

COMMONWEALTH OF MASSACHUSETTS



CONTRACT DOCUMENTS AND SPECIAL PROVISIONS

PROPOSAL NO.	613718-130547
P.V. =	\$1,073,000.00
PLANS	NO

FOR

**Scheduled and Emergency Bridge Deck and Joint Repairs
at Various Locations**

in

DISTRICT 1

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

This Proposal to be opened and read:

TUESDAY, JULY 8, 2025 at 2:00 P.M.

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DOCUMENT 00010

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*** END OF DOCUMENT ***

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, JULY 8, 2025 at 2:00 P.M. ****DISTRICT 1****Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations******Date Subject to Change**PROJECT VALUE = \$1,073,000.00

Bidders must be pre-qualified by the Department in the BRIDGE – DECK REPAIRS 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 \$635.00 per n, Portland cement \$425.53 per ton, diesel fuel \$2.569 per gallon, and gasoline \$2.450 per gallon, and Steel Base Price Index 348.3. 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: Monica G. Tibbits-Nutt, Secretary and CEO, MassDOT
Jonathan L. Gulliver, Administrator, MassDOT Highway Division
SATURDAY, JUNE 7, 2025

DOCUMENT 00210

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

July 1, 1981, updated October 2016

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

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

- (1) "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A to forty-four H, inclusive, of chapter one hundred and forty-nine, which is for an amount or estimated amount greater than one hundred thousand dollars.
- (2) "Contract" means any contract awarded or executed pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A through forty-four H, inclusive, of chapter one hundred and forty-nine, which is for amount or estimated amount greater than one hundred thousand dollars.
- (3) "Records" means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts, tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.
- (4) "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the awarding authority.
- (5) "Audit", when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.
- (6) "Accountant's Report", when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which he has made and sets forth his opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the contractor.
- (7) "Management", when used herein, means the chief executive officers, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the contractor.
- (8) Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

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

- (1) The contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the contractor, and
- (2) Until the expiration of six years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the contractor or of his subcontractors that directly pertain to, and involve transactions relating to, the contractor or his subcontractors, and
- (3) If the agreement is a contract as defined herein, the contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the awarding authority, including in his description the date of the change and reasons therefor, and shall accompany said description with a letter from the contractor's independent certified public accountant approving or otherwise commenting on the changes, and
- (4) If the agreement is a contract as defined herein, the contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and
- (5) If the agreement is a contract as defined herein, the contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

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

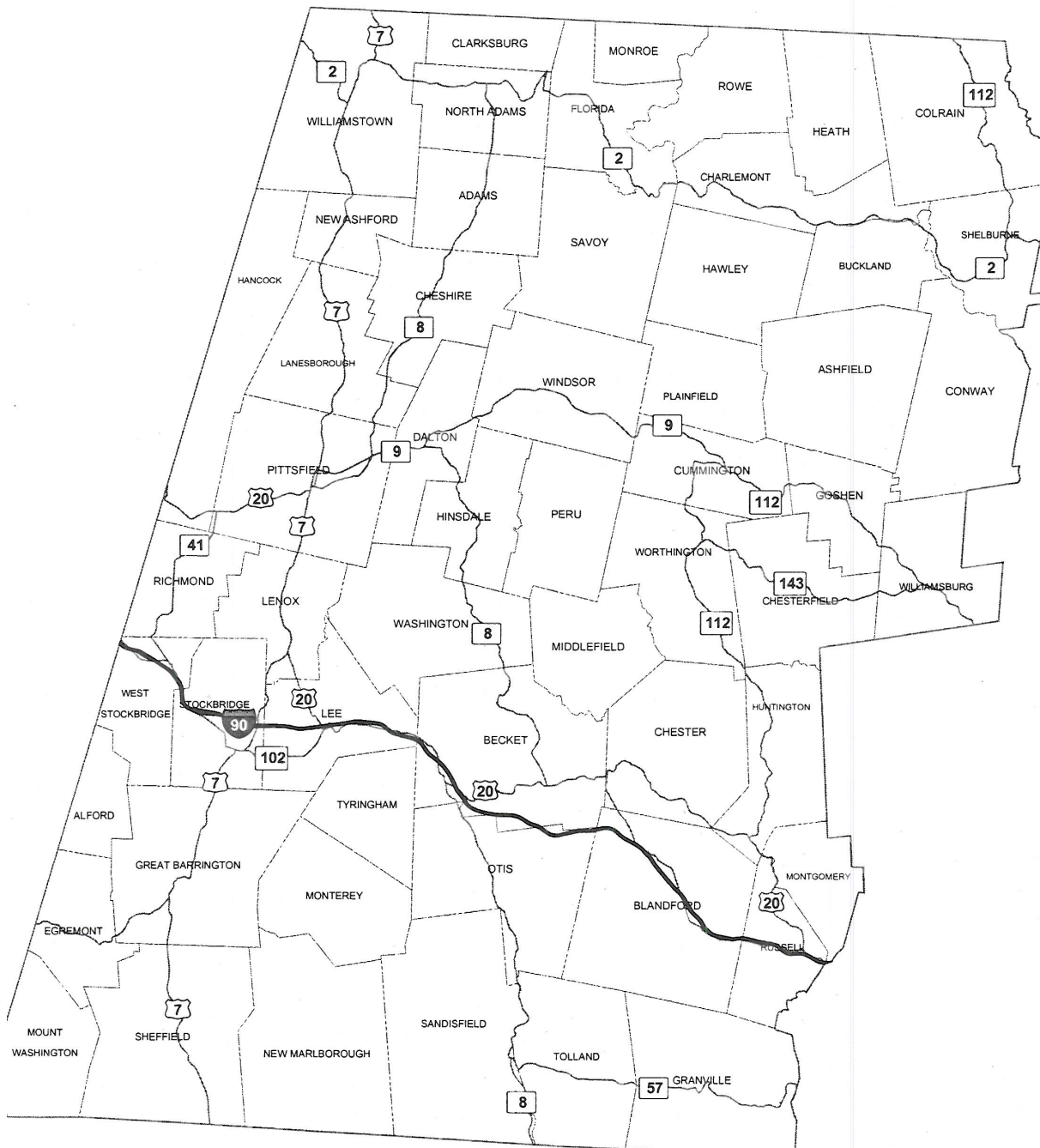
- (1) transactions are executed in accordance with management's general and specific authorization;
- (2) transactions are recorded as necessary
 - i. to permit preparation of financial statements in conformity with generally accepted accounting principles, and
 - ii. to maintain accountability for assets;
- (3) access to assets is permitted only in accordance with management's general or specific authorization; and
- (4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

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

- (1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and
- (2) whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

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DOCUMENT 00331

LOCUS MAP**DISTRICT 1****Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations****NOT TO SCALE**

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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/DateContractor 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: _____

[illegible]

WORK NOT COMPLETED WITHIN SPECIFIED TIME: _____

Revised: 04/28/17

*** END OF DOCUMENT ***

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: _____

DOCUMENT 00710
GENERAL CONTRACT PROVISIONS
Revised: 04-16-25

NOTICE OF AVAILABILITY

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

SPECIAL PROVISIONS FOR RIGHT-TO-KNOW ACT REQUIREMENTS

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

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

1. Deliver to the Department, prior to the start of any work under this contract, copies of MSDS for all MSL substances to be used, stored, processed or manufactured at the worksite by the Contractor.
2. Train employees of the Department, who may be exposed to MSL substances as a result of the Contractor's work under this contract, with regard to those specific substances in accordance with requirements of the Right-To-Know Act.
3. Observe all safety precautions recommended on the MSDS for any MSL substance to be used, stored, processed, or manufactured at the worksite by the Contractor.
4. Inform the Department in writing regarding specific protective equipment recommended in the MSDS for MSL substances to which employees of the Department may be exposed as a result of the Contractor's work under this contract.

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

ALTERNATIVE DISPUTE RESOLUTION

Forum, Choice of Law and Mediations:

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

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DOCUMENT 00715



SUPPLEMENTAL SPECIFICATIONS

MARCH 31, 2025

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

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

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

DIVISION I

GENERAL REQUIREMENTS AND COVENANTS

SECTION 2.00: PROPOSAL REQUIREMENTS AND CONDITIONS

Subsection 2.09: Rejection of Proposals

Replace bullet (i) in the third paragraph with the following:

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

SECTION 7.00: LEGAL RELATIONS AND RESPONSIBILITY TO PPUBLIC

Subsection 7.05: Insurance Requirements

Change the title of paragraph A to Workers' Compensation Insurance

Subsection 7.22: Labor, Lodging, Board, Maximum Hours of Employment, Weekly Payment, Keeping of Payroll Records.

In the second paragraph replace the word "workman" to "worker" and the word "workmen" to "workers".

Replace the third paragraph with the following:

Attention of Bidders is called to MGL Chapter 149, Section 148 requiring the weekly payment of employee wages.

SECTION 9.00: MEASUREMENT AND PAYMENT

Subsection 9.03: Payment for Extra Work

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

- (2) Plus 13 percent of direct labor, for the estimated costs of Federal Insurance Contribution Act (FICA) including Medicare; Federal Unemployment Tax Act (FUTA); State Unemployment Tax Act (SUTA), which includes Unemployment Insurance, the Workforce Training Fund Program, Employer Medical Assistance Contribution, and COVID-19 Recovery Assessment; Earned Sick Time (EST) Law (940 CMR 33.00); and Paid Family and Medical Leave (PFML) Act (458 CMR 2.00);

or, as an alternative to the above 13 percent, the Contractor may elect to use actual rates for FICA, FUTA, SUTA, EST and PFML provided the actual rates are supported with verifiable documentation and shall be subject to review by MassDOT Audit Operations.

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

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

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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.

*** END OF DOCUMENT ***

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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

May 15, 2025

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

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

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

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

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

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

Base Prices and Period Prices are defined as follows:

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

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

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

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

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

Period Prices are determined as follows:

Period Price = Base Price X Index Factor

Index Factor = Period Price Index / Base Price Index

Example of a Period Price Calculation:

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

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

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

Index Factor = Period Price Index / Base Price Index = $218.0 / 229.4 = 0.950$

Period Price = Base Price X Index Factor = $\$0.82/\text{Pound} \times 0.950 = \$0.78/\text{Pound}$

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	\$0.54
2	ASTM A27 (AASHTO M103) Steel Castings, H-Pile Points & Pipe Pile Shoes (See Note below.)	\$0.75
3	ASTM A668 / A668M (AASHTO M102) Steel Forgings	\$0.75
4	ASTM A108 (AASHTO M169) Steel Forgings for Shear Studs	\$0.77
5	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Plate	\$0.81
6	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Shapes	\$0.76
7	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Plate	\$0.81
8	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Shapes	\$0.76
9	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Plate	\$0.84
10	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Shapes	\$0.77
11	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W 345W Structural Steel Plate	\$0.84
12	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W or 345W Structural Steel Shapes	\$0.77
13	ASTM A709/A709M Grade HPS 50W / AASHTO M270M/M270 Grade HPS 50W or 345W Structural Steel Plate	\$0.88
14	ASTM A709/A709M Grade HPS 70W / AASHTO M270M/M270 Grade HPS 70W or 485W Structural Steel Plate	\$0.95
15	ASTM A514/A514M-05 Grade HPS 100W / AASHTO M270M/M270 Grade HPS 100W or 690W Structural Steel Plate	\$1.44
16	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Plate	\$0.84
17	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Shapes	\$0.77
18	ASTM A276 Type 316 Stainless Steel	\$4.34
19	ASTM A240 Type 316 Stainless Steel	\$4.34
20	ASTM A148 Grade 80/50 Steel Castings (See Note below.)	\$1.49
21	ASTM A53 Grade B Structural Steel Pipe	\$0.95
22	ASTM A500 Grades A, B, 36 & 50 Structural Steel Pipe	\$0.95
23	ASTM A252, Grades 240 (36 KSI) & 414 (60 KSI) Pipe Pile	\$0.75
24	ASTM 252, Grade 2 Permanent Steel Casing	\$0.75
25	ASTM A36 (AASHTO M183) for H-piles, steel supports and sign supports	\$0.79
26	ASTM A328 / A328M, Grade 50 (AASHTO M202) Steel Sheetpiling	\$1.42
27	ASTM A572 / A572M, Grade 50 Sheetpiling	\$1.42
28	ASTM A36/36M, Grade 50	\$0.81
29	ASTM A570, Grade 50	\$0.79
30	ASTM A572 (AASHTO M223), Grade 50 H-Piles	\$0.81
31	ASTM A1085 Grade A (50 KSI) Steel Hollow Structural Sections (HSS), heat-treated per ASTM A1085 Supplement S1	\$0.95
32	AREA 140 LB Rail and Track Accessories	\$0.49

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 151 B).

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

III. Minority and Women Workforce Participation

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

IV. Liaison Committee

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

V. Reports and Records

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

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

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

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

VI. Access to Work Site

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

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

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

VIII. Sanctions

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

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

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

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

IX. Severability

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

X. Contractor's Certification

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

XI. Subcontractor Requirements

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

Rev'd 03/07/14

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DOCUMENT 00821

ELECTRONIC REPORTING REQUIREMENTS
CIVIL RIGHTS PROGRAMS AND CERTIFIED PAYROLL

Implemented on March 2, 2009

Revised June 04, 2019

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

Contractor and Sub-Contractor EBO User Certification

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

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

Vetting of Firms and Designated Firm Individuals

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

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

Interim Reporting Requirements

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

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DOCUMENT 00859

CONTRACTOR/SUBCONTRACTOR CERTIFICATION FORM ‡*The contractor shall submit this completed document 00859 to MassDOT for each subcontract.*_____
(Contractor) Date: __________
(Subcontractor) ☐ District Approved SubcontractorContract No: 130547 Project No. 613718 Federal Aid No.: NFALocation: DISTRICT 1Project Description: Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations

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. You may also find guidance at: <http://www.dol.gov/ofccp/TAGuides/consttag.pdf> or <http://www.wdol.gov/dba.aspx#0>.
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: _____

 (Print Name and Title)

Telephone Number: _____

Federal I.D. Number: _____

Estimated Start Date: _____

Estimated Completion Date: _____

Estimated Dollar Amount: _____

 (Authorized Signature)

 (Date)

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 than two week before the anniversary of the Notice to Proceed date of the contract to allow for adequate processing by the Department of Labor Standards (DLS). The effective date for the new rates will be the anniversary date of the contract (i.e. the notice to proceed date), regardless of the date of issuance on the schedule from DLS.

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

*** END OF DOCUMENT ***

DOCUMENT 00861

STATE PREVAILING WAGE RATES

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

MAURA HEALY
Governor

KIM DRISCOLL
Lt. Governor

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

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	MassDOT Highway	City/Town:	PITTSFIELD
Contract Number:	130547		
Description of Work:	DISTRICT 1 - Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations		
Job Location:	District-wide		

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 from 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	6/1/2025	\$40.95	\$15.57	\$20.17	\$0.00	\$0.00	\$76.69
	12/1/2025	\$40.95	\$15.57	\$21.78	\$0.00	\$0.00	\$78.30
	1/1/2026	\$40.95	\$16.17	\$21.78	\$0.00	\$0.00	\$78.90
	6/1/2026	\$41.95	\$16.17	\$21.78	\$0.00	\$0.00	\$79.90
	12/1/2026	\$41.95	\$16.17	\$23.52	\$0.00	\$0.00	\$81.64
	1/1/2027	\$41.95	\$16.77	\$23.52	\$0.00	\$0.00	\$82.24
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10	6/1/2025	\$41.02	\$15.57	\$20.17	\$0.00	\$0.00	\$76.76
	12/1/2025	\$41.02	\$15.57	\$21.78	\$0.00	\$0.00	\$78.37
	1/1/2026	\$41.02	\$16.17	\$21.78	\$0.00	\$0.00	\$78.97
	6/1/2026	\$42.02	\$16.17	\$21.78	\$0.00	\$0.00	\$79.97
	12/1/2026	\$42.02	\$16.17	\$23.52	\$0.00	\$0.00	\$81.71
	1/1/2027	\$42.02	\$16.77	\$23.52	\$0.00	\$0.00	\$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10	6/1/2025	\$41.14	\$15.57	\$20.17	\$0.00	\$0.00	\$76.88
	12/1/2025	\$41.14	\$15.57	\$21.78	\$0.00	\$0.00	\$78.49
	1/1/2026	\$41.14	\$16.17	\$21.78	\$0.00	\$0.00	\$79.09
	6/1/2026	\$42.14	\$16.17	\$21.78	\$0.00	\$0.00	\$80.09
	12/1/2026	\$42.14	\$16.17	\$23.52	\$0.00	\$0.00	\$81.83
	1/1/2027	\$42.14	\$16.77	\$23.52	\$0.00	\$0.00	\$82.43
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56	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	12/1/2024	\$32.29	\$9.90	\$9.25	\$5.53	\$0.00	\$56.97
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.98	\$9.90	\$9.25	\$6.60	\$0.00	\$61.73
	12/1/2025	\$37.21	\$9.90	\$9.25	\$6.60	\$0.00	\$62.96
	6/1/2026	\$39.25	\$9.90	\$9.25	\$6.60	\$0.00	\$65.00
	12/1/2026	\$40.54	\$9.90	\$9.25	\$6.60	\$0.00	\$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASBESTOS WORKER (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6	6/1/2025	\$39.42	\$14.50	\$4.30	\$6.25	\$0.00	\$64.47
	12/1/2025	\$40.32	\$14.50	\$4.30	\$6.25	\$0.00	\$65.37
ASPHALT RAKER LABORERS	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.48	\$9.90	\$9.25	\$6.60	\$0.00	\$61.23
	12/1/2025	\$36.71	\$9.90	\$9.25	\$6.60	\$0.00	\$62.46
	6/1/2026	\$38.75	\$9.90	\$9.25	\$6.60	\$0.00	\$64.50
	12/1/2026	\$40.04	\$9.90	\$9.25	\$6.60	\$0.00	\$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER) OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER OPERATOR OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER LABORERS	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47
For apprentice rates see "Apprentice- LABORER"							
BATCH/CEMENT PLANT - ON SITE OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BLOCK PAVER, RAMMER / CURB SETTER LABORERS	12/1/2024	\$32.29	\$9.90	\$9.25	\$5.53	\$0.00	\$56.97
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.98	\$9.90	\$9.25	\$6.60	\$0.00	\$61.73
	12/1/2025	\$37.21	\$9.90	\$9.25	\$6.60	\$0.00	\$62.96
	6/1/2026	\$39.25	\$9.90	\$9.25	\$6.60	\$0.00	\$65.00
	12/1/2026	\$40.54	\$9.90	\$9.25	\$6.60	\$0.00	\$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
BOILER MAKER BOILERMAKERS LOCAL 29	1/1/2024	\$48.12	\$7.07	\$14.60	\$6.00	\$0.00	\$75.79

Apprentice: BOILER MAKER							
Effective Date: 1/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
2	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
3	70.00	\$33.68	\$7.07	\$10.03	\$4.20	\$0.00	\$54.98
4	75.00	\$36.09	\$7.07	\$10.74	\$4.50	\$0.00	\$58.40
5	80.00	\$38.50	\$7.07	\$11.45	\$4.80	\$0.00	\$61.82
6	85.00	\$40.90	\$7.07	\$12.18	\$5.10	\$0.00	\$65.25
7	90.00	\$43.31	\$7.07	\$12.88	\$5.40	\$0.00	\$68.66
8	95.00	\$45.71	\$7.07	\$13.62	\$5.70	\$0.00	\$72.10

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) BRICKLAYERS LOCAL 3	2/1/2025	\$54.21	\$11.49	\$15.57	\$5.89	\$0.00	\$87.16
	8/1/2025	\$56.36	\$11.49	\$15.57	\$5.89	\$0.00	\$89.31
	2/1/2026	\$57.71	\$11.49	\$15.57	\$5.89	\$0.00	\$90.66
	8/1/2026	\$59.91	\$11.49	\$15.57	\$5.89	\$0.00	\$92.86
	2/1/2027	\$61.31	\$11.49	\$15.57	\$5.89	\$0.00	\$94.26

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)							
Effective Date: 2/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$27.11	\$11.49	\$15.57	\$5.89	\$0.00	\$60.06
2	60.00	\$32.53	\$11.49	\$15.57	\$5.89	\$0.00	\$65.48
3	70.00	\$37.95	\$11.49	\$15.57	\$5.89	\$0.00	\$70.90
4	80.00	\$43.37	\$11.49	\$15.57	\$5.89	\$0.00	\$76.32
5	90.00	\$48.79	\$11.49	\$15.57	\$5.89	\$0.00	\$81.74
Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)							
Effective Date: 8/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$28.18	\$11.49	\$15.57	\$5.89	\$0.00	\$61.13
2	60.00	\$33.82	\$11.49	\$15.57	\$5.89	\$0.00	\$66.77
3	70.00	\$39.45	\$11.49	\$15.57	\$5.89	\$0.00	\$72.40
4	80.00	\$45.09	\$11.49	\$15.57	\$5.89	\$0.00	\$78.04
5	90.00	\$50.72	\$11.49	\$15.57	\$5.89	\$0.00	\$83.67
BULLDOZER/POWER SHOVEL/TREE SHREDDER /CLAM SHELL OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN LABORERS	6/1/2025	\$48.85	\$9.90	\$9.25	\$9.80	\$0.00	\$77.80
	12/1/2025	\$50.35	\$9.90	\$9.25	\$9.80	\$0.00	\$79.30
	6/1/2026	\$51.90	\$9.90	\$9.25	\$9.80	\$0.00	\$80.85
	12/1/2026	\$53.40	\$9.90	\$9.25	\$9.80	\$0.00	\$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER LABORERS	6/1/2025	\$47.70	\$9.90	\$9.25	\$9.80	\$0.00	\$76.65
	12/1/2025	\$49.20	\$9.90	\$9.25	\$9.80	\$0.00	\$78.15
	6/1/2026	\$50.75	\$9.90	\$9.25	\$9.80	\$0.00	\$79.70
	12/1/2026	\$52.25	\$9.90	\$9.25	\$9.80	\$0.00	\$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN LABORERS	6/1/2025	\$48.03	\$9.90	\$9.25	\$9.80	\$0.00	\$76.98
	12/1/2025	\$49.53	\$9.90	\$9.25	\$9.80	\$0.00	\$78.48
	6/1/2026	\$51.08	\$9.90	\$9.25	\$9.80	\$0.00	\$80.03
	12/1/2026	\$52.58	\$9.90	\$9.25	\$9.80	\$0.00	\$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR LABORERS	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47
For apprentice rates see "Apprentice- LABORER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CARPENTER	3/1/2025	\$43.26	\$7.91	\$11.25	\$6.90	\$0.00	\$69.32
CARPENTERS	9/1/2025	\$44.21	\$7.91	\$11.25	\$6.90	\$0.00	\$70.27
	3/1/2026	\$45.11	\$7.91	\$11.25	\$6.90	\$0.00	\$71.17
	9/1/2026	\$46.06	\$7.91	\$11.25	\$6.90	\$0.00	\$72.12
	3/1/2027	\$46.96	\$7.91	\$11.25	\$6.90	\$0.00	\$73.02

Apprentice: CARPENTER							
Effective Date: 3/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.47	\$7.91	\$0.00	\$1.38	\$0.00	\$28.76
2	45.00	\$19.47	\$7.91	\$0.00	\$1.38	\$0.00	\$28.76
3	55.00	\$23.79	\$7.91	\$0.00	\$2.76	\$0.00	\$34.46
4	55.00	\$23.79	\$7.91	\$0.00	\$2.76	\$0.00	\$34.46
5	70.00	\$30.28	\$7.91	\$11.25	\$4.14	\$0.00	\$53.58
6	70.00	\$30.28	\$7.91	\$11.25	\$4.14	\$0.00	\$53.58
7	80.00	\$34.61	\$7.91	\$11.25	\$5.52	\$0.00	\$59.29
8	80.00	\$34.61	\$7.91	\$11.25	\$5.52	\$0.00	\$59.29

Apprentice: CARPENTER							
Effective Date: 9/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.89	\$7.91	\$0.00	\$1.38	\$0.00	\$29.18
2	45.00	\$19.89	\$7.91	\$0.00	\$1.38	\$0.00	\$29.18
3	55.00	\$24.32	\$7.91	\$0.00	\$2.76	\$0.00	\$34.99
4	55.00	\$24.32	\$7.91	\$0.00	\$2.76	\$0.00	\$34.99
5	70.00	\$30.95	\$7.91	\$11.25	\$4.14	\$0.00	\$54.25
6	70.00	\$30.95	\$7.91	\$11.25	\$4.14	\$0.00	\$54.25
7	80.00	\$35.37	\$7.91	\$11.25	\$5.52	\$0.00	\$60.05
8	80.00	\$35.37	\$7.91	\$11.25	\$5.52	\$0.00	\$60.05

CARPENTER WOOD FRAME	10/1/2024	\$26.65	\$7.02	\$3.80	\$1.00	\$0.00	\$38.47
CARPENTERS	10/1/2025	\$27.75	\$7.02	\$3.80	\$1.00	\$0.00	\$39.57
	10/1/2026	\$28.85	\$7.02	\$3.80	\$1.00	\$0.00	\$40.67

All Aspects of New Wood Frame Work

Apprentice: CARPENTER WOOD FRAME							
Effective Date: 10/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$15.99	\$7.02	\$0.00	\$0.00	\$0.00	\$23.01
2	60.00	\$15.99	\$7.02	\$0.00	\$0.00	\$0.00	\$23.01
3	65.00	\$17.32	\$7.02	\$0.00	\$1.00	\$0.00	\$25.34
4	70.00	\$18.66	\$7.02	\$0.00	\$1.00	\$0.00	\$26.68
5	75.00	\$19.99	\$7.02	\$3.80	\$1.00	\$0.00	\$31.81

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: CARPENTER WOOD FRAME Effective Date: 10/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
6	80.00	\$21.32	\$7.02	\$3.80	\$1.00	\$0.00	\$33.14
7	85.00	\$22.65	\$7.02	\$3.80	\$1.00	\$0.00	\$34.47
8	90.00	\$23.99	\$7.02	\$3.80	\$1.00	\$0.00	\$35.81
Apprentice: CARPENTER WOOD FRAME Effective Date: 10/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$16.65	\$7.02	\$0.00	\$0.00	\$0.00	\$23.67
2	60.00	\$16.65	\$7.02	\$0.00	\$0.00	\$0.00	\$23.67
3	65.00	\$18.04	\$7.02	\$0.00	\$1.00	\$0.00	\$26.06
4	70.00	\$19.43	\$7.02	\$0.00	\$1.00	\$0.00	\$27.45
5	75.00	\$20.81	\$7.02	\$3.80	\$1.00	\$0.00	\$32.63
6	80.00	\$22.20	\$7.02	\$3.80	\$1.00	\$0.00	\$34.02
7	85.00	\$23.59	\$7.02	\$3.80	\$1.00	\$0.00	\$35.41
8	90.00	\$24.98	\$7.02	\$3.80	\$1.00	\$0.00	\$36.80
CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3	7/1/2024	\$44.56	\$13.20	\$16.30	\$2.93	\$1.69	\$78.68
Apprentice: CEMENT MASONRY/PLASTERING Effective Date: 7/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$22.28	\$13.20	\$16.30	\$0.00	\$0.00	\$51.78
2	60.00	\$26.74	\$13.20	\$16.30	\$2.93	\$1.69	\$60.86
3	65.00	\$28.96	\$13.20	\$16.30	\$2.93	\$1.69	\$63.08
4	70.00	\$31.19	\$13.20	\$16.30	\$2.93	\$1.69	\$65.31
5	75.00	\$33.42	\$13.20	\$16.30	\$2.93	\$1.69	\$67.54
6	80.00	\$35.65	\$13.20	\$16.30	\$2.93	\$1.69	\$69.77
7	90.00	\$40.10	\$13.20	\$16.30	\$2.93	\$1.69	\$74.22
CHAIN SAW OPERATOR LABORERS	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47
For apprentice rates see "Apprentice- LABORER"							
COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CRANE OPERATOR OPERATING ENGINEERS LOCAL 98	12/1/2023	\$43.06	\$13.78	\$12.15	\$3.00	\$0.00	\$71.99

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DELEADER (BRIDGE) PAINTERS LOCAL 35	1/1/2025	\$58.46	\$9.95	\$11.85	\$12.10	\$0.00	\$92.36

Apprentice: DELEADER (BRIDGE)**Effective Date: 1/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.23	\$9.95	\$0.00	\$0.00	\$0.00	\$39.18
2	55.00	\$32.15	\$9.95	\$0.00	\$6.66	\$0.00	\$48.76
3	60.00	\$35.08	\$9.95	\$0.00	\$7.26	\$0.00	\$52.29
4	65.00	\$38.00	\$9.95	\$0.00	\$7.87	\$0.00	\$55.82
5	70.00	\$40.92	\$9.95	\$11.85	\$8.47	\$0.00	\$71.19
6	75.00	\$43.85	\$9.95	\$11.85	\$9.08	\$0.00	\$74.73
7	80.00	\$46.77	\$9.95	\$11.85	\$9.68	\$0.00	\$78.25
8	90.00	\$52.61	\$9.95	\$11.85	\$10.89	\$0.00	\$85.30

DEMO: ADZEMAN LABORERS	6/2/2025	\$47.75	\$9.90	\$9.25	\$9.65	\$0.00	\$76.55
	12/1/2025	\$49.25	\$9.90	\$9.25	\$9.65	\$0.00	\$78.05
	6/1/2026	\$50.80	\$9.90	\$9.25	\$9.65	\$0.00	\$79.60
	12/7/2026	\$52.30	\$9.90	\$9.25	\$9.65	\$0.00	\$81.10
	6/7/2027	\$53.90	\$9.90	\$9.25	\$9.65	\$0.00	\$82.70
	12/6/2027	\$55.50	\$9.90	\$9.25	\$9.65	\$0.00	\$84.30
	6/5/2028	\$57.18	\$9.90	\$9.25	\$9.65	\$0.00	\$85.98
	12/4/2028	\$58.85	\$9.90	\$9.25	\$9.65	\$0.00	\$87.65

