

**TOWN OF ARLINGTON MASSACHUSETTS
INVITATION TO BID # 21-14
PAVEMENT MARKINGS AND LINE STRIPING PROJECT**

Sealed bids are invited and will be received by the Town Manager, Town of Arlington, Massachusetts, until **10:00A.M., Wednesday, September 22, 2021** at the Office of the Purchasing Agent, Town Hall, Arlington, Massachusetts 02476, at which time and place they will be publicly opened and read.

A BID DEPOSIT IN THE FORM OF CASH, CERTIFIED CHECK, OR TREASURER'S CHECK, shall accompany every bid. The amount of such bid deposit shall be FIVE PERCENT (5%) of the value of the bid.

Specifications and proposal forms will be available at the Office of the Purchasing Agent, Town Hall, Arlington, Massachusetts. All bids must be in sealed envelopes plainly marked: **BID ON: PAVEMENT MARKINGS AND LINE STRIPING PROJECT, BID # 21-14, Wednesday, September 22, 2021 AT 10:00A.M.**

The conditions of employment as set forth in Sections 26 to 27D and 27F of Chapter 149 of the General Laws, as amended, shall prevail in the execution of the work under this contract.

Attention is called to the fact that minimum wage rates and health and welfare and pension fund contributions are established for this contract and are a part of the specifications.

Work under this contract shall be governed by M.G.L.Ch.30, Sec.39M.

The conditions of employment as set forth in Federal Wage Determination MA080006 dated April 10, 2009, issued by the U.S. Department of Labor, shall prevail in the execution of the work under this contract.

Attestation Forms pursuant to M.G.L. Ch. 62C, Sec. 49A and M.G.L. Ch. 701 of the Acts of 1983 are enclosed and shall be submitted with bids.

Proposals are for Road Markings and Line Striping on various roads in the Town of Arlington, Massachusetts.

It is the intention of the Owner to award the Contract to the lowest qualified responsive bidder. The bidder must submit a bid on all bid items in the Contract.

All proposals to include prices in both writing and in figures, and must be signed by the bidder with his business address.

An increase or decrease in the quantity of work shall not be regarded as a sufficient ground for an increase in the unit prices.

To receive consideration, bids must be in the hands of the Purchasing Agent or his authorized representative not later than the day and hour above mentioned. For further information relative to this bid, please confer with Domenic R. Lanzillotti, Director, Purchasing Department, Town Hall, Arlington, Massachusetts, 02476.

OSHA Construction Training Required: As of July 1, 2006, under M.G.L. – Chapter 30, Section 39s, any person, submitting a bid for, or signing a contract to work on, the construction, reconstruction,

alteration, remodeling or repair of any public work by the Commonwealth of Massachusetts/Town of Arlington, and estimated by the awarding Authority to cost more than \$10,000, shall certify on the Bid or Contract, under penalty of perjury, that all employees to be employed at the work will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration

The Town Manager reserves the right to cancel any invitation for bids, to reject in whole or in part any and all bids, when it is deemed in the best interest of the Town of Arlington to do so.

TOWN OF ARLINGTON

Adam Chapdelaine
Town Manager

Date: September 8, 2021

I INSTRUCTION TO BIDDERS

1. Receipt of Bids

The Town may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informality in or reject any bids. Any bid may be withdrawn before the time for the opening of bids. Any bid received after the time and date specified shall not be considered. No bidder may withdraw his/her bid for a period of 30 days, excluding Saturdays, Sundays, and legal holidays after actual date of the opening thereof.

2. Preparation of Bid

Each bid shall be submitted on the forms attached to these documents. The bid forms may be removed and submitted separately from the other documents. All blank spaces for bid prices must be filled in with the unit price for the item or the lump sum for which the proposal is made. Bidders must bid on each item. All entries in the entire proposal must be made clearly, and prices written in both words and figures in the spaces provided.

Each bid must be in a sealed envelope addressed to the Office of the Purchasing Agent, 730 Massachusetts Avenue, Arlington, Massachusetts, 02476; and bearing on the outside the name of the bidder, his/her address, the name of the project for which the bid is submitted, and the notation ' **BID ON: BID # 21-14 PAVEMENT MARKINGS AND LINE STRIPING PROJECT.**

3. Bid Security

Every bid submitted by contractors shall be accompanied by a bid deposit in the form of cash, certified check, treasurer's or cashier's check, or a bid bond issued by a responsible bank or trust company and made payable to the Town of Arlington. The amount of the bid deposit shall be 5% of the amount of the bid. All security except those of the three lowest responsible and eligible bidders will be returned within ten days, Saturdays, Sundays, and legal holidays excluded, after opening of the bid. All bid securities will be returned on the execution of the contract or if no award is made within 30 days, excluding Saturdays, Sundays, and legal holidays, after the actual date of the opening thereof, unless forfeited under the conditions herein stipulated.

