Condition)	4	4	5	-
(Overall Current Condition)	4	4	5	-

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**

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 11, 2023**

REMARKS

BRIDGE ORIENTATION

According to the rating report, the approaches are west and east and the elevations are south and north. This is a 3 span steel beam bridge with 5 beams and 4 bays numbered from south to north.
The spans and 2 hammerhead piers are numbered from west to east. The river flows from north to south.
See **sketch 1**.

GENERAL REMARKS

No significant changes were noted since the last special member inspection.

ITEM 58 - DECK

Item 58.1 - Wearing Surface

The wearing surface has heavy transverse and longitudinal cracking with areas of breakup and patches throughout all spans; see **photo 1**. Both shoulders have moderate breakup and raveling throughout; see **photo 2**.
At both pier joints there is breakup exposing the concrete headers; see **photo 3**.

Item 58.2 - Deck Condition

All spans have evidence of water retention and infiltration. Deck underside has many areas of hairline transverse and map cracking with moisture staining and efflorescence; see **photo 4**.

Span 1, south soffit 6' from west end, has a 1' long x 6" wide x 1.5" deep spall with exposed rusted rebar.

Span 2, bay 4 near the 2nd diaphragm from west end, has a full width x 2' long delamination.

Spans 2 and 3, bays 2 and 3, have heavy efflorescence buildup (icicles) at some of the transverse and map cracks; see **photo 5**.

At both abutments there are minor shallow spalls with exposed rusted rebar behind the end diaphragms and along the top flanges.

Item 58.6 - Sidewalks

South safety walk in span 2 has a 6' long minor delamination crack; see **photo 6**.

There is minor vegetation growth in all joints.

Item 58.8 - Railing

Both rails' pier expansion sleeves have up to 100% section loss throughout; see **photo 7**.

Item 58.13 - Deck Joints

Both pier joints have evidence of water infiltration. Both joints have been paved over, and the patched pavement over the joints has heavy breakup, exposing the concrete headers; see **photos 3 and 8**.

Both pier caps have debris buildup below the joints, heaviest at pier 1 bay 1.

APPROACHES

Approaches a - Appr. Pavement Condition

Both approaches have been repaved since the last inspection.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 11, 2023**

REMARKS

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams
Beams are W33 x 141:
original web section: 0.605"
original flange section: 0.960".

Both fascia beams' top and bottom flanges have moderate surface rust throughout.

All pier beam ends (below deck joints) have heavy surface rust and moderate rust flaking. The rust flaking encompasses full beam height up to 1' from the ends, including connection plates and bearings.

Pier 1 (Span 1 east ends, span 2 west ends)
Span 1 - beam 1; see **photo 9**
East 8' web bottom 4" and flange have heavy rust flaking with 0.26" remaining at web at 1' from end.
Web section increases to 0.39" at 4' from end. North bottom flange at bearing face has 0.37" remaining. End diaphragm connection plate has a 1" ø hole.

Span 1 - beam 2; see **photo 10**
East 5' web bottom 4" has heavy rust flaking with 0.31" remaining at 1' from end.
Web section increases to 0.48" at 3' from end. Web top end behind diaphragm connection plate has 100% section loss 6" high x 2" long.

Span 1 - beam 4; see **photo 11**
East 4' web bottom 3" has heavy rust flaking with 0.34" remaining at 1' and 3' from end.
Web bottom end over and behind bearing has up to 100% section loss 15" long x 1" inch high.
North bottom flange at bearing has 0.37" remaining, returning to original section at 1.5' from bearing.

Span 1 - beam 5; see **photo 12**
East 7' web bottom 4" has 0.25" remaining.
Bottom flange has 0.39" remaining at bearing, returning to original section 1.5' from bearing.

Span 2 - beam 1; see **photo 13**
West 4' web bottom 4" has 0.32" remaining.
South bottom flange has 0.31" remaining up to 1' from bearing face.

Span 2 - beams 2 and 3; see **photo 14**
West 4' web bottom 4" has 0.41" remaining.

Span 2 - beam 4; see **photo 15**
West 4' web bottom 4" has 0.29" remaining.
South bottom flange has 0.7" remaining up to 1' from bearing face.

Span 2 - beam 5; see **photo 16**
West 7' web bottom 4" has 0.31" remaining.
South bottom flange has 0.40" remaining up to 1' from bearing face.

Pier 2 (Span 2 east ends, span 3 west ends)
Span 2 - beam 1; see **photo 17**
East 8' web bottom 4" has 0.28" remaining up to 1' from end. Section increases to 0.54" at 4' from end.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 11, 2023**

REMARKS

Span 2 - beam 4; see **photo 18**
West 4' web bottom 4" has 0.21" remaining.

Span 2 - beam 5; see **photo 19**
East 4' web bottom 4" has 0.25" remaining up to 1' from end. Section increases to 0.50" at 4' from end.
South bottom flange has 0.20" remaining up to 3.5' from bearing face.

Span 3 - beam 1; see **photo 20**
West 3' web bottom 3" has 0.31" remaining.

Item 59.7 - Conn Plt's, Gussets & Angles
See Item 59.14 - Paint/Coating.

Item 59.9 - Bearing Devices
All abutment fascia bearings have moderate surface rust. All interior abutment bearings have isolated minor surface rust. (Abutments have deck over backwall ends above).

West abutment bearing 3 south side has 1 missing anchor nut; see **photo 21**.

East abutment bearing 4 north side has 1 missing anchor nut.

All pier bearings have heavy rust flaking. All pier 1 span 2 sole plates are out of alignment with the masonry plates by up to 3", i.e. sole plate east faces are set back 3" from masonry plate east faces.

Item 59.10 - Diaphragms/Cross Frames
West abutment bay 3 end diaphragm is not properly welded to the beam 4 connection plate due to misalignment/deformation of the plate (possibly as-built). It only has one vertical weld at the backwall side, and no horizontal and vertical welds on the opposite (east) side.

Both piers' concrete end diaphragms have moderate to heavy delamination cracking and spalling with bleeding rust and some exposed rusted rebar, heaviest at pier 2 span 2 bay 1, and at pier 1 span 1 bays 2 through 4; see **photo 22**.

Item 59.11 - Rivets & Bolts
In span 3 bay 3, the 1st steel diaphragm from the west is missing one connection bolt at beam 3.

Item 59.12 - Welds
See Item 59.10 - Diaphragm/Cross Frame.