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS	6/2/2025	\$48.75	\$9.90	\$9.25	\$9.65	\$0.00	\$77.55
	12/1/2025	\$50.25	\$9.90	\$9.25	\$9.65	\$0.00	\$79.05
	6/1/2026	\$51.80	\$9.90	\$9.25	\$9.65	\$0.00	\$80.60
	12/7/2026	\$53.30	\$9.90	\$9.25	\$9.65	\$0.00	\$82.10
	6/7/2027	\$54.90	\$9.90	\$9.25	\$9.65	\$0.00	\$83.70
	12/6/2027	\$56.50	\$9.90	\$9.25	\$9.65	\$0.00	\$85.30
	6/5/2028	\$58.18	\$9.90	\$9.25	\$9.65	\$0.00	\$86.98
	12/4/2028	\$59.85	\$9.90	\$9.25	\$9.65	\$0.00	\$88.65

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS LABORERS	6/2/2025	\$48.50	\$9.90	\$9.25	\$9.65	\$0.00	\$77.30
	12/1/2025	\$50.00	\$9.90	\$9.25	\$9.65	\$0.00	\$78.80
	6/1/2026	\$51.55	\$9.90	\$9.25	\$9.65	\$0.00	\$80.35
	12/7/2026	\$53.05	\$9.90	\$9.25	\$9.65	\$0.00	\$81.85
	6/7/2027	\$54.65	\$9.90	\$9.25	\$9.65	\$0.00	\$83.45
	12/6/2027	\$56.25	\$9.90	\$9.25	\$9.65	\$0.00	\$85.05
	6/5/2028	\$57.93	\$9.90	\$9.25	\$9.65	\$0.00	\$86.73
	12/4/2028	\$59.60	\$9.90	\$9.25	\$9.65	\$0.00	\$88.40

For apprentice rates see "Apprentice- LABORER"

DEMO: CONCRETE CUTTER/SAWYER	6/2/2025	\$48.75	\$9.90	\$9.25	\$9.65	\$0.00	\$77.55
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Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS	12/1/2025	\$50.25	\$9.90	\$9.25	\$9.65	\$0.00	\$79.05
	6/1/2026	\$51.80	\$9.90	\$9.25	\$9.65	\$0.00	\$80.60
	12/7/2026	\$53.30	\$9.90	\$9.25	\$9.65	\$0.00	\$82.10
	6/7/2027	\$54.90	\$9.90	\$9.25	\$9.65	\$0.00	\$83.70
	12/6/2027	\$56.50	\$9.90	\$9.25	\$9.65	\$0.00	\$85.30
	6/5/2028	\$58.18	\$9.90	\$9.25	\$9.65	\$0.00	\$86.98
	12/4/2028	\$59.85	\$9.90	\$9.25	\$9.65	\$0.00	\$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR LABORERS	6/2/2025	\$48.50	\$9.90	\$9.25	\$9.65	\$0.00	\$77.30
	12/1/2025	\$50.00	\$9.90	\$9.25	\$9.65	\$0.00	\$78.80
	6/1/2026	\$51.55	\$9.90	\$9.25	\$9.65	\$0.00	\$80.35
	12/7/2026	\$53.05	\$9.90	\$9.25	\$9.65	\$0.00	\$81.85
	6/7/2027	\$54.65	\$9.90	\$9.25	\$9.65	\$0.00	\$83.45
	12/6/2027	\$56.25	\$9.90	\$9.25	\$9.65	\$0.00	\$85.05
	6/5/2028	\$57.93	\$9.90	\$9.25	\$9.65	\$0.00	\$86.73
	12/4/2028	\$59.60	\$9.90	\$9.25	\$9.65	\$0.00	\$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER LABORERS	6/2/2025	\$47.75	\$9.90	\$9.25	\$9.65	\$0.00	\$76.55
	12/1/2025	\$49.25	\$9.90	\$9.25	\$9.65	\$0.00	\$78.05
	6/1/2026	\$50.80	\$9.90	\$9.25	\$9.65	\$0.00	\$79.60
	12/7/2026	\$52.30	\$9.90	\$9.25	\$9.65	\$0.00	\$81.10
	6/7/2027	\$53.90	\$9.90	\$9.25	\$9.65	\$0.00	\$82.70
	12/6/2027	\$55.50	\$9.90	\$9.25	\$9.65	\$0.00	\$84.30
	6/5/2028	\$57.18	\$9.90	\$9.25	\$9.65	\$0.00	\$85.98
	12/4/2028	\$58.85	\$9.90	\$9.25	\$9.65	\$0.00	\$87.65
For apprentice rates see "Apprentice- LABORER"							
DIVER PILE DRIVER LOCAL 56	8/1/2024	\$78.11	\$10.08	\$11.62	\$12.67	\$0.00	\$112.48
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A \$69.83, 3A \$91.79,4A \$102.14 Total Rate							
DIVER TENDER PILE DRIVER LOCAL 56	8/1/2024	\$49.19	\$10.08	\$11.62	\$12.67	\$0.00	\$83.56
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A \$54.20, 3A \$73.93,4A \$82.05 Total Rate							
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56	8/1/2024	\$83.69	\$10.08	\$11.62	\$12.67	\$0.00	\$118.06
For apprentice rates see "Apprentice- PILE DRIVER"							
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	\$26.77	\$6.67	\$3.93	\$0.00	\$0.16	\$37.53
ELECTRICIAN (Including Core Drilling) ELECTRICIANS LOCAL 7	12/29/2024	\$51.06	\$13.25	\$8.23	\$6.83	\$0.00	\$79.37
	6/29/2025	\$52.16	\$13.50	\$8.31	\$6.90	\$0.00	\$80.87
	12/28/2025	\$53.26	\$13.75	\$8.40	\$6.96	\$0.00	\$82.37

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/28/2026	\$54.41	\$14.00	\$8.43	\$7.03	\$0.00	\$83.87
	1/3/2027	\$55.56	\$14.25	\$8.47	\$7.09	\$0.00	\$85.37

Apprentice: ELECTRICIAN (Including Core Drilling)							
Effective Date: 12/29/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$20.42	\$7.35	\$0.61	\$0.00	\$0.00	\$28.38
2	45.00	\$22.98	\$7.35	\$0.69	\$0.00	\$0.00	\$31.02
3	50.00	\$25.53	\$13.25	\$7.47	\$0.00	\$0.00	\$46.25
4	55.00	\$28.08	\$13.25	\$7.54	\$0.00	\$0.00	\$48.87
5	65.00	\$33.19	\$13.25	\$9.74	\$0.00	\$0.00	\$56.18
6	70.00	\$35.74	\$13.25	\$11.19	\$0.00	\$0.00	\$60.18

Apprentice: ELECTRICIAN (Including Core Drilling)							
Effective Date: 6/29/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$20.86	\$7.50	\$0.63	\$0.00	\$0.00	\$28.99
2	45.00	\$23.47	\$7.50	\$0.70	\$0.00	\$0.00	\$31.67
3	50.00	\$26.08	\$13.50	\$7.53	\$0.00	\$0.00	\$47.11
4	55.00	\$28.69	\$13.50	\$7.61	\$0.00	\$0.00	\$49.80
5	65.00	\$33.90	\$13.50	\$9.84	\$0.00	\$0.00	\$57.24
6	70.00	\$36.51	\$13.50	\$11.30	\$0.00	\$0.00	\$61.31

ELEVATOR CONSTRUCTOR	1/1/2025	\$62.83	\$16.28	\$10.96	\$10.40	\$0.00	\$100.47
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2026	\$63.68	\$16.38	\$11.06	\$10.70	\$0.00	\$101.82
	1/1/2027	\$64.53	\$16.48	\$11.16	\$11.00	\$0.00	\$103.17

Apprentice: ELEVATOR CONSTRUCTOR							
Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$31.42	\$16.28	\$0.00	\$0.00	\$0.00	\$47.70
2	55.00	\$34.56	\$16.28	\$10.96	\$10.40	\$0.00	\$72.20
3	65.00	\$40.84	\$16.28	\$10.96	\$10.40	\$0.00	\$78.48
4	70.00	\$43.98	\$16.28	\$10.96	\$10.40	\$0.00	\$81.62
5	80.00	\$50.26	\$16.28	\$10.96	\$10.40	\$0.00	\$87.90

Apprentice: ELEVATOR CONSTRUCTOR							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$31.84	\$16.38	\$0.00	\$0.00	\$0.00	\$48.22

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																								
<div>Apprentice: ELEVATOR CONSTRUCTOR</div> <div>Effective Date: 1/1/2026</div> <table><thead><tr><th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr></thead><tbody><tr><td>2</td><td>55.00</td><td>\$35.02</td><td>\$16.38</td><td>\$11.06</td><td>\$10.70</td><td>\$0.00</td><td>\$73.16</td></tr><tr><td>3</td><td>65.00</td><td>\$41.39</td><td>\$16.38</td><td>\$11.06</td><td>\$10.70</td><td>\$0.00</td><td>\$79.53</td></tr><tr><td>4</td><td>70.00</td><td>\$44.58</td><td>\$16.38</td><td>\$11.06</td><td>\$10.70</td><td>\$0.00</td><td>\$82.72</td></tr><tr><td>5</td><td>80.00</td><td>\$50.94</td><td>\$16.38</td><td>\$11.06</td><td>\$10.70</td><td>\$0.00</td><td>\$89.08</td></tr></tbody></table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	2	55.00	\$35.02	\$16.38	\$11.06	\$10.70	\$0.00	\$73.16	3	65.00	\$41.39	\$16.38	\$11.06	\$10.70	\$0.00	\$79.53	4	70.00	\$44.58	\$16.38	\$11.06	\$10.70	\$0.00	\$82.72	5	80.00	\$50.94	\$16.38	\$11.06	\$10.70	\$0.00	\$89.08
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																								
2	55.00	\$35.02	\$16.38	\$11.06	\$10.70	\$0.00	\$73.16																																								
3	65.00	\$41.39	\$16.38	\$11.06	\$10.70	\$0.00	\$79.53																																								
4	70.00	\$44.58	\$16.38	\$11.06	\$10.70	\$0.00	\$82.72																																								
5	80.00	\$50.94	\$16.38	\$11.06	\$10.70	\$0.00	\$89.08																																								
ELEVATOR CONSTRUCTOR HELPER	1/1/2025	\$43.98	\$16.28	\$10.96	\$10.40	\$0.00	\$81.62																																								
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2026	\$44.58	\$16.38	\$11.06	\$10.70	\$0.00	\$82.72																																								
	1/1/2027	\$45.17	\$16.48	\$11.16	\$11.00	\$0.00	\$83.81																																								
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"																																															
FENCE & BEAM RAIL ERECTOR LABORERS	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47																																								
For apprentice rates see "Apprentice- LABORER"																																															
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.48	\$9.90	\$9.25	\$6.60	\$0.00	\$61.23																																								
	12/1/2025	\$36.71	\$9.90	\$9.25	\$6.60	\$0.00	\$62.46																																								
	6/1/2026	\$38.75	\$9.90	\$9.25	\$6.60	\$0.00	\$64.50																																								
	12/1/2026	\$40.04	\$9.90	\$9.25	\$6.60	\$0.00	\$65.79																																								
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"																																															
FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98	6/1/1999	\$18.84	\$4.80	\$4.10	\$0.00	\$0.00	\$27.74																																								
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98	6/1/1999	\$21.33	\$4.80	\$4.10	\$0.00	\$0.00	\$30.23																																								
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 98	6/1/1999	\$22.33	\$4.80	\$4.10	\$0.00	\$0.00	\$31.23																																								
FIRE ALARM INSTALLER ELECTRICIANS LOCAL 7	12/29/2024	\$51.06	\$13.25	\$8.23	\$6.83	\$0.00	\$79.37																																								
	6/29/2025	\$52.16	\$13.50	\$8.31	\$6.90	\$0.00	\$80.87																																								
	12/28/2025	\$53.26	\$13.75	\$8.40	\$6.96	\$0.00	\$82.37																																								
	6/28/2026	\$54.41	\$14.00	\$8.43	\$7.03	\$0.00	\$83.87																																								
	1/3/2027	\$55.56	\$14.25	\$8.47	\$7.09	\$0.00	\$85.37																																								
For apprentice rates see "Apprentice- ELECTRICIAN"																																															
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING ELECTRICIANS LOCAL 7	12/29/2024	\$51.06	\$13.25	\$8.23	\$6.83	\$0.00	\$79.37																																								
	6/29/2025	\$52.16	\$13.50	\$8.31	\$6.90	\$0.00	\$80.87																																								
	12/28/2025	\$53.26	\$13.75	\$8.40	\$6.96	\$0.00	\$82.37																																								
	6/28/2026	\$54.41	\$14.00	\$8.43	\$7.03	\$0.00	\$83.87																																								
	1/3/2027	\$55.56	\$14.25	\$8.47	\$7.09	\$0.00	\$85.37																																								
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"																																															
FIREMAN OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96																																								

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FIREMAN Effective Date: 12/1/2023							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$23.42	\$13.78	\$12.15	\$3.00	\$0.00	\$52.35
2	70.00	\$27.32	\$13.78	\$12.15	\$3.00	\$0.00	\$56.25
3	80.00	\$31.22	\$13.78	\$12.15	\$3.00	\$0.00	\$60.15
4	90.00	\$35.13	\$13.78	\$12.15	\$3.00	\$0.00	\$64.06
FLAGGER & SIGNALER (HEAVY & HIGHWAY)	6/1/2025	\$28.09	\$9.90	\$9.25	\$6.60	\$0.00	\$53.84
LABORERS	12/1/2025	\$28.09	\$9.90	\$9.25	\$6.60	\$0.00	\$53.84
	6/1/2026	\$29.21	\$9.90	\$9.25	\$6.60	\$0.00	\$54.96
	12/1/2026	\$29.21	\$9.90	\$9.25	\$6.60	\$0.00	\$54.96
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
FLOORCOVERER	3/1/2025	\$43.26	\$7.91	\$11.25	\$6.90	\$0.00	\$69.32
FLOORCOVERERS LOCAL 2168	9/1/2025	\$44.21	\$7.91	\$11.25	\$6.90	\$0.00	\$70.27
	3/1/2026	\$45.11	\$7.91	\$11.25	\$6.90	\$0.00	\$71.17
	9/1/2026	\$46.06	\$7.91	\$11.25	\$6.90	\$0.00	\$72.12
	3/1/2027	\$46.96	\$7.91	\$11.25	\$6.90	\$0.00	\$73.02
Apprentice: FLOORCOVERER Effective Date: 3/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.47	\$7.91	\$0.00	\$1.38	\$0.00	\$28.76
2	45.00	\$19.47	\$7.91	\$0.00	\$1.38	\$0.00	\$28.76
3	55.00	\$23.79	\$7.91	\$0.00	\$2.76	\$0.00	\$34.46
4	55.00	\$23.79	\$7.91	\$0.00	\$2.76	\$0.00	\$34.46
5	70.00	\$30.28	\$7.91	\$11.25	\$4.14	\$0.00	\$53.58
6	70.00	\$30.28	\$7.91	\$11.25	\$4.14	\$0.00	\$53.58
7	80.00	\$34.61	\$7.91	\$11.25	\$5.52	\$0.00	\$59.29
8	80.00	\$34.61	\$7.91	\$11.25	\$5.52	\$0.00	\$59.29
Apprentice: FLOORCOVERER Effective Date: 9/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.89	\$7.91	\$0.00	\$1.38	\$0.00	\$29.18
2	45.00	\$19.89	\$7.91	\$0.00	\$1.38	\$0.00	\$29.18
3	55.00	\$24.32	\$7.91	\$0.00	\$2.76	\$0.00	\$34.99
4	55.00	\$24.32	\$7.91	\$0.00	\$2.76	\$0.00	\$34.99
5	70.00	\$30.95	\$7.91	\$11.25	\$4.14	\$0.00	\$54.25
6	70.00	\$30.95	\$7.91	\$11.25	\$4.14	\$0.00	\$54.25
7	80.00	\$35.37	\$7.91	\$11.25	\$5.52	\$0.00	\$60.05

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FLOORCOVERER Effective Date: 9/1/2025							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
		8 80.00	\$35.37	\$7.91	\$11.25	\$5.52	\$0.00 \$60.05
FORK LIFT OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.25	\$13.78	\$12.15	\$3.00	\$0.00	\$68.18
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATORS/LIGHTING PLANTS OPERATING ENGINEERS LOCAL 98	12/1/2023	\$35.80	\$13.78	\$12.15	\$3.00	\$0.00	\$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) GLAZIERS LOCAL 1333	6/1/2020	\$39.18	\$10.80	\$6.70	\$3.75	\$0.00	\$60.43
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) Effective Date: 6/1/2020							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
		1 50.00	\$19.59	\$10.80	\$1.50	\$0.30	\$0.00 \$32.19
		2 56.25	\$22.04	\$10.80	\$1.50	\$0.30	\$0.00 \$34.64
		3 62.50	\$24.49	\$10.80	\$1.95	\$0.50	\$0.00 \$37.74
		4 68.75	\$26.94	\$10.80	\$1.95	\$0.50	\$0.00 \$40.19
		5 75.00	\$29.39	\$10.80	\$2.50	\$0.65	\$0.00 \$43.34
		6 81.25	\$31.83	\$10.80	\$2.50	\$0.65	\$0.00 \$45.78
		7 87.50	\$34.28	\$10.80	\$6.70	\$3.75	\$0.00 \$55.53
		8 93.75	\$36.73	\$10.80	\$6.70	\$3.75	\$0.00 \$57.98
GRADER/TRENCHING MACHINE/DERRICK OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 63	1/1/2025	\$42.23	\$12.20	\$10.79	\$7.95	\$2.13	\$75.30
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 7	12/29/2024	\$51.06	\$13.25	\$8.23	\$6.83	\$0.00	\$79.37
	6/29/2025	\$52.16	\$13.50	\$8.31	\$6.90	\$0.00	\$80.87
	12/28/2025	\$53.26	\$13.75	\$8.40	\$6.96	\$0.00	\$82.37
	6/28/2026	\$54.41	\$14.00	\$8.43	\$7.03	\$0.00	\$83.87
	1/3/2027	\$55.56	\$14.25	\$8.47	\$7.09	\$0.00	\$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63	1/1/2025	\$42.23	\$12.20	\$10.79	\$7.95	\$2.13	\$75.30
For apprentice rates see "Apprentice- SHEET METAL WORKER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
HVAC (TESTING AND BALANCING -WATER) PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2024	\$49.21	\$9.55	\$10.10	\$7.00	\$0.00	\$75.86
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HVAC MECHANIC PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2024	\$49.21	\$9.55	\$10.10	\$7.00	\$0.00	\$75.86
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.98	\$9.90	\$9.25	\$6.60	\$0.00	\$61.73
	12/1/2025	\$37.21	\$9.90	\$9.25	\$6.60	\$0.00	\$62.96
	6/1/2026	\$39.25	\$9.90	\$9.25	\$6.60	\$0.00	\$65.00
	12/1/2026	\$40.54	\$9.90	\$9.25	\$6.60	\$0.00	\$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6	9/1/2024	\$45.54	\$14.75	\$9.52	\$10.09	\$0.00	\$79.90
	9/1/2025	\$48.27	\$14.75	\$9.52	\$10.09	\$0.00	\$82.63
	9/1/2026	\$51.01	\$14.75	\$9.52	\$10.09	\$0.00	\$85.37

Apprentice: INSULATOR (PIPES & TANKS)**Effective Date: 9/1/2024**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$22.77	\$14.75	\$9.27	\$5.05	\$0.00	\$51.84
2	60.00	\$27.32	\$14.75	\$9.32	\$6.05	\$0.00	\$57.44
3	70.00	\$31.88	\$14.75	\$9.37	\$7.06	\$0.00	\$63.06
4	80.00	\$36.43	\$14.75	\$9.42	\$8.07	\$0.00	\$68.67

Apprentice: INSULATOR (PIPES & TANKS)**Effective Date: 9/1/2025**

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

IRONWORKER/WELDER IRONWORKERS LOCAL 12	7/1/2019	\$31.55	\$6.75	\$15.91	\$3.75	\$0.00	\$57.96
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Apprentice: IRONWORKER/WELDER**Effective Date: 7/1/2019**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$18.93	\$6.75	\$0.00	\$3.50	\$0.00	\$29.18
2	70.00	\$22.09	\$6.75	\$11.14	\$3.50	\$0.00	\$43.48
3	80.00	\$25.24	\$6.75	\$12.72	\$3.50	\$0.00	\$48.21

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: IRONWORKER/WELDER Effective Date: 7/1/2019							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	90.00	\$28.40	\$6.75	\$14.32	\$3.50	\$0.00	\$52.97
JACKHAMMER & PAVING BREAKER OPERATOR LABORERS	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47
For apprentice rates see "Apprentice- LABORER"							
LABORER LABORERS	12/1/2024	\$31.54	\$9.90	\$9.25	\$5.53	\$0.00	\$56.22

Apprentice: LABORER Effective Date: 12/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$18.92	\$9.90	\$9.25	\$5.53	\$0.00	\$43.60
2	70.00	\$22.08	\$9.90	\$9.25	\$5.53	\$0.00	\$46.76
3	80.00	\$25.23	\$9.90	\$9.25	\$5.53	\$0.00	\$49.91
4	90.00	\$28.39	\$9.90	\$9.25	\$5.53	\$0.00	\$53.07

LABORER (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.23	\$9.90	\$9.25	\$6.60	\$0.00	\$60.98
	12/1/2025	\$36.46	\$9.90	\$9.25	\$6.60	\$0.00	\$62.21
	6/1/2026	\$38.50	\$9.90	\$9.25	\$6.60	\$0.00	\$64.25
	12/1/2026	\$39.79	\$9.90	\$9.25	\$6.60	\$0.00	\$65.54

Apprentice: LABORER (HEAVY & HIGHWAY) Effective Date: 6/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$21.14	\$9.90	\$9.25	\$6.60	\$0.00	\$46.89
2	70.00	\$24.66	\$9.90	\$9.25	\$6.60	\$0.00	\$50.41
3	80.00	\$28.18	\$9.90	\$9.25	\$6.60	\$0.00	\$53.93
4	90.00	\$31.71	\$9.90	\$9.25	\$6.60	\$0.00	\$57.46

Apprentice: LABORER (HEAVY & HIGHWAY) Effective Date: 12/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$21.88	\$9.90	\$9.25	\$6.60	\$0.00	\$47.63
2	70.00	\$25.52	\$9.90	\$9.25	\$6.60	\$0.00	\$51.27
3	80.00	\$29.17	\$9.90	\$9.25	\$6.60	\$0.00	\$54.92
4	90.00	\$32.81	\$9.90	\$9.25	\$6.60	\$0.00	\$58.56

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORER: CARPENTER TENDER LABORERS	12/1/2024	\$31.54	\$9.90	\$9.25	\$5.53	\$0.00	\$56.22
For apprentice rates see "Apprentice- LABORER"							
LABORER: CEMENT FINISHER TENDER LABORERS	12/1/2024	\$31.54	\$9.90	\$9.25	\$5.53	\$0.00	\$56.22
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER LABORERS	6/1/2025	\$34.40	\$9.65	\$9.00	\$5.41	\$0.00	\$58.46
	12/1/2025	\$35.63	\$9.65	\$9.00	\$5.41	\$0.00	\$59.69
	6/1/2026	\$37.67	\$9.65	\$9.00	\$5.41	\$0.00	\$61.73
	12/1/2026	\$38.96	\$9.65	\$9.00	\$5.41	\$0.00	\$63.02
	6/1/2027	\$40.26	\$9.65	\$9.00	\$5.41	\$0.00	\$64.32
	12/1/2027	\$41.56	\$9.65	\$9.00	\$5.41	\$0.00	\$65.62
	6/5/2028	\$42.91	\$9.65	\$9.00	\$5.41	\$0.00	\$66.97
	12/4/2028	\$44.26	\$9.65	\$9.00	\$5.41	\$0.00	\$68.32
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER LABORERS	12/1/2024	\$33.54	\$9.90	\$9.25	\$5.53	\$0.00	\$58.22
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.48	\$9.90	\$9.25	\$6.60	\$0.00	\$61.23
	12/1/2025	\$36.71	\$9.90	\$9.25	\$6.60	\$0.00	\$62.46
	6/1/2026	\$38.75	\$9.90	\$9.25	\$6.60	\$0.00	\$64.50
	12/1/2026	\$40.04	\$9.90	\$9.25	\$6.60	\$0.00	\$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER LABORERS	12/1/2024	\$31.54	\$9.90	\$9.25	\$5.53	\$0.00	\$56.22
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER LABORERS	12/1/2024	\$31.54	\$9.90	\$9.25	\$5.53	\$0.00	\$56.22
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 LABORERS	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47
For apprentice rates see "Apprentice- LABORER"							
LASER BEAM OPERATOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.48	\$9.90	\$9.25	\$6.60	\$0.00	\$61.23
	12/1/2025	\$36.71	\$9.90	\$9.25	\$6.60	\$0.00	\$62.46
	6/1/2026	\$38.75	\$9.90	\$9.25	\$6.60	\$0.00	\$64.50
	12/1/2026	\$40.04	\$9.90	\$9.25	\$6.60	\$0.00	\$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
MARBLE & TILE FINISHERS BRICKLAYERS LOCAL 3	2/1/2025	\$43.84	\$11.49	\$15.10	\$5.68	\$0.00	\$76.11
	8/1/2025	\$44.75	\$11.49	\$15.10	\$5.68	\$0.00	\$77.02
	2/1/2026	\$45.83	\$11.49	\$15.10	\$5.68	\$0.00	\$78.10
	8/1/2026	\$47.59	\$11.49	\$15.10	\$5.68	\$0.00	\$79.86
	2/1/2027	\$48.71	\$11.49	\$15.10	\$5.68	\$0.00	\$80.98

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: MARBLE & TILE FINISHERS Effective Date: 2/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$21.92	\$11.49	\$15.10	\$5.68	\$0.00	\$54.19
2	60.00	\$26.30	\$11.49	\$15.10	\$5.68	\$0.00	\$58.57
3	70.00	\$30.69	\$11.49	\$15.10	\$5.68	\$0.00	\$62.96
4	80.00	\$35.07	\$11.49	\$15.10	\$5.68	\$0.00	\$67.34
5	90.00	\$39.46	\$11.49	\$15.10	\$5.68	\$0.00	\$71.73
Apprentice: MARBLE & TILE FINISHERS Effective Date: 8/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$22.38	\$11.49	\$15.10	\$5.68	\$0.00	\$54.65
2	60.00	\$26.85	\$11.49	\$15.10	\$5.68	\$0.00	\$59.12
3	70.00	\$31.33	\$11.49	\$15.10	\$5.68	\$0.00	\$63.60
4	80.00	\$35.80	\$11.49	\$15.10	\$5.68	\$0.00	\$68.07
5	90.00	\$40.28	\$11.49	\$15.10	\$5.68	\$0.00	\$72.55
MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MECHANIC/WELDER/BOOM TRUCK OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 3)	1/6/2025	\$43.48	\$10.08	\$11.47	\$9.75	\$0.00	\$74.78
MILLWRIGHTS LOCAL 1121	1/5/2026	\$45.76	\$10.08	\$11.47	\$9.75	\$0.00	\$77.06
Apprentice: MILLWRIGHT (Zone 3) Effective Date: 1/6/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$23.91	\$10.08	\$0.00	\$5.36	\$0.00	\$39.35
2	65.00	\$28.26	\$10.08	\$0.00	\$6.34	\$0.00	\$44.68
3	75.00	\$32.61	\$10.08	\$11.47	\$7.31	\$0.00	\$61.47
4	85.00	\$36.96	\$10.08	\$11.47	\$8.29	\$0.00	\$66.80
Apprentice: MILLWRIGHT (Zone 3) Effective Date: 1/5/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: MILLWRIGHT (Zone 3) Effective Date: 1/5/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$25.17	\$10.08	\$0.00	\$5.36	\$0.00	\$40.61
2	65.00	\$29.74	\$10.08	\$0.00	\$6.34	\$0.00	\$46.16
3	75.00	\$34.32	\$10.08	\$11.47	\$7.31	\$0.00	\$63.18
4	85.00	\$38.90	\$10.08	\$11.47	\$8.29	\$0.00	\$68.74
MORTAR MIXER LABORERS	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47
For apprentice rates see "Apprentice- LABORER"							
OILER OPERATING ENGINEERS LOCAL 98	12/1/2023	\$35.02	\$13.78	\$12.15	\$3.00	\$0.00	\$63.95
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OTHER POWER DRIVEN EQUIPMENT - CLASS VI OPERATING ENGINEERS LOCAL 98	12/1/2023	\$32.74	\$13.78	\$12.15	\$3.00	\$0.00	\$61.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35	1/1/2025	\$58.46	\$9.95	\$11.85	\$12.10	\$0.00	\$92.36
Apprentice: PAINTER (BRIDGES/TANKS) Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.23	\$9.95	\$0.00	\$0.00	\$0.00	\$39.18
2	55.00	\$32.15	\$9.95	\$0.00	\$6.66	\$0.00	\$48.76
3	60.00	\$35.08	\$9.95	\$0.00	\$7.26	\$0.00	\$52.29
4	65.00	\$38.00	\$9.95	\$0.00	\$7.87	\$0.00	\$55.82
5	70.00	\$40.92	\$9.95	\$11.85	\$8.47	\$0.00	\$71.19
6	75.00	\$43.85	\$9.95	\$11.85	\$9.08	\$0.00	\$74.73
7	80.00	\$46.77	\$9.95	\$11.85	\$9.68	\$0.00	\$78.25
8	90.00	\$52.61	\$9.95	\$11.85	\$10.89	\$0.00	\$85.30
PAINTER (SPRAY OR SANDBLAST, NEW) *	1/1/2025	\$41.23	\$9.65	\$11.85	\$8.05	\$0.00	\$70.78
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.							
PAINTERS LOCAL 35							
Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) * Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$20.62	\$9.95	\$0.00	\$0.00	\$0.00	\$30.57

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *							
Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	55.00	\$22.68	\$9.95	\$0.00	\$4.43	\$0.00	\$37.06
3	60.00	\$24.74	\$9.95	\$0.00	\$4.83	\$0.00	\$39.52
4	65.00	\$26.80	\$9.95	\$0.00	\$5.23	\$0.00	\$41.98
5	70.00	\$28.86	\$9.95	\$11.85	\$5.64	\$0.00	\$56.30
6	75.00	\$30.92	\$9.95	\$11.85	\$6.04	\$0.00	\$58.76
7	80.00	\$32.98	\$9.95	\$11.85	\$6.44	\$0.00	\$61.22
8	90.00	\$37.11	\$9.95	\$11.85	\$7.25	\$0.00	\$66.16
<hr/>							
PAINTER (SPRAY OR SANDBLAST, REPAINT)	1/1/2025	\$38.55	\$9.95	\$11.85	\$8.05	\$0.00	\$68.40
PAINTERS LOCAL 35							