In case a party to whom a contract is awarded shall fail or neglect to execute the contract and furnish the satisfactory bond in the time specified, the Town may determine the bidder has abandoned the contract and thereupon the proposal and acceptance shall be null and void, and the bid security accompanying the proposal shall be forfeited to the Town as liquidation damages for such failure or neglect and indemnify the Town for any loss which may be sustained by failure of the bidder to execute the contract and furnish the bonds as aforesaid, provided that, in case of death, disability, or other unforeseen circumstances affecting the bidder, such bid security may be returned to him/her.

After execution of the contract and acceptance of the bonds by the Town, the bid security accompanying the proposal of the successful bidder will be returned.

4. Time of Completion

The bidder must agree to commence work within ten (10) business days from the date of signing the contract and to fully complete the project within the time specified within the Special Provisions section of this document.

5. Performance and Labor Material Bonds

A bond in the sum of 50% of the total amount of the Contract by the successful bidder and an additional bond in equal amount covering the payment for all labor and materials used in the work will be required. A surety company authorized to do business in Massachusetts and satisfactory to the Town

of Arlington must provide these bonds. These bonds will be required at the execution of the contract. Attorneys-in-fact who sign contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

6. Laws and Regulations

The bidder's attention is directed to the fact that all applicable State laws, Town of Arlington Bylaws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they shall be deemed to be included in the contract the same as though herein written out in full.

7. Withdrawal of Bids

Upon proper written request and identification, Bids may be withdrawn only as follows:

- a. At any time before the designated time for the opening of Bids.
- b. Death or serious injury of a principal.
- c. With the written approval of the Town of Arlington Office of the Purchasing Director.
- d. At any time after the expiration of the period during which withdrawal is prohibited provided the bid has not been accepted by the Town.

8. Execution of Contract

The party to whom the contract is awarded shall be required to execute the contract and furnish the bonds duly executed with a satisfactory surety company within five days, excluding Saturdays, Sundays, and legal holidays, of the date of the mailing of the notice to the bidder according to the address given by him/her, that the contract is ready for execution.

9. Obligation of Bidder

At the time of the opening of bids, each bidder shall be presumed to have read and to be thoroughly familiar with the contract documents. The failure or omission of any bidder to receive or examine any form, instrument, or documents shall in no way relieve any bidder from the obligation in respect to his bid.

10. Omissions, Discrepancies, Interpretations and Addenda

Should a bidder find discrepancies in, or omissions from, the drawings or contract documents, or should he/she have questions as to the interpretation of the plans or contract documents he/she shall submit such in writing to the Director of Purchasing at least five (5) days before the date herein set for the opening of bids. An interpretation will be mailed by certified mail to prospective bidders at the addresses given by them on or about two (2) days before the opening of bids. Signed copies of all addenda shall be included with the bid; omission of the signed addendum shall be cause for rejection of the bid.

11. Record of Address

Prospective bidders shall at the time plans and specifications are secured place on file with the Director of Purchasing their address, and are required to make any changes necessary to insure that the record is accurate, complete, and up to date.

12. Massachusetts Sales and Use Tax

Materials purchased for permanent installation in the work will be exempt from the Massachusetts Sales and Use tax. Each bidder shall consider this exemption in calculating his/her bid for the work.

13. State Tax Affidavit

Prospective bidders are required to certify that all state tax returns have been filed and all state taxes have been paid in order to be eligible to enter into a contract with the Town on this project. The included form is to be used for this purpose and is to be completed and returned as part of the bid and proposal.

14. Minimum Wage Rates

Prevailing rates for wages for work performed under this Contract will be as predetermined by the Commissioner of Labor and Industries of the Commonwealth of Massachusetts in accordance with the provisions of Sections 26 to 27D, inclusive, of c.149 of M.G.L. A schedule of the prevailing wages is included in the Minimum Wage Rates Section.

15. Sub-bids

No sub bids shall be sought in connection with this Contract.

16. Supplemental Bid Information

All bidders shall submit the following supplemental information with a fee proposal:

- a. Name, address and phone number of a minimum of three (3) references that can vouch for the performance of the bidder
- b. Proof of Liability and Worker’s Compensation Insurance Coverage
- c. Completed tax attestation form
- d. Bid deposit

II LOCATION OF WORK

Work under this contract shall include all equipment, labor, material and services to install pavement markings, symbols and/or lane striping on various roads within the Town of Arlington. Pavement markings to be utilized shall be reflectorized multi-component epoxy resin traffic paint at various locations as designated by the Arlington Department of Public Works (DPW).