Item 59.14 - Paint/Coating
Both fascia beams' outside faces have heavy paint peel and fading; see **photo 23**. All interior beams have moderate to heavy paint peel and fading throughout. All beam ends have heavy paint peel and surface rust up to 6' out.

See Item 59.4 - Girders or Beams.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.d - Breastwalls
West breastwall top at bay 1 has a 3' long minor horizontal crack.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 11, 2023**

REMARKS

Item 60.1.f - Slope Paving/Rip-Rap
Both slopes have several trees and brush growing through both ends.

Item 60.2 - Piers or Bents
Item 60.2.b - Caps
Both pier caps have moderate water and rust staining throughout, heaviest below bays 1 and 4 (below gutter-lines). Both pier cap undersides have several 3" diameter surface spalls. Both caps have debris buildup below the joints, heaviest at pier 1 bay 1.

Pier 1 cap - west face; see **photo 24**
• Under bay 3 near center; 3' high x 1' wide delamination/spall.
• Under bay 4 at top; 3' wide x 2' high delamination.

• South end under fascia bearings; full height x up to 0.25" wide cracks with minor spalling and/or bleeding rust and efflorescence; see **photo 25**.

• North end under fascia bearings; full height x 0.06" wide crack with minor efflorescence; see **photo 26**.

Pier 2 cap
• South end under fascia bearings; full height x up to 0.375" wide cracks with bleeding rust and efflorescence.

Item 60.2.d - Stems/Webs/Pierwalls
Pier 1 stem top west side has two 6" diameter shallow spalls with exposed rusted rebar.

Pier 2 stem southeast corner has a 6' high x up to 0.125" wide vertical delamination crack with efflorescence.

TRAFFIC SAFETY

Item 36a - Bridge Railing
Both bridge rails are quad steel pipe rails with steel channel posts.

See Item 58.8 - Railing.

Item 36c - Approach Guardrail
Approach traffic safety features are concrete posts with double cables anchored to the end posts.

Many approach posts have cracks and spalls/scaling up to full height, some with exposed rusted rebar. Cables have moderate surface rust throughout.

Northeast approach rail has minor collision damage 9 posts back from the end post; see **photo 27**.

Sketch / Photo Log
Sketch 1 : Location map
Sketch 2 : Framing plan from rating book
Photo 1 : Typical wearing surface condition (looking west)
Photo 2 : Typical gutter line
Photo 3 : Pier 1 joint
Photo 4 : Typical deck condition (span 1 shown)
Photo 5 : Span 2 deck condition (looking east)
Photo 6 : South safety walk
Photo 7 : Typical rail expansion sleeve condition

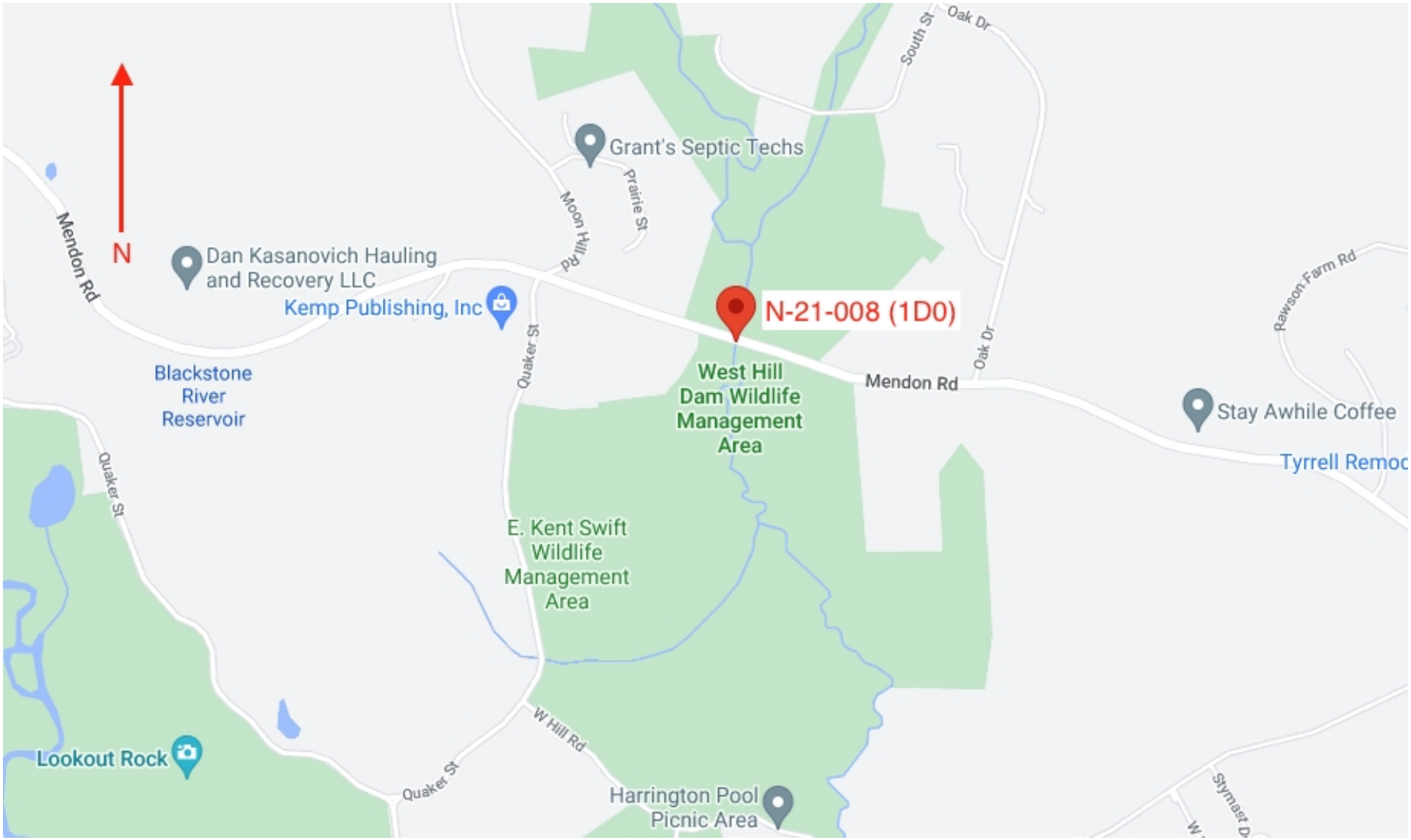
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 11, 2023**