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)							
Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$19.28	\$9.95	\$0.00	\$0.00	\$0.00	\$29.23
2	55.00	\$21.20	\$9.95	\$0.00	\$4.43	\$0.00	\$35.58
3	60.00	\$23.13	\$9.95	\$0.00	\$4.83	\$0.00	\$37.91
4	65.00	\$25.06	\$9.95	\$0.00	\$5.23	\$0.00	\$40.24
5	70.00	\$26.99	\$9.95	\$11.85	\$5.64	\$0.00	\$54.43
6	75.00	\$28.91	\$9.95	\$11.85	\$6.04	\$0.00	\$56.75
7	80.00	\$30.84	\$9.95	\$11.85	\$6.44	\$0.00	\$59.08
8	90.00	\$34.70	\$9.95	\$11.85	\$7.25	\$0.00	\$63.75

PAINTER / TAPER (BRUSH, NEW) *	1/1/2025	\$39.83	\$9.95	\$11.85	\$8.05	\$0.00	\$69.68
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.							
PAINTERS LOCAL 35							

Apprentice: PAINTER / TAPER (BRUSH, NEW) *							
Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$19.92	\$9.95	\$0.00	\$0.00	\$0.00	\$29.87
2	55.00	\$21.91	\$9.95	\$0.00	\$4.43	\$0.00	\$36.29
3	60.00	\$23.90	\$9.95	\$0.00	\$4.83	\$0.00	\$38.68
4	65.00	\$25.89	\$9.95	\$0.00	\$5.23	\$0.00	\$41.07
5	70.00	\$27.88	\$9.95	\$11.85	\$5.64	\$0.00	\$55.32
6	75.00	\$29.87	\$9.95	\$11.85	\$6.04	\$0.00	\$57.71
7	80.00	\$31.86	\$9.95	\$11.85	\$6.44	\$0.00	\$60.10
8	90.00	\$35.85	\$9.95	\$11.85	\$7.25	\$0.00	\$64.90

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
PAINTER / TAPER (BRUSH, REPAINT)	1/1/2025	\$37.15	\$9.95	\$11.85	\$8.05	\$0.00	\$67.00
PAINTERS LOCAL 35							

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)**Effective Date: 1/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$18.58	\$9.95	\$0.00	\$0.00	\$0.00	\$28.53
2	55.00	\$20.43	\$9.95	\$0.00	\$4.43	\$0.00	\$34.81
3	60.00	\$22.29	\$9.95	\$0.00	\$4.83	\$0.00	\$37.07
4	65.00	\$24.15	\$9.95	\$0.00	\$5.23	\$0.00	\$39.33
5	70.00	\$26.01	\$9.95	\$11.85	\$5.64	\$0.00	\$53.45
6	75.00	\$27.86	\$9.95	\$11.85	\$6.04	\$0.00	\$55.70
7	80.00	\$29.72	\$9.95	\$11.85	\$6.44	\$0.00	\$57.96
8	90.00	\$33.44	\$9.95	\$11.85	\$7.25	\$0.00	\$62.49

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	6/1/2025	\$35.23	\$9.90	\$9.25	\$6.60	\$0.00	\$60.98
LABORERS	12/1/2025	\$36.46	\$9.90	\$9.25	\$6.60	\$0.00	\$62.21
	6/1/2026	\$38.50	\$9.90	\$9.25	\$6.60	\$0.00	\$64.25
	12/1/2026	\$39.79	\$9.90	\$9.25	\$6.60	\$0.00	\$65.54

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

PANEL & PICKUP TRUCKS DRIVER	6/1/2025	\$40.78	\$15.57	\$20.17	\$0.00	\$0.00	\$76.52
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$40.78	\$15.57	\$21.78	\$0.00	\$0.00	\$78.13
	1/1/2026	\$40.78	\$16.17	\$21.78	\$0.00	\$0.00	\$78.73
	6/1/2026	\$41.78	\$16.17	\$21.78	\$0.00	\$0.00	\$79.73
	12/1/2026	\$41.78	\$16.17	\$23.52	\$0.00	\$0.00	\$81.47
	1/1/2027	\$41.78	\$16.77	\$23.52	\$0.00	\$0.00	\$82.07

PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	8/1/2024	\$49.19	\$10.08	\$11.62	\$12.67	\$0.00	\$83.56
PILE DRIVER LOCAL 56							

For apprentice rates see "Apprentice- PILE DRIVER"

PILE DRIVER	8/1/2024	\$49.19	\$10.08	\$11.62	\$12.67	\$0.00	\$83.56
PILE DRIVER LOCAL 56							

Apprentice: PILE DRIVER**Effective Date: 8/1/2024**

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

PIPELAYER	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47
LABORERS							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																																																								
For apprentice rates see "Apprentice- LABORER"																																																																																															
PIPELAYER (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.48	\$9.90	\$9.25	\$6.60	\$0.00	\$61.23																																																																																								
	12/1/2025	\$36.71	\$9.90	\$9.25	\$6.60	\$0.00	\$62.46																																																																																								
	6/1/2026	\$38.75	\$9.90	\$9.25	\$6.60	\$0.00	\$64.50																																																																																								
	12/1/2026	\$40.04	\$9.90	\$9.25	\$6.60	\$0.00	\$65.79																																																																																								
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"																																																																																															
PLUMBER & PIPEFITTER PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2024	\$49.21	\$9.55	\$10.10	\$7.00	\$0.00	\$75.86																																																																																								
Apprentice: PLUMBER & PIPEFITTER Effective Date: 3/17/2024 <table> <tr> <th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr> <tr><td>1</td><td>45.00</td><td>\$22.14</td><td>\$9.55</td><td>\$10.10</td><td>\$0.00</td><td>\$0.00</td><td>\$41.79</td></tr> <tr><td>2</td><td>50.00</td><td>\$24.61</td><td>\$9.55</td><td>\$10.10</td><td>\$0.00</td><td>\$0.00</td><td>\$44.26</td></tr> <tr><td>3</td><td>55.00</td><td>\$27.07</td><td>\$9.55</td><td>\$10.10</td><td>\$0.00</td><td>\$0.00</td><td>\$46.72</td></tr> <tr><td>4</td><td>60.00</td><td>\$29.53</td><td>\$9.55</td><td>\$10.10</td><td>\$0.00</td><td>\$0.00</td><td>\$49.18</td></tr> <tr><td>5</td><td>65.00</td><td>\$31.99</td><td>\$9.55</td><td>\$10.10</td><td>\$0.00</td><td>\$0.00</td><td>\$51.64</td></tr> <tr><td>6</td><td>70.00</td><td>\$34.45</td><td>\$9.55</td><td>\$10.10</td><td>\$0.00</td><td>\$0.00</td><td>\$54.10</td></tr> <tr><td>7</td><td>75.00</td><td>\$36.91</td><td>\$9.55</td><td>\$10.10</td><td>\$0.00</td><td>\$0.00</td><td>\$56.56</td></tr> <tr><td>8</td><td>80.00</td><td>\$39.37</td><td>\$9.55</td><td>\$10.10</td><td>\$0.00</td><td>\$0.00</td><td>\$59.02</td></tr> <tr><td>9</td><td>80.00</td><td>\$39.37</td><td>\$9.55</td><td>\$10.10</td><td>\$7.00</td><td>\$0.00</td><td>\$66.02</td></tr> <tr><td>10</td><td>80.00</td><td>\$39.37</td><td>\$9.55</td><td>\$10.10</td><td>\$7.00</td><td>\$0.00</td><td>\$66.02</td></tr> </table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	1	45.00	\$22.14	\$9.55	\$10.10	\$0.00	\$0.00	\$41.79	2	50.00	\$24.61	\$9.55	\$10.10	\$0.00	\$0.00	\$44.26	3	55.00	\$27.07	\$9.55	\$10.10	\$0.00	\$0.00	\$46.72	4	60.00	\$29.53	\$9.55	\$10.10	\$0.00	\$0.00	\$49.18	5	65.00	\$31.99	\$9.55	\$10.10	\$0.00	\$0.00	\$51.64	6	70.00	\$34.45	\$9.55	\$10.10	\$0.00	\$0.00	\$54.10	7	75.00	\$36.91	\$9.55	\$10.10	\$0.00	\$0.00	\$56.56	8	80.00	\$39.37	\$9.55	\$10.10	\$0.00	\$0.00	\$59.02	9	80.00	\$39.37	\$9.55	\$10.10	\$7.00	\$0.00	\$66.02	10	80.00	\$39.37	\$9.55	\$10.10	\$7.00	\$0.00	\$66.02
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																																																								
1	45.00	\$22.14	\$9.55	\$10.10	\$0.00	\$0.00	\$41.79																																																																																								
2	50.00	\$24.61	\$9.55	\$10.10	\$0.00	\$0.00	\$44.26																																																																																								
3	55.00	\$27.07	\$9.55	\$10.10	\$0.00	\$0.00	\$46.72																																																																																								
4	60.00	\$29.53	\$9.55	\$10.10	\$0.00	\$0.00	\$49.18																																																																																								
5	65.00	\$31.99	\$9.55	\$10.10	\$0.00	\$0.00	\$51.64																																																																																								
6	70.00	\$34.45	\$9.55	\$10.10	\$0.00	\$0.00	\$54.10																																																																																								
7	75.00	\$36.91	\$9.55	\$10.10	\$0.00	\$0.00	\$56.56																																																																																								
8	80.00	\$39.37	\$9.55	\$10.10	\$0.00	\$0.00	\$59.02																																																																																								
9	80.00	\$39.37	\$9.55	\$10.10	\$7.00	\$0.00	\$66.02																																																																																								
10	80.00	\$39.37	\$9.55	\$10.10	\$7.00	\$0.00	\$66.02																																																																																								
PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2024	\$49.21	\$9.55	\$10.10	\$7.00	\$0.00	\$75.86																																																																																								
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"																																																																																															
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.48	\$9.90	\$9.25	\$6.60	\$0.00	\$61.23																																																																																								
	12/1/2025	\$36.71	\$9.90	\$9.25	\$6.60	\$0.00	\$62.46																																																																																								
	6/1/2026	\$38.75	\$9.90	\$9.25	\$6.60	\$0.00	\$64.50																																																																																								
	12/1/2026	\$40.04	\$9.90	\$9.25	\$6.60	\$0.00	\$65.79																																																																																								
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"																																																																																															
POWDERMAN & BLASTER LABORERS	12/1/2024	\$32.54	\$9.90	\$9.25	\$5.53	\$0.00	\$57.22																																																																																								
For apprentice rates see "Apprentice- LABORER"																																																																																															
POWDERMAN & BLASTER (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$36.23	\$9.90	\$9.25	\$6.19	\$0.00	\$61.57																																																																																								
	12/1/2025	\$37.46	\$9.90	\$9.25	\$6.19	\$0.00	\$62.80																																																																																								
	6/1/2026	\$39.50	\$9.90	\$9.25	\$6.19	\$0.00	\$64.84																																																																																								
	12/1/2026	\$40.79	\$9.90	\$9.25	\$6.19	\$0.00	\$66.13																																																																																								
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"																																																																																															
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49																																																																																								
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																																																																																															

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
PUMP OPERATOR (DEWATERING, OTHER) OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER TEAMSTERS 404 - Construction Service (Northampton)	5/1/2024	\$26.14	\$11.82	\$7.25	\$0.00	\$0.00	\$45.21
RIDE-ON MOTORIZED BUGGY OPERATOR LABORERS	12/1/2024	\$31.79	\$9.90	\$9.25	\$5.53	\$0.00	\$56.47
For apprentice rates see "Apprentice- LABORER"							
ROLLER OPERATOR OPERATING ENGINEERS LOCAL 98	12/1/2023	\$38.42	\$13.78	\$12.15	\$3.00	\$0.00	\$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Coal tar pitch) ROOFERS LOCAL 248	10/2/2024	\$42.38	\$10.35	\$8.70	\$9.30	\$0.00	\$70.73
	7/16/2025	\$43.88	\$10.35	\$8.70	\$9.30	\$0.00	\$72.23
	10/2/2025	\$44.88	\$10.35	\$8.70	\$9.30	\$0.00	\$73.23
	7/16/2026	\$46.88	\$10.35	\$8.70	\$9.30	\$0.00	\$75.23
For apprentice rates see "Apprentice- ROOFER"							
ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg) ROOFERS LOCAL 248	10/2/2024	\$41.88	\$10.35	\$8.70	\$9.30	\$0.00	\$70.23
	7/16/2025	\$43.38	\$10.35	\$8.70	\$9.30	\$0.00	\$71.73
	10/2/2025	\$44.38	\$10.35	\$8.70	\$9.30	\$0.00	\$72.73
	7/16/2026	\$46.38	\$10.35	\$8.70	\$9.30	\$0.00	\$74.73
Apprentice: ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg) Effective Date: 10/2/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$25.13	\$10.35	\$0.00	\$0.00	\$0.00	\$35.48
2	65.00	\$27.22	\$10.35	\$8.70	\$9.30	\$0.00	\$55.57
3	70.00	\$29.32	\$10.35	\$8.70	\$9.30	\$0.00	\$57.67
4	75.00	\$31.41	\$10.35	\$8.70	\$9.30	\$0.00	\$59.76
5	80.00	\$33.50	\$10.35	\$8.70	\$9.30	\$0.00	\$61.85
6	85.00	\$35.60	\$10.35	\$8.70	\$9.30	\$0.00	\$63.95
7	90.00	\$37.69	\$10.35	\$8.70	\$9.30	\$0.00	\$66.04
8	95.00	\$39.79	\$10.35	\$8.70	\$9.30	\$0.00	\$68.14
ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 248	10/2/2024	\$42.38	\$10.35	\$8.70	\$9.30	\$0.00	\$70.73
	7/16/2025	\$43.88	\$10.35	\$8.70	\$9.30	\$0.00	\$72.23
	10/2/2025	\$44.88	\$10.35	\$8.70	\$9.30	\$0.00	\$73.23
	7/16/2026	\$46.88	\$10.35	\$8.70	\$9.30	\$0.00	\$75.23
For apprentice rates see "Apprentice- ROOFER"							
SCRAPER OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS)	12/1/2023	\$38.42	\$13.78	\$12.15	\$3.00	\$0.00	\$67.35

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-PROPELLED POWER BROOM OPERATING ENGINEERS LOCAL 98	12/1/2023	\$35.80	\$13.78	\$12.15	\$3.00	\$0.00	\$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 63	1/1/2025	\$42.23	\$12.20	\$10.79	\$7.95	\$2.13	\$75.30

Apprentice: SHEETMETAL WORKER							
Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.00	\$5.49	\$4.86	\$0.00	\$0.85	\$30.20
2	50.00	\$21.12	\$6.10	\$5.40	\$0.00	\$0.94	\$33.56
3	55.00	\$23.23	\$6.71	\$9.71	\$0.00	\$1.15	\$40.80
4	60.00	\$25.34	\$7.32	\$9.71	\$0.00	\$1.23	\$43.60
5	65.00	\$27.45	\$7.93	\$9.71	\$0.00	\$1.31	\$46.40
6	70.00	\$29.56	\$8.54	\$9.71	\$0.00	\$1.39	\$49.20
7	75.00	\$31.67	\$9.15	\$9.71	\$0.00	\$1.47	\$52.00
8	80.00	\$33.78	\$9.76	\$9.71	\$7.95	\$1.78	\$62.98
9	85.00	\$35.90	\$10.37	\$9.71	\$7.95	\$1.86	\$65.79
10	90.00	\$38.01	\$10.98	\$9.71	\$7.95	\$1.94	\$68.59

SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10	6/1/2025	\$41.24	\$15.57	\$20.17	\$0.00	\$0.00	\$76.98
	12/1/2025	\$41.24	\$15.57	\$21.78	\$0.00	\$0.00	\$78.59
	1/1/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$0.00	\$79.19
	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19
	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10	6/1/2025	\$41.53	\$15.57	\$20.17	\$0.00	\$0.00	\$77.27
	12/1/2025	\$41.53	\$15.57	\$21.78	\$0.00	\$0.00	\$78.88
	1/1/2026	\$41.53	\$16.17	\$21.78	\$0.00	\$0.00	\$79.48
	6/1/2026	\$42.53	\$16.17	\$21.78	\$0.00	\$0.00	\$80.48
	12/1/2026	\$42.53	\$16.17	\$23.52	\$0.00	\$0.00	\$82.22
	1/1/2027	\$42.53	\$16.77	\$23.52	\$0.00	\$0.00	\$82.82
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 669	4/1/2023	\$47.43	\$11.45	\$7.20	\$9.41	\$0.00	\$75.49

Apprentice: SPRINKLER FITTER							
Effective Date: 4/1/2023							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$21.34	\$8.22	\$0.00	\$0.00	\$0.00	\$29.56
2	50.00	\$23.72	\$8.22	\$0.00	\$0.00	\$0.00	\$31.94

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: SPRINKLER FITTER Effective Date: 4/1/2023							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	55.00	\$26.09	\$11.45	\$7.20	\$0.00	\$0.00	\$44.74
4	60.00	\$28.46	\$11.45	\$7.20	\$1.15	\$0.00	\$48.26
5	65.00	\$30.83	\$11.45	\$7.20	\$1.15	\$0.00	\$50.63
6	70.00	\$33.20	\$11.45	\$7.20	\$1.40	\$0.00	\$53.25
7	75.00	\$35.57	\$11.45	\$7.20	\$1.40	\$0.00	\$55.62
8	80.00	\$37.94	\$11.45	\$7.20	\$1.40	\$0.00	\$57.99
9	85.00	\$40.32	\$11.45	\$7.20	\$1.40	\$0.00	\$60.37
10	90.00	\$42.69	\$11.45	\$7.20	\$1.40	\$0.00	\$62.74
TELECOMMUNICATION TECHNICIAN ELECTRICIANS LOCAL 7	12/29/2024	\$51.06	\$13.25	\$8.23	\$6.83	\$0.00	\$79.37
	6/29/2025	\$52.16	\$13.50	\$8.31	\$6.90	\$0.00	\$80.87
	12/28/2025	\$53.26	\$13.75	\$8.40	\$6.96	\$0.00	\$82.37
	6/28/2026	\$54.41	\$14.00	\$8.43	\$7.03	\$0.00	\$83.87
	1/3/2027	\$55.56	\$14.25	\$8.47	\$7.09	\$0.00	\$85.37
Apprentice: TELECOMMUNICATION TECHNICIAN Effective Date: 12/29/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$20.42	\$7.35	\$0.61	\$0.00	\$0.00	\$28.38
2	45.00	\$22.98	\$7.35	\$0.69	\$0.00	\$0.00	\$31.02
3	50.00	\$25.53	\$13.25	\$7.47	\$0.00	\$0.00	\$46.25
4	55.00	\$28.08	\$13.25	\$7.54	\$0.00	\$0.00	\$48.87
5	65.00	\$33.19	\$13.25	\$9.74	\$0.00	\$0.00	\$56.18
6	70.00	\$35.74	\$13.25	\$11.19	\$0.00	\$0.00	\$60.18
Apprentice: TELECOMMUNICATION TECHNICIAN Effective Date: 6/29/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$20.86	\$7.50	\$0.63	\$0.00	\$0.00	\$28.99
2	45.00	\$23.47	\$7.50	\$0.70	\$0.00	\$0.00	\$31.67
3	50.00	\$26.08	\$13.50	\$7.53	\$0.00	\$0.00	\$47.11
4	55.00	\$28.69	\$13.50	\$7.61	\$0.00	\$0.00	\$49.80
5	65.00	\$33.90	\$13.50	\$9.84	\$0.00	\$0.00	\$57.24
6	70.00	\$36.51	\$13.50	\$11.30	\$0.00	\$0.00	\$61.31
TERRAZZO FINISHERS BRICKLAYERS LOCAL 3	2/1/2025	\$64.74	\$11.49	\$15.57	\$8.02	\$0.00	\$99.82
	8/1/2025	\$66.89	\$11.49	\$15.57	\$8.02	\$0.00	\$101.97
	2/10/2026	\$68.24	\$11.49	\$15.57	\$8.02	\$0.00	\$103.32
	8/1/2026	\$70.44	\$11.49	\$15.57	\$8.02	\$0.00	\$105.52
	2/1/2027	\$71.84	\$11.49	\$15.57	\$8.02	\$0.00	\$106.92

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: TERRAZZO FINISHERS Effective Date: 2/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$32.37	\$11.49	\$15.57	\$8.02	\$0.00	\$67.45
2	60.00	\$38.84	\$11.49	\$15.57	\$8.02	\$0.00	\$73.92
3	70.00	\$45.32	\$11.49	\$15.57	\$8.02	\$0.00	\$80.40
4	80.00	\$51.79	\$11.49	\$15.57	\$8.02	\$0.00	\$86.87
5	90.00	\$58.27	\$11.49	\$15.57	\$8.02	\$0.00	\$93.35
Apprentice: TERRAZZO FINISHERS Effective Date: 8/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$33.45	\$11.49	\$15.57	\$8.02	\$0.00	\$68.53
2	60.00	\$40.13	\$11.49	\$15.57	\$8.02	\$0.00	\$75.21
3	70.00	\$46.82	\$11.49	\$15.57	\$8.02	\$0.00	\$81.90
4	80.00	\$53.51	\$11.49	\$15.57	\$8.02	\$0.00	\$88.59
5	90.00	\$60.20	\$11.49	\$15.57	\$8.02	\$0.00	\$95.28
Apprentice: TERRAZZO MECHANIC Effective Date: 2/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$32.91	\$11.49	\$15.57	\$7.99	\$0.00	\$67.96
2	60.00	\$39.49	\$11.49	\$15.57	\$7.99	\$0.00	\$74.54
3	70.00	\$46.07	\$11.49	\$15.57	\$7.99	\$0.00	\$81.12
4	80.00	\$52.66	\$11.49	\$15.57	\$7.99	\$0.00	\$87.71
5	90.00	\$59.24	\$11.49	\$15.57	\$7.99	\$0.00	\$94.29
Apprentice: TERRAZZO MECHANIC Effective Date: 8/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$33.99	\$11.49	\$15.57	\$7.99	\$0.00	\$69.04
2	60.00	\$40.78	\$11.49	\$15.57	\$7.99	\$0.00	\$75.83
3	70.00	\$47.58	\$11.49	\$15.57	\$7.99	\$0.00	\$82.63

TERRAZZO MECHANIC
BRICKLAYERS LOCAL 3

2/1/2025	\$65.82	\$11.49	\$15.57	\$7.99	\$0.00	\$100.87
8/1/2025	\$67.97	\$11.49	\$15.57	\$7.99	\$0.00	\$103.02
2/1/2026	\$69.32	\$11.49	\$15.57	\$7.99	\$0.00	\$104.37
8/1/2026	\$71.52	\$11.49	\$15.57	\$7.99	\$0.00	\$106.57
2/1/2027	\$72.92	\$11.49	\$15.57	\$7.99	\$0.00	\$107.97

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																								
<div>Apprentice: TERRAZZO MECHANIC</div> <div>Effective Date: 8/1/2025</div> <table><thead><tr><th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr></thead><tbody><tr><td>4</td><td>80.00</td><td>\$54.38</td><td>\$11.49</td><td>\$15.57</td><td>\$7.99</td><td>\$0.00</td><td>\$89.43</td></tr><tr><td>5</td><td>90.00</td><td>\$61.17</td><td>\$11.49</td><td>\$15.57</td><td>\$7.99</td><td>\$0.00</td><td>\$96.22</td></tr></tbody></table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	4	80.00	\$54.38	\$11.49	\$15.57	\$7.99	\$0.00	\$89.43	5	90.00	\$61.17	\$11.49	\$15.57	\$7.99	\$0.00	\$96.22
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																								
4	80.00	\$54.38	\$11.49	\$15.57	\$7.99	\$0.00	\$89.43																								
5	90.00	\$61.17	\$11.49	\$15.57	\$7.99	\$0.00	\$96.22																								
TEST BORING DRILLER LABORERS	6/1/2025	\$51.70	\$9.90	\$9.25	\$9.80	\$0.00	\$80.65																								
	12/1/2025	\$53.20	\$9.90	\$9.25	\$9.80	\$0.00	\$82.15																								
	6/1/2026	\$54.75	\$9.90	\$9.25	\$9.80	\$0.00	\$83.70																								
	12/1/2026	\$56.25	\$9.90	\$9.25	\$9.80	\$0.00	\$85.20																								
For apprentice rates see "Apprentice- LABORER"																															
TEST BORING DRILLER HELPER LABORERS	6/1/2025	\$47.82	\$9.90	\$9.25	\$9.80	\$0.00	\$76.77																								
	12/1/2025	\$49.32	\$9.90	\$9.25	\$9.80	\$0.00	\$78.27																								
	6/1/2026	\$50.87	\$9.90	\$9.25	\$9.80	\$0.00	\$79.82																								
	12/1/2026	\$52.37	\$9.90	\$9.25	\$9.80	\$0.00	\$81.32																								
For apprentice rates see "Apprentice- LABORER"																															
TEST BORING LABORER LABORERS	6/1/2025	\$47.70	\$9.90	\$9.25	\$9.80	\$0.00	\$76.65																								
	12/1/2025	\$49.20	\$9.90	\$9.25	\$9.80	\$0.00	\$78.15																								
	6/1/2026	\$50.75	\$9.90	\$9.25	\$9.80	\$0.00	\$79.70																								
	12/1/2026	\$52.25	\$9.90	\$9.25	\$9.80	\$0.00	\$81.20																								
For apprentice rates see "Apprentice- LABORER"																															
TRACTORS OPERATING ENGINEERS LOCAL 98	12/1/2023	\$38.42	\$13.78	\$12.15	\$3.00	\$0.00	\$67.35																								
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																															
TRAILERS FOR EARTH MOVING EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10	6/1/2025	\$41.82	\$15.57	\$20.17	\$0.00	\$0.00	\$77.56																								
	12/1/2025	\$41.82	\$15.57	\$21.78	\$0.00	\$0.00	\$79.17																								
	1/1/2026	\$41.82	\$16.17	\$21.78	\$0.00	\$0.00	\$79.77																								
	6/1/2026	\$42.82	\$16.17	\$21.78	\$0.00	\$0.00	\$80.77																								
	12/1/2026	\$42.82	\$16.17	\$23.52	\$0.00	\$0.00	\$82.51																								
	1/1/2027	\$42.82	\$16.77	\$23.52	\$0.00	\$0.00	\$83.11																								
TUNNEL WORK - COMPRESSED AIR LABORERS	6/1/2025	\$59.93	\$9.90	\$9.25	\$10.25	\$0.00	\$89.33																								
	12/1/2025	\$61.43	\$9.90	\$9.25	\$10.25	\$0.00	\$90.83																								
	6/1/2026	\$62.98	\$9.90	\$9.25	\$10.25	\$0.00	\$92.38																								
	12/1/2026	\$64.48	\$9.90	\$9.25	\$10.25	\$0.00	\$93.88																								
For apprentice rates see "Apprentice- LABORER"																															
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) LABORERS	6/1/2025	\$61.93	\$9.90	\$9.25	\$10.25	\$0.00	\$91.33																								
	12/1/2025	\$63.43	\$9.90	\$9.25	\$10.25	\$0.00	\$92.83																								
	6/1/2026	\$64.98	\$9.90	\$9.25	\$10.25	\$0.00	\$94.38																								
	12/1/2026	\$66.48	\$9.90	\$9.25	\$10.25	\$0.00	\$95.88																								
For apprentice rates see "Apprentice- LABORER"																															
TUNNEL WORK - FREE AIR	6/1/2025	\$52.00	\$9.90	\$9.25	\$10.25	\$0.00	\$81.40																								

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS	12/1/2025	\$53.50	\$9.90	\$9.25	\$10.25	\$0.00	\$82.90
	6/1/2026	\$55.05	\$9.90	\$9.25	\$10.25	\$0.00	\$84.45
	12/1/2026	\$56.55	\$9.90	\$9.25	\$10.25	\$0.00	\$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE) LABORERS	6/1/2025	\$54.00	\$9.90	\$9.25	\$10.25	\$0.00	\$83.40
	12/1/2025	\$55.50	\$9.90	\$9.25	\$10.25	\$0.00	\$84.90
	6/1/2026	\$57.05	\$9.90	\$9.25	\$10.25	\$0.00	\$86.45
	12/1/2026	\$58.55	\$9.90	\$9.25	\$10.25	\$0.00	\$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL TEAMSTERS JOINT COUNCIL NO. 10	6/1/2025	\$41.24	\$15.57	\$20.17	\$0.00	\$0.00	\$76.98
	12/1/2025	\$41.24	\$15.57	\$21.78	\$0.00	\$0.00	\$78.59
	1/1/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$0.00	\$79.19
	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19
	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$35.48	\$9.90	\$9.25	\$6.60	\$0.00	\$61.23
	12/1/2025	\$36.71	\$9.90	\$9.25	\$6.60	\$0.00	\$62.46
	6/1/2026	\$38.75	\$9.90	\$9.25	\$6.60	\$0.00	\$64.50
	12/1/2026	\$40.04	\$9.90	\$9.25	\$6.60	\$0.00	\$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
WATER METER INSTALLER PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2024	\$49.21	\$9.55	\$10.10	\$7.00	\$0.00	\$75.86
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	1/1/2018	\$41.82	\$7.63	\$2.35	\$1.25	\$0.00	\$53.05
BOAT CAPTAIN 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	1/1/2018	\$38.06	\$7.63	\$2.35	\$1.25	\$0.00	\$49.29
CORE DRILLER MARINE DRILLING	1/1/2018	\$31.43	\$7.63	\$2.25	\$0.65	\$0.00	\$41.96
CORE DRILLER HELPER MARINE DRILLING	1/1/2018	\$28.47	\$7.63	\$2.35	\$0.65	\$0.00	\$39.10
DRILLER MARINE DRILLING	1/1/2018	\$39.70	\$7.63	\$2.35	\$1.25	\$0.00	\$50.93
ENGINEER MARINE DRILLING	1/1/2018	\$39.69	\$7.63	\$2.25	\$1.25	\$0.00	\$50.82
HELPER MARINE DRILLING	1/1/2018	\$34.24	\$7.63	\$2.35	\$0.65	\$0.00	\$44.87
MACHINIST MARINE DRILLING	1/1/2018	\$38.88	\$7.63	\$2.35	\$0.95	\$0.00	\$49.81
OILER - MARINE DRILLING MARINE DRILLING	1/1/2018	\$34.24	\$7.63	\$2.35	\$0.65	\$0.00	\$44.87
TUG DECKHAND MARINE DRILLING	1/1/2018	\$27.61	\$7.63	\$2.35	\$0.65	\$0.00	\$38.24
WELDER 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	10/1/2017	\$29.26	\$7.63	\$2.35	\$0.95	\$0.00	\$40.19
CERTIFIED WELDER OPERATING ENGINEERS LOCAL 4	10/1/2017	\$31.09	\$7.63	\$2.35	\$1.25	\$0.00	\$42.32
CHIEF WELDER/ CHIEF MATE OPERATING ENGINEERS LOCAL 4	10/1/2017	\$33.02	\$7.63	\$2.35	\$1.25	\$0.00	\$44.25
DERRICK / SPIDER / SPILLBARGE OPERATOR OPERATING ENGINEERS LOCAL 4	10/1/2017	\$33.02	\$7.63	\$2.35	\$1.25	\$0.00	\$44.25
DRAG BARGE OPERATOR / WELDER / MATE OPERATING ENGINEERS LOCAL 4	10/1/2017	\$30.24	\$7.63	\$2.35	\$0.95	\$0.00	\$41.17
ENGINEER / ELECTRICIAN OPERATING ENGINEERS LOCAL 4	10/1/2017	\$33.02	\$7.63	\$2.35	\$1.25	\$0.00	\$44.25
LICENSED BOAT OPERATOR OPERATING ENGINEERS LOCAL 4	10/1/2017	\$33.02	\$7.63	\$2.35	\$1.25	\$0.00	\$44.25
LICENSED TUG OPERATOR OVER 1000HP OPERATING ENGINEERS LOCAL 4	10/1/2017	\$38.18	\$7.63	\$2.35	\$1.25	\$0.00	\$49.41
MAINTENANCE ENGINEER OPERATING ENGINEERS LOCAL 4	10/1/2017	\$33.03	\$7.63	\$2.35	\$1.25	\$0.00	\$44.26
OILER - MARINE DIVISION OPERATING ENGINEERS LOCAL 4	10/1/2017	\$24.30	\$7.63	\$2.35	\$0.65	\$0.00	\$34.93
OPERATOR / LEVERMAN OPERATING ENGINEERS LOCAL 4	10/1/2017	\$38.18	\$7.63	\$2.35	\$1.25	\$0.00	\$49.41
RODMAN / SCOWMAN OPERATING ENGINEERS LOCAL 4	10/1/2017	\$24.30	\$7.63	\$2.35	\$0.65	\$0.00	\$34.93
SHOREMAN / DECKHAND OPERATING ENGINEERS LOCAL 4	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.