III PROPOSAL

To the Town of Arlington, Massachusetts, herein called the TOWN, acting through its Town Manager; the undersigned, as bidder, declares as follows:

- a. The only persons or parties interested in this proposal as Principals are named in this proposal;
- b. This proposal is made without collusion with any other Person, firm or corporation;
- c. He has carefully examined the requirements of the proposed work;
- d. This proposal is based solely on his own investigation and research and not in reliance upon any survey, report or representations of any employee, officer or agent of the TOWN; and the undersigned proposes and agrees that if this proposal is accepted, he will contract with the TOWN, this Contract Bid Form being part of and included in said CONTRACT, to provide all necessary supervision, labor, equipment, machinery, tools, apparatus, and other

means of service necessary to complete the requirements in the CONTRACT; and that he will take in full payment thereof the following sums to wit:

Bidders must bid on each item. All entries in the Contract Bid Form must be made clear and in ink, and prices must be written in both words and figures in the space provided. Bidders should insert computed totals in the spaces provided therein:

ROAD MARKINGS AND LINE STRIPING PROJECT; BID #21-14

Item	Estimate		Description	Proposal	
	Quantity	Unit		Unit Price	Amount
ALL LINES, LETTERING AND SYMBOLS SHALL BE REFLECTORIZED MULTI-COMPONENT EPOXY TRAFFIC PAINT***					
			ReflectORIZED epoxy traffic paint		\$
1	23750	LF	4" White; long lines	\$ /LF	\$
2	1680	LF	4" White; parking spaces	\$ /LF	\$
3	23750	LF	4" Yellow	\$ /LF	\$
4	50	LF	6" Yellow	\$ /LF	\$
5	490	LF	6" White	\$ /LF	\$
6	532	LF	12" White	\$ /LF	\$
7	1990	LF	24" White	\$ /LF	\$
8	35	EA	Merge Triangle Large	\$ /EA	\$
9	10	EA	Merge Triangle Small	\$ /EA	\$
10	4	EA	Bike Detection	\$ /EA	\$
11	56	EA	Sharrow Standard	\$ /EA	\$
12	19	EA	Sharrow GREEN	\$ /EA	\$
13	39	EA	Bike Lane Symbol (bike w/ arrow)	\$ /EA	\$
14	1	EA	LEFT Turn Arrow	\$ /EA	\$
15	1	EA	RIGHT Turn Arrow	\$ /EA	\$
16	1	EA	COMBINATION ARROW ; Straight & Left	\$ /EA	\$
17	1	EA	COMBINATION ARROW ; Straight & Right	\$ /EA	\$
18	1	EA	COMBINATION ARROW ; Straight, Left & Right	\$ /EA	\$
19	9	EA	BUS	\$ /EA	\$
20	1	EA	ONLY	\$ /EA	\$
21	20	SF	TRAFFIC PAINT REMOVAL	\$ /SF	\$
22	10	HR	LAYOUT & PRE-MARKING SERVICES	\$ /HR	\$
23	800	SF	Bike Lane - High Friction Surface Treatment (HFST)	\$ /SF	\$
24	550	SF	Bike Lane - Skip Green (HFST)	\$ /SF	\$

Total (in figures & written): \$

Total (in figures & written):

PROPOSAL FORM

A copy of this sheet with a unit price quote amount indicated in figures and written shall be submitted with the bid by **Wednesday September 22, 2021 at 10:00AM** to Office of the Purchasing Agent, Town Hall, Arlington, Massachusetts. The submittal with the lowest Total Quote will be awarded the project.

The quote provided shall include the cost to provide all material, equipment and labor for services to apply road markings including line striping, traffic lettering, pavement symbols and high friction surface treatment as detailed in this bid request for designated street sections in the Town of Arlington, Massachusetts.

BID

For Items #1 to Item #24

DESCRIPTION	Unit Price
Furnishing all necessary material, equipment and labor to apply line striping, traffic lettering, pavement symbols and high friction surface treatment as detailed in this bid request for items #1 - #24 on the Quantity Sheet	\$ _____
<hr/> <i>(Please indicate value of quote in words and with numbers.)</i>	
*** Total value not to exceed \$75,000.00	

Company: _____ Name(PRINT): _____

Address: _____

Town/State: _____ Signature: _____

Ph. #: _____ Date: _____

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IV SCOPE OF WORK

1. Pavement Markings and Lane Striping

Invitation for proposals is for work including all equipment, labor, material and services to install reflectorized pavement markings, traffic symbols and lane striping on designated roads within the Town of Arlington, Massachusetts. The markings shall utilize Multi-Component Epoxy Traffic Paint and adhere to MassDOT Standard Specifications for Highways and Bridges SUBSECTION 860: REFLECTORIZED PAVEMENT MARKINGS with the exception of Subsection 860.65 Recessed Markings. Application will be at various locations as designated by the Arlington Department of Public Works.