REMARKS

Photo 8 : Pier 2 joint
Photo 9 : Span 1 - pier 1, beam 1
Photo 10 : Span 1 - pier 1, beam 2
Photo 11 : Span 1 - pier 1, beam 4
Photo 12 : Span 1 - pier 1, beam 5
Photo 13 : Span 2 - pier 1, beam 1
Photo 14 : Span 2 - pier 1, beam 2
Photo 15 : Span 2 - pier 1, beam 4
Photo 16 : Span 2 - pier 1, beam 5
Photo 17 : Span 2 - pier 2, beam 1
Photo 18 : Span 2 - pier 2, beam 4
Photo 19 : Span 2 - pier 2, beam 5
Photo 20 : Span 3 - pier 2, beam 1
Photo 21 : West abutment bearing 3
Photo 22 : Typical end diaphragm
Photo 23 : Typical fascia paint condition
Photo 24 : Pier 1 west face
Photo 25 : Pier 1 south end
Photo 26 : Pier 1 north end
Photo 27 : Northeast approach

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

SKETCHES



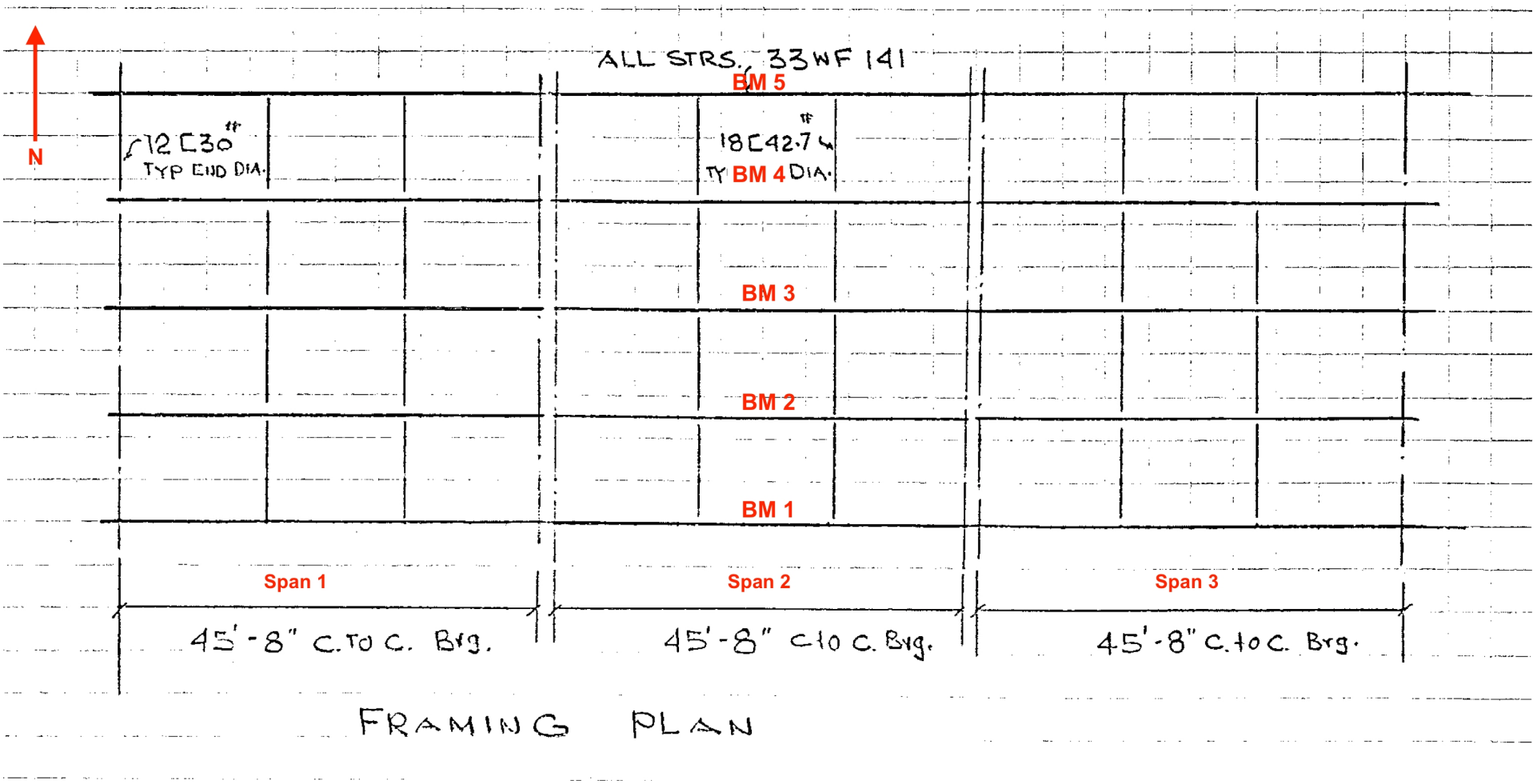
Sketch 1: Location map

A00804-10

Proposal No.614177-134228

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

SKETCHES



Sketch 2: Framing plan from rating book

A00804-11

Proposal No.614177-134228

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 1: Typical wearing surface condition (looking west)



Photo 2: Typical gutter line

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 3: Pier 1 joint



Photo 4: Typical deck condition (span 1 shown)

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 5: Span 2 deck condition (looking east)



Photo 6: South safety walk

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 7: Typical rail expansion sleeve condition



Photo 8: Pier 2 joint

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 9: **Span 1 - pier 1, beam 1**



Photo 10: **Span 1 - pier 1, beam 2**

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 11, 2023**

PHOTOS



Photo 11: Span 1 - pier 1, beam 4



Photo 12: Span 1 - pier 1, beam 5

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 13: Span 2 - pier 1, beam 1



Photo 14: Span 2 - pier 1, beam 2

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 11, 2023**

PHOTOS



Photo 15: Span 2 - pier 1, beam 4



Photo 16: Span 2 - pier 1, beam 5

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 17: Span 2 - pier 2, beam 1



Photo 18: Span 2 - pier 2, beam 4

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 19: Span 2 - pier 2, beam 5



Photo 20: Span 3 - pier 2, beam 1

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 21: West abutment bearing 3