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DOCUMENT A00801

SPECIAL PROVISIONS**DISTRICT 1****Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations**

Labor participation goals for this Project shall be 15.3% for minorities and 6.9% for women for each job category. The goals are applicable to both Contractor's and Subcontractor's on-site construction workforce. Refer to Document 00820 for details.

SCOPE OF WORK

All work under this Contract shall be done in conformance with the *2025 Standard Specifications for Highways and Bridges*, the *Supplemental Specifications* contained in this book, the *Construction Standard Details* in effect as of March 12, 2025, the *1990 Standard Drawings for Signs and Supports*, the *2015 Overhead Signal Structure and Foundation Standard Drawings*, the *2009 Manual on Uniform Traffic Control Devices (MUTCD) with Revisions 1, 2, and 3* and the *November 2022 Massachusetts Amendments to the MUTCD*, the *1968 Standard Drawings for Traffic Signals and Highway Lighting*, the latest edition of *The American Standard for Nursery Stock*, the Plans and these Special Provisions.

The work to be done under this Contract consists of scheduled and emergency bridge deck and joint repairs performed on bridges, culverts, and viaducts under the control of District One at various locations. The Work will include but is not limited to the following:

- 1) In order to repair bridge decks, pavement shall be removed per Item 129.6, as required by the Engineer.
- 2) Excavation under Item 127.41 Reinforced Concrete Deck Excavation (Partial depth) and/or Item 127.4 Reinforced Concrete Deck Excavation (Full depth) of the existing reinforced cement concrete decks where deterioration has occurred, as required by the Engineer. Excavation of concrete adjacent to joints under Item 127.1, as required by the Engineer.
- 3) In order to repair approach slabs, if required by the Engineer, the pavement above the approach and the material between the pavement and the approach slab shall be excavated per Item 120.1.
- 4) Replacement of the excavated concrete shall be under Item 905. 4000 PSI, 3/8 Inch, 660 Cement Concrete or Item 909.5 Rapid Setting Concrete, as required by the Engineer.
- 5) Installation, repair, or replacement of bridge joints.
- 6) If required by the Engineer, concrete curbs, sidewalks, or concrete railings shall be repaired. Granite curb shall be removed and reset, as required by the Engineer.
- 7) Installation and removal of temporary protective shielding shall be under Item 994.1.
- 8) After bridge decks have been repaired, pavement shall be restored to existing grades and cross slopes, as required by the Engineer. For replacement of HMA wearing surface at the approaches and on the bridge deck, Item 451. shall be used.
- 9) Related traffic management.

SCOPE OF WORK (Continued)

- 10)Furnishing all materials, equipment, labor, and traffic control required to perform the necessary repair work. All materials and equipment shall be approved by the Engineer prior to work commencing.

Where work is directed by the Engineer and is not in the list of bid items, the Contractor will be paid under Non-Bid Items and 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.

LOCATION OF WORK

Work under this Contract may include any bridges, viaducts, tunnels, and approach ramps within District One as assigned by the Engineer. The following web link provides the cities and towns under the jurisdiction of District One:

<https://www.mass.gov/service-details/find-your-highway-district-office>

Select the district and click “Submit” button.

No work shall be performed under this contract until specifically authorized and directed by the Engineer. Furthermore, this Contract does not assign to the Contractor complete maintenance of the bridges owned by the Department. The Department reserves the right to perform such work as it deems best with its own forces, and/or to enter into special contracts for the maintenance of specific items.

SUBSECTION 7.05 INSURANCE REQUIREMENTS**B. Public Liability Insurance**

The insurance requirements set forth in this subsection are in addition to the requirements of the Standard Specifications and supersede all other requirements.

Paragraphs 1 and 2

The Massachusetts Department of Transportation and applicable railroads shall be named as additional insureds.

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 massdot specifications@dot.state.ma.us The MassDOT project file number and municipality is to be placed in the subject line.

SCHEDULE OF WORK

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

For specific locations, allowable work hours will be determined by the District Highway Director or designated representative. On high volume and/or high-speed roadways, work may be restricted to non-peak hours as required by the Engineer to avoid peak traffic volumes and to maintain safety and productivity.

Work may not proceed beyond the normal 8-hour day unless prior approval is obtained from the Engineer for that day. Approval to work beyond the scheduled work will only be given when special conditions exist that warrant working beyond the scheduled work, as determined by the Engineer. No additional compensation will be made for longer working hours.

No entrance or exit ramp shall be closed to traffic except between the hours of 8:00 PM and 5:00 AM the following day or as required. The Contractor shall be required to schedule the work activities such that not more than one ramp shall be closed during any given work period.

These time periods include the "set-up" and "breakdown" of the traffic pattern employed. No operations, personnel, or equipment will be allowed on the roadways except during working hours.

The work hour restrictions do not apply to emergency conditions, as determined by the Engineer.

CONTRACTOR ACCESS

Contractors shall be aware that there are multi-span bridges with piers located away from the road and or near rivers and streams. No compensation will be made for access roads to get equipment or personnel to the work site. In addition, no compensation will be made for staging to access repair areas, etc.

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.

FORMWORK AND SITEWORK

The temporary formwork used for concrete placement, shall be removed, and disposed of by the contractor. Any formwork that is not removed within forty-five (45) days after the concrete placement and is reported by Bridge Inspection or other MassDOT personnel will impose a damage of \$500.00 for each form location (On one bridge there may be multiple locations). Payment shall be included in the unit price under the applicable item.

The Contractor is required to broom, clean all work site areas after the removal of excavated debris, regardless of the pre-existing conditions. These include areas excavated under joints such as pier caps, revetment areas. This removal of debris is incidental to the contract with no additional compensation.

PREPARATION OF CONCRETE SURFACES:

All concrete surfaces to be patched shall be roughened, cleaned of all laitance, dirt, grease, oil, other contaminants and all standing water. All reinforcing steel encountered in the excavation shall be thoroughly cleaned by abrasive blasting and coated with a zinc-rich primer conforming to MassDOT Standard Specification M7.04.11 before being covered with new concrete.

With approval of the Engineer the Contractor may choose one of the following surface preparation methods. In bonding new concrete to already set concrete the surface of the concrete shall be thoroughly cleaned and roughened then

- A) Wetted with clean water, and then flushed with a mortar composed of equal parts of the cement and sand specified for the new concrete, before new concrete is placed adjacent thereto. New concrete shall be placed before mortar has taken initial set.
- B) Wetted with clean water, and then an epoxy adhesive suitable for bonding fresh concrete to hardened concrete for load bearing applications may be used. The epoxy adhesive shall conform to AASHTO M 235M/M 235 Type V and shall be applied in accordance with the manufacturer's recommendations.
- C) Ponded with clean water to achieve Saturated Surface Dry (SSD) condition then it shall then be blown off with oil free compressed air.

CONCRETE FINISHING

Bridge decks patches that are to be left exposed without bituminous or cement concrete overlays or that are receiving a waterproofing mix without waterproofing membrane shall receive a textured steel raked finish. The deck shall be transversely tined with a metal rake while the concrete is still plastic perpendicular to the centerline of the bridge from. Rake tines shall be spaced less than two (2) inches on center. No un-textured deck surface greater than 6 in. in width shall remain. A minimum clearance of 1 in. shall exist between the texturing and the end of deck or edge of metal bridge deck expansion joint. No overlapping or repeating of texturing in the same location shall be permitted.

CONTRACTOR NOTIFICATION

Contractor notification and response will be classified into three categories as follows:

1. EMERGENCY REPAIR:

An Emergency Repair is defined as the work required to repair failed bridge elements, which is of an EMERGENCY NATURE and requires IMMEDIATE ATTENTION as determined by the Engineer. The Contractor will be required to commence an Emergency Repair within four (4) hours after notification by the Department, unless otherwise directed. The nature of the Emergency work will require the Contractor to be available 24 hours per day. In addition to required construction Items, payment for any Emergency Repair Work performed will be paid under Item 748.1 Emergency Response. Emergency Repairs may be initiated verbally due to the need for immediate action but will be followed up by a Work Order assignment in the work order management system soon after.

2. PRIORITY REPAIR:

A Priority Repair is defined as work required to repair failed bridge elements, which is not of an emergency nature; however, needs to be completed in a timely manner to prevent further deterioration or to meet the need of other constraints. The Contractor will be required to commence a Priority Repair within seven (7) calendar days after notification by the Department, unless otherwise directed. Priority Repairs will be initiated, and Work Orders assigned using the work order management system.

3. SCHEDULED REPAIR:

A Scheduled Repair is not considered to be of an emergency nature and has no priority over other repairs. The Contractor will be required to commence scheduled work within thirty (30) calendar days after notification by the Department, unless otherwise directed. The Contractor shall immediately notify the Engineer if unable to begin physical work within thirty (30) calendar days and provide an explanation for the delay. Scheduled repairs will be initiated and Work Orders assigned using the work order management system.

CONTRACTOR NOTIFICATION (Continued)

The Contractor will be notified of all Work Orders through the work order management system except for Emergency repairs which may first be assigned verbally with a follow up assignment through the work order management system. The Work Order will identify the location of the work, the category of work (Emergency, Scheduled or Priority), and identify the major items required for the work. The date from which potential non-response damages will be assessed for each work order will be based on the date the work order is assigned in the work order management system to the date the Contractor begins Physical Work.

For a Priority or Scheduled Repair, the Contractor must submit a work schedule and estimate for the Engineer's review and approval within seven (7) calendar days of issuance of the work order. The Contractor's schedule and estimate shall provide information relating to equipment, materials, anticipated work hours, labor availability, itemized estimated value of the repairs, a breakdown of major components of the work (i.e. staging installation, concrete work, etc.) and estimated start and completion dates.

"Physical Work" shall be defined as "physical implementation of the required repair at the bridge site". In no case will Physical Work include any of the following: ordering materials, fabrication of materials, organizing labor forces, coordinating with subcontractors, installing means of access and/or traffic control to implement the required repairs, installing temporary works, or other operations needed to be performed in advance of the required repairs.

This Contract contains both Emergency response mobilization payment items for Emergency Repair work, and Non-Response damages to ensure prompt action by the Contractor.

The ability to assign Emergency Repair work, if required, shall take effect as soon as this Contract is executed.

The Contractor shall have the appropriate communication capabilities that will allow the Department to notify the Contractor of an Emergency Repair on a twenty-four hour (24) per day basis.

The Contractor shall supply the District 1 Highway Director with a list of telephone numbers for personnel who can be contacted twenty-four (24) hours a day in case of an emergency.

WORK ORDER SCHEDULE MILESTONES

Work Orders may include complexities which will have separate milestones as indicated below. All timeframes shown below are in calendar days.

<i>Complexity</i>	<i>Milestone</i>
Engineering Design	Approved Design within 60 days of Work Order
Fabricated Materials	Approved Shop Drawings within 30 Days of Work Order or approved engineering design if engineering design required. Fabrication shall begin within 14 Days of Approved Shop Drawings.
Utility Coordination	Engagement with utilities shall occur within two weeks of issuing the work order. Final approval from the utility of the proposed work or utility protection shall be within 60 days of work order issuance or 60 days of approved engineering design if engineering design required.
Physical Work	<p>“Physical Work” shall refer to physical implementation of the required repair at the bridge site. For repairs with no additional complexities as identified in this chart time to start of Physical Work will be measured from the issuance of the work order. In no case will Physical Work include any of the following: ordering materials, fabrication of materials, organizing labor forces, coordinating with subcontractors, installing means of access and/or traffic control to implement the required repairs, installing temporary works, or other operations needed to be performed in advance of the required repairs.</p> <p>For work orders with complexities as outlined in this chart, “Physical Work” will be measured from the receipt of approval for all the necessary complexities.</p> <p>Examples:</p> <p>Work order requiring engineering design and fabrication shall measure time to beginning of Physical Work from the time of approval of the shop drawings.</p> <p>Work order requiring engineering design, fabrication, and utility coordination shall measure time to beginning of Physical Work from the approval of the shop drawings or approval of utility agreement whichever is later.</p> <p>Work order requiring engineering design, fabrication, and railroad coordination shall begin immediately upon flagger availability.</p>

All complexities and components of work orders shall be identified with milestones in the work order bar chart schedule.

NON-RESPONSE DAMAGES

It is the intent of this provision to ensure prompt response to Work Orders based on priority. These Non-Response Damages may be waived by MassDOT when, in the opinion of the Engineer, it is in the best interest of MassDOT to do so.

If the Contractor has not met the complexity milestones as outlined in the Work Order and above, a notification will be sent to the Contractor regarding Non-Responses Damages that will be assessed. The Engineer shall assess damages in the amount of \$1,000 per day (or portion thereof) for each day beyond the milestone due date that the milestone is not met.

Emergency Repairs: If the Contractor has not started Physical Work on an assigned Emergency Repair within four (4) hours from the receipt of the notification, payment under Item 748.1 will only be made at the discretion of the Engineer. Furthermore, the Contractor will be assessed damages in the amount of \$1,000 per hour for each hour Physical Work is delayed.

Priority Repairs (assuming 7 days):

The Contractor shall commence priority work within 7 days after an assignment is issued by the Department, unless otherwise directed. If the Contractor has not started Physical Work on an assignment within 7 days, the Department will notify the Contractor in writing of the intent to issue damages. Damages will begin five (5) days after written notification to the Contractor. The Engineer will assess damages in the amount of \$1,000 per day for each day (or portion thereof) that the Work is delayed.

Scheduled Repairs (assuming 30 days):

The Contractor shall commence priority work within 30 days after an assignment is issued by the Department, unless otherwise directed. If the Contractor has not started Physical Work on an assignment within 30 days, the Department will notify the Contractor in writing of the intent to issue damages. Damages will begin five (5) days after written notification to the Contractor. The Engineer will assess damages in the amount of \$1,000 per day for each day (or portion thereof) that the Work is delayed.

“Physical Work” shall refer to physical implementation of the required repair at the bridge site. For repairs with no additional complexities as identified in this chart time to start of Physical Work will be measured from the issuance of the work order. In no case will Physical Work include any of the following: ordering materials, fabrication of materials, organizing labor forces, coordinating with subcontractors, installing means of access and/or traffic control to implement the required repairs, installing temporary works, or other operations needed to be performed in advance of the required repairs.

If the Contractor has not submitted a work schedule or estimate for the Engineer’s review and approval on a Priority or Scheduled Repair within seven (7) calendar days after issuance of the Work Order, the Contractor will be subject to non-response damages in the amount \$500 per day.

In addition, the Engineer shall consider such delays in evaluating the Contractor’s performance.

ENVIRONMENTAL REQUIREMENTS

This heading identifies procedures that shall be followed for bridges over or adjacent to waterways, wetlands, or other bodies of water. Some repairs may be needed in emergency situations where work needs to be performed prior to final permitting.

Work on bridges below the Ordinary High Water line over non-tidal waterways will usually require Section 404 approval from the Army Corps of Engineers and Section 401 Water Quality Certification from the Department of Environmental Protection.

Repairs to bridges in tidal areas and/or navigable waters may require a Coast Guard Bridge Permit, and consistency review by Coastal Zone Management. Time frames for these bridges typically require 4 months for non-tidal bridge repairs and possibly longer for tidal bridge repairs. For permitting purposes, all proposed construction methods that may be required in, on or above water resources shall be identified by the Contractor. The proposed methods shall be reviewed with the District Environmental Engineer who will coordinate with the Environmental Division the appropriate review of permit applicability.

For emergency repairs, the District Environmental Engineer and/or Environmental Division shall be notified immediately for further guidance on obtaining appropriate approvals.

If any locations are located within rare species habitat as designated by the Massachusetts Natural Heritage and Endangered Species Program (NHESP), coordination will be undertaken by the MassDOT District Environmental Engineer. HQ MassDOT Environmental Services Unit is available to provide support. The contractor must notify the District Highway Director and Resident Engineer in writing at least 60 days prior to desired commencement of the proposed activity, however coordination with the MassDOT District Environmental Engineer should occur as early as possible. The contractor shall be responsible for complying with any permit/restrictions/stipulations regarding work in rare species habitat.

Where repairs or reconstruction will not involve work in any waterways, wetlands or other bodies of water, erosion and siltation controls shall be implemented to ensure that construction activity does not result in siltation of the adjacent water resources. This work, when needed, will be paid under Non-Bid Items and Item 100.1 (Base Labor Rate) as required by the Engineer. Regardless of exemptions from regulations, Enforcement Actions and/or Cease and Desist Orders due to resource damages resulting from construction activity may be invoked at any time.

TREATED WOOD PRODUCTS

The presence of potential treated wood products is unknown, but in the event that an assignment calls for the disposal of portions of treated timber, the Contractor shall dispose of the materials in accordance with all applicable state and federal regulations at a licensed facility. The Contractor shall submit manifests and/or certificates of disposal to the Engineer prior to the completion of the contract. All work in conjunction with the proper testing, loading, transportation, and all incidental costs required for legal disposal of treated wood products will be paid under Non-Bid Items and Item 100.1 Base Labor Rate when needed and as required by the Engineer.

ENVIRONMENTAL PERMITTING

No environmental permits have been obtained at this time. If Contractor erection, demolition, storage, or other procedures require work to occur in or otherwise impact water or wetland resource areas or their buffer zones, the Contractor is advised that no associated work can occur until all required environmental permits have been obtained allowing such work. The Contractor must notify the District Highway Director and the Engineer in writing at least 60 days prior to desired commencement of the proposed activity. All environmental submittals, including any contact with Local, State, or Federal environmental agencies, must be coordinated through the District Environmental Engineer. The Contractor shall fully cooperate with requests for information and provide same in a timely manner. The Contractor is further advised that the Department will not entertain a delay claim due to the time required to obtain the environmental permits. The Contractor is responsible for preventing debris of any type to enter waterways or wetland resource areas either temporarily or permanently.

After Notice to Proceed, the Contractor is responsible for complying with any and all environmental permits issued for the work covered under this Contract. The Contractor will not receive additional compensation for work required to achieve compliance with any issued environmental permits as payment for the work will be included in the various bid items.

CONTRACTOR ACTIVITY ADJACENT TO WETLANDS

The Contractor shall not stockpile material or equipment, perform maintenance, or refuel equipment in a wetland area, within 100 feet of a wetland, or within 200 feet of a river, stream, pond, or other similar open body of water.

ASBESTOS CONCERNS – ASBESTOS LIABILITY INSURANCE

Asbestos may be present on bridges in forms including but not limited to asbestos cement utility conduit, pipe insulation, pipe wrap, and/or gunite/shotcrete. The contractor shall identify potential asbestos-containing material (ACM) that may be impacted as part of the contract work. If ACM or potential ACM will be physically impacted, the contractor shall communicate this information to the Engineer, District Environmental Engineer (DEE), receive approval prior to beginning work, and conduct all work in accordance with applicable federal, state, and local regulations. The work will be paid under Non-Bid items and Item 100.1 as required by the Engineer. No Assignment of work will be allowed without the approval of the Engineer.

Upon assignment of a work order, if asbestos-containing material is anticipated to be encountered, prior to any testing or removal of asbestos, Asbestos Liability Insurance shall be obtained for this project in accordance with Subsection 7.05 of the Standard Specifications. The Contractor and the Massachusetts Department of Transportation shall be named as additional insureds. Costs will be reimbursed to the Contractor.

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 either a traffic level 2 (0.3-10.0 million 18-kip (80-kn) ESALs) or a traffic level 3 (≥ 10.0 million 18 kip ESALs) as directed by the Engineer. Contractor will be provided with traffic information for the design mix at each location where work order is being requested.

**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”.

**GENERAL REQUIREMENTS FOR DEMOLITION AND
WORK INVOLVING PAINTED STEEL** (Continued)**Cleaning/Removal****Cutting Or Burning Of Steel**

All surfaces to be welded, heated, saw cut or burned shall be cleaned so as to remove all contaminants and/or hazardous materials, which could be discharged to the environment as a function of the subsequent operations.

Lead paint shall be removed in its entirety in an area prescribed by a 6 inch (15 cm) minimum offset from the required work. The paint removal operation may be dry abrasive blasting, wet abrasive blasting or chemical stripping.

Proper level of containment shall be used when performing this work in accordance with Subsection 961.67 "Containment". Full containment is not required during chemical stripping operation however; the Contractor shall install proper shielding and/or tarpaulins under the chemical stripping operations in order to catch all debris generated during this procedure. A cleaned area must be inspected and approved before the demolition operations are started.

During cleaning operations the Contractor shall be required to furnish and erect temporary floodlights illuminating the steel surface at a minimum of 30-foot candles. This lighting shall be used in areas where there is insufficient lighting for proper cleaning operations and inspection. The Contractor shall supply electrical power.

The Contractor shall provide support for interim and final inspection of the bridge during cleaning operations. This support shall include the necessary traffic controls and safe access to the work.

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.

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.

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.

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.

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.

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 8.14 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 Contractor 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.

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.

NOTICE TO OWNERS OF UTILITIES*(Supplementing Subsection 7.13)*

District 1 Utility/Constructability Engineer

Mark Page (857) 368-1033

Mark.Page@dot.state.ma.us

If available, existing the bridge plans indicate the location of the existing known utilities in the vicinity of the work. As the accuracy and completeness of the plans are not guaranteed in any manner, it is the Contractor's responsibility to make his own investigation 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 1 on the webpage, select the City/Town, 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**ELECTRIC:**

Outage/ Emergency: 800-592-2000 or 844-726-7562

New Service: 1-888-633-3797 (1-888-need pwr)

Customer Support: 1-800-340-9822

BERKSHIRE GAS EMERGENCY TELEPHONE NUMBERS**GAS:**

Outage/Emergency: 1-800-292-5012 or 413-499-1680

New Service: 1- 800-297-7144

Customer Support: 1-800-292-5012

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.

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.

NON-BID ITEMS (Continued)

The actual cost for 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.

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 $1.10 \times (\text{Base Hourly Rate} + \text{Base Hourly Rate} \times \text{Overhead Rate } \%)$.

NON-BID ITEMS (Continued)**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. 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.

NON-BID ITEMS (Continued)**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.

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.

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).

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

- 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**.
- 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).

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

- **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.

- **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.

SECTION 722 CONSTRUCTION SCHEDULING DESCRIPTION

722.20 General

The Contractor's approach to prosecution of the Work shall be disclosed to the Department by submission of a Critical Path Method (CPM) schedule and a cost/resource loaded Construction Schedule as defined by the schedule type set forth below. These requirements are in addition to any requirements imposed in other sections.

This section establishes the requirement for scheduling submissions. There are four schedule types identified as types A, B, C and D.

All schedules shall be prepared and submitted in accordance with this specification and the instructions contained in the Construction Schedule Toolkit located on the MassDOT-Highway Division website at <https://www.mass.gov/info-details/massdot-highway-contractors-schedule-toolkit>.

Type A –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Cost-loaded & Resource Loaded CPM
- Resources Graphic Reporting
- Cash Flow Projections from the CPM
- Cash Flow Charts
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

Type B –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Cost-loaded & Resource Loaded CPM
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

Type C –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

SECTION 722 (Continued)**Type D -**

- Bar chart schedule updated monthly or at the request of the Engineer
- Short-term Construction Schedule
- Monthly Projected Spending Report (PSR)

EQUIPMENT, PERSONNEL**722.40 General****A. Software Requirements**

The Contractor shall use Primavera P6 computer scheduling software.

In addition to the requirements of Section 740 – Engineer’s Field Office and Equipment, the Contractor shall provide to the Department one (1) copy of the scheduling software, one (1) software license and one (1) computer capable of running the scheduling software for the duration of the Contract. This computer and software shall be installed in the Engineer’s Field Office. The computer and software shall be maintained and serviced at no additional cost to the Department.

B. Scheduler Requirements

The Scheduler shall be approved by the Engineer.

For Type A, B and C Schedules the name of the Contractor’s Project Scheduler together with his/her qualifications shall be submitted to the Department for approval by the Engineer within seven (7) Calendar Days after NTP. The Project Scheduler shall have a minimum of five (5) years of project CPM scheduling experience, three (3) years of which shall be on projects of similar scope and value as the project for which the Project Scheduler is being proposed. References shall be provided from past projects that can attest to the capabilities of the Project Scheduler.

SCHEDULING METHODS**722.60 General****A. Schedule Planning Session**

The Contractor shall conduct a schedule planning session prior to submission of the Baseline Schedule. This session will be attended by the Department and its consultants. During this session, the Contractor shall present its planned approach to the project including, but not limited to:

1. the Work to be performed by the Contractor and its subcontractors;
2. the planned construction sequence and phasing; planned crew sizes;
3. summary of equipment types, sizes, and numbers to be used for each work activity;
4. all early work related to third party utilities;
5. identification of the most critical submittals and projected submission timelines;
6. estimated durations of major work activities;
7. the anticipated Critical Path of the project and a summary of the activities on that Critical Path;
8. a summary of the most difficult schedule challenges the Contractor is anticipating and how it plans to manage and control those challenges;

SECTION 722 (Continued)

9. a summary of the anticipated quarterly cash flow over the life of the project.

This will be an interactive session and the Contractor shall answer all questions that the Department and its consultants may have. The Contractor shall provide a written summary of the information presented and discussed during the session to the Engineer. The Contractor's Baseline Schedule and accompanying Schedule Narrative shall incorporate the information discussed at this Schedule Planning Session.

B. Schedule Reviews by the Department**1. Baseline Schedule Reviews**

The Engineer will respond to the Baseline Schedule Submission within thirty (30) Calendar Days of receipt providing comments, questions and/or disposition that either accepts the schedule or requires revision and resubmittal. Rejected Baseline Schedules shall be resubmitted within fifteen (15) Calendar Days after receipt of the Engineer's comments.

2. Contract Progress Schedule / Monthly Update Reviews / Recovery Schedules

The Engineer will respond to each submittal within twenty-one (21) Calendar Days. Rejected schedules shall be resubmitted by the Contractor within five (5) Calendar Days after receipt of the Engineer's comments.

The Engineer's review comments shall not be construed as direction to change the Contractor's means and methods. The review and acceptance of the CPM schedule does not relieve the Contractor of the responsibility for accomplishing the work within the contract required completion dates. Omissions and errors in the accepted CPM schedule shall not excuse performance less than that required by the Contract.

722.61 Schedule Content and Preparation Requirements

All schedules shall be prepared and submitted in accordance with the instructions contained in the Construction Schedule Toolkit located on the MassDOT-Highway Division website at:

<https://www.mass.gov/info-details/massdot-highway-contractors-schedule-toolkit>

and the following:

A. LOGIC

The schedules shall divide the Work into activities with appropriate logic ties to show:

1. conformance with the requirements of this Section and Division I, Subsection 8.02 - Schedule of Operations
2. the Contractor's overall approach to the planning, scheduling, and execution of the Work
3. conformance with any additional sequences of Work required by the Contract Documents, including, but not limited to, Subsection 8.03 - Prosecution of Work and Subsection 8.06 – Limitations of Operations.