2. High Friction Surface Treatment

This work shall consist of the application of High Friction Surface Treatment (Green) for bicycle facilities on existing roads.

The surface treatment shall be green in color. Samples of color shades shall be submitted to the Engineer for selection of the actual color to be used. The high friction surface treatment must be composed of a two component, epoxy-modified, acrylic, waterborne coating specifically designed for application onto asphalt or non-bituminous concrete surfaces such as cement concrete, and is specially formulated to provide a safe, durable, long lasting color and texture to the pavement surface.

Material must have a balance of properties that will ensure adhesion and movement on a flexible pavement, while providing excellent durability and color stability. Key properties include wear and crack resistance, color retention, adhesion, minimal water absorption and increased friction properties.

The material shall be a durable, colorized, slip resistant and skid resistant coating suitable for delineating areas for preferential use, such as bicycle lanes.

A Certificate of Analysis from an independent recognized testing laboratory confirming performance as outlined above shall be made available upon request. The Contractor shall install the high friction surface treatment in accordance with all manufacturers' installation and materials specifications. Copies of the manufacturer's installation procedures and materials specifications shall be provided to the Engineer for approval before placement of the surface treatment is allowed.

3. Traffic Control

Project shall be performed at night to reduce traffic congestion, aid in traffic safety and reduce impacts on painted lines caused by vehicular traffic. All work areas shall utilize suitable traffic control to keep vehicles off of the traffic markings until suitably dried and vehicle tracking will not occur. The cost of providing traffic control shall be considered incidental to the cost of line striping.

The cost for Police Details will be provided by the Town of Arlington and the cost need not be included in the Bid. However, the Contractor will be required only on approval of the Engineer to be responsible to coordinate and request Police Details. The Contractor will be responsible for cancellation of any Police Details and shall make such cancellation call at least 1 hour prior

to scheduled start time. Police Details shall have the authority to control any full or partial road or sidewalk closure or detour as it pertains to Public Safety. The Contractor shall fully comply with any reasonable request of the Police Detail for cones, barrels, signs, etc.

All traffic control devices required for pavement marking installation or protection of markings shall be in accordance with Subsection 850: Traffic Controls for Construction and Maintenance Operations. Lane closures, shifts, or other temporary traffic control setups to accommodate pavement marking operations shall be approved by the Engineer.

4. Pavement Marking Removal

The removal of existing pavement markings is not anticipated as part of this project but included in case of unforeseen circumstances and/or conditions.

5. GENERAL

All work done under this contract shall be in conformance with the most recent and updated version of MassDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, THE SUPPLEMENTAL SPECIFICATIONS DATED JUNE 26, 1989, THE SUPPLEMENTAL SPECIFICATIONS DATED AUGUST 7, 1991, THE 1977 CONSTRUCTION STANDARDS, THE 1988 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, the 1981 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, and these SPECIAL PROVISIONS.

V SPECIAL PROVISIONS

1. Definition of Terms

All reference to Department herein and in the Commonwealth of Massachusetts, Standard Specifications for Highways and Bridges, 1988, shall refer to the Owner" as the Department of Public Works of the Town of Arlington."

DEFINITIONS OF ITEMS

ITEM #

1. **4-inch White; (Long Lines):** This work shall consist of the application of 4-inch reflectorized white epoxy traffic paint on existing roads and shall include suitable traffic control and/or devices to prevent vehicles from traveling on the newly painted sections and to provide a safer environment for workers. Payment shall be made by the Lineal Foot.
2. **4-inch White; (parking spaces):** This work shall consist of the application of 4-inch reflectorized white epoxy traffic paint on existing roads for parking spaces and shall include suitable traffic control and/or devices to prevent vehicles from traveling on the newly painted sections and to provide a safer environment for workers. Payment shall be made by the Lineal Foot.
3. **4-inch Yellow:** This work shall consist of the application of 4-inch reflectorized yellow epoxy traffic paint on existing roads and shall include suitable traffic control and/or devices to prevent vehicles from traveling on the newly painted sections and to provide a safer environment for workers. Payment shall be made by the Lineal Foot.