Photo 22: Typical end diaphragm

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 11, 2023**

PHOTOS



Photo 23: Typical fascia paint condition



Photo 24: Pier 1 west face

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 11, 2023

PHOTOS



Photo 25: Pier 1 south end



Photo 26: Pier 1 north end

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 11, 2023**

PHOTOS



Photo 27: Northeast approach

National Bridge Element Inspection

BDEPT# **N-21-008**
B.I.N. **1D0**
Item 8 **N21008-1D0-MUN-NBI**
Span Group **1**
Town **Northbridge**
District **3**

Date **09/11/2023**
District Bridge Inspection Eng'r **Mahmood Azizi**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Kristen Houatchanthara**
Team Member(s) **Robert Rogers, Michael Dygon**

El #	Element Name	Units	Env.	Total Q.	% or Q	State 1	State 2	State 3	State 4
12	**Re Concrete Deck**	sq feet	2	4,589.000	☐ %	3,988.000	160.000	441.000	
Notes :	moderate map cracking with dampness and efflorescence								
> 1080	*Delamination/Spall/Patched Area*	sq feet	2	1.000	☐ %			1.000	
Notes :									
> 1130	*Cracking (RC and Other)*	sq feet	2	600.000	☐ %		160.000	440.000	
Notes :									
> 510	Wearing Surfaces	sq feet	2	3,948.000	☐ %		592.200	2,368.800	987.000
Notes :									
> > 3230	*Effectiveness (Wearing Surface)*	sq feet	2	3,948.000	☒ %		15.00	60.00	25.00
Notes :									
107	**Steel Opn Girder/Beam**	feet	2	587.000	☐ %		587.000		
Notes :									
> 1000	*Corrosion*	feet	2	587.000	☒ %		100.00		
Notes :									
> 515	Steel Protective Coating	sq feet	2	4,831.000	☐ %		2,415.500	2,415.500	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	4,831.000	☒ %		50.00	50.00	
Notes :									
107	**Steel Opn Girder/Beam**	feet	3	100.000	☐ %		35.000	65.000	
Notes :									
> 1000	*Corrosion*	feet	3	100.000	☐ %		35.000	65.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	823.000	☐ %			329.200	493.800
Notes :									

National Bridge Element Inspection

BDEPT# **N-21-008**
B.I.N. **1D0**
Item 8 **N21008-1D0-MUN-NBI**
Span Group **1**
Town **Northbridge**
District **3**

Date **09/11/2023**
District Bridge Inspection Eng'r **Mahmood Azizi**
Inspecting Agency **Mass. Highway Dept.**
Team Leader **Kristen Houatchanthara**
Team Member(s) **Robert Rogers, Michael Dygon**

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	823.000	☒ %			40.00	60.00
Notes :									
210	**Re Conc Pier Wall**	feet	3	30.000	☐ %	29.000		1.000	
Notes :									
> 1130	*Cracking (RC and Other)*	feet	3	1.000	☐ %			1.000	
Notes :									
215	**Re Conc Abutment**	feet	2	67.000	☐ %	64.000	3.000		
Notes :									
> 1130	*Cracking (RC and Other)*	feet	2	3.000	☐ %		3.000		
Notes :									
233	**Pre Conc Pier Cap**	feet	3	67.000	☐ %	55.000	8.000	4.000	
Notes :									
> 1080	*Delamination/Spall/Patched Area*	feet	3	10.000	☐ %		8.000	2.000	
Notes :									
> 1110	*Cracking (PSC)*	feet	3	2.000	☐ %			2.000	
Notes :									
302	**Compressn Joint Seal**	feet	2	56.000	☐ %				56.000
Notes :									
311	**Moveable Bearing**	each	3	15	☐ %				15
Notes :									
> 2210	*Movement*	each	3	15	☐ %				15
Notes :									
> 515	Steel Protective Coating	sq feet	3	90.000	☐ %				90.000
Notes :									

National Bridge Element Inspection

BDEPT#	**N-21-008**	Date	**09/11/2023**
B.I.N.	**1D0**	District Bridge Inspection Eng'r	**Mahmood Azizi**
Item 8	**N21008-1D0-MUN-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Kristen Houatchanthara**
Town	**Northbridge**	Team Member(s)	**Robert Rogers, Michael Dygon**
District	**3**		

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	90.000	☐ %				90.000
Notes :									
313	**Fixed Bearing**	each	2	10	☐ %	6	4		
Notes :									
> 1000	*Corrosion*	each	2	4	☐ %		4		
Notes :									
> 515	Steel Protective Coating	sq feet	2	60.000	☐ %		44.000	16.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	2	60.000	☐ %		44.000	16.000	
Notes :									
313	**Fixed Bearing**	each	3	5	☐ %		5		
Notes :									
> 1000	*Corrosion*	each	3	5	☐ %		5		
Notes :									
> 515	Steel Protective Coating	sq feet	3	30.000	☐ %			30.000	
Notes :									
> > 3440	*Eff (Stl Protect Coat)*	sq feet	3	30.000	☐ %			30.000	
Notes :									
330	**Metal Bridge Railing**	feet	3	264.000	☐ %		261.000	3.000	
Notes :									
> 1000	*Corrosion*	feet	3	264.000	☐ %		261.000	3.000	
Notes :									
> 515	Steel Protective Coating	sq feet	3	1,056.000	☐ %			1,056.000	
Notes :									

National Bridge Element Inspection

BDEPT#	**N-21-008**	Date	**09/11/2023**
B.I.N.	**1D0**	District Bridge Inspection Eng'r	**Mahmood Azizi**
Item 8	**N21008-1D0-MUN-NBI**	Inspecting Agency	**Mass. Highway Dept.**
Span Group	**1**	Team Leader	**Kristen Houatchanthara**
Town	**Northbridge**	Team Member(s)	**Robert Rogers, Michael Dygon**
District	**3**		

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	1,056.000	☐ %			1,056.000	
Notes :									

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

STRUCTURES INSPECTION FIELD REPORT

SPECIAL MEMBER INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
03	1D0	N-21-008

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	90-ROUTINE INSP. DATE	93*-SPEC. MEMB. INSP. DATE
NORTHBRIDGE	N21008-1D0-MUN-NBI	002.366	Sep 11, 2023	Sep 19, 2024

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	*YR REHAB'D (NON 106)
HWY MENDON RD		1959	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
WATER WEST RIVER	Urban Minor Arterial	M. Azizi

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
302 : Steel Stringer/Girder	Town Agency	Town Agency	L. Fijol