SECTION 722 (Continued)**B. ACTIVITIES**

The schedule shall clearly define the progression of the Work from the Notice to Proceed (NTP) to Contractor Field Completion (CFC) by using separate activities, or including attributes within appropriate activities, to address each of the following:

1. Notice to Proceed
2. Work Breakdown Structure
3. The Critical Path is clearly defined and organized.
4. Float shall be clearly identified.
5. Detailed activities to satisfy permit requirements.
6. Subcontractor approvals at fifteen (15) Calendar Days from submittal to response
7. The preparation and submission of shop drawings, procedures, and other required submittals, with a planned duration that is to be demonstrated to the Engineer as reasonable.
8. The review and return of shop drawings, procedures, and other required submittals, approved or with comments, the duration of which shall be thirty (30) Calendar Days, unless otherwise specified or as approved by the Engineer.
9. Procurement of fabricated materials and equipment with long lead times, including time for review and approval of submittals required before procuring and fabricating.
10. Each component of the Work defined by specific activities.
11. Right-of-Way (ROW) takings that have been identified in the Contract.
12. Early Utility Relocation (by others) that has been identified in the Contract.
13. Interfaces with adjacent work, utility companies, other public agencies, sensitive abutters, and/or any other third-party work affecting the Contract.
14. Utility work to be performed in accordance with the Project Utility Coordination (PUC) Form as provided in Section 8.14 - Utilities Coordination, Documentation and Monitoring Responsibilities
15. Access Restraints – restrictions on access to areas of the Work that are defined by the Department in the bid package, in Subsection 8.06 – Limitations of Operations or elsewhere in the Contract
16. Limitations of Work – time of year restrictions and any other limitations identified in the contract
17. Traffic work zone set-up and removal, night work and phasing
18. Material Certifications
19. Milestones listed in Subsection 8.03 - Prosecution of Work or elsewhere in the Contract Documents
20. For Type A and B Contracts only: All items to be paid for, including all Unit Price and Lump Sum pay items, shall be identified by activity. This shall include all non-construction activities such as engineering work; purchase of permanent materials and equipment, purchase of structural steel stock, equipment procurement, equipment delivery to the site or storage location and the representative amount of overhead/indirect costs that was included in the Contractor's Bid Prices.

SECTION 722 (Continued)

21. Contractor's request for validation of FBU (ready to open to traffic)
22. Full Beneficial Use (FBU) Contract Milestone per the following requirements:
The majority of contract Work has been completed and the asset(s) has been opened for full multi-modal transportation use, except for limited contract work items that do not materially impair or hinder the intended public use of the transportation facility. All anticipated lane takings have been completed, except for minor, short term work items and as defined in Subsection 8.03 - Prosecution of Work
23. The Department's confirmation of completed work to allow for FBU.
24. Contractor's request for validation of Substantial Completion
25. Department generated punch list of twenty-one (21) Calendar Days
26. Substantial Completion Contract Milestone as defined in the standard specifications.
27. Punch list Completion Period of at least thirty (30) Calendar Days per the requirements of Subsections 5.11 - Final Acceptance, 7.15 - Claims Against Contractors for Payment of Labor, Materials and Other Purposes
28. Contractor confirmation that all punchlist work and documentation has been completed.
29. Physical Completion of the Work Contract Milestone per the requirements of Subsections 5.11 - Final Acceptance and 8.03 - Prosecution of Work
30. Documentation Completion per the requirements of Subsections 5.11 - Final Acceptance and 8.03 - Prosecution of Work
31. Contractor Field Completion Contract Milestone (which can also be considered the completion date) per the following requirements: All physical contract Work is complete including punchlist. The Contractor has fully de-mobilized from field operations and as defined in Subsection 5.11

C. EARLY AND LATE DATES

Early Dates shall be based on proceeding with the Work or a designated part of the Work exactly on the date when the corresponding Contract Time commences. Late Dates shall be based on completing the Work or a designated part of the Work exactly on the corresponding Contract Time, even if the Contractor anticipates early completion.

D. DURATIONS

Activity durations shall be in Work Days. Planned Original Durations shall be established with consideration of resources and production rates that correspond to the Contractor's Bid Price. Within all of the Department-required schedules, the Contractor shall plan the Work using durations for all physical construction activities of no less than one (1) Work Day and no greater than fourteen (14) Work Days, unless approved by the Engineer as part of the Baseline Schedule Review.

SECTION 722 (Continued)

Should there be an activity with a duration that is determined by the Engineer to be unreasonable, the Contractor will be asked to provide a basis of the duration using bid documents, historic production rates for similar work, or other form of validation that is acceptable to the Engineer. Should the Contractor and the Engineer be unable to agree on reasonable activity durations, the Engineer will, at a minimum, note the disagreement in the Baseline Schedule Review along with a duration the Engineer considers reasonable and the basis for that duration. A schedule that contains a substantial number of activities with durations that are deemed unreasonable by the Engineer will not be accepted.

E. MATERIALS ON HAND

The Contractor shall identify in the Baseline Schedule all items of permanent materials (Materials On Hand) for which the Contractor intends to request payment prior to the incorporation of such items into the Work.

F. ACTIVITY DESCRIPTIONS

The Contractor shall use activity descriptions in all schedules that clearly describe the work to be performed using a combination of words, structure numbers, station numbers, bid item numbers, work breakdown structure (WBS) and/or elevations in a concise and compact label.

G. ACTIVITY IDENTIFICATION NUMBERS

The Contractor shall use the activity identification numbering system specified in the MassDOT Highway Division Contractor Construction Schedule Toolkit.

H. ACTIVITY CODES

The Contractor shall use the activity codes specified in the MassDOT Highway Division Contractor Construction Schedule Toolkit.

I. CALENDARS

Different calendars may be created and assigned to all activities or to individual activities. Calendars define the available hours of work in each Calendar Day, holidays and general or project-specific non-Work Days such as Fish Migration Periods, time-of-year (TOY) restrictions and/or area roadway restrictions. All calendars shall extend two years beyond the current project completion date.

Project Special Provisions identify specific calendar restrictions some examples of special calendars include, but are not limited to:

- Winter Shutdown Period, specific work is required by separate special provision to be performed during the winter. See Special Provision 8.03 (if applicable)
- Peak traffic hours on heavily traveled roadways. This shall be from 6:30 am to 9:30 am and from 3:30 pm to 7:00 pm, unless specified differently elsewhere in the Contract.
- Special requirements by sensitive abutters, railroads, utilities and/or other state agencies as defined in the Contract.
- Planting seasons for trees, shrubs and grasses and wetlands mitigation work.

SECTION 722 (Continued)

- Cape Cod and the Islands Summer Roadway Work Restrictions: A general restriction against highway and bridge construction is enforced between Memorial Day and Labor Day, unless otherwise directed by the Engineer. Cape Ann Summer Roadway Work Restrictions: While there are no general restrictions for Cape Ann as there are for Cape Cod and the Islands, project-specific restrictions may be enforced.
- Turtle and/or Fish Migration Periods and/or other in-water work restrictions: Refer to the Project Special Provisions for specific restrictions.
- Working over Waterways Restricted Periods.
- Night-time paving and striping operations, traffic, and temperature restrictions.
- Utility Restrictions shall be as specified within the Contract.

J. FLOAT

For the calculation of float in the CPM schedule, the setting for *Retained Logic* is required for all schedule submissions, starting with the Baseline Schedule Submission. Should the Contractor have a reason to propose that an alternative calculation setting such as *Progress Override* be used, the Contractor shall obtain the Engineer's approval prior to modifying to this setting.

K. COST AND RESOURCE LOADING (Types A and B only)

For all Type A and B Schedules, the Contractor shall provide a cost and resource-loaded schedule with an accurate allocation of the costs and resources necessary to complete the Work. The costs and resources shall be assigned to all schedule activities in order to enable the Contractor to efficiently execute the Contract requirements and the Engineer to validate the original plan, monitor progress, provide cash flow projections, and analyze delays.

1. Each schedule activity shall have an assigned cost that accurately represents the value of the Work. Each schedule activity shall have its resources assigned to it by craft and the anticipated hours to accomplish the work. Each schedule activity's equipment resources shall be assigned to it by equipment type and hours operated. Front-loading or other unbalancing of the cost distribution will not be permitted.
2. The sum of the cost of all schedule activities shall be equal to the Contractor's Bid Price.
3. Indicating the labor hours per individual, per day, by craft and equipment hours/day will be acceptable.
4. The Engineer reserves the right to use the cost-loading as a means to resolve changes, disputes, time entitlement evaluations, increases or decreases in the scope of Work, unit price renegotiations and/or claims.
5. For all Type A and B Schedules, all subnets, fragnets, Proposal Schedules, and Recovery Schedules shall be cost and resource- loaded to help to quickly validate and monitor the duration of the Work to be performed.
6. For Type A Schedules, cost-loading of the schedule will also be used for cash flow projection purposes.
7. The cost-loading of each activity shall indicate the portion of the cost for that activity that is applicable to a specific bid item (cost account.) The total cost for each cost account must equal the bid item price.

SECTION 722 (Continued)**L. NOT TO BE USED IN THE CONTRACTOR'S CPM SCHEDULE**

1. Milestones or constraint dates not specified in the Contract.
2. Scheduled work not required for the accomplishment of a Contract Milestone
3. Use of activity durations, logic ties and/or sequences deemed unreasonable by the Engineer.
4. Delayed starts of follow-on trades.
5. Float suppression techniques.
6. Leads such as leads, lags, SS, SF, & FF relationships without the expressed permission of the Department.

722.62 Submittal Requirements

All schedules shall be prepared and submitted in accordance with the requirements listed below.

Each monthly Contract Progress Schedule submittal shall be uniquely identified.

Each Submission shall, at a minimum, include the following:

- a. Narrative
- b. Schedule submittals shall be signed by the Scheduler
- c. Schedule Printout - All Activities
- d. Schedule Printout - Critical Path Layout
- e. Schedule Printout - Remaining Work
- f. Schedule Printout - Top 3 Float Path
- g. Work Breakdown Structure (WBS) Summary
- h. Project Spending Report (PSR) in Portable Document Format (.PDF)
- i. Project Spending Report (PSR) in Microsoft Excel spreadsheet (.XLS)
- j. Oracle Primavera P6 Schedule File (.XER)

All digital file submittals will be labeled with the following information.

- Contract Number
- Project Number
- Project locations (i.e., town(s))
- Brief description
- Submittal description (i.e., UP07)
- Data Date (MM-DD-YY)
- File Description (i.e., Critical Path)

Example: C110464 (P606309) - Orange Route 2 over 202 – UP23 (07-15-22) - Critical Path

A. Narratives

A written narrative shall be submitted with every schedule submittal. The narrative shall:

1. itemize and describe the flow of work for all activities on the Critical Path in a format that includes any changes made to the schedule since the previous Contract Progress Schedule / Monthly Update or the Baseline Schedule, whichever is most recent.
2. provide a description of any specification requirements that are not being followed. Identify those that are improvements and those that are not considered to be meeting the requirements.

SECTION 722 (Continued)

3. provide all references to any Notice of Delay that has been issued, within the time period of the Contract Progress Schedule Update, by letter to the Engineer. Note that any Notice of Delay that is not issued by letter will not be recognized by the Engineer. See Subsection 722.64.A – Notice of Delay.
4. provide a description of each third-party utility's planned vs. actual progress and note any that are trending late or are late per the durations and commitments as provided in the PUC Form; provide a description of the five (5) most important responses needed from the Department and the need date for the responses in order to maintain the current Schedule of Record.
5. provide a description of all critical issues that are not within the control of the Contractor or the Department (third party) and any impact they had or may have on the Critical Path.
6. provide a description of any possible considerations to improve the probability of completing the project early or on time.
7. compare Early and Late Dates for activities on the Critical Path and describe reasons for changes in the top three (3) most critical paths.
8. describe the Contractor's plan, approach, methodologies, and resources to be employed for completing the various operations and elements of the Work for the top three (3) most critical paths. For update schedules, describe and propose changes to those plans and verify that a Proposal Schedule is not required.
9. describe, in general, the need for shifts that are not 5 days/week, 8 hours/day, the holidays that are inserted into each calendar and a tabulation of each calendar that has been used in the schedule.
10. describe any out-of-sequence logic and provide an explanation of why each out-of-sequence activity does not require a correction, if one has not been provided, and an adequate demonstration that these changes represent the basis of how these activities will be built, including considerations for resources, dependencies, and previously approved production rates.
11. identify any possible duration increases resulting from actual or anticipated unit price item quantity overruns as compared to the baseline duration, with a corresponding suggestion to mitigate any possible delays to the Critical Path. If the delay is anticipated to impact the Critical Path, refer to Subsections 4.06 – Increased or Decreased Contract Quantities and 8.10 – Determination and Extension of Contract Time for Completion and submit a letter to the Engineer notifying of a potential delay.
12. include a schedule log consisting of the name of the schedule, the data date and the date submitted.
13. include and describe any notifications, communications and coordination meetings with third-parties such as utility companies that occurred from the last update including personnel names, job titles and contact information, date of meeting(s)/correspondence(s), topics discussed, and reasons the third party provided for deviations from the PUC form.

SECTION 722 (Continued)**B. CPM Bar Charts**

One (1) timescaled bar chart containing all activities shall be prepared and submitted using a scale that yields readable plots and that meets the requirements of Subsection 722.61 – Schedule Content and Preparation Requirements. Activities shall be linked by logic ties and shown on their Early Dates. Critical Paths shall be highlighted, and Total Float shall be shown for all activities.

A second timescaled bar chart shall also be prepared containing only the Critical Path or, if the Critical Path is not the longest path, the Longest Path using a scale that yields readable plots and that meets the requirements of Subsection 722.61 – Schedule Content and Preparation Requirements. Activities shall be linked by logic ties and shown on their Early Dates. Total Float shall be shown for all activities.

C. Detailed Activity Schedule Comparisons

A Detailed Activity Schedule Comparison (DASC) is a simple reporting tool in the format of a graphical report that will provide Resident Engineers with immediate, timely and up-to-date information. The DASC consists of an updated bar chart that overlays the current time period's bar chart onto the previous time period's bar chart for an easily read comparison of progress during the present and previous reporting periods.

D. Activity Cost Report and Monthly Cash Flow Projections (Type A only)

With each Contractor Quantity Estimate (CQE), the Contractor shall submit an Activity Cost Report and Cash Flow Projection that includes all activities grouped by Contract Bid Item.

The Activity Cost Report shall be generated from the Schedule of Record and shall be the basis of the Monthly Cash Flow Projection. Within each contract Bid Item, activities shall be sequenced by ascending activity identification number and shall show:

1. activity ID and description,
2. forecast start and finish dates for each activity and,
3. when submitted as a revised schedule, actual start, and finish dates for each completed activity.
4. any variance to the estimated contract quantity shall be shown.

E. Resource Graphs (Type A only)

Monthly and cumulative resource graphs for the remaining Contract period using the Early Dates and Late Dates in the Contract Progress Schedule shall be included as part of each schedule submittal.

SECTION 722 (Continued)**F. Projected Spending Reports**

A Projected Spending Report (PSR) shall be prepared and submitted monthly. The PSR shall indicate the monthly spending (cash flow) projection for each month from NTP to Contractor Field Completion (CFC). Each month's actual spending shall be calculated using all CQEs paid during that month. The Projected Spending Report (PSR) shall be depicted in a tabular format and provided in both an .XLS and .PDF.

722.63. Progress Schedule Requirements**A. Baseline Schedule**

The Baseline Schedule shall be due thirty (30) Calendar Days after Notice to Proceed (NTP). The Baseline Schedule shall only reflect the Work awarded to the Contractor and shall not include any additional work involving Extra Work Orders or any other type of alleged delay. The Baseline Schedule shall be prepared and submitted in accordance with Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements. Once the Baseline Schedule has been accepted by the Engineer, with or without comments, it shall represent the as-planned schedule for the Work and become the Contract Progress Schedule of Record until such time as the schedule is updated or revised under Subsections 722.63.C - Contract Progress Schedules / Monthly Updates, 722.64.C - Recovery Schedules and 722.64.D - Proposal Schedules.

The Cost and Resource-Loading information (Types A and B only) shall be provided by the Contractor within forty-five (45) Calendar Days after NTP.

The Engineer's review comments on the Baseline Schedule and the Contractor's responses to them will be maintained for the duration of the Contract and will be used by the Engineer to monitor the Contractor's work progress by comparing it to the Contract Progress Schedule / Monthly Update.

B. Interim Progress-Only Schedule Submissions

The first monthly update of the Contract Progress Schedule/Monthly Update is due within seventy (70) Calendar Days after Notice to Proceed (NTP.) The Baseline Schedule review period ends at sixty (60) Calendar Days after NTP, see Subsection 722.60.B - Schedule Reviews by the Department. If the Baseline Schedule has not been accepted within sixty (60) Calendar Days after NTP, an Interim Progress-Only Schedule shall be due within seventy (70) Calendar Days after NTP. The purpose of the Interim Progress-Only Schedule is to document the actual progress of all activities, including non-construction activities, from NTP until the Baseline Schedule is accepted.

SECTION 722 (Continued)**C. Contract Progress Schedules / Monthly Updates**

The first Contract Progress Schedule shall be submitted by the Contractor no later than seventy (70) Calendar Days after NTP. The data date for this first Progress Schedule shall be two months (approximately sixty (60) Calendar Days) after NTP. Subsequent Progress Schedules shall be submitted monthly.

Each Contract Progress Schedule shall reflect progress up to the data date. Updated progress shall be limited to asbuilt sequencing and asbuilt dates for completed and inprogress activities. Asbuilt data shall include actual start dates, remaining Work Days and actual finish dates for each activity, but shall not change any activity descriptions, the Original Durations, or the Original Resources (as planned at the time of bid), without the acceptance of the Engineer. If any activities have been completed out-of-sequence, the Contractor shall propose new logic ties for affected in-progress and future activities that accurately reflect the previously approved sequencing. Alternatively, the Contractor may submit to the Engineer for approval an explanation of why an out-of-sequence activity does not require a correction and an adequate demonstration that the changes accurately represent how the activities will be built, including considerations for resources, dependencies, and previously approved production rates. Once approved by the Engineer, the Contractor may incorporate the changes in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

No revisions to logic ties, sequence, description, or duration of future activities; or planned resource costs shall be made without prior approval by the Engineer.

Any proposed logic changes for in-progress or future activities shall be submitted to the Engineer for approval before being incorporated into a Contract Progress Schedule. The logic changes must be submitted using a Proposal Schedule or a schedule fragnet submission. Once approved by the Engineer, the Contractor may incorporate the logic in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

For any proposed changes to the original sequence, description or duration of future activities, the Contractor shall submit to the Engineer for approval an explanation of how the proposed description or duration change reflects how the activity will be progressed, including considerations for resources and previously approved production rates. Any description or duration change that does not accurately reflect how the activity will be progressed will not be approved by the Engineer. Once approved by the Engineer, the Contractor may incorporate the changes in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

Contract Progress Schedules that extend performance beyond the Contract Time or beyond any Contract Milestone shall not be approved by the Engineer. The Contractor shall submit a Recovery Schedule, or a Time Entitlement Analysis, if any Contract Progress Schedule/Monthly Update indicates a failure to meet the Contract Dates.

SECTION 722 (Continued)**D. Short-Term Construction Schedule**

The Contractor shall provide a Short-Term Construction Schedule that details daily work activities, including any multiple shift work that the Contractor intends to conduct, in a spreadsheet format. The daily activities shall directly correspond to the Contract Progress Schedule activities, with a matching reference to the activity identification number in the Contract Progress Schedule and may be at a greater level of detail. The Short-Term Construction Schedule shall be submitted every two weeks. It shall display all work for a thirty-five (35) Calendar Day period consisting of completed work for the two (2) week period prior and all planned work for the following three (3) week period. The initial submission shall be provided no later than thirty (30) Calendar Days after NTP or as required by the Engineer.

The Contractor shall be prepared to discuss the Short-Term Construction Schedule, in detail, with the Engineer in order to coordinate field inspection staff requirements, the schedule of work affecting abutters and any corresponding work with affected utilities. Short-Term Construction Schedules shall be prepared and submitted in accordance with Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements.

722.64 Impacted Schedule Requirements**A. Notice of Delay**

The Contractor shall notify the Engineer in writing, with copies to the District and State Construction Engineers, within fifteen (15) of the start of any delays to the Critical Path that are caused by actions or inactions that were not within the control of the Contractor. Delay notifications that are not provided in a letter to the Engineer, such as a delay notification in the schedule narrative, will not be recognized as contractual notice in the determination of any Time Extension related to the impacts to the work associated with this specific alleged delay. Should such a delay continue for more than one (1) week, the Contractor shall note it in the Schedule Narrative until the delay is no longer impacting the Critical Path for the completion of the Contract Milestones. The Engineer will evaluate the alleged delay and its impact and will respond to the Contractor within ten (10) Calendar Days after receipt of a notice of delay.

B. Time Entitlement Analysis

A Time Entitlement Analysis (TEA) shall consist of a descriptive narrative, prepared in accordance with Subsection 722.62.A - Narratives, and an as-built CPM schedule, which may be in the form of a schedule fragnet that has been developed from the project's Contract Progress Schedule of Record, and illustrates the impact of a delay to the Critical Path, Contract Milestones and/or Contract Completion Date as required in Subsection 8.10 - Determination and Extension of Contract Time for Completion. TEAs shall also be used to determine the schedule impact of proposed Extra Work Orders (EWO) as also required in Subsection 8.10.

TEAs shall be prepared and submitted in accordance with the requirements of Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements and shall be based on the Contract Progress Schedule of Record applicable at the start of the delay or impact from an EWO. A TEA fragnet must start with a specific new activity describing the work contained in either a Notice of Delay previously submitted to the Department per Subsection 722.64.A - Notice of Delay or an EWO.

SECTION 722 (Continued)

TEAs shall be submitted:

1. as part of any Extra Work Order that may impact Contract Time,
2. with a request for a Time Extension,
3. within fifteen (15) Calendar Days after a request for a TEA by the Engineer for any other reason.

A TEA shall be submitted to the Engineer before any Time Extension is granted to the Contractor. Time Extensions will not be granted unless the TEA accurately reflects an evaluation of all past delays and the actual events that occurred that impacted the Critical Path. The TEA must also demonstrate a plan for the efficient completion of all of the remaining work through an optimized CPM Schedule. The analysis shall include all delays, including Contractor-caused delays, and shall be subdivided into timeframes and causes of delays.

TEAs shall incorporate any proposed activities, logic ties, resource considerations, and activity costs required to demonstrate the schedule impacts most efficiently in addition to detailing all impacts to existing activities, logic ties, the Critical Path, Contract Milestones, and the Contract Completion Date. In addition, TEAs shall accurately reflect any changes made to activities, logic ties, restraints, and activity costs, necessitated by an Extra Work Order or other schedule impact, for the completion of the remaining work. The Contractor shall provide TEAs that demonstrate that all delays have been mitigated to the fullest extent possible without requiring an Equitable Adjustment to the original bid basis.

All TEAs shall clearly indicate any overtime hours, additional shifts and the resources that are proposed to be incorporated in the schedule. The Engineer shall have final discretion over the use of overtime hours and additional shifts. The Engineer shall have the right to require that overtime hours and/or additional shifts be used to minimize the duration of Time Extensions if it is determined to be in the best interest of the Department to do so.

When accepted, the changes included in a TEA shall be incorporated into the next Contract Progress Schedule per the requirements of Subsection 722.63.C - Contract Progress Schedules / Monthly Updates. During the review of any TEA, all Contract Progress Schedules shall continue to be submitted as required.

The Engineer may request that the Contractor prepare a Proposal Schedule or a Recovery Schedule to further mitigate any delays that are shown in the accepted TEA or Contract Progress Schedule.

C. Recovery Schedules

The Contractor shall promptly report to the Engineer all schedule delays during the prosecution of the Work. Contract Progress Schedules that predict performance extended beyond the Contract Time or beyond any Contract Milestone shall not be approved as the schedule of record. This requirement is critical to the Department's ability to make informed decisions regarding Contract Time and costs.

The Contractor shall submit a Recovery Schedule within fifteen (15) Calendar Days of a Contract Progress Schedule submission that shows failure to meet the Contract Dates unless a recovery schedule is waived by the Department. Waiving the recovery schedule does not relieve the contractor of the responsibility for the delay. The Department may revoke the waiver of a Recovery Schedule, at which time a Recovery Schedule shall be submitted within fifteen (15) Calendar Days of the Contractor being notified.

Changes represented in accepted Recovery Schedules shall be incorporated into the next Contract Progress Schedule.

SECTION 722 (Continued)**D. Proposal Schedules**

A Proposal Schedule is an alternative schedule used to evaluate proposed changes to the Contract scope or significant alternatives to previously approved approaches to complete the Work, which may include changes to activity durations, logic, and sequence. For Types A and B Schedules, the Proposal Schedule shall be cost and resource loaded.

A Proposal Schedule may be requested by the Department at any time or may be offered by the Contractor. The Engineer may request that the Contractor prepare a Proposal Schedule to further mitigate any delays that are shown in an accepted TEA or Contract Progress Schedule.

The Contractor shall submit the Proposal Schedule within thirty (30) Calendar Days of a request from the Department.

The Proposal Schedule shall not be considered a Schedule of Record until the logic, durations, narrative, and basis of the Proposal Schedule have been accepted by the Engineer. If the Proposal Schedule took the form of a fragnet, it must be incorporated into the Contract Progress Schedule of Record showing the current progress of all other activities and the impacts/results of the changes made by the Proposal Schedule before the Proposal Schedule is accepted by the Department.

Proposal Schedules shall clearly indicate any proposed acceleration including overtime hours, additional shifts, and the resources that are proposed to be incorporated in the schedule. The Engineer shall have final discretion over the use of overtime hours and additional shifts. Proposal Schedules that contain a cost element shall be submitted with a separate Cost Proposal.

Changes represented in the accepted Proposal Schedules shall be incorporated into the next Contract Progress Schedule. During the review of any Proposal Schedule, all Contract Progress Schedules shall continue to be required every month.

E. Disputes

All schedules shall be submitted, reviewed, dispositioned, and accepted in the timely manner specified herein so as to provide the greatest possible benefit to the execution of this Contract.

The Contractor may dispute a decision by the Engineer by filing a claim notice within seven (7) days after the Contractor's request for additional time has been denied or if the Contractor does not accept the number of days granted in a time extension. The Contractor's claim notice shall include a revised time entitlement analysis that sufficiently explains the basis of the time-related claim. Failure to submit the required time entitlement analysis with the claim notice shall result in denial of the Contractor's claim. A determination on the Contractor's claim shall be in accordance with Subsection 7.16 Claims of Contractor for Compensation. Pending resolution of any dispute, the last schedule accepted by the Engineer will remain the Contract Schedule of Record.

SECTION 722 (Continued)**722.65 Schedule Type D Requirements**

This section is to detail the requirements for Type D Schedules and is separate from the requirements listed above. These schedules are intended for a project in which a more formal schedule would not be practical.

Schedules for Type D projects shall be submitted for each work assignment. The Schedule Type D shall be submitted electronically in .XLS and .PDF format and meet the following requirements.

The schedule requirements for work assignments that are anticipated to last three weeks or less shall conform to the requirements for Short-term Construction Schedules below.

Work assignments that are anticipated to last longer than three weeks shall submit a bar chart baseline and provided update schedules upon request of the engineer as required under Bar Chart Schedule below in addition to meeting the Short-term Construction schedule requirements.

A. Bar Chart Schedule

A Bar Chart that shall include the following:

- Work Assignment start date.
- Activities to identify.
 - Major work operations broken down to be no longer than 14 days.
 - Procurement of fabricated materials and equipment with long lead times, including time for review and approval of submittals required before procuring and fabricating.
 - The preparation and submission of shop drawings, procedures, and other required submittals, with a planned duration that is to be demonstrated to the Engineer as reasonable.
 - The review and return of shop drawings, procedures, and other required submittals, approved or with comments, the duration of which shall be shown as thirty (30) Calendar Days,
 - Detailed activities to satisfy permit requirements.
 - Subcontractor approvals at fifteen (15) Calendar Days from submittal to response
 - Project Close out activities including a 21-calendar day creation of a punchlist activity and 30 calendar day minimum completion of punchlist activity.
- Interfaces with adjacent work, utility companies, other public agencies, sensitive abutters, and/or any other third-party work affecting the Contract.
- Access Restraints – restrictions on access to areas of the Work
- Traffic work zone set-up and removal, night work and phasing
- Contract Milestones including Full beneficial Use, Substantial Completion and Contractor Field Completion

The Bar Char Schedule shall be provided at the beginning of the project and updated with each work order created for the project.

SECTION 722 (Continued)**B. Short-Term Construction Schedule**

The Contractor shall provide a Short-Term Construction Schedule that details daily work activities, including any multiple shift work that the Contractor intends to conduct, in a spreadsheet format. The daily activities shall directly correspond to the Contract Progress Schedule activities, with a matching reference to the activity identification number in the Contract Progress Schedule and may be at a greater level of detail. See schedule toolkit for suggested format.

The Short-Term Construction Schedule shall be submitted every two weeks. It shall display all work for a thirty-five (35) Calendar Day period consisting of completed work on the assignment for the two week period prior and all planned work for the following three week period. The initial submission shall be provided no later than thirty (30) Calendar Days after NTP or as required by the Engineer.

The Contractor shall be prepared to discuss the Short-Term Construction Schedule, in detail, with the Engineer in order to coordinate field inspection staff requirements, the schedule of work affecting abutters and any corresponding work with affected utilities.

C. Project Spending Report (PSR)

A Projected Spending Report (PSR) shall be prepared and submitted monthly. The PSR shall be for all active work assignments, broken down by work assignment. The PSR shall indicate the monthly spending (cash flow) projection for each month from NTP to Contractor Field Completion (CFC). Each month's actual spending shall be calculated using all CQEs paid during that month. The Projected Spending Report (PSR) shall be depicted in a tabular format and provided in both an .XLS and .PDF

SECTION 722 (Continued)**COMPENSATION****722.80 Method of Measurement****Schedule of Operations (Type A, B and C)**

The project bid documents specify the fixed-price amounts to be paid to the Contractor for the Project Schedule requirements contained herein. Each bidder shall include this fixed price bid item amounts in their bid. Failure to do so may be grounds for the rejection of the bid.

This fixed price amount is for payment purposes only and is separate from what the Department considers to be the Contractor's General Condition costs. If the Contractor deems it necessary to include additional costs to provide all of the requirements of this section, these additional costs shall be included in the Contractor's overall bid price.

All required schedule-related work, including, but not limited to computers, computer software, the planning and coordination with utilities, training, schedule preparation and schedule submittals will be paid for under the fixed price amount.

Twenty percent (20%) of this pay item will be paid upon the Engineer's acceptance of the Contractor's Baseline Schedule, prepared and submitted in accordance with Subsection 722.63.A.

The remaining eighty percent (80%) of this pay item will be paid in equal monthly installments distributed across the Contract Duration from Notice to Proceed (NTP) to Contractor Field Completion (CFC), less the 2 months required for the submittal and review of the Baseline Schedule in accordance with the following formula:

$$\text{Monthly Payment} = \frac{\text{Remaining Fixed Price amount (80\% of the Item Cost.)}}{\text{Contract Duration in whole months} - 2 \text{ months}}$$

The Schedule of Operations pay item will be adjusted to pay for only the actual quantity of schedules that have been submitted in accordance with this section.