4. **6-inch Yellow:** This work shall consist of the application of 6-inch reflectorized yellow epoxy traffic paint on existing roads and shall include suitable traffic control and/or devices to prevent vehicles from traveling on the newly painted sections and to provide a safer environment for workers. Payment shall be made by the Lineal Foot.
5. **6-inch White:** This work shall consist of the application of 6-inch reflectorized white epoxy traffic paint on existing roads and shall include suitable traffic control and/or devices to prevent vehicles from traveling on the newly painted sections and to provide a safer environment for workers. Payment shall be made by the Lineal Foot.
6. **12-inch White:** This work shall consist of the application of 12-inch reflectorized white epoxy traffic paint on existing roads and shall include suitable traffic control and/or devices to prevent vehicles from traveling on the newly painted sections and to provide a safer environment for workers. Payment shall be made by the Lineal Foot.
7. **24-inch White:** This work shall consist of the application of 24-inch reflectorized white epoxy traffic paint on existing roads and shall include suitable traffic control and/or devices to prevent vehicles from traveling on the newly painted sections and to provide a safer environment for workers. Payment shall be made by the Lineal Foot.

TRAFFIC SYMBOLS - White : The work shall consist of the application of various traffic symbols utilizing reflectorized epoxy traffic paint on existing roads. Symbols shall be compliant with MUTCD size requirements and include the following:

8. **Merge Triangle (Large);** Payment shall be made by Each (EA).
9. **Merge Triangle (Small) ;** Payment shall be made by Each (EA).
10. **Bike Detection symbol;** Payment shall be made by Each (EA).
11. **Sharrow; Standard (white paint) ;** Payment shall be made by Each (EA).
12. **Sharrow; Green (white w/ green background) ;** Payment shall be made by Each (EA).
13. **Bike Lane Symbol (bike with arrow) ;** Payment shall be made by Each (EA).
14. **Left Turn Arrow;** Payment shall be made by Each (EA).
15. **Right Turn Arrow;** Payment shall be made by Each (EA).
16. **Combination Arrow; Straight & Left;** Payment shall be made by Each (EA).
17. **Combination Arrow; Straight & Right;** Payment shall be made by Each (EA).
18. **Combination Arrow; Straight, Left & Right;** Payment shall be made by Each (EA).

TRAFFIC LETTERING - White : This work shall consist of the application of various traffic lettering utilizing reflectorized epoxy traffic paint on existing roads. Lettering shall be compliant with MUTCD size requirements and include the following:

19. **LETTERING “ONLY”;** Payment shall be made by Each (EA).
20. **LETTERING; “BUS”;** Payment shall be made by Each (EA).

21. TRAFFIC PAINT REMOVAL : This work shall consist of the removal of existing traffic paint line markings on existing roads. Payment shall be made by the Square Foot (SF).

22. LAYOUT AND PRE-MARKING SERVICES: This work shall consist of providing layout and pre-marking of line striping in coordination with the Arlington Engineering Division. Payment shall be made by the Hour (HR).

HIGH FRICTION SURFACE TREATMENT : This work shall consist of the application of various traffic lettering utilizing reflectorized epoxy traffic paint on existing roads. Lettering shall be compliant with MUTCD size requirements and include the following:

23. Bike Lane Skip (green): This work shall consist of the application of High Friction Surface Treatment in 2ft x 5ft repeating pattern, layout and pre-marking of line striping in coordination with the Arlington Engineering Division. Payment shall be made by the Square Foot (SF).

24. LAYOUT AND PRE-MARKING SERVICES: This work shall consist of providing layout and pre-marking of line striping in coordination with the Arlington Engineering Division. Payment shall be made by the Hour.

2. Work Schedule

Work on this project is restricted to be performed at night, during weekdays (Monday – Friday). No work shall be performed as part of this contract on Saturdays, Sundays, or Holidays without a written request and prior approval from the Town of Arlington Engineering Division and Police Department.

A pre-construction meeting will be required between the contactor, Department of Public Works and the Police Department to coordinate police detail requirements, work schedule, and other traffic/schedule/safety related issues.

3. Time of Completion

The work specified under this contract shall be completed by November 1, 2021. Unless special permission is requested in writing and approved by the Arlington Engineering Division.

4. Performance, Labor and Material Bonds

A bond in the sum 50% of the total amount of the Contract by the successful bidder and an additional bond in equal amount covering the payment for all labor and materials used in the work shall be required. A surety company authorized to do business in Massachusetts and satisfactory to the Town of Arlington must provide these bonds. These bonds shall be required at the execution of the Contract. Attorneys-in-fact who sign contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

5. Bid Submission

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his/her address, and the name of the project for which the bid is submitted, and the name and number of the Contract for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as follows:

Bid Documents
Purchasing Director
BID # 21-14, PAVEMENT MARKINGS AND LINE STRIPING PROJECT
Town of Arlington
Town Hall, 730 Massachusetts Avenue
Arlington, Massachusetts 02476

The Owner will receive sealed bids until the time, and at the location designated in the Notice to Contractors. Bids received after this time will not be accepted. All interested parties are invited to attend; bids shall be opened publicly and read aloud.