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
1 : Concrete Cast-in-Place	Clear	24°C	V. E. SLACK

WEIGHT POSTING — *Not Applicable* X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 09/15/2015 EJDMT Date: 00/00/0000

Signs In Place (Y=Yes,N=No, NR=Not Required) / Legibility/ Visibility

At bridge E	At bridge W	Advance E	Advance W

PLANS (Y/N): N

(V.C.R.) (Y/N): N

TAPE#:

RATING

Rating Report (Y/N): Y Date: 06/01/2014

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: 6 I 59: 5 I 60: 5 I 62: - Date : 09/24/2013

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 58.2 - Deck Condition	N		See remarks in comments section.	4	4	19	37	59	S-A
B	Item 59.4 - Girders or Beams	N	7	See remarks in comments section.	4	4	19	23	36	S-A
C										
D										
E										

List of field tests performed:

D-Meter testing throughout beam ends

	I-58	I-59	I-60	I-62
(Overall Previous Condition)	4	4	5	-
(Overall Current Condition)	4	4	5	-

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**

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 19, 2024**

REMARKS

BRIDGE ORIENTATION

According to the rating report, the approaches are West and East and the elevations are South and North. This is a 3 span steel beam bridge with 5 beams and 4 bays numbered from South to North. The spans and 2 hammer head piers are numbered from West to East. The river flows from North to South. **See sketches 1 and 2.**

ITEM 58 - DECK

Item 58.2 - Deck Condition

All spans have evidence of water retention and infiltration, compromising slab structural integrity. Deck underside has many areas of hairline transverse and map cracking with moisture staining and efflorescence. **See Photos 1 and 2.**

Span 1 south soffit 6' from west end has a 1' long x 6" wide x 1.5" deep spall with exposed rusted rebar. **See Photo 3.**
Span 2 bay 4 near the 2nd diaphragm from west end has a full width x 2' long delamination.
Spans 2 & 3 bays 2 & 3 have heavy efflorescence buildup (icicles) at some of the transverse and map cracks. **See Photo 4.**

At both abutments there are minor shallow spalls with exposed rusted rebar behind the end diaphragms and along the top flanges.

ITEM 59 - SUPERSTRUCTURE

Item 59.4 - Girders or Beams

Beams are W33 x 141: original web section: 0.605" original flange section: 0.960"

Both fascia beams' top and bottom flanges have moderate surface rust throughout.

All pier beam ends (below deck joints) have heavy surface rust and moderate rust flaking. The rust flaking encompasses full beam height up to 1' from the ends, including connection plates and bearings.

Pier 1: (Span 1 east ends, span 2 west ends)

Span 1 beam 1:
The east 8' has heavy rust flaking along the bottom 4" of the web and flange, with as little as 0.25" remaining at web at 1' from end.
Web section increases to 0.39" at 4' from end. North bottom flange at bearing face has 0.40" remaining. End diaphragm connection plate has a 1" diameter hole. **See Photo 5.**

Span 1 beam 2:
The east 5' has heavy rust flaking along the bottom 4" of the web with 0.31" remaining at 1' from end.
Web section increases to 0.48" at 3' from end. Web top end behind diaphragm connection plate has 100% section loss 6" high x 2" long. **See Photo 6.**

Span 1 beam 4:
The east 4' has heavy rust flaking along the bottom 3" of the web with 0.34" remaining at 1' and 3' from end.
Web bottom end over and behind bearing has section loss 15" long x 1" inch high.
North bottom flange at bearing has 0.37" remaining, returning to original section at 1.5' from bearing. **See Photo 7.**

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 19, 2024**

REMARKS

Span 1 beam 5:
The east 7' of the beam (fascia beam) has as little as 0.23" remaining to the bottom 4" of the web.
Bottom flange has 0.38" remaining at bearing, returning to original section 1.5' from bearing. **See Photo 8.**

Span 2 beam 1:
The west 4' has 0.32" remaining to the bottom 4" of the web.
South bottom flange has 0.31" remaining up to 1' from bearing face. **See Photo 9.**

Span 2 beams 2 & 3:
The west 4' has 0.39" remaining to the bottom 4" of the web. **See Photo 10.**

Span 2 beam 4:
The west 4' has 0.29" remaining to the bottom 4" of the web.
South bottom flange has 0.7" remaining up to 1' from bearing face. **See Photo 11.**

Span 2 beam 5:
The west 7' has 0.30" remaining along the bottom 4" of the web.
South bottom flange has 0.38" remaining up to 1' from bearing face. **See Photo 12.**

Pier 2: (Span 2 east ends, span 3 west ends)

Span 2 beam 1:
The east 8' has 0.32" remaining along the bottom 4" of the web, up to 1' from end. Section increases to 0.54" at 4' from end. **See Photo 13.**

Span 2 beam 2:
The east 4' has heavy rust flaking along the bottom 3" of the web with 0.34" remaining at 1' and 3' from end.
Web bottom end over and behind bearing has section loss 15" long x 1" inch high.
North bottom flange at bearing has 0.35" remaining, returning to original section at 1.5' from bearing. **See Photo 14.**

Span 2 beam 4:
The west 4' has 0.21" remaining to the bottom 4" of the web. **See Photo 15.**

Span 2 Beam 5:
The east 4' has 0.25" remaining up to 1' from end. Section increases to 0.50" at 4' from end.
South bottom flange has 0.20" remaining up to 3.5' from bearing face. **See Photo 16.**

Span 3 Beam 1:
The west 3' has 0.28" remaining to the bottom 3" of the web. **See Photo 17.**

Sketch / Photo Log

Sketch 1 : Locus map
Sketch 2 : Framing plan
Photo 1 : Deck condition, typical. (Span 2 shown).
Photo 2 : Deck condition, typical. (Span 3 shown).
Photo 3 : Span 1, west end, spall.
Photo 4 : Span 2 deck condition, looking east.
Photo 5 : Pier 1, span 1, beam 1.
Photo 6 : Pier 1, span 1, beam 2.