Should there be a Time Extension granted to the Contractor, the Engineer may provide an Equitable Adjustment for additional Contract Progress Schedule Updates at intervals directed by the Engineer. The monthly payment will be the basis for this Equitable Adjustment.

Schedule of Operations (Type D)

For projects assigned with Type D schedule requirements, all scheduling work shall be considered incidental to the project with no separate payment under this section.

SECTION 722 (Continued)**722.81 Basis of Payment**

The timely and accurate submission of the Baseline Schedule is critical to the Contract and the Department's ability to make informed decisions. Only payments under Item 740 - Engineer's Field Office and Item 748 - Mobilization will be made until the Baseline Schedule is accepted by the Engineer.

All required schedule-related work, including, but not limited to computers, computer software, the planning and coordination with utilities, training, schedule preparation and schedule submittals (including monthly progress schedules, short-term schedules, project spending reports, TEAs, recovery schedules or impacted schedules) shall be included in this work.

No payment for any other pay item will be processed beyond seventy-five (75) Calendar Days from Notice to Proceed (NTP) until the Baseline Schedule is accepted by the Engineer. Until the Engineer's acceptance of the Baseline Schedule, the combined total of all payments made to the Contractor will be limited to an amount no greater than the total price for Item 748 - Mobilization or 3% of the contract price, whichever is less.

All Contract Progress Schedule Updates submitted later than ten (10) Calendar Days after the CQE (Contract Quantity Estimate) completion date, or greater than forty (40) Calendar Days from the Data Date of the previous submission, will be deemed to be no longer useful and will not qualify for payment. The late submission of Impacted schedules, including TEAs, recovery schedules and proposal schedules will result in the forfeiture of the monthly payment for the month in which they were due and subsequent months until the submission is made. Late submission of missed submittals will not result in recovery of the previously forfeited portion of the Schedule of Operations Fixed Price Payment Item.

Failure to submit schedules as and when required may result in the forfeiture of that portion of the Schedule of Operations Fixed Price Payment and/or the withholding of the full or partial CQE payments by the Engineer.

Failure to submit schedules that are acceptable to the Engineer may result in the forfeiture of that portion of the Schedule of Operations Fixed Price Payment and/or the withholding of the full or partial CQE payments by the Engineer.

The Schedule of Operations pay item will be adjusted to pay for only the actual quantity of schedules that have been submitted in accordance with this section.

The Contractor's failure or refusal to comply with the requirements of this Section shall be reasonable evidence that the Contractor is not prosecuting the Work with due diligence and may result in the Engineer withholding of full or partial payments of all work performed.

722.82 Payment Items

722.1	SCHEDULE OF OPERATIONS (TYPE A) - FIXED PRICE \$ _____	LUMP SUM
722.2	SCHEDULE OF OPERATIONS (TYPE B) - FIXED PRICE \$ _____	LUMP SUM
722.3	SCHEDULE OF OPERATIONS (TYPE C) - FIXED PRICE \$ _____	LUMP SUM

SCHEDULE OF OPERATIONS - SCHEDULE TYPE

The applicable schedule type for this project is Type D .

ITEM 100.1**BASE LABOR RATE****HOURLY**

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 the 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.

This Item shall only be used to compensate the Contractor for the time that their in-house workforce spends on work orders assigned by the Engineer.

Incidental to this item, vehicles are to be supplied for each artisan. If more than one artisan of a certain type (for example, carpenter) are working at a work site, the Contractor need only supply the minimum vehicles required to transport the artisans, their equipment, 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.

Described below, and included in this item, will be a tool kit for each trade with all incidental tools, special apparel, and any required personal safety equipment and a vehicle for each trade with no additional charge to the Department.

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

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 artisan to use their personal vehicles for the above purposes, no additional vehicles are required.

ITEM 100.1 (Continued)

Artisans and toolboxes are described below:

Laborer

Small hand tools, hand held 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.

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.

Electrician

Wire cutters, wire strippers, pliers, screwdrivers, utility knives, hex keys, crimping tools, fish lines, multimeters, clamp on ammeters, AC ammeter, DC megger, flashlights, gloves, protective clothing, allen wrenches, files, scrapers, electric power tools and generators necessary to run the equipment and other equipment that is normally used in the trade.

Ironworker / 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.

Painter/Deleader

Hand scrapers, wire brushes, paint spray apparatus, needle guns, wire wheels, gloves, protective clothing and all electrical power tools, air tools and generators with compressors as necessary to run the equipment.

Lead disposal costs will be paid for under the Non-Bid Items.

Materials required for the containment shall be paid for under non-bid materials allotment.

ITEM 100.1 (Continued)**Backhoe Front-End Loader 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 but not limited to a backhoe 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:

<u>COMPENSATION FACTORS</u>		
<u>ARTISAN</u>	<u>REGULAR</u>	<u>OVERTIME</u>
LABORER	1.00	1.30
CARPENTER	1.14	1.48
CEMENT MASON	1.29	1.68
ELECTRICIAN	1.30	1.69
IRON WORKER / WELDER	0.95	1.24
PAINTER/DELEADER	1.53	1.99
BACKHOE/FRONT-END OPERATOR	1.27	1.65

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.

ITEM 100.1 (Continued)**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:

$$\begin{aligned} & \text{“Artisan A(hrs)”} \times \text{“Compensation Factor A”} + \\ & \text{“Artisan B(hrs)”} \times \text{“Compensation Factor B”} + \\ & \text{“Artisan C(hrs)”} \times \text{“Compensation Factor C”} \\ & 8(\text{hr}) \times 1.00 + 4(\text{hr}) \times 1.14 + 6(\text{hr}) \times 1.29 = \\ & 8.00(\text{hr}) + 4.56(\text{hr}) + 7.74(\text{hr}) = \end{aligned}$$

20.30 (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.

SPECIAL NOTES REGARDING PREVAILING WAGE REQUIREMENTS

Item 100.1, Base Labor Rate establishes a unit price for the Department’s compensation to the Contractor for furnishing competent artisans to maintain and repair various components of the bridges. Nothing herein should be construed as establishing, altering or otherwise affecting the prevailing wages rates applicable to the work performed or relieving the Contractor of its obligations to ensure that workers are paid in accordance with applicable labor and wage laws.

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 106.12**BRIDGE CURB REMOVED AND RESET****FOOT**

The work done under this Item shall conform to the relevant provisions of Section 500, of the Standard Specifications. Work done under this Item shall consist of removing and resetting existing granite curb and edging on bridge decks, as required by the Engineer. It is the intent to remove and reset only those sections of granite curbing in order to reconstruct or repair existing bridge sidewalks or safety curbs, remove and replace existing scuppers, or where the existing curb stones have displaced laterally away from the reinforced concrete sidewalk or safety curb, or where deck deterioration continues beneath the curbing. Reinforced concrete bridge deck, sidewalk, or safety curb concrete repairs may be required adjacent to the curb stones and shall be compensated for under Items 127.1, 127.4, and/or 127.41.

Care shall be taken to remove the existing bridge curb stones to ensure that the stones are not damaged. There may be up to 2 reinforcing bars connecting each granite curb to the concrete behind. These bars shall be cut and removed, where they still exist, to facilitate the removal of each curb stone.

Reinforcing bar anchors shall meet the Standard Specifications, Division III, M8.01.0. Mortar shall meet Standard Specifications, Division III, M4.04.0. Non-shrink cementitious or epoxy grout shall be pre-approved by the Research and Materials Division. The Contractor shall first remove the concrete behind the curb and/or edging under Item 127.1 and the Contractor shall carefully remove the curb and/or edging and stack it temporarily in a safe place.

The contractor shall replace all curb and edging rendered unsuitable by his operation at his expense. The Contractor shall remove the existing # 5 L-shaped anchors by core drilling 3 inches into the granite. Each core hole shall be centered with the corresponding anchor and be slightly oversized to permit grouting of new anchors. The new anchors shall be # 5 L-shaped reinforcing bars extending three inches (3") into the granite and six inches (6") into the concrete. The new anchors shall be grouted into the granite using the approved grout. After completing the concrete deck repairs, the Contractor shall reset the curb and edging in accordance with Subsection 501.66.

Curbing that is damaged through no fault of the Contractor shall be replaced, which shall be considered incidental to this Item. However, curbing that is damaged by the Contractor's operations shall be replaced at the Contractor's expense.

Incidental to this Item shall be the placement of new mortar beds beneath each curb stone and the installation of two new #5 anchorage bars in the curb stones prior to resetting each curb stone piece.

ITEM 106.12 (Continue

METHOD OF MEASUREMENT

Item 106.12 will be measured for payment by the FOOT of bridge curb or edgings removed and reset, complete in place and accepted by the Engineer.

BASIS OF PAYMENT

Item 106.12 will be paid at the Contract unit price per FOOT of existing curb reset, which price shall include all labor, materials, tools, equipment, temporary supports, drilling, mortar, #5 anchorage bars, and incidental costs required to complete the work.

ITEM 106.491**ELASTOMERIC HEADERS****FOOT**

The work to be done under this Item consists of constructing or repairing expansion dams for bridge expansion joints over piers and abutments. The dimensions for the dams and joint widths shall be as required by the Engineer. See Document A00803, Drawings and Sketches for details.

This Item shall be used in conjunction with Item 107.471 Precompressed Impregnated Foam Joint Sealer, which shall be paid for under Item 107.471.

The Contractor shall, at all times during the duration of the Contract, have at minimum 12 feet of material on hand in case of an emergency repair.

MATERIALS

The elastomeric concrete shall be a two-component, rapid-curing, flexible mortar with silica-free aggregate, that cures to a dense, semi-flexible, weather resistant, abrasion resistant, and impact resistant concrete capable of accepting traffic loads in four (4) hours (minimum compressive strength of 2000 psi). The material shall have the following physical properties:

Mixed Binder including silica-free Aggregate:

Tensile Strength	650 psi min.	ASTM D 412
Elongation at Break	20% min.	ASTM D 412
Adhesion (primed concrete)	410 psi min.	ASTM D 7234
Compressive Strength	4000 psi min.	ASTM D 695
Resilience @ 5% deflection	70% min.	ASTM D 695
Impact Resistance @ -4°F and 69°F	No Cracks	ASTM D 3029-95

The aggregate shall be furnished by the manufacturer or shall meet the manufacturer's specifications for the application. The aggregate shall also be silica-free, well graded, clean, and dry.

CONSTRUCTION

The expansion dam shall be constructed or repaired to the dimensions as required by the Engineer.

Elastomeric concrete shall not be placed prior to the Engineer's approval of depth, width, alignment, and surface preparation.

Abrasive blasting and cleaning shall be done in accordance with the manufacturer's recommendations. Any compressed air used shall be filtered to separate oil and moisture.

ITEM 106.491 (Continued)

The elastomeric concrete shall be placed when the substrate temperature is at least 45° F and rising. An accelerator and/or heat may be used to improve the curing time of the concrete when recommended by the manufacturer. If the elastomeric concrete manufacturer recommends or requires a primer, the existing concrete faces to be bonded to shall be primed with an approved primer in accordance with the manufacturer's instructions.

Mixing, placing, and curing of the concrete shall be in accordance with the manufacturer's instructions, a copy of which shall be furnished to the Engineer prior to the start of work.

If existing joint headers are to be repaired, the excavation of the blockout and any existing headers, which shall be paid under Item 127.1, shall have square corners and shall have horizontal and vertical dimensions, as required by the Engineer.

A qualified representative of the joint manufacturer shall be present at the work site for the duration of the joint installations to ensure that all the joints are installed properly.

METHOD OF MEASUREMENT

Item 106.491 will be measured for payment by the FOOT. Measurement will be made along the centerline of the joint of elastomeric concrete, furnished and installed complete in place.

BASIS OF PAYMENT

Item 106.491 will be paid at the Contract unit price per FOOT. The unit bid price shall include all labor, materials, equipment, and all costs associated with providing the manufacturer's representatives.

ITEM 107.02**LOW ALLOY STEEL PLATES****POUND**

The work under this Item consists of furnishing, installing, removing, and resetting minimum one-inch-thick steel plates as required in order to cover areas of excavation that have not been filled with rapid setting concrete and or ready mix concrete and or hot mix asphalt at the end of the work day or any deteriorated area of the deck or sidewalk that needs to be immediately plated for safety reasons.

The steel plates shall be of sufficient dimensions to completely cover the area as determined by the Engineer. The plates shall be adequately secured to the bridge decks to ensure no movement from traffic. Methods to secure the plates shall be approved by the Engineer.

Steel plates shall not be placed without prior approval of the Engineer.

Any damage to the concrete decks due to the Contractor's operations shall be repaired at the Contractor's expense. The Contractor shall repair any damage to the deck to the satisfaction of the Engineer.

At the completion of the contract, the steel plates shall remain the property of the Contractor.

METHOD OF MEASUREMENT

Item 107.02 will be measured for payment by the POUND of steel plates.

BASIS OF PAYMENT

Item 107.02 will be paid at the contract unit price per POUND, which prices shall include all labor, tools, materials, equipment, transportation, and all incidental costs required to complete the work.

Each individual plate will be paid for once for the duration of the contract. Plates which have been paid for once and are no longer in use will be reused first at other locations for the duration of this contract. When a previously paid plate is reused at any other locations during other contract work, the subsequent mobilization, installation and removal of plate paid for once will be considered incidental.

ITEM 107.471**PRECOMPRESSED IMPREGNATED FOAM
JOINT SEALER****FOOT**

The work to be done under this Item consists of removing the existing joint sealers and replacing them with new precompressed joint seals at existing joints, concrete surfaces, steel channels, steel angle and double steel angle armored joints that are in good condition. Incidental to this Item is to remove all existing bituminous concrete or any other foreign material that has fallen into the joint gaps. See Document A00803 Drawings and Sketches for details. The Engineer shall determine if this Item shall be used with Item 106.491 Elastomeric Headers, which shall be paid under Item 106.491.

The Contractor shall, at all times during the duration of the Contract, have at minimum 12 feet of material on hand in case of an emergency repair.

Materials

The material shall conform to the Materials Specification provided below or an approved equal/superior joint system, as approved by the Engineer. Alternate manufacturers and their products shall be considered, provided they are produced of materials that are equal to or superior, as approved by the Engineer, to those called for in the base product specification.

The work shall consist of furnishing and installing preformed, precompressed, self-expanding, sealant system with silicone pre-coated surface.

All joint sealing material shall be capable of accommodating movements of +50%, -50% (100% Total) of nominal material size.

The preformed, precompressed, self-expanding, sealant system with silicone 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; 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 seal shall be as recommended by the manufacturer. The foam seal shall be installed into manufacturer's standard field-applied epoxy adhesive. The seal system is to be recessed from the 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 surface as shown on the drawings.

Changes in plane and direction shall be executed using factory-fabricated or custom transition assemblies supplied by the same manufacturer of the preformed, precompressed, self-expanding, sealant system with silicone pre-coated surface. Transitions shall be warranted to be watertight at inside and outside corners through the full movement capabilities of the product.

ITEM 107.471 (Continued)**Fabrication**

Seal profile shall be shipped in nominal five-foot standard lengths in manufacturer's standard shipping carton. Seals shall be cut to length on jobsite where required for straight lengths or directional change transitions utilizing appropriate tools, saws and miter boxes. All cuts shall be accurately measured and completed in a neat and workmanlike manner to ensure quality work.

Construction Methods

Existing materials shall be removed from each joint gap to a minimum depth of compressed seal height plus 3/4". Existing preformed filler and hot poured sealer shall be removed by routing.

The Contractor shall produce the required gap width within the full depth of the existing joint in the safety curbs and coping walls. All surfaces to receive seals shall be free from dirt, water, frost and any loose foreign debris that may be detrimental to effective joint sealing. The sides of the joint gap shall be abrasive blasted to white metal for joints with existing steel angle armor, solvent wiped and primed with an approved adhesive. Installation of the seals shall be in accordance with the manufacturer's recommended procedures.

A manufacturer's field representative must be present at the start of work and until the representative and the Engineer are satisfied the crew has mastered the technique of installing the system successfully. The Contractor shall request a warranty for this joint through the Manufacturer.

No drilling, or screwing, or fasteners of any type are permitted to anchor the sealant system into the substrate.

The Contractor shall verify that seal profile is to be installed in the proper width opening for the appropriate temperature at time of installation. Variations in width or incorrect opening that may affect proper installation and product performance shall be brought to the attention of the Engineer prior to installation.

A watertight integrity test shall be required at each joint, performed according to the requirements of Sub-Section 972.67 of the Standard Specifications.

METHOD OF MEASUREMENT

Item 107.471 will be measured for payment by the FOOT along the centerline of the exposed surface of each joint, complete in place, and accepted by the Engineer.

BASIS OF PAYMENT

Item 107.471 will be paid for at the contract unit price per FOOT, which price shall include all labor, equipment, the watertight integrity test, and materials necessary to complete the work. The Contractor shall be completely responsible for the expense of the service of the required field representative and the bid contract price shall be full compensation for all costs in connection therewith.

ITEM 107.851**SEALING RANDOM CRACKS IN CEMENT
CONCRETE****FOOT**

Cement concrete crack sealing requirements defined herein are for the repair of existing decks and sealing the perimeter of new cement concrete patches within an existing deck.

These cracks in existing concrete are assumed to be non-moving and to have been caused by inadequate control of shrinkage or temperature stresses during curing. Cracks shall be sealed after construction movement is substantially stable and before waterproofing, pavement, or other construction covers the cracked surface.

Before sealing, the concrete must be dry, clean and free of contaminants. The concrete shall then be blown off using oil free compressed air immediately prior to applying the sealer.

During the application of the crack sealer, the Contractor will strictly adhere to all of the manufacturer's instructions and specifications.

The cracks shall be v-notched to a minimum depth of ½ inch or a ¼ inch bead of caulk shall be placed on both sides of the crack creating a trough. The crack sealer shall then be poured into the v-notch or trough. The crack shall then be observed for seepage of crack sealer and shall be refilled as necessary to ensure the crack is completely filled. If large quantities of crack sealer are used and the crack is not getting filled, the crack should be filled with pre-bagged dried silica sand filler and the crack shall then be re-filled with crack sealer.

The crack sealer to be used shall be Master Seal 630 (formerly known as Degadeck Crack Sealer Plus), SikaPronto 19, Transpo T-78 Polymer Crack Healer/Sealer or other approved, low viscosity, methacrylate crack sealer equivalent.

METHOD OF MEASUREMENT

Item 107.851 will be measured for payment by the FOOT of sealing random cracks in cement concrete, complete in place.

BASIS OF PAYMENT

Item 107.851 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.

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

The Work under these Items shall conform to the relevant provisions of Subsections 120 and 482 of the Standard Specifications and the following:

The work under Item 127.1 shall include the excavation of the deteriorated concrete from concrete curbs, sidewalks, joints and concrete railings as required by the Engineer. The work under Item 127.1 shall also include the excavation of all reinforced concrete, existing steel angle armor joints assemblies, and steel protective angles for the installation and or repair of block-outs for bridge joint systems. This item provides payment for the removal of reinforced concrete decks within two (2) feet of the joint and backwalls during the installation of new bridge joint systems. Two (2) feet is defined as one (1) foot on each side of the centerline of the joint. Deck excavation beyond two (2) feet of the joint will be paid under Items 127.4 and 127.41. Backwall excavation beyond two (2) feet of the joint shall be paid under Item 127.1. The neoprene seal and resetting of the rail for the existing strip seal as required by the District Bridge Section will be paid under Non-Bid Items.

The work under Item 127.4 shall include the full depth removal and satisfactory disposal of all disintegrated or otherwise unsatisfactory reinforced concrete in bridge decks, as required by the Engineer. See Document A00803 Drawing and Sketches for details.

The work under Item 127.41 shall include the partial depth excavation and satisfactory disposal of all disintegrated or otherwise unsatisfactory reinforced concrete in bridge decks, as required by the Engineer. See Document A00803 Drawing and Sketches, contained herein, for details.

Note: Some of the bridges, due to their height (vertical clearance), will require special lifting equipment to place shielding for the assigned bridge repair work. Any equipment necessary to erect shielding shall be incidental to Item 994.1.

Prior to excavation, the Contractor shall cover all drainage structures that may be affected by the work. The structures shall 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 methods approved by the Engineer, to a depth of 1/2 inch, and all costs in connection with such work shall be incidental to the pertinent item. Excavated areas shall be made rectangular in shape [as much as possible], with horizontal and vertical edges and square corners.

ITEMS 127.1, 127.4 and 127.41 (Continued)

In case the reinforcing bars are exposed, 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. See Document A00803 Drawings and Sketches for details.

Concrete removal equipment shall be of the following types:

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. The Contractor will be restricted to fifteen (15) pound chipping hammers when work involves repairs to slabs of prestressed concrete adjacent deck or box beams, or when removing concrete from below any reinforcing bar.

Abrasive Blasting Equipment: Abrasive blasting equipment shall be capable of removing rust and old concrete from exposed reinforcing steel when 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 oil free compressed air after first being wetted with water to control airborne particulates.

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 as directed 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. 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. If, after excavation, existing rebar is exposed with areas of section loss less than 25%, the Contractor shall abrasive blast the steel, using oil-free compressed air.

Temporary Protective Shielding must be used on bridges over the roadway, railroad, or waterway during full depth excavation and when, in the opinion of the Engineer, there is the possibility of dislodging concrete from the bottom of the deck.

The Contractor shall take all measures necessary to protect pedestrian, vehicular traffic, waterway, or railroad below from the 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.

ITEMS 127.1, 127.4 and 127.41 (Continued)**METHOD OF MEASUREMENT**

Items 127.1 and 127.41 will be measured for payment by the Cubic Yard of reinforced concrete excavated and disposed of. Item 127.4 will be measured for payment by the Square Yard of reinforced concrete excavated and properly disposed of.

BASIS OF PAYMENT

Item 127.1 will be paid for at the respective contract unit price per Cubic Yard, which price shall include all labor, materials, equipment, sawcutting, cleaning, cutting, and bending of the existing reinforcing steel designated to be retained, the removal and disposal of excavated headers, existing steel angle, armor joints assemblies and all incidental costs required to excavate concrete at joints.

Item 127.4 will be paid for at the Contract unit price per Square Yard, which price shall be for full depth concrete deck excavation including 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 127.41 will be paid for at the Contract unit price per Cubic Yard, which price shall include partial depth concrete deck excavation, equipment, sawcutting, cleaning, cutting, and bending of the existing reinforcing steel designated to be retained, and all incidental costs required to complete the work.

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

New reinforcing steel will be paid under Item 910.1

Temporary protective shielding will be paid under Item 994.1.

Removal of Asphalt Wearing Surface and Waterproofing Membrane shall be paid under Item 129.6 Bridge Pavement Excavation.

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 satisfactory removal and disposal of the asphalt wearing surface and the old membrane waterproofing on concrete bridge decks. NOTE: this Item is only for asphalt wearing surfaces that are directly on concrete decks. If there is a layer of gravel between the asphalt and the deck, then all excavation is paid under Item 120.1. All blacktop removal located off of the bridge deck is paid under Item 120.1.

The Contractor shall be required to 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.

The work under this pay Item shall include the satisfactory removal and disposal of any asphalt pavement on the bridge approaches where excavation is required to adjust the finished grade.

Pavement on bridge decks may vary. The Contractor's attention is directed to the fact that the depth of the existing asphalt wearing surface varies from bridge to bridge.

A temporary asphalt ramp shall be placed at all butt joints before traffic is allowed to use the excavated area, unless otherwise as required by the Engineer. This asphalt shall be paid for under Item 472. "Temporary Asphalt Patching". Payment for the removal of these ramps will be included in the Contract unit price per ton for Item 472.

METHOD OF MEASUREMENT

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

BASIS OF PAYMENT

Item 129.6 will be paid at the Contract unit price per SQUARE YARD for the actual area of the existing HMA pavement excavated, removed and properly disposed as required by the Engineer. The Contract price shall include all labor, tools, equipment, sawcutting and incidental costs required to complete the work as required by the Engineer.

The Contract unit price shall also include the cost of cleaning the resultant concrete surface. No payment shall be made for additional cleaning that may be necessary just prior to the placement of any overlaying membrane or pavement courses. The cost of that work shall be included in the Contract unit price for Item 966.2 Membrane Waterproofing for Bridge Deck Repairs – Hot Rubberized Asphalt and Item 451. HMA for Patching.

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 sketches. The shape, width, and depth of the kerf shall be as shown in Document A00803 Drawing and Sketches.

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 in Document A00803 Drawing and Sketches. 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 M3.05.4 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 required 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 740. ENGINEERS 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 systems 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 Systems 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:
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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.
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Audio	shall be stereo multimedia speaker system delivering premium sound.
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OS:	Latest Windows Professional with all security updates
Web Browser:	Latest Internet Explorer with all security updates
Applications:	Latest MS Office Professional with all security updates
	Latest Adobe Acrobat Professional with all security updates
	Latest Autodesk AutoCAD LT
	Antivirus software with all current security updates maintained through the life of the contract.

Monitors:	Two 27" LED with Full HD resolution. Max. resolution 1920 x 1080
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Flash drives:	2 (two) - 128GB USB 3.0
Internet access:	High Speed (min. 24 mbps) internet access with wireless router.

ITEM 740. (Continued)

The Multifunction Printer System shall meet the following minimum criteria or better:

Color laser printer, fax, scanner, email and copier all in one with the following minimum capabilities:

- Estimated volume 8,000 pages per month
- LCD touch panel display
- 50 page reversing automatic document feeder
- Reduction/enlargement capability
- Ability to copy and print 11" x 17" paper size
- email and network pc connectivity
- Microsoft and Apple compatibility
- ability to overwrite latent images on hard drive
- 600 x 600 dpi capability
- 30 pages per minute print speed (color),
- 4 Paper Trays Standard (RADF) (not including the bypass tray)
- Automatic duplexing
- Finisher with staple functions
- Standard Ethernet. Print Controller
- Scan documents to PDF, PC and USB
- ability to print with authenticated access protection

The Contractor shall supply a maintenance contract for next day service, and all supplies (toner, staples, paper) necessary to meet estimated monthly usage.

The Engineer's Field Office and the equipment included herein including the computer system, and printer shall remain the property of the Contractor at the completion of the project. Disks, flash drives, and card readers with cards shall become the property of the Department.

Compensation for this work will be made at the contract unit price per month which price includes full compensation for all services and equipment, and incidentals necessary to provide equipment, maintenance, insurance as specified and as directed by the Engineer.

ITEM 748.1**EMERGENCY RESPONSE****EACH**

The work under this Item shall conform to the relevant provisions of Subsection 748 of the Standard Specifications and the following:

Item 748.1 is intended to be used as a means of providing payment to the Contractor for purposes of mobilizing those forces and equipment necessary for the timely response to an emergency and to begin work as directed.

This Item shall consist of preparatory work and operations for emergency response after notification from the Engineer. It shall include preparations necessary for the movement of personnel, equipment, and incidentals to the project site for the establishment of an effective response under the work assignment.

Note: The Contractor is required to commence emergency work within (4) four hours of notification.

METHOD OF MEASUREMENT

Item 748.1 will be measured for payment by the Each notified emergency Work Order when the Contractor commences work within (4) four hours of notification.

In the event that another emergency occurs during the period that the Contractor's forces have been notified and are mobilizing or working, all additional responses performed by a different emergency response crew at a different work site during that period will be considered an additional emergency response in accordance to the requirements specified herein.

The Emergency Response item is not applicable if the emergency occurs during scheduled repair working hours.

BASIS OF PAYMENT

Item 748.1 will be paid for at the Contract unit price per Each, which price shall be full compensation for all costs associated with ensuring prompt response to emergency situations and to get equipment to a deemed emergency location in time.

In the event that the Contractor does not satisfy the (4) four hours response time, payment for Emergency Response will be made only at the discretion of the Engineer.

A non-response damages will be assessed in the amount specified under NON-RESPONSE DAMAGES for each assignment the Contractor fails to report as required.

All labor, material and equipment to perform the emergency work will be paid for under the appropriate pay items.

ITEM 853.21**TEMPORARY BARRIER REMOVED AND RESET****FOOT**

The work under this Item shall conform to the relevant provisions of Subsection 850 of the Standard Specifications and shall consist of removing, transporting and resetting temporary barrier systems and limited deflection temporary barrier systems from alignments established along the roadway to new alignments in accordance with the details shown on the plans, as required by the construction and staged construction operations and as required by the Engineer for the channelization of traffic and/or work zone protection.

The work shall also include furnishing and installing all hardware and associated materials per the details and/or manufacturer's specifications. The work shall also include necessary patches and repairs caused by the temporary barrier system to damaged pavement surfaces or any adjacent longitudinal barrier once the system has been removed.

Temporary barrier systems and limited deflection temporary barrier systems shall be removed from existing locations and reset in accordance to the construction methods stated in the respective barrier items.

Damage to the pavement surface or adjacent permanent barriers caused by removing or resetting temporary barrier shall be repaired as required by the Engineer at the Contractor's expense.

METHOD OF MEASUREMENT

Item 853.21 will be measured by the FOOT, in place.

BASIS OF PAYMENT

Item 853.21 will be paid by the FOOT, in place which shall provide full compensation for removing, relocating, resetting, realigning, and transporting maintaining the temporary barrier system and/or limited deflection temporary barrier system. The Contractor will be paid for this item each time the barrier is relocated either to a new work zone, to off-season storage, or back to the project from storage. The Contractor will not be separately compensated for any work necessary to maintain or re-align units or replace damaged units. No payment will be made for removing and resetting barriers for the purpose of gaining access to the construction work zone. No payment will be made for removing, relocating and resetting any barriers moved for the convenience of the Contractor.

For temporary barrier systems that require anchorage systems, the cost of furnishing, installing and removing the anchorage and hardware and the restoration of pavement surfaces or adjacent permanent barrier systems to facilitate anchorage shall be considered incidental to the cost of this Item.

ITEM 853.33 **TEMPORARY BARRIER – LIMITED DEFLECTION (TL-3)** **FOOT****DESCRIPTION**

Work under this item shall conform to the relevant provisions of Subsection 850 and shall consist of furnishing, installing, maintaining and final removal of limited deflection TL-3 temporary barrier systems for channelization of traffic and/or work zone protection. Limited deflection temporary barrier systems shall have a maximum dynamic deflection of 24 inches and in all cases the clear area available behind the barrier shall be greater than the dynamic deflection of the barrier system.

MATERIALS

The Contractor shall use a temporary barrier system that is listed on the Qualified Traffic Control Equipment List.