6. Interpretation of Basic Estimate of Quantities

Attention is directed to the fact that the quantities of work to be done are based on observations and available data. The estimated quantities are approximate and should be used only as a guide. No quantities are guaranteed under this contract.

7. Prosecution of Work and Provisions for Travel

The Contractor shall give notice in writing to the Engineer at least seven days in advance of beginning any work affecting the maintenance of traffic where work affects the street in use by the public.

Before starting any work under this Contract, the Contractor shall submit his schedule of operations as provided herein.

The Contractor must prosecute the work efficiently and with the least possible delay.

The Contractor shall provide safe and convenient means of access to all buildings of property along the line of work at all times, coordinate the scheduling of safety and traffic details with the Arlington Police Department, and provide notification to the Arlington Department of Public Works and direct abutters at least one (1) business day prior to commencement of work adjacent to said abutter property.

8. Provisions for Access at All Locations

The Contractor shall cooperate with the various utility companies and provide access through a worksite if required for their work in connection with this project.

All permanent and temporary surfaces open for traffic during construction shall be maintained by the Contractor, as directed, in accordance with the provisions of herein.

THE TOWN WILL NOT ACCEPT ANY MATERIALS DELIVERED TO ANY PROJECT IN MOTOR VEHICLES OR SEMI-TRAILER UNITS THAT EXCEED THE LEGAL MAXIMUM GROSS WEIGHT ALLOWED FOR THE PARTICULAR CLASS, AS SPECIFIED IN SECTION 19 A OF CHAPTER 90 OF THE GENERAL LAWS OF MASSACHUSETTS.

9. Insurance Requirements

The limits of the several kinds of liability insurance required for this Contract, in addition to insurance for Workmen's Compensation are as listed as follows:

a. Bodily Injury Liability insurance, in an amount not less than Five Hundred Thousand Dollars (\$500,000) for injuries, including wrongful death to any one person, and subject to the same limit for each person to an amount of not less than One Million Dollars (\$1,000,000) as account of one accident.

b. Broad Form Property Damage Liability Insurance in an amount not less than Five Hundred Thousand Dollars (\$500,000) for damages on account of any one accident, and in an amount not less than One Million Dollars (\$1,000,000) for damages on account of all accidents.

c. Automobile Bodily Injury Liability Insurance, in an amount not less than Five Hundred Thousand Dollars (\$500,000) for injuries, including wrongful death to any one person and subject to the same limit for each person in an amount not less than One Million Dollars (\$1,000,000) on account of one accident.

d. Automobile Property Damage Insurance in an amount not less than Five Hundred Thousand Dollars (\$500,000) for damages on account of any one accident and in an amount not less than One Million Dollars (\$1,000,000) for damages on account of all accidents.

e. Contractors Public Liability Insurance in an amount not less than Five Hundred Thousand Dollars (\$500,000) for each occurrence and in an amount not less than One Million Dollars (\$1,000,000) annual aggregate.

10. Maintenance of Traffic

During construction, the Contractor shall maintain two way traffic at all times. The Contractor shall make every effort to maintain access to all drives at all times. If access to any drives cannot be maintained, the Contractor shall notify the Engineer and persons affected, in writing, at least one (1) week in advance of the planned discontinuance. In any case, the access shall not be discontinued for more than two (2) consecutive days without obtaining the written authorization of the Engineer.

A minimum of 24-hours prior to commencing work, the permit applicant shall contact the Town of Arlington Police Department to determine if a Police Safety Detail will be required for the proposed work.

The use of a Police Safety Detail does not eliminate the need for proper warning signs and traffic control devices during the course of construction.

It shall be the sole responsibility of the contractor to provide & employ appropriate construction signage and barriers/cones/etc as needed. All signs and devices shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways and all applicable MassDOT Standards/Requirements.

Additional signage and devices shall be provided and installed as deemed necessary by the Department of Public Works and/or Police Department for the safe and efficient performance of the work and the safety of the traveling public.

During the entire course of work, the applicant and/or owner shall be responsible to properly delineate & protect the job site in accordance with current MUTCD Standards to the full satisfaction of the Arlington Police Department. Failure or inability to provide appropriate

devices & signage may result in work being suspended at the discretion of the Town of Arlington.