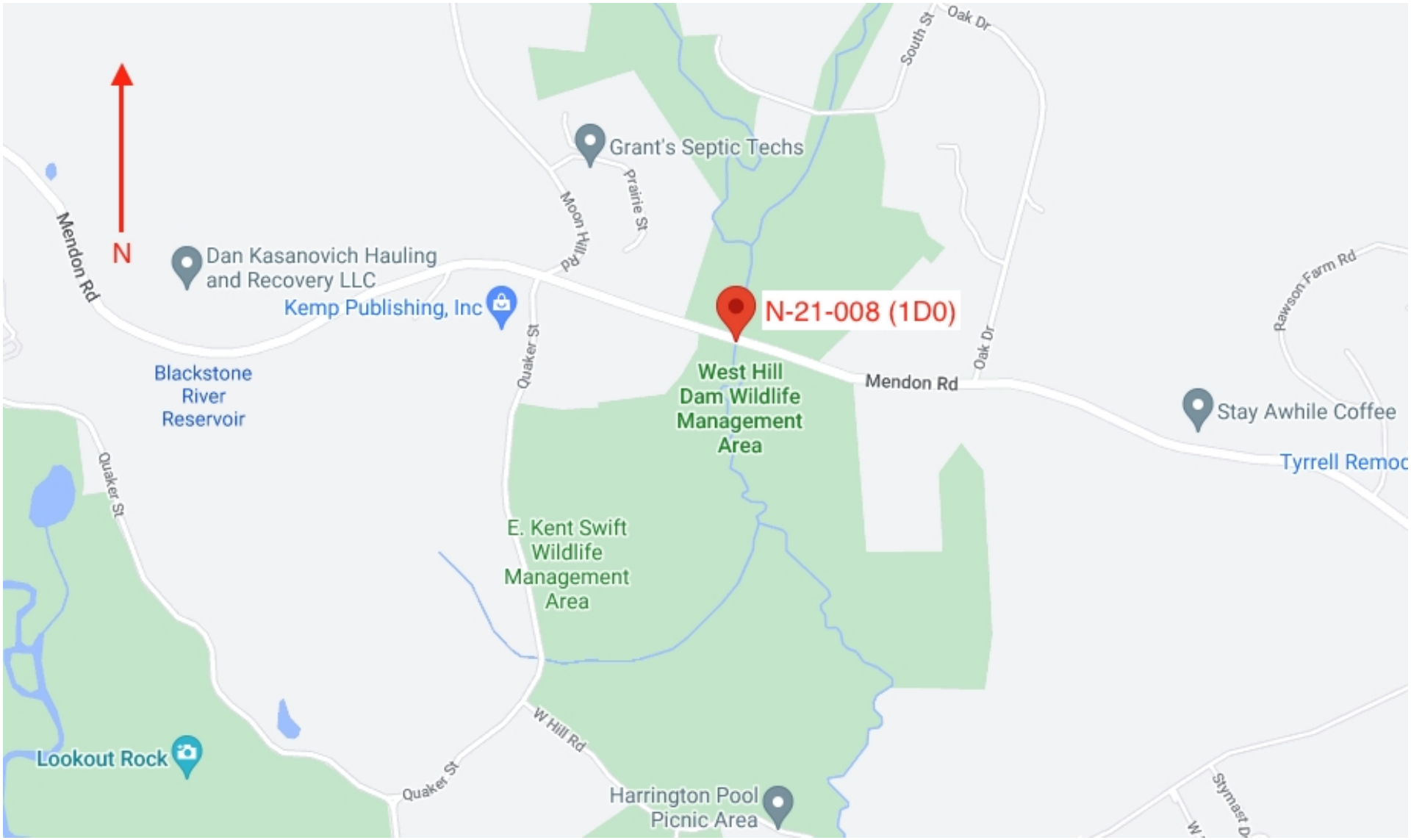
CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 19, 2024**

REMARKS

Photo 7 : Pier 1, span 1, beam 4.
Photo 8 : Pier 1, span 1, beam 5.
Photo 9 : Pier 1, span 2, beam 1.
Photo 10 : Pier 1, span 2, beam 2.
Photo 11 : Pier 1, span 2, beam 4.
Photo 12 : Pier 1, span 2, beam 5.
Photo 13 : Pier 2, span 2, beam 1.
Photo 14 : Pier 2, span 2, beam 2.
Photo 15 : Pier 2, span 2, beam 4.
Photo 16 : Pier 2, span 2, beam 5.
Photo 17 : Pier 2, span 3, beam 1.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 19, 2024