The Contractor may submit alternate materials to the Engineer for approval if the limited deflection temporary barrier system meets the following criteria:

1. The system has been tested by an independent laboratory that is accredited by FHWA to crash test roadside hardware;
2. The system meets the minimum requirements of the *AASHTO Manual on Assessing Safety Hardware* (MASH) at Test Level (TL) 3 or higher; and
3. The system has a federal-aid eligibility letter from FHWA.

Copies of the testing results and the federal-aid eligibility letter shall be submitted and approved by the Engineer prior to procurement of an alternate temporary barrier system.

The Contractor shall supply shop drawings to confirm the available clear area behind the barrier equals or exceeds the maximum dynamic deflection of MASH Test 3-11 during testing procedures taken at an independent laboratory that is accredited by FHWA to crash test roadside hardware.

Delineators shall be installed on all limited deflection temporary barrier systems in conformance with the relevant provisions of Section 850.69 and shall be incidental to the temporary barrier systems.

Temporary impact attenuators that are listed on the Qualified Traffic Control Equipment List shall be used whenever a blunt end of the limited deflection temporary barrier system is facing traffic within the clear zone unless it is protected by a second barrier system or secured to a separate barrier system or bridge railing by a method approved by the manufacturer.

CONSTRUCTION METHODS

Limited deflection temporary barrier systems shall be placed in line with the drawings. Installation shall be per the manufacturer's specifications, details, and the approved shop drawings.

ITEM 853.33 (Continued)

The Contractor shall not place any breaks in the limited deflection temporary barrier system that will result in sections that are shorter than the stated minimum length-of-need (LON) under MASH Test 3-11. Exceptions shall be allowed for gate systems or changeable length segments placed over expansion joints if those barrier segment types have been tested and meet the minimum requirements of MASH Test 3-11 with the adjoining limited deflection barrier system.

Within the LON section, limited deflection temporary barrier systems shall only be placed on paved surfaces unless otherwise tested and certified under MASH TL-3 for those conditions.

Damage to the pavement surface caused by the limited deflection temporary barrier during installation, while in service, and/or during removal shall be repaired as directed by the Engineer at the Contractor's expense.

Limited deflection temporary barrier systems that require anchorage systems shall conform to the relevant provisions of Section 850.70.

METHOD OF MEASUREMENT

Item 853.33 will be measured by the foot, in place.

BASIS OF PAYMENT

Item 853.33 will be paid at the contract price per foot for limited deflection temporary barrier installed in place, including all incidental items. This price shall include the cost of furnishing, installing, maintaining and final removal of all limited deflection temporary barrier systems.

For limited deflection temporary barrier systems that require anchorage systems, the cost of furnishing and installing the anchorage and hardware and the restoration of pavement surfaces or adjacent permanent barrier systems to facilitate anchorage shall be considered incidental to the cost of the item.

Payment for limited deflection temporary barrier removed and reset will be made under Item 853.21.

ITEM 859.1 **REFLECTORIZED DRUMS WITH SEQUENTIAL** **DAY**
FLASHING WARNING LIGHTS

The work under this Item shall conform the relevant provisions of Subsection 850 of the Standard Specifications and the following:

Work under this item consists of furnishing, installing, maintaining in proper operating conditions, and removing reflectorized drums, and any necessary ballast, equipped with sequential flashing warning lights.

MATERIALS

Reflectorized drums shall be listed on the MassDOT Qualified Traffic Control Equipment List. Reflective sheeting on drums shall meet or exceed ASTM D4956 Type VIII. All drums shall be maintained in a satisfactory manner including the removal of oils, dirt, and debris that may cause reduced retroreflectivity.

The Contractor shall use one of the following sequential flashing warning light systems unless otherwise approved by the Engineer:

1. Empco-Lite LWCS.
2. pi-Lit® Sequential Barricade-Style Lamp; or
3. Unipart Dorman SynchroGUIDE.

Sequential flashing warning lights shall be secured to reflectorized drums per the light manufacturer's specifications.

CONSTRUCTION METHODS

The first ten (10) drums in any merging or shifting taper as designated in the Temporary Traffic Control Plan shall be equipped with sequential flashing warning lights. These lights shall be operating, at a minimum, between dusk and dawn when the taper is deployed.

The successive flashing of the sequential warning lights shall occur from the upstream end of the merging or shifting taper to the downstream end of the taper in order to identify the desired vehicle path. Each warning light in the sequence shall be flashed at a rate of not less than 55, nor more than 75 times per minute.

Warning lights shall be powered off when drums are not deployed in a taper.

ITEM 859.1 (Continued)**METHOD OF MEASUREMENT**

A group of ten (10) reflectorized drums with sequential flashing warning lights is considered one (1) unit and will be measured by the day. Each period of up to 24 hours during which this unit is in use will be measured as one day regardless of the number of times that the drums are positioned, repositioned, removed, or returned to service.

BASIS OF PAYMENT

Reflectorized Drums with Sequential Flashing Warning Lights will be paid for at the contract unit price per day, which shall include full compensation for furnishing, positioning, repositioning, and removing the group of ten (10) drums as directed by the Engineer.

ITEM 862.506
ITEM 863.506**6-IN. RECESSED WHITE LINE (MC, FD, WR)**
6-IN. RECESSED YELLOW LINE (MC, FD, WR)**FOOT**
FOOT

Work to be completed under these items shall conform to the relevant provisions of Subsection 860 of the Standard Specifications and shall consist of furnishing and installing Recessed Multi-Component (MC), Wet Reflective (WR) Pavement Markings at the locations shown on the plans or as directed by the Engineer.

If the Multi-Component Pavement Marking material is applied over a different pavement marking material, the Contractor shall provide documentation that the Multi-Component Pavement Marking Material being used will adhere to the existing marking material.

Materials

MC pavement markings shall consist of a two-component, 100% solids liquid binder, first drop beads or elements to provide wet and dry retroreflectivity, and second drop glass beads to improve the durability of the pavement marking, reduce track-free times, and provide supplementary retro-reflectivity. MC Pavement Marking binders are typically composed of, but not limited to, Epoxies, Polyureas, or Urethanes.

Classification of dry time is based upon the results of the test procedures found in ASTM D711 ($73.5 \pm 3.5^{\circ}\text{F}$ at $50 \pm 5\%$ relative humidity) when applied with glass beads. MC Fast Dry (MC, FD) pavement markings shall have a no track time of 10 minutes or less. The Contractor shall provide a Certificate of Compliance verifying the product supplied meets the specified dry time requirements per ASTM D711 prior to installation.

The Contractor shall select a liquid binder and bead/element combination that meets these performance specifications.

Second drop beads shall be manufactured from glass of a composition that is highly resistant to traffic wear and to the effects of weathering. If coating is required to meet the performance requirements, the second drop beads shall be coated to ensure satisfactory embedment and adhesion. Second drop beads retained on a No. 40 U.S. Standard Mesh Sieve shall have a minimum crush strength of 30 lbs. when tested in accordance with ASTM D1213.

Second drop beads passing the No. 30 sieve shall have a minimum of 75 percent true spheres when tested in accordance with ASTM D1155. All second drop beads retained on the No. 20 and No. 30 sieves shall have a minimum of 80 percent true spheres as determined by ASTM D1155.

Second drop beads shall meet the following gradation requirements when tested in accordance with ASTM D1214:

ITEMS 862.506 and 863.506 (Continued)

U.S. Standard Sieve No.	Percent Retained
20	3-10
30	15-35
50	45-75
70	0-10
Pan	0-5

Construction Methods

The Contractor shall follow all installation instructions from the manufacturer, including allowable ranges of temperature and humidity for installation, unless otherwise approved by the Engineer.

The pavement surface shall be clean, dry and free of laitance, oil, dirt, grease, paint or other foreign contaminants prior to the installation of any new pavement markings. If an air lance is used to clean the surface, air compressors shall initially be blown out away from the application area to prevent compressor condensation build-up. A minimum of 24 hours of dry time following any rainfall is required prior to the placement of pavement markings.

Recessing of markings shall be per 860.65: Recessed Markings.

Application rate for binder and all glass beads shall consider final pavement surface composition and smoothness in advance of application to ensure proper wet film thickness and embedment of all beads. The Contractor shall provide the Engineer with documentation from the manufacturer with all recommended application rates in advance of any pavement marking installation.

The minimum uniform wet thickness for the MC binder shall be 20 mils but should be increased if recommended by the manufacturer. The line thickness shall be met across at least the middle $\frac{2}{3}$ of the pavement marking width. Wet mil thickness gauges shall be provided by the Contractor to the Engineer to assure that desired thickness is achieved.

The finished white color shall be free from tint, with good opacity and visibility under both daylight and artificial light. The finished yellow color shall be defined by Federal Test Standard 595 - Color Chip Number 13538, using Federal Test Standard 141 (Method 4252). The finished lines shall be uniform in color and have clean, well-defined edges.

Glass beads shall be applied in a manner that does not induce rolling or bouncing, to ensure that exposed portions of beads are free of binder material. Beads should be embedded in the binder to a depth of approximately 50% of their diameter.

Glass beads shall be applied as a reflective medium, using the double drop method, at a rate in accordance with the manufacturer's specification in order to meet the minimum retro-reflectivity levels.

Newly installed pavement markings shall be protected from tracking during the curing period per Subsection 860.63.

ITEMS 862.506 and 863.506 (Continued)

Once the installed pavement markings have been open for traffic for a minimum of 7 days, the Contractor shall perform retro-reflectance readings per the measurement and sampling procedures contained in ASTM D7585 (Standard Practice for Evaluating Retroreflective Pavement Markings Using Portable Hand-Operated Instruments) using the Referee Evaluation Protocol found in section 6.4, and the testing procedures shall follow ASTM E1710 (*Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retro-reflectometer*) and ASTM E2177 (*Standard Test Method for Measuring the Coefficient of Retroreflected Luminance (R_L) of Pavement Markings in a Standard Condition of Wetness*).

The average initial retro-reflectance readings shall exceed the following minimum values:

Test Method	*White Markings	*Yellow Markings
ASTM E1710 (Dry)	475 mcd/lux/m ²	375 mcd/lux/m ²
ASTM E2177 (Wet Recovery)	375 mcd/lux/m ²	300 mcd/lux/m ²

*Observation Angle = 1.05°, Entrance Angle = 88.8°

Pavement markings with measured average initial retro-reflectance readings that do not meet the specified minimum values using the procedures outlined in subsection 6.4.5 of ASTM D7585 shall be removed by a method approved by the Engineer and reapplied at no additional cost, unless otherwise approved by the Engineer.

METHOD OF MEASUREMENT

Items 862.506 and 863.506 will be measured per FOOT, complete in place.

BASIS OF PAYMENT

Items 862.506 and 863.506 will be paid for at the respective Contract unit price per FOOT. The Contract prices shall include all material, labor, and equipment required or incidental to the satisfactory completion of the work.

ITEM 905. **4000 PSI, 3/8 INCH, 660 CEMENT CONCRETE** **CUBIC YARD**

The work under this Item shall conform to the relevant provisions of Subsection 901 of the Standard Specifications and the following:

The work under this Item shall consist of furnishing and placing 4,000 PSI, 3/8 INCH, 660 CEMENT CONCRETE for repair of deck areas or other locations, as required by the Engineer, after all deteriorated and/or unsound concrete is removed under Items 127.1, 127.4 and/or 127.41. The Engineer shall determine whether to use Item 905. or Item 909.5.

The Contractor's attention is also directed towards the repair drawings, contained in document A00803 Drawings and Sketches.

The Contractor shall have the approval of the Engineer certifying that the existing concrete has been removed to the required limits and that adequate surface preparation has been achieved before any concrete is placed.

All formwork shall be approved and accepted by the Engineer prior to any concrete placement.

All concrete surfaces shall be prepared in accordance with PREPARATION OF CONCRETE SURFACES.

Bonding Agent cost shall be considered incidental to this Item.

When required by the Engineer, the Contractor shall use specialized materials, equipment, and crews to pour the concrete in accordance with the Standard Specifications in Section 901.

This specialized work includes, but is not limited to, the following:

- Motorized Screed: When so required by the Engineer, the Contractor shall use an approved motorized screed to properly finish a deck pour. This will only be required for large deck pours as required by the Engineer.
- Concrete Pump Truck: When so required by the Engineer, the Contractor shall use an approved concrete pump truck to properly place the concrete. The pump truck will also be used to prevent a lane closure in the lane adjacent to the pour. Under no circumstances, will the pump truck be driven over a deck that is partially excavated.
- Finishing Crew: When so required by the Engineer, the Contractor will use a specialized finishing crew to properly finish the deck pours.

Additionally, any concrete cracks caused by inadequate control of shrinkage or temperature stresses during the curing of new concrete, poured under this item and exposed to traffic, shall be sealed. This work includes:

1. Before sealing, the concrete must be dry, clean and free of contaminants. The concrete shall then be blown clean using oil free compressed air immediately prior to applying the sealer.

ITEM 905. (Continued)

2. The cracks shall be v-notched to a minimum depth of ½ inch or a ¼ inch bead of caulk shall be placed on both sides of the crack creating a trough. The crack sealer shall then be poured into the v-notch or trough. The crack shall then be observed for seepage of crack sealer and shall be refilled as necessary to ensure the crack is completely filled.
3. During the application of the crack sealer, the Contractor will strictly adhere to all of the manufacturer's instructions and specifications.

The crack sealer to be used shall be Master Seal 630 (formerly known as Degadeck Crack Sealer Plus), SikaPronto 19, Transpo T-78 Polymer Crack Healer/Sealer or other approved, low viscosity, methacrylate crack sealer equivalent.

METHOD OF MEASUREMENT

Item 905. will be measured for payment by the CUBIC YARD of concrete actually furnished and installed, complete in place.

BASIS OF PAYMENT

Item 905. will be paid for at the Contract unit price per Cubic Yard, which price shall include all labor, materials, equipment, surface preparation, and all incidental costs required to complete the work.

No separate payment will be made for the installation and subsequent removal of any formwork, coating of the steel reinforcing, but all costs in connection therewith shall be included in the Contract unit price bid.

Where formwork is installed for concrete placement, payment of seventy percent (70%) of the Cubic Yard price of this item will be made upon complete concrete installation.

The remaining thirty percent (30%) of the Cubic Yard price of this Item will be paid only after complete form work removed by the Contractor.

Payment for the specialized work described above will be made in accordance with the Special Provisions for NON-BID ITEMS and ITEM 100.1 BASE LABOR RATE.

- The motorized screed shall be paid as a SUPPLIER'S EQUIPMENT RENTAL COST or as the CONTRACTOR'S EQUIPMENT RATE.
- The concrete pump truck shall be paid as a SUPPLIER'S EQUIPMENT RENTAL COST that will include the driver/operator.
- The specialized finishing crew will be paid under ITEM 100.1 BASE LABOR RATE for the artisan category of cement mason. The specialized finishing crew is a separate entity in that it is not to be confused with the normal labor required to pour, distribute, and vibrate the concrete. Labor for pouring, distributing, and vibrating the concrete will be included under Contract unit price per Cubic Yard for Item 905.

ITEM 909.5**RAPID SETTING CONCRETE****CUBIC YARD**

The work under this Item shall conform to the relevant Provisions of Subsection 901 of the Standard Specifications and the following:

The work under this Item shall consist of furnishing and placing rapid setting cementitious material that is suitable to repair concrete and pavement surfaces on bridges as required by the Engineer.

The rapid setting cementitious product shall be qualified rapid set material that shall have completed testing through AASHTO's Product Evaluation & Audit Solutions (PEAS) and is included on the MassDOT Qualified Construction Material List.

The rapid setting cementitious material shall be expanded with aggregate for placements that are two (2) inches or more in depth and must be formulated to develop a minimum compressive strength of 2000 psi within two (2) hours.

The product shall be expanded using clean non-reactive aggregates from a MassDOT approved source according to a formulation acceptable to the manufacturer. Submit certified test reports showing the aggregate is non-reactive. Aggregate specified, labeled, and furnished by the rapid set patching material manufacturer may be used with approval of the Engineer. The mixing process for expanding the rapid setting patching material shall be performed per the Manufacturer's recommendations.

The Contractor will be required to cast twelve (12) cylinders from trial batch for compressive strength testing, in accordance with AASHTO T 22. The trial batch production shall be in accordance with AASHTO R 100.

Trial batching shall be conducted in the presence of the Engineer. The concrete cylinders shall be cast by a certified technician for testing at an independent laboratory approved by MassDOT. Acceptance shall be based on the average compressive strength of three (3) cylinder breaks. The cylinders shall be tested at two (2) hours and seven (7) days. The minimum average compressive strength of the specimens (including 20% overdesign requirement) shall be 2400 psi at two (2) hours and 5000 psi at seven (7) days. Two sets of three (3) cylinders shall be reserved for quality assurance testing by MassDOT Research and Material Section. The contractor shall coordinate

delivery of the concrete cylinders to a MassDOT facility so that they may be tested for compressive strength at two hours. No cylinders shall be handled or transported until they have cured for a minimum of 1 hour.

Retesting through trial batching will be required if the rapid setting cementitious product, aggregate source, or the process to produce the patching material changes.

The Contractor shall give the Engineer a 10-day minimum advance notification of trial batch production.

ITEM 909.5 (Continued)**Construction Method**

All concrete surfaces shall be prepared in accordance with PREPARATION OF CONCRETE SURFACES.

The ambient temperature must be 35 degrees F and rising for placement of the rapid set repair material. Placement of this material, when the temperature is below 35 degrees F, will require the following:

1. Heating the mixing water.
2. Heating the aggregate.
3. Using warm cement.
4. Pre-heating the excavated area to be patched using a method approved by the Engineer.
5. Protecting the mixture from freezing after placement (using a method approved by the Engineer) until after hydration takes place.

If approved by the Engineer, gypsum-based concrete may be used on exposed concrete deck repairs when ambient, surface and adjacent concrete temperature is 35 degrees Fahrenheit and falling. This product should not be used below 32 degrees Fahrenheit without taking additional steps to ensure proper curing.

NOTE: Gypsum based concrete shall NOT BE USED when it will be covered by a hot mix asphalt product.

The rapid setting repair material shall be cured and protected until the minimum compressive strength is achieved.

The Contractor shall be required to mix and place the cement by using an eight (8) cubic foot minimum rubber-blade mobile mixer. Two (2) mixers will be required to be on site, of which one mixer can be used as a back-up. Sufficient mixing and placing equipment shall be provided on the construction site by the Contractor to ensure that a breakdown of equipment will not cause significant delays in completing the scheduled work in the shift.

Approval by the Engineer for all formwork shall be required prior to placement of any concrete.

The Engineer may require the Contractor to vibrate and/or power screed the patched area.

Payment for such equipment shall be considered incidental to this Item.

Rapid setting concrete placements shall be completed three (3) hours before the end of the workday so that the required compressive strength of 2000 psi is attained before the area is opened to traffic.

ITEM 909.5 (Continued)

Formwork shall be maintained and remain in place a minimum of seventy-two (72) hours after placement.

All formwork placed under this contract must be removed no later than forty-five (45) days after it was initially placed. Failure to remove formwork within forty-five (45) days may result in its removal by others, with the associated costs being assessed to the Contractor.

METHOD OF MEASUREMENT

Item 909.5 will be measured for payment by the Cubic Yard of rapid setting concrete furnished and installed, complete in place.

BASIS OF PAYMENT

Item 909.5 will be paid at the Contract unit price per Cubic Yard, which price shall include all labor, materials, tools, equipment, trial batching, testing, and all incidental costs required to complete the work, as required by the Engineer.

Where formwork is installed for concrete placement, payment of seventy percent (70%) of the Cubic Yard price of this item will be made upon complete concrete installation.

The remaining thirty (30%) of the Cubic Yard price of this Item will be paid only after complete form work removed by the Contractor.

ITEM 962.11**STEEL ENCAPSULANT COATING****SQUARE FOOT**

The work under this Item shall consist of encapsulation of rusted steel joints. Under no circumstances should encapsulation occur without approval from the Engineer. This Item shall involve the encapsulation of steel joints, armored joints, joints that incorporate angle armor, and joint assemblies, as required by the Engineer by the method of spraying or rolling or as per manufacturer's recommendations.

Preparation and Application

All steel joints, armored joints, joints that incorporate angle armor, and joint assemblies to be encapsulated under this Item shall be cleaned by means of wire brush or pressure washing with a non-phosphate, non-polluting detergent to remove all oil, grease, dirt, salt, guano, loose rust, and loose paint. All surfaces to receive this application must be completely dry and free of all foreign materials. The coating shall be applied by spraying or rolling. The air temperature for the application should be between 40 – 90 degrees Fahrenheit.

If a second coat is required by the Engineer, it should be applied no more than four hours after first coat has been applied. Existing steel joints, armored joints, joints that incorporate angle armor, and joint assemblies to be encapsulated shall be bonded by penetration with an encapsulation adhesive in accordance with the manufacturer's recommendations and the following:

The Contractor shall submit manufacturer's literature completely describing products.

The materials shall be delivered clearly marked with legible and intact labels containing the manufacturer's name, brand name, and identification of the contents of containers. The materials shall be stored in areas where temperatures conform to the manufacturer's recommendations and instructions.

The Contractor shall comply with the manufacturer's instructions and recommendations regarding safety and application of product. The surrounding work, vehicles, planting materials and items of similar nature, shall be protected from damage by any materials or operations.

Material Properties

The material used for the steel encapsulant coating shall be a water-based primer containing tannic acid and an organic polymer that undergoes a chemical reaction with the rust to create a black protective polymeric coating. The material shall be Black-Max manufactured by Rhomar Industries, Inc., Rust Converter manufactured by the Rust Store, Corotech Rust Arrestor manufactured by Benjamin Moore, or an approved equal. Acceptance of any approved equal submittal shall be the responsibility of the Engineer.

Limits of Work

The limit of work under this Item shall be limited to areas of steel that are corroded, as required by the Engineer.

ITEM 962.11 (Continued)**METHOD OF MEASUREMENT**

Item 962.11 will be measured per SQUARE FOOT of steel area properly encapsulated, complete in place and accepted by the Engineer.

BASIS OF PAYMENT

Item 962.11 will be paid for at the Contract unit price per SQUARE FOOT of steel joints, armored joints, joints that incorporate angle armor, and joint assemblies properly encapsulated in place and accepted. This shall include the cost of all materials, equipment, tools, labor and all incidental costs required to complete the work as specified and as required by the Engineer.

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(Bridge/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 operations of 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."

<u>ITEM 966.2</u>	<u>MEMBRANE WATERPROOFING FOR BRIDGE DECK REPAIRS - HOT RUBBERIZED ASPHALT</u>	<u>SQUARE FOOT</u>
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The work under this Item shall conform to the relevant provisions of Subsection 966 of the Standard Specifications and the following:

The work under this Item consists of furnishing and applying an approved hot rubberized asphalt membrane waterproofing system and all concrete surface preparation work necessary to install the membrane system. The membrane system shall consist of primer, membrane, and protective covering.

Hot applied rubberized asphalt membrane shall *not* be used on grades in excess of three (3) percent.

Hot applied rubberized asphalt membrane shall be placed before paving.

METHOD OF MEASUREMENT

Item 966.2 will be measured for payment by the SQUARE FOOT of the membrane waterproofing complete in place and the quantity to be paid for shall be the number of square feet of surface covered, with no allowance for overlapping or for edges turned up or carried into recesses for seals, except that the area of the full membrane turned down in back of the backwalls and extended under and in back of curb or edging will be included for payment.

BASIS OF PAYMENT

Item 966.2 will be paid for at the Contract unit price per SQUARE FOOT, which price shall include all labor, materials, tools, equipment, and any incidental costs required to complete the work as required by the Engineer.

Payment for tack coat application shall be made under Item 451.

ITEM 994.1**TEMPORARY PROTECTIVE SHIELDING****SQUARE FOOT**

The work under this Item consists of furnishing, installing, maintaining, removing and disposing of existing shielding system on and under bridge(s), in locations required by the Engineer.

The work under this Item shall provide for the protection of traffic, persons, and facilities on the roadway beneath bridges from falling debris during the removal of the unsound concrete from bridge decks, parapets, copings and sidewalks or as required by the Engineer.

No portion of the bridge deck shall be removed until the protective shielding is in place and complete.

Any existing formwork on the bridge shall also be removed and disposed by the Contractor away from the job area, at no additional expense.

All shielding shall meet the following requirements:

Temporary Protective Shielding must be used on bridges over roadways, railroads, and waterways during full depth excavation and when, in the opinion of the Engineer, there is the possibility of dislodging concrete from the bottom of the deck, parapets or coping. In some cases, the Contractor may be able to utilize the bottom flanges of existing steel beams as supports for the protective shielding. However, the Contractor will not be permitted to weld onto, drill into, or cut any existing structural steel beams.

The Contractor shall submit drawings and calculations stamped by a Professional Engineer of the appropriate discipline registered in Massachusetts of the proposed temporary shielding to the Engineer for approval prior to its installation. The drawings shall include details of all connections, brackets, and fasteners. However, when the spacing between existing steel beams is 70 inches or less, the Contractor may utilize a wood plank shielding scheme.

Shielding shall be designed to safely withstand all loads that it will be subjected to. The allowable design stresses shall be in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition. The design shall also include a description of the equipment and construction methods proposed for the deck, parapet, or coping excavation and the maximum size of the area being excavated. The shielding shall also be designed to withstand the maximum size of the excavated area should it fall during excavation or removal. No debris shall be swung over traffic, on or below the bridge.

Shielding shall be designed such that impact on traffic during installation and removal shall be minimal. The Contractor shall submit the traffic plan to the Engineer for approval.

ITEM 994.1 (Continued)

The shielding shall extend a sufficient distance above and beyond the deck overhang at the fascia where concrete excavation is required outside the fascia beams. The shielding shall extend the length of the damaged or distressed portion of the deck a length of sufficient distance to do the required deck demolition. Also, the width of shielding shall completely extend over the travel lanes and shoulders of the highway below and shall extend a minimum of one beam width in the transverse direction beyond the limits of the excavation.

The area for shielding shall be approved by the Engineer prior to any installation of any shielding. The Contractor may utilize the bottom flanges of existing beams as supports for the protective shielding. However, the Contractor will not be permitted to weld onto, drill into, or cut any existing structural steel beams. All spaces along the perimeter of the shielding and at the seams shall be sealed to prevent dust, water, and debris from escaping and falling onto traffic below the bridge.

The Engineer may request that the shielding be designed so that it may also serve as false work (forms) for all areas of full-depth concrete replacement/repair.

The shielding shall not decrease the minimum vertical bridge clearance to the roadway unless otherwise approved by the Engineer.

The shielding shall be maintained and remain in place until the strength of the concrete used to repair the deck has cured and reached the design strength requirement, except where shielding needs to be removed and reset to install formwork for the areas of full depth repair. The shielding shall remain the property of the Contractor and shall be removed by the Contractor from the site when no longer needed.

If the Contractor's operations damage any existing portions of the bridge that are to remain, such damage shall be repaired at the Contractor's own expense.

All materials used in the temporary shielding system shall become the property of the Contractor and shall be removed from the site upon the completion of the project.

ITEM 994.1 (Continued)

METHOD OF MEASUREMENT

Item 994.1 will be measured for payment by the Square Foot of shielding installed, maintained, and removed upon completion of repair work as required by the Engineer.

BASIS OF PAYMENT

Item 994.1 will be paid for at the Contract unit price per Square Foot, which price shall include all labor, materials, equipment, removal and disposal all debris, shielding installation, maintenance, final removal upon completion of repair work, and all incidental costs required to complete the work.

Payment of 60% of the Square Foot of this item will be made upon complete installation.
The remaining 40% of the Square Foot of this Item will be paid following complete removal.

Compensation to provide Engineering Services, when required, will be separately reimbursed as a Non-Bid Item.

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DOCUMENT A00803

DRAWINGS AND SKETCHES

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PROJECT: 613718 DISTRICT 1 – SCHEDULED AND EMERGENCY BRIDGE DECK AND JOINT REPAIRS AT VARIOUS LOCATIONS

SUBJECT: TABLE OF CONTENTS

SHEET: 1 OF 10
DRAWN BY: PS
DATE: 5/16/25
CHKD BY: PV
DATE: 5/16/25

DECK REPAIR GENERAL NOTES:

1. REPLACE DETERIORATED DECK CONCRETE AND ANY EXISTING TEMPORARY CONCRETE PATCHES, SUCH AS DURACAL PATCHES, WITH NEW CONCRETE.
2. INSPECT THE DECK TO IDENTIFY ADDITIONAL AREAS OF FULL AND PARTIAL DEPTH DECK REPAIRS. THE FINAL LIMITS OF JOINT AND DECK REPAIRS TO BE DETERMINED BY THE ENGINEER.
3. PARTIAL DEPTH REPAIRS: ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE REMOVED TO A MINIMUM DEPTH OF 1" BELOW THE BOTTOM OF THE TOP LAYER OF EXISTING TRANSVERSE REINFORCEMENT STEEL TO A MAXIMUM OF 50% OF THE THICKNESS OF THE EXISTING CONCRETE DECK.
4. FULL DEPTH REPAIRS: ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE REMOVED, AND IF THE SOUND CONCRETE SURFACE IS LOCATED AT A DEPTH GREATER THAN 50% OF THE DECK THICKNESS WHEN MEASURED FROM THE TOP OF DECK, A FULL DEPTH DECK REPAIR SHALL BE PERFORMED.
5. CONCRETE EXCAVATION ASSOCIATED WITH THE BRIDGE DECK REPAIRS SHALL BE PAID FOR UNDER ITEMS 127.4 REINFORCED CONCRETE DECK EXCAVATION (FULL DEPTH) AND/OR ITEM 127.41, REINFORCED CONCRETE DECK EXCAVATION (PARTIAL DEPTH).
6. ALL CONCRETE USED IN THE DECK REPAIRS SHALL BE PAID UNDER ITEM 905. 4000 PSI, $\frac{3}{8}$ INCH, 660 CEMENT CONCRETE OR ITEM 909.5 RAPID SETTING CONCRETE, AS REQUIRED BY THE ENGINEER. THE TOP SURFACE OF THE REPAIR MATERIAL SHALL BE FLUSHED WITH THE EXISTING CONCRETE DECK AND SHALL MAINTAIN THE EXISTING GRADES AND CROSS SLOPES.
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 EXISTING STEEL REINFORCEMENT SHALL REMAIN IN PLACE. NEW EPOXY COATED STEEL REINFORCEMENT SHALL BE PLACED TO SUPPLEMENT EXISTING REINFORCEMENT THAT HAS A SECTION LOSS OF 25% OR MORE OF THE ORIGINAL CROSS SECTIONAL AREA OR HAS BROKEN, AS DETERMINED BY THE ENGINEER, REFER TO SHEET 7 FOR NEW REINFORCEMENT BAR DEVELOPMENT LENGTH. NEW REINFORCEMENT SHALL EXTEND IN EACH DIRECTION FROM WHERE THE SECTION LOSS OR BREAK ENDS. THE LIMITS OF THE REPAIR SHALL BE MODIFIED TO MEET THE REINFORCEMENT STEEL LAP SPlice REQUIREMENTS. NEW REINFORCING STEEL SHALL BE PLACED AT THE SAME LEVEL ALONGSIDE THE EXISTING DETERIORATED OR BROKEN REINFORCING STEEL. IN LIEU OF SUPPLEMENTING A BAR ADJACENT TO A DETERIORATED BAR, THE CONTRACTOR MAY CUT OUT THE DETERIORATED BAR. IF MECHANICAL REINFORCING BAR SPlicERS ARE TO BE USED, THEY SHALL BE EPOXY COATED AND APPROVED BY MASSDOT'S QCML WHILE MAINTAINING REQUIRED CLEARANCE AND COVER OF THE REBAR.