Reflective barrels, construction signage and other devices deemed necessary by the Engineer shall be utilized to direct vehicular and pedestrian traffic safely through the construction zone. All work left unattended shall be plated or ramped and suitable work safety devices and methods shall be utilized as necessary. All sidewalks and ramps shall be barricaded with reflective barrels and warning flagging where surfaces are impaired. If determined, signs may be needed on sidewalks to direct pedestrians around construction zone. Temporary stop and one-way signs may be needed until permanent signs are installed.

All signs, barricades, and barrels shall be in accordance with materials Specification M9.30.2 of the Department's "Standard Specifications for Highways and Bridges, 1988 Edition or current version.

11. Protection of Utilities and Property

The Contractor shall be responsible for maintenance and protection of all utilities and shall repair at his/her own expense any damage to such structures caused by his/her act or neglect, and shall leave them in as good condition as they were previous to the commencement of the work. In cases of damage to utilities caused by him resulting in an emergency, the Contractor shall promptly warn the Owner and shall, if requested, furnish laborers to work temporarily under the Owner's direction in getting access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by the Town, Department or Company, which suffers the loss. The cost of such repairs shall be at the expense of the Contractor.

12. Notice to Owners of Utilities

When necessary, 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 his/her 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.

Before the Contractor begins any work or operations, which might damage any subsurface structures, he shall carefully locate all such structures and conduct his/her operations so as to avoid any damage to them. The following are the names and addresses of the utilities presumed to be affected, but the completeness of the list is not guaranteed:

Town of Arlington
Town Engineer, Wayne A. Chouinard P.E. (781- 316- 3320)
51 Grove Street
Arlington, MA. 02476

Town of Arlington
Highway Superintendent, Jeff Rikeman (781- 316 -3318)
51 Grove Street
Arlington, Ma. 02476

Town of Arlington
Water/Sewer/Highway, Operations, Dan Warren (781- 316 -3314)
51 Grove Street
Arlington, Ma. 02476

National Grid (Gas) (781-466-5099)
Pat Locke
52 Second Ave
Waltham, MA 02451

Verizon (781-939-3562)
Bob Parks
285 Locust St #1
Woburn, MA 01801

Eversource (617-541-7071)
One Nstar Way SW-340
Westwood, MA 02090

VI CONSTRUCTION METHODS AND MATERIAL SPECIFICATIONS

Work associated with this project shall adhere to the following attached specifications and requirements:

1. Section 850 Pavement Marking Removal
2. Section 860 ReflectORIZED Pavement Markings

SECTION 850

PAVEMENT MARKING REMOVAL

850. 67 Pavement Marking Removal.

Designated pavement markings shall be removed to the fullest extent possible by an approved method. Pavement marking removal methods shall not cause damage to the pavement or cause drastic change in texture, which could be construed as delineation at night, and shall be approved by the Engineer. It is not permissible to paint over existing markings with black paint in lieu of removal. Approved methods include but are not limited to:

1. High pressure air.
2. High pressure water (cold weather use not permitted)
3. Sand blasting,
4. Mechanical devices such as grinders, sanders, scrapers, scarifiers and wire brushes.

Painting over a pavement marking line by use of asphaltic liquids or paints will not be permitted.

Conflicting pavement markings shall be removed before any change is made in the traffic pattern.

Material deposited on the pavement as a result of removing markings shall be removed as the work progresses. Accumulations of sand or other material, which might interfere with drainage or could constitute a hazard to traffic, will not be permitted.

Any damage to the pavement or surfacing caused by pavement marking removal shall be satisfactorily repaired at no additional cost to the Town.

Where the removal operation is being performed near a lane occupied by traffic, a vacuum attachment operating concurrently with the removal operation must be in use. All residue shall be removed immediately from the surface being treated.

850.82 Payment Items.

854.1 Pavement Marking Removal
Square Foot

SECTION 860

REFLECTORIZED PAVEMENT MARKINGS

DESCRIPTION

860.20 General.

This item of work consists of furnishing materials and the application of ReflectORIZED Pavement Markings in accordance with the Commonwealth of Massachusetts, Department of Public Works, Manual on Uniform Traffic Control Devices, current edition.

MATERIALS

860.40 General.

Materials shall be as specified under the particular payment item being used and shall meet the appropriate requirements specified in the following Subsections of Division III, Materials:

General Requirements for Paints and Protective Coatings	M7.00.00
White Traffic Paint	M7.01.05
Yellow Traffic Paint	M7.01.06
Glass Beads	M7.01.07

CONSTRUCTION METHODS

860.60 Equipment.

All equipment used for the application of pavement markings shall be of standard commercial manufacture. All other equipment and devices necessary for the application of the pavement markings and protection thereof and for the protection to the traveling public shall be as usually required for work of this type and shall be furnished by the Contractor.