SKETCHES



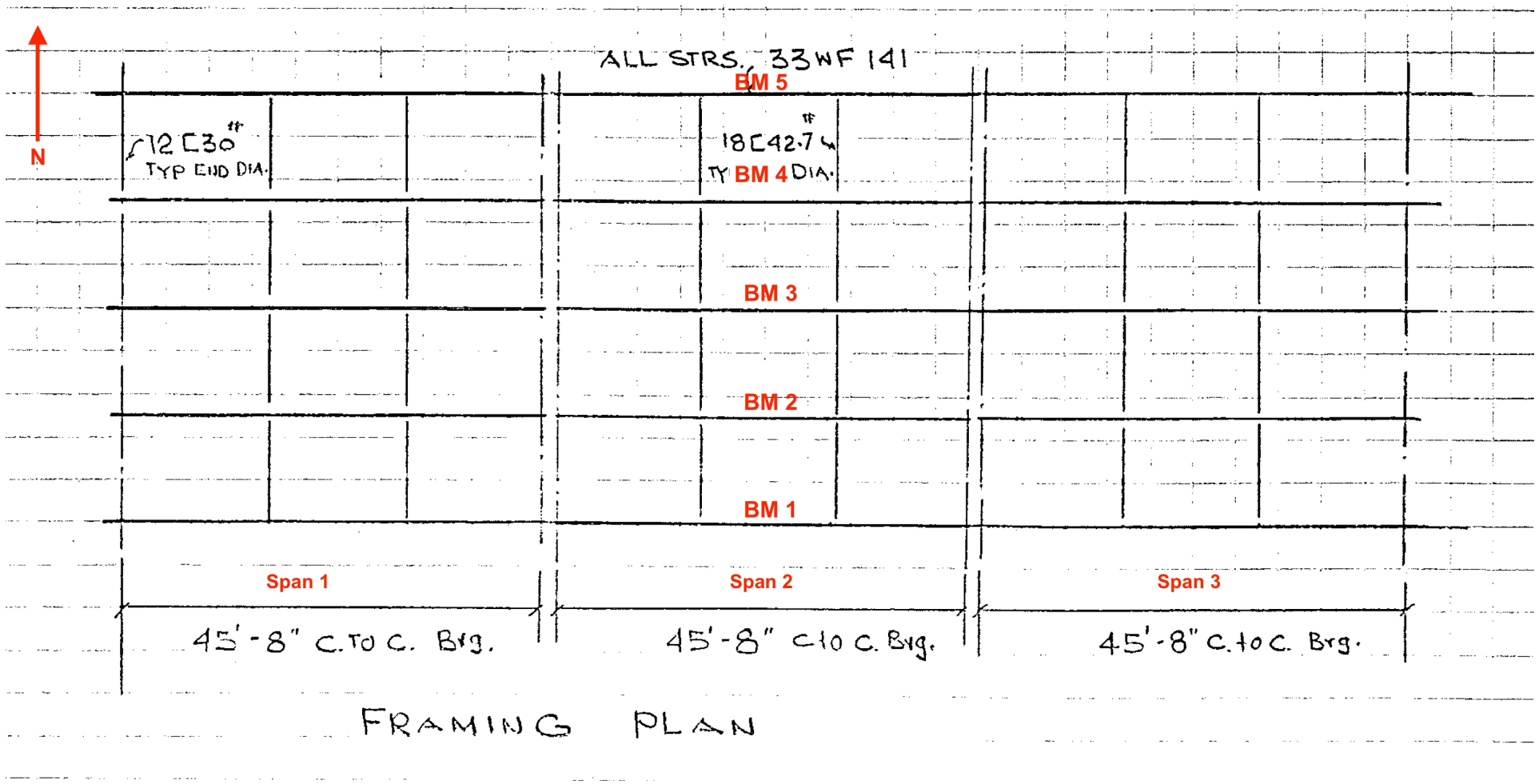
Sketch 1: **Locus map**

A00804-34

Proposal No. 614177-134228

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 19, 2024

SKETCHES



Sketch 2: **Framing plan**

A00804-33

Proposal No. 614177-134228

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 19, 2024

PHOTOS



Photo 1: Deck condition, typical. (Span 2 shown).



Photo 2: Deck condition, typical. (Span 3 shown).

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 19, 2024**

PHOTOS



Photo 3: Span 1, west end, spall.



Photo 4: Span 2 deck condition, looking east.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 19, 2024

PHOTOS



Photo 5: Pier 1, span 1, beam 1.



Photo 6: Pier 1, span 1, beam 2.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 19, 2024**

PHOTOS



Photo 7: Pier 1, span 1, beam 4.



Photo 8: Pier 1, span 1, beam 5.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 19, 2024

PHOTOS



Photo 9: Pier 1, span 2, beam 1.



Photo 10: Pier 1, span 2, beam 2.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 19, 2024

PHOTOS



Photo 11: Pier 1, span 2, beam 4.



Photo 12: Pier 1, span 2, beam 5.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	**1D0**	**N-21-008**	**N21008-1D0-MUN-NBI**	**SEP 19, 2024**

PHOTOS



Photo 13: Pier 2, span 2, beam 1.



Photo 14: Pier 2, span 2, beam 2.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 19, 2024

PHOTOS



Photo 15: Pier 2, span 2, beam 4.



Photo 16: Pier 2, span 2, beam 5.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
NORTHBRIDGE	1D0	N-21-008	N21008-1D0-MUN-NBI	SEP 19, 2024

PHOTOS



Photo 17: Pier 2, span 3, beam 1.

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: NORTHBRIDGE Project File Number: 614177

Contract Number: 134228

Project Description: Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River

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 A00870

MASSACHUSETTS
DIVISION OF FISHERIES AND WILDLIFE

NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM

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MASSWILDLIFE

DIVISION OF
FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6300 | f: (508) 389-7890
MASS.GOV/MASSWILDLIFE

March 24, 2026

Lindsey Forg
MA Department of Transportation
10 Park Plaza
Boston, MA 02116

RE: Project Location: Mendon Road over the West River, Northbridge
Project Description: 614177: NORTHBRIDGE- BRIDGE PRESERVATION, N-21-008 (1D0)
NHESP File No.: 26-20213
Heritage Hub Form ID: RC-98351

Dear Applicant:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the "Division") received the MESA Project Review Checklist and supporting documentation for review pursuant to the Massachusetts Endangered Species Act (MGL. c. 131A) and its implementing regulations (321 CMR 10.00) (MESA).

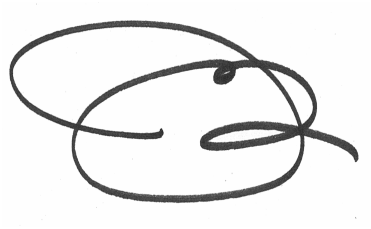
PROJECT DESCRIPTION (the "Project")
The project, as currently proposed, includes the cleaning of the Mendon Road bridge (N-21-008) over the West River in Northbridge as shown on the Project Plan. No tree clearing or work in water is proposed. No access to the river or banks will be required for staging of materials or any other work.

MASSACHUSETTS ENDANGERED SPECIES ACT (MESA)
The MESA is administered by the Division and prohibits the Take of state-listed species, which includes actions that "in reference to animals, means to harass, harm, pursue, hunt, shoot, hound, kill, trap, capture, collect, process, disrupt the nesting, breeding, feeding or migratory activity or attempt to engage in any such conduct, or to assist such conduct, and in reference to plants, means to collect, pick, kill, transplant, cut or process or attempt to engage or to assist in any such conduct. Disruption of nesting, breeding, feeding or migratory activity may result from, but is not limited to, the modification, degradation or destruction of habitat of state-listed wildlife species" (321 CMR 10.02). The purpose of the Division's review under the MESA regulations is to determine whether a Take of state-listed species will result from the proposed project.

Based on a review of the information that was provided and the information that is currently contained in our database, the Division has determined that this Project **will not result in a prohibited Take of state-listed rare species**. This determination is a final decision of the Division of Fisheries & Wildlife pursuant to 321 CMR 10.18. Any changes to the proposed project or any additional work beyond that shown on the site plans may require an additional filing with the Division pursuant to the MESA. This project may be subject to further review if no physical work is commenced within five years from the date of issuance of this determination, or if there is a change to the project. The authorization for work is valid for 5 years from the date of issuance.

If you have any questions regarding this letter please contact Tim McGuire Endangered Species Review Biologist, at timothy.mcguire2@mass.gov, (508)389-6366.

Sincerely,



Jesse Leddick
Assistant Director

cc:

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.