PROJECT: 613718 DISTRICT 1 – SCHEDULED AND EMERGENCY BRIDGE DECK AND JOINT REPAIRS AT VARIOUS LOCATIONS

SUBJECT: DECK REPAIR GENERAL NOTES

SHEET: 2 OF 10
 DRAWN BY: PS
 DATE: 5/16/25
 CHKD BY: PV
 DATE: 5/16/25

SURFACE PREPARATION FOR CONCRETE REPAIRS

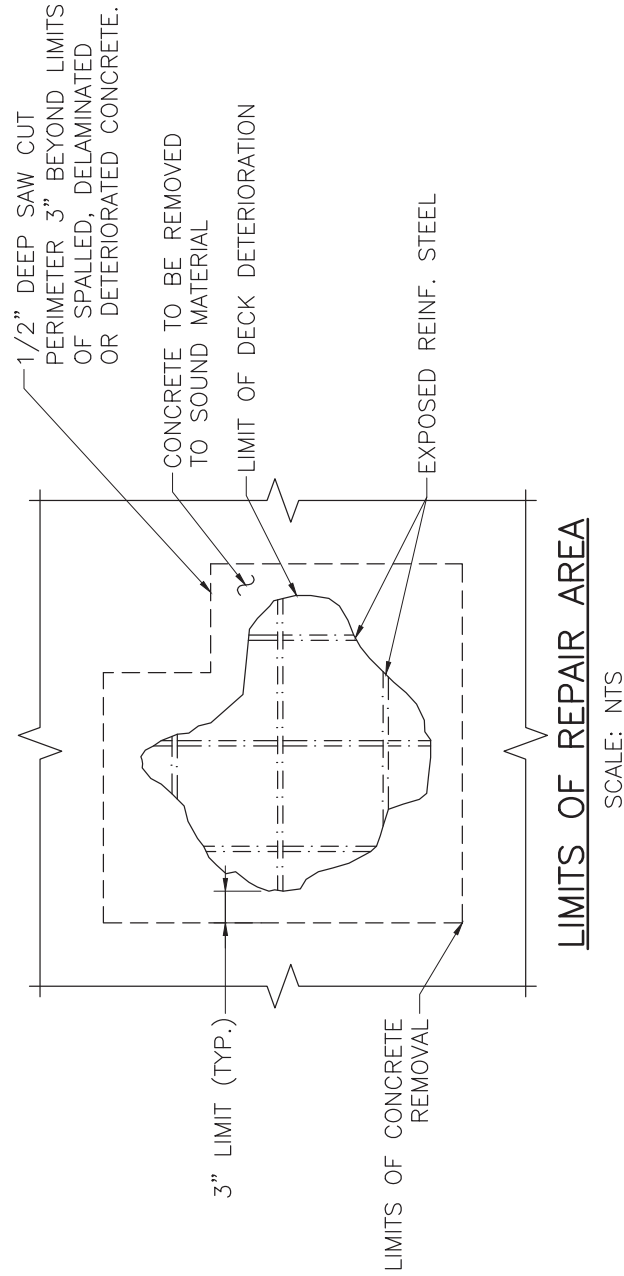
1. EXTENT, LOCATION, AND REPAIR TYPE OF CONCRETE DECK REPAIRS AFTER EXISTING WEARING SURFACE IS REMOVED UNDER ITEM 129.6 BRIDGE PAVEMENT EXCAVATION TO BE FIELD VERIFIED AND APPROVED BY THE ENGINEER AFTER CONTRACTOR HAS SOUNDED AND MARKED OUT ALL REPAIR AREAS. REPAIR CONFIGURATIONS SHALL BE KEPT AS SIMPLE AS POSSIBLE.
2. SAW CUT ALONG NEAT LINES AROUND REPAIR AREA PRIOR TO CONCRETE EXCAVATION, USE SAW CUT DEPTH OF $\frac{1}{2}$ " OR LESS AS REQUIRED TO AVOID CUTTING REINFORCING STEEL (REFER TO SPECIAL PROVISIONS).
3. ALL EXISTING REINFORCING STEEL AND CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH REPAIR CONCRETE SHALL BE ABRASIVELY BLAST CLEANED IN ORDER TO REMOVE ALL RUST, OIL, AND DEBRIS THAT IS NOT TIGHTLY ADHERED, FOLLOWED BY APPLICATION OF COMPRESSED AIR TO REMOVE ALL DUST. EXISTING CONCRETE REPAIR SURFACES THAT WILL BE IN CONTACT WITH REPAIR CONCRETE SHALL BE PRE-WETTED FOR A MINIMUM OF 15 MINUTES USING POTABLE WATER IN PLACEMENT OF REPAIR CONCRETE.
4. APPLY BONDING AGENT (MORTAR OR EPOXY) TO EXISTING CONCRETE AND REINFORCING STEEL, OR ACHIEVE A SATURATED SURFACE DRY (SSD) CONDITION ON EXISTING CONCRETE, AS PER CONTRACT PROVISIONS, BEFORE PLACING THE SPECIFIED REPAIR MATERIAL.
5. PLACE APPROPRIATE REPAIR MATERIAL FOR SPECIFIC REPAIR TYPE. PLACEMENT AND SUBSEQUENT CURING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE SPECIAL PROVISIONS.
6. IF REINFORCING STEEL IS EXPOSED AND ACTIVE CORROSION HAS OCCURRED THAT WOULD INHIBIT BONDING, ABRASION BLAST STEEL TO WHITE METAL FINISH AND COAT WITH A ZINC-RICH PRIMER, AS REQUIRED BY THE ENGINEER.



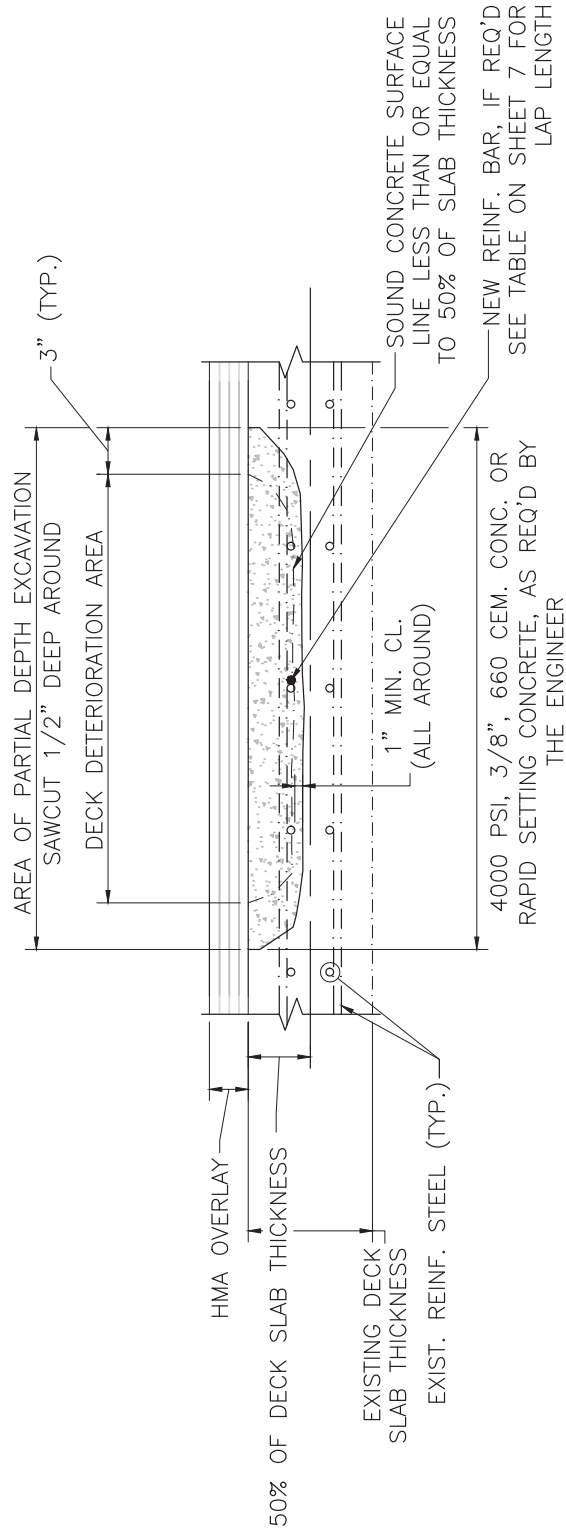
PROJECT: 613718 DISTRICT 1 – SCHEDULED AND EMERGENCY BRIDGE DECK AND JOINT REPAIRS AT VARIOUS LOCATIONS

SUBJECT: SURFACE PREPARATION FOR CONCRETE REPAIRS

SHEET: 3 OF 10
DRAWN BY: PS
DATE: 5/16/25
CHKD BY: PV
DATE: 5/16/25



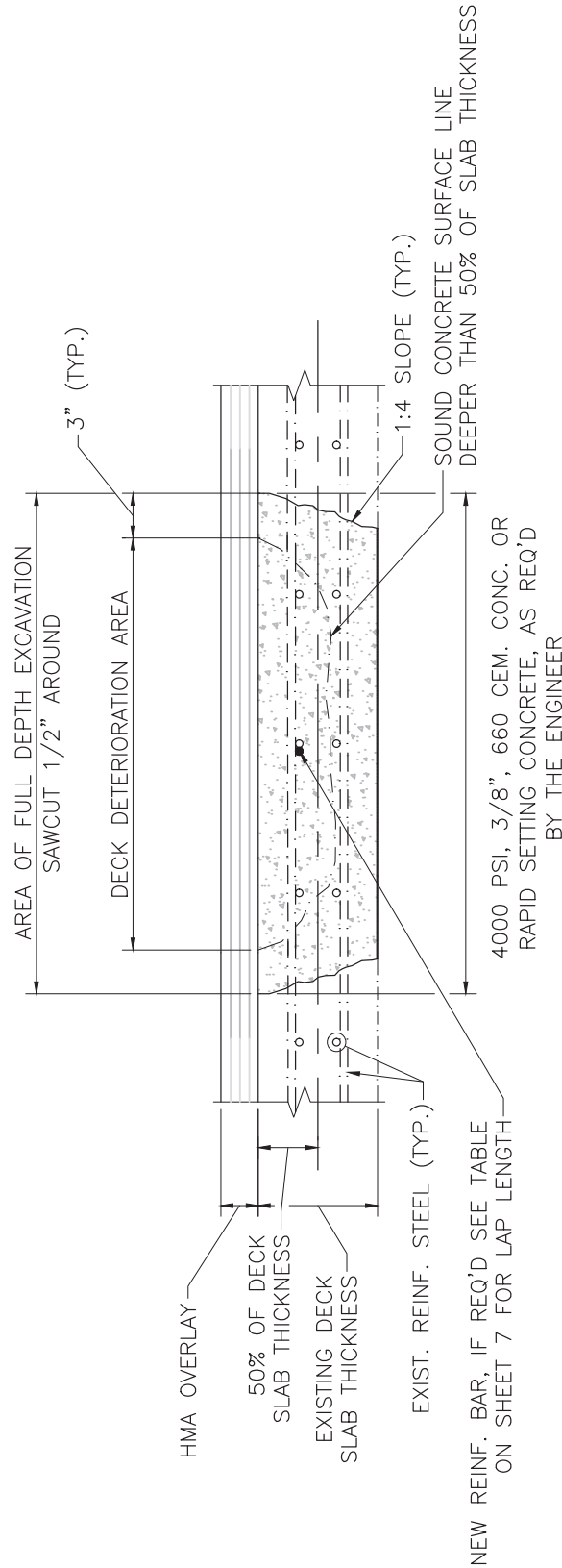
NOTE:
THE LIMITS OF PAVEMENT EXCAVATION TO ACCESS DECK SHALL BE DETERMINED BY THE ENGINEER.



TYPICAL PARTIAL DEPTH DECK REPAIR DETAIL

SCALE: NTS

NOTE:
THE LIMITS OF PAVEMENT EXCAVATION TO ACCESS DECK
SHALL BE DETERMINED BY THE ENGINEER.



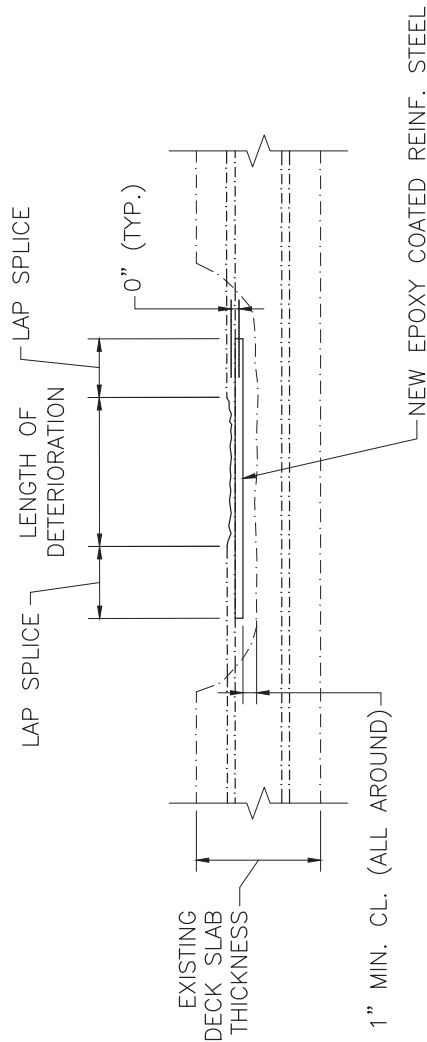
TYPICAL FULL DEPTH DECK REPAIR DETAIL

SCALE: NTS

NOTES:

DECK FORMS SHALL BE FLUSH WITH EXISTING DECK UNDERSIDE AND SHALL BE REMOVED AFTER CURING IS COMPLETE.

THE LIMITS OF PAVEMENT EXCAVATION TO ACCESS DECK SHALL BE DETERMINED BY THE ENGINEER.



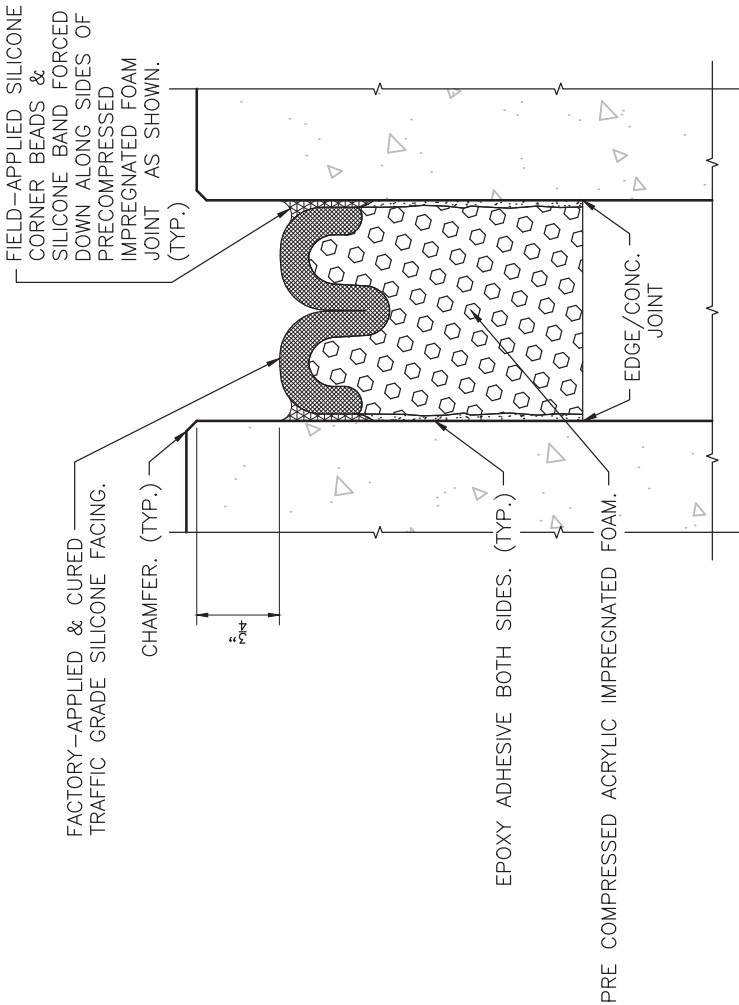
TYPICAL DETERIORATED REINFORCEMENT STEEL REPAIR

SCALE: NTS

STEEL REINFORCEMENT LAP LENGTH			
MODIFICATION	#4 BARS	#5 BARS	#6 BARS
COATED, CENTER TO CENTER SPACING < 6db OR COVER < 3db	23"	29"	34"
COATED, ALL OTHER CASES	18"	23"	27"

PRECOMPRESSED FOAM JOINT SEALER NOTES:

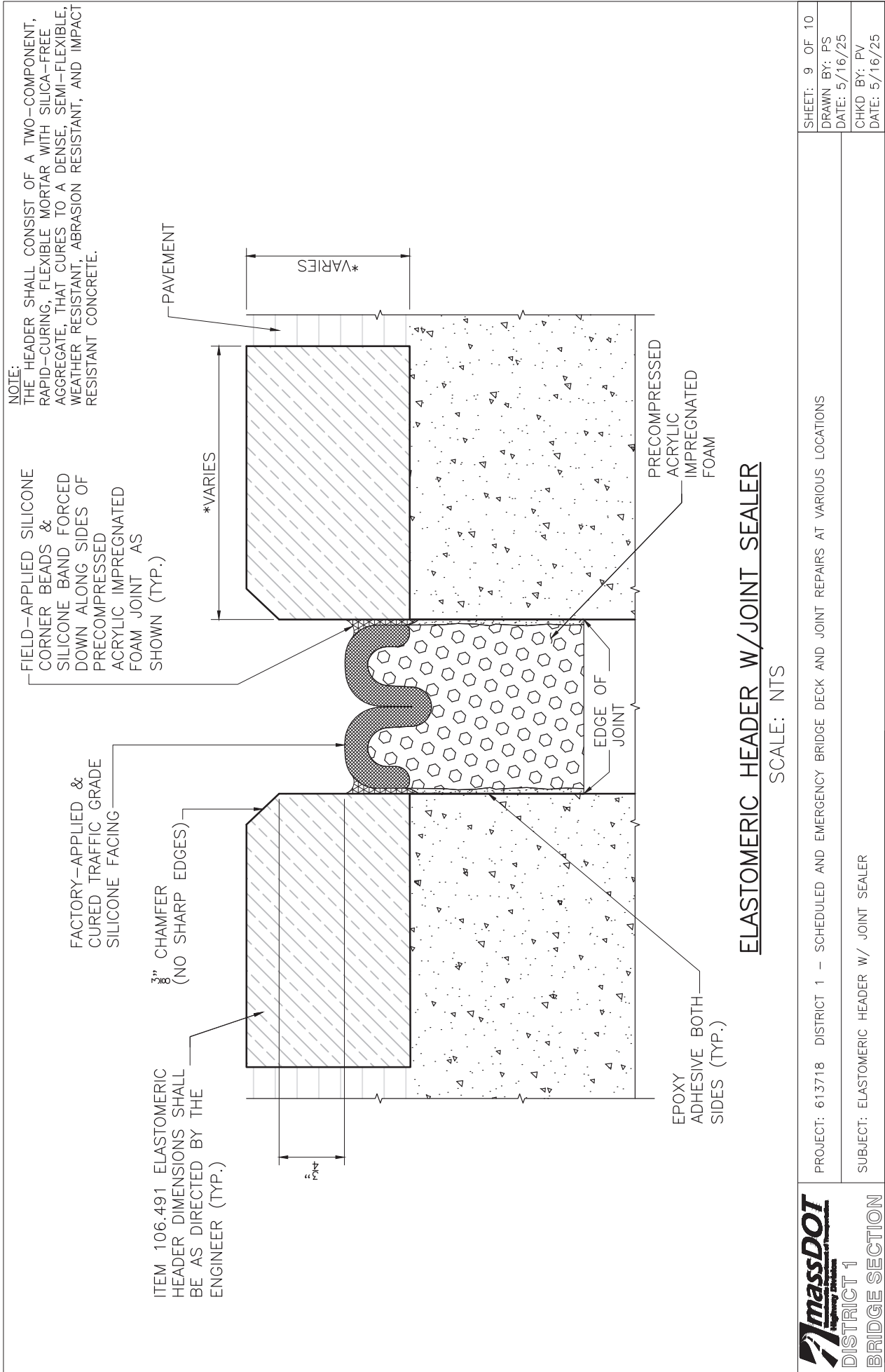
- 1. THE INSTALLATION AND SPlicing OF THE PRE-COMPRESSED SEAL SHALL FOLLOW THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- 2. THE JOINT SYSTEM INSTALLATION SHALL TAKE PLACE AFTER THE DECK REPAIR MATERIALS ADJACENT TO THE JOINT OPENING HAVE SUFFICIENTLY CURED.
- 3. THE JOINT OPENING SHALL BE FREE OF ALL CONTAMINANTS SUCH AS GREASE, DUST, AND DIRT. PRIOR TO JOINT SYSTEM INSTALLATION, THE JOINT WALLS SHALL BE BLOWN CLEAN WITH OIL-FREE COMPRESSED AIR AND WIPED CLEAN WITH A CLEAN WET CLOTH OR PER MANUFACTURER'S INSTRUCTIONS.
- 4. THE PRE-COMPRESSED SEAL JOINT SYSTEM SHALL BE CONTINUOUS THROUGH SIDEWALKS, CURBS AND PARAPETS 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 JOINT SEAL MANUFACTURER. THE FIELD SPLICE OF THE PRE-COMPRESSED JOINT SEAL SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

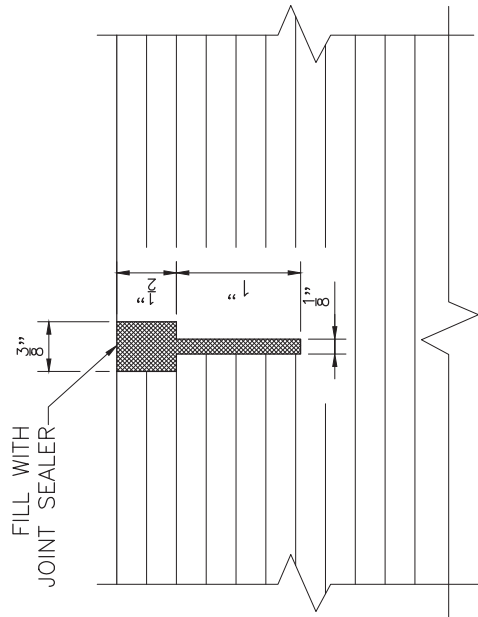


PRECOMPRESSED IMPREGNATED FOAM JOINT SEALER

SCALE: NTS

 DISTRICT 1 BRIDGE SECTION	PROJECT: 613718 DISTRICT 1 – SCHEDULED AND EMERGENCY BRIDGE DECK AND JOINT REPAIRS AT VARIOUS LOCATIONS	SHEET: 8 OF 10
		DRAWN BY: PS
	SUBJECT: PRECOMPRESSED IMPREGNATED FOAM JOINT SEALER	DATE: 5/16/25
		CHKD BY: PV
		DATE: 5/16/25





PAVEMENT SAWCUT

SCALE: NTS

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: DISTRICT 1Project File Number: 613718Contract Number: 130547Project Description: Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations

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: _____

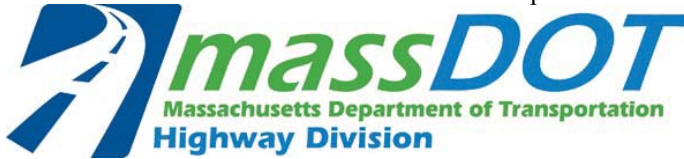
Signature/Date: _____

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DOCUMENT A00875

**POLICY DIRECTIVE P-22-001
AND
POLICY DIRECTIVE P-22-002**

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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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Number: P-22-002Date: 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

DISTRICT 1

For: **Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations**

COMMONWEALTH OF MASSACHUSETTS

LOCATION

The work referred to herein is in the Cities and Towns of DISTRICT 1 in Berkshire, Franklin, Hampden, and Hampshire Counties, in the Commonwealth of Massachusetts, and is shown by the locus map (Document 00331) in the Proposal Pamphlet, the work locations extend as follows:

at Various Locations

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 **730 CALENDAR DAYS** upon receipt of a Notice to Proceed.

The Work of this project is described by the following Items and quantities.

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Project # 613718		Contract # 130547		
Location : DISTRICT1				
Description : Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
100.1	330	BASE LABOR RATE AT _____ PER HOUR		
106.12	40	BRIDGE CURB REMOVED AND RESET AT _____ PER FOOT		
106.491	150	ELASTOMERIC HEADERS AT _____ PER FOOT		
107.02	8,000	LOW ALLOY STEEL PLATES AT _____ PER POUND		
107.471	200	PRECOMPRESSED IMPREGNATED FOAM JOINT SEALER AT _____ PER FOOT		
107.851	190	SEALING RANDOM CRACKS IN CEMENT CONCRETE AT _____ PER FOOT		
120.1	10	UNCLASSIFIED EXCAVATION AT _____ PER CUBIC YARD		
127.1	15	REINFORCED CONCRETE EXCAVATION AT _____ PER CUBIC YARD		
127.4	50	REINFORCED CONCRETE DECK EXCAVATION (FULL DEPTH) AT _____ PER SQUARE YARD		

Project # 613718		Contract # 130547		
Location : DISTRICT1				
Description : Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
127.41	15	REINFORCED CONCRETE DECK EXCAVATION (PARTIAL DEPTH) AT _____ PER CUBIC YARD		
129.6	200	BRIDGE PAVEMENT EXCAVATION AT _____ PER SQUARE YARD		
151.	10	GRAVEL BORROW AT _____ PER CUBIC YARD		
451.	100	HMA FOR PATCHING AT _____ PER TON		
472.	10	TEMPORARY ASPHALT PATCHING AT _____ PER TON		
480.2	190	PAVEMENT CRACK SEALING - HIGH PERFORMANCE CRACK SEALER AT _____ PER GALLON		
482.31	200	SAWING AND SEALING JOINTS IN ASPHALT PAVEMENT AT BRIDGES AT _____ PER FOOT		
628.305	4	TEMPORARY IMPACT ATTENUATOR, NON-REDIRECTIVE, TL-3 AT _____ EACH		
628.315	4	TEMPORARY IMPACT ATTENUATOR, REDIRECTIVE, TL-3 AT _____ EACH		

Project # 613718		Contract # 130547		
Location : DISTRICT1				
Description : Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
628.4	2	TEMPORARY IMPACT ATTENUATOR, REMOVED AND RESET AT _____ EACH		
740.	24	ENGINEER'S FIELD OFFICE AND EQUIPMENT (TYPE A) AT _____ PER MONTH		
748.1	4	EMERGENCY RESPONSE AT _____ EACH		
850.41	96	ROADWAY FLAGGER AT _____ PER HOUR		
851.1	30	TRAFFIC CONES FOR TRAFFIC MANAGEMENT AT _____ PER DAY		
852.	400	SAFETY SIGNING FOR TRAFFIC MANAGEMENT AT _____ PER SQUARE FOOT		
853.21	260	TEMPORARY BARRIER REMOVED AND RESET AT _____ PER FOOT		
853.33	255	TEMPORARY BARRIER - LIMITED DEFLECTION (TL-3) AT _____ PER FOOT		
853.403	60	TRUCK MOUNTED ATTENUATOR AT _____ PER DAY		

Project # 613718		Contract # 130547		
Location : DISTRICT1				
Description : Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
854.016	1,020	TEMPORARY PAVING MARKINGS - 6 INCH (PAINTED) AT _____ PER FOOT		
854.1	510	PAVEMENT MARKING REMOVAL AT _____ PER SQUARE FOOT		
856.	20	ARROW BOARD AT _____ PER DAY		
856.12	20	PORTABLE CHANGEABLE MESSAGE SIGN AT _____ PER DAY		
859.	5,920	REFLECTORIZED DRUM AT _____ PER DAY		
859.1	420	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS AT _____ PER DAY		
862.506	510	6-IN. RECESSED WHITE LINE (MC, FD,WR) AT _____ PER FOOT		
863.506	510	6-IN. RECESSED YELLOW LINE (MC,FD,WR) AT _____ PER FOOT		
905.	33	4000 PSI, 3/8 INCH, 660 CEMENT CONCRETE AT _____ PER CUBIC YARD		

Project # 613718		Contract # 130547		
Location : DISTRICT1				
Description : Scheduled and Emergency Bridge Deck and Joint Repairs at Various Locations				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
909.5	10	RAPID SETTING CONCRETE AT _____ PER CUBIC YARD		
910.1	1,900	STEEL REINFORCEMENT FOR STRUCTURES - EPOXY COATED AT _____ PER POUND		
962.11	100	STEEL ENCAPSULANT COATING AT _____ PER SQUARE FOOT		
966.2	1,700	MEMBRANE WATERPROOFING FOR BRIDGE DECK REPAIRS - HOT RUBBERIZED ASPHALT AT _____ PER SQUARE FOOT		
994.1	900	TEMPORARY PROTECTIVE SHIELDING AT _____ PER SQUARE FOOT		
Total Qty:		24,422		

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