DOCUMENT B00420

PROPOSAL

NORTHBRIDGE

For: **Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River**

COMMONWEALTH OF MASSACHUSETTS

LOCATION

The work referred to herein is in the Town of NORTHBRIDGE in Worcester County, in the Commonwealth of Massachusetts, and is shown by the locus map (Document 00331) in the Proposal Pamphlet, the work locations extend as follows:

Mendon Road

Bridge No. N-21-008 (1D0)

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 **450 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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Project # 614177	Contract # 134228			
Location : NORTHBRIDGE				
Description : Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
100.1	120	BASE LABOR RATE AT _____ PER HOUR		
100.9	1	BRIDGE SURVEY AT _____ LUMP SUM		
107.97	5,330	STRUCTURAL STEEL REPAIRS AT _____ PER POUND		
120.1	15	UNCLASSIFIED EXCAVATION AT _____ PER CUBIC YARD		
127.1	21	REINFORCED CONCRETE EXCAVATION AT _____ PER CUBIC YARD		
127.12	5	REINFORCED CONCRETE SUBSTRUCTURE EXCAVATION AT _____ PER CUBIC YARD		
127.4	40	REINFORCED CONCRETE DECK EXCAVATION (FULL DEPTH) AT _____ PER SQUARE YARD		
127.41	10	REINFORCED CONCRETE DECK EXCAVATION (PARTIAL DEPTH) AT _____ PER CUBIC YARD		
129.6	440	BRIDGE PAVEMENT EXCAVATION AT _____ PER SQUARE YARD		

Project # 614177	Contract # 134228			
Location : NORTHBRIDGE				
Description : Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
151.	30	GRAVEL BORROW AT _____ PER CUBIC YARD		
170.	200	FINE GRADING AND COMPACTING - SUBGRADE AREA AT _____ PER SQUARE YARD		
415.4	1,100	BRIDGE PAVEMENT MILLING AT _____ PER SQUARE YARD		
450.601	100	SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-B - 9.5 - P) AT _____ PER TON		
450.701	44	SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 POLYMER (SPC-B - 9.5 - P) AT _____ PER TON		
451.	20	HMA FOR PATCHING AT _____ PER TON		
452.	100	ASPHALT EMULSION FOR TACK COAT AT _____ PER GALLON		
453.	1,100	HMA JOINT ADHESIVE AT _____ PER FOOT		
470.	12	HOT MIX ASPHALT BERM AT _____ PER TON		

Project # 614177	Contract # 134228			
Location : NORTHBRIDGE				
Description : Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
482.31	84	SAWING AND SEALING JOINTS IN ASPHALT PAVEMENT AT BRIDGES AT _____ PER FOOT		
505.	160	GRANITE CURB TYPE VA5 - STRAIGHT AT _____ PER FOOT		
620.12	2,550	GUARDRAIL, TL-2 (SINGLE FACED) AT _____ PER FOOT		
627.1	2	TRAILING ANCHORAGE AT _____ EACH		
627.82	2	GUARDRAIL TANGENT END TREATMENT, TL-2 AT _____ EACH		
628.24	4	TRANSITION TO BRIDGE RAIL AT _____ EACH		
630.2	2,680	HIGHWAY GUARD REMOVED AND DISCARDED AT _____ PER FOOT		
722.3	1	SCHEDULE OF OPERATIONS (TYPE C) - FIXED PRICE $9000 AT Nine Thousand Dollars LUMP SUM	$9,000.00	$9,000.00
740.	15	ENGINEER'S FIELD OFFICE AND EQUIPMENT (TYPE A) AT _____ PER MONTH		

Project # 614177	Contract # 134228			
Location : NORTHBRIDGE				
Description : Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
748.	1	MOBILIZATION AT _____ LUMP SUM		
767.12	270	COMPOSITE FILTER TUBES AT _____ PER FOOT		
769.	2,680	PAVEMENT MILLING MULCH UNDER GUARD RAIL AT _____ PER FOOT		
852.	240	SAFETY SIGNING FOR TRAFFIC MANAGEMENT AT _____ PER SQUARE FOOT		
856.	200	ARROW BOARD AT _____ PER DAY		
856.12	60	PORTABLE CHANGEABLE MESSAGE SIGN AT _____ PER DAY		
859.	2,000	REFLECTORIZED DRUM AT _____ PER DAY		
866.106	700	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		
867.106	700	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) AT _____ PER FOOT		

Project # 614177	Contract # 134228			
Location : NORTHBRIDGE				
Description : Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
904.31	4	PRECAST CONCRETE HIGHWAY GUARDRAIL TRANSITION AT _____ EACH		
905.2	39	5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE AT _____ PER CUBIC YARD		
909.2	30	CEMENTITIOUS MORTAR FOR PATCHING AT _____ PER SQUARE FOOT		
910.1	5,400	STEEL REINFORCEMENT FOR STRUCTURES - EPOXY COATED AT _____ PER POUND		
912.	40	DRILLING AND GROUTING DOWELS AT _____ EACH		
961.201	1	CLEAN (FULL REMOVAL) AND PAINT STEEL BRIDGE NO. N-21-008 (1D0) AT _____ LUMP SUM		
964.3	1,100	ELASTOMERIC PROTECTIVE COATING AT _____ PER SQUARE FOOT		
966.	4,900	MEMBRANE WATERPROOFING FOR BRIDGE DECK REPAIRS AT _____ PER SQUARE FOOT		
971.2	28	MODIFIED ASPHALTIC BRIDGE JOINT SYSTEM AT _____ PER FOOT		

Project # 614177	Contract # 134228			
Location : NORTHBRIDGE				
Description : Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
974.33	1	METAL BRIDGE RAILING REMOVED AND REPLACED WITH S3-TL4 BRIDGE RAILING AT _____ LUMP SUM		
Total Qty:	32,580			

DOCUMENT B00842

SCHEDULE OF PARTICIPATION
BY MINORITY OR WOMEN BUSINESS ENTERPRISES (M/WBE)

MASSDOT PROJECT NUMBER: 614177

PROJECT LOCATION: NORTHBRIDGE

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: 614177

PROJECT LOCATION: NORTHBRIDGE

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: 614177

PROJECT LOCATION: NORTHBRIDGE

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: 134228 **Project No.** 614177

Location: NORTHBRIDGE **Bid Opening Date:** _____

Project Description: Bridge Preservation, N-21-008 (1D0), Mendon Road over the West River

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

*** END OF DOCUMENT ***

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DOCUMENT B00847

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 ***