The pavement marking equipment shall be operated at the speed and in accordance with other requirements of the manufacturer, unless otherwise directed by the Engineer.

Truck mounted equipment is approved for the application of pavement markings except in such cases where in the Engineer's judgement, travel will be unreasonably delayed and or the quality of the work performed by the machine is unsatisfactory.

The Contractor will supply an infrared pistol thermometer meeting the requirements of Section 460.60 for each traffic marking operation on the project. The thermometers will remain the property of the Contractor upon completion of the project.

860.61 Layout of Work.

A schedule of pavement marking operations shall be furnished by the Contractor for the approval of the Engineer prior to the application of any pavement markings. This schedule must be in the office of the Engineer 7 days prior to the proposed date of application of any pavement markings and shall occur after a pre-construction meeting between the contractor, Department of Public Works and the Police Department.

The majority of this contract will entail re-striping on top of existing pavement markings. Delineation of striping demarcation areas is listed on the "Pavement Marking Areas: Section Information Sheet". If questions arise, the contractor shall address further with the Town of Arlington Engineering Division.

One area of this project includes the requirement to layout the required markings prior to applying the required traffic marking paint. This area includes the section of Massachusetts Avenue from Highland Avenue to Spengler Way.

See Road Striping Plan by Green International Affiliates, Inc.: Figure 11 (11" x 17"); Proposed Improvements on Massachusetts Avenue, Arlington Massachusetts, dated May 8, 2014

The layout for this area shall be in accordance with the attached and referenced striping plan. Contractor shall coordinate the layout and pre-marking for this section with the Engineering Division.

860.62 Application of Markings.

Pavement markings shall be applied as follows:

<u>Material</u>	<u>Material Application Temperature</u>	<u>Line Thickness</u>	<u>Reflectorized Bead Application</u>
M7.01.05	115°F-125°F	15 mils	6lbs/gal
M7.01.06	115 °F-125 °F	15 mils	6lbs/gal
M7.01.08	180°F-195°F	15 mils	6lbs/gal
M7.01.09	180°F -195°F	15 mils	6lbs/gal
M7.01.10	40°F-120°F	15 mils	6lbs/gal
M7.01.11	40°F-120°F	15 mils	6lbs/gal
M7.01.03	400°F-425°F	128-188 mils	1 #/10 SF Drop on
M7.01.04	400°F-425°F	125-188 mils	1 #/10 SF Drop on

No thinners shall be used for the above listed pavement marking applications except in accordance with the manufacturer's specifications and at the direction of the Engineer.

No paint or pavement marking material shall be heated above the temperature marked on the container.

Markings shall be applied only in seasonable weather and in accordance with good painting practices. The surface shall be dry and free of sand, grease, oil or other foreign substances prior to the application. The Contractor shall prepare the surface to accept the application as part of this item, with no additional compensation. The Engineer will make the final determination for all of the foregoing.

Bituminous concrete pavements shall have been in place for 48 hours prior to the application of pavement markings except preformed permanent plastic pavement markings which can be applied immediately. When it is necessary to expedite the flow of traffic, the Engineer may reduce the waiting period as is deemed necessary.

If for any reason material is spilled or tracked on the highway, or any markings applied by the Contractor, in the Engineer's judgment, fail to conform to Subsection 860.61, because of a deviation from the desired pattern, the Contractor shall remove such material by a method that is not injurious to the roadway surface and is acceptable to the Engineer, clean the roadway surface and prepare the surface for a reapplication of markings and reapply the markings as directed without additional compensation for any of the foregoing corrective operations.

The ambient (air) temperature for thermoplastic application is to be a minimum of 45°F and rising at the time of marking operations. If work has started and air temperatures fall below 45°F and continuous cooling is indicated, work shall be stopped. In cool weather conditions, temporary drops down to 40°F will be tolerated, providing temperatures also vary upwards. Sustained striping (greater than one hour) at 40°F shall not be allowed. Starting work at air temperatures lower than 45°F shall not be allowed.

860.63 Protection of Markings.

Markings shall remain protected until sufficiently dry to bear traffic on highways that are open to traffic.

Markings shall be protected by traffic cones of not less than 28" in height except in the case of markings which cure to a no track condition in 180 seconds or less in the latter case protection may be provided by a convoy of vehicles with suitable warning devices to warn overtaking or on cornering traffic that the pavement marking operation is in progress.

A. Broken Lines.

On tangents and on curves of 1000 foot radius or greater at least 1 cone shall be placed on every other bar. On curves of less than 1000 foot radius 1 cone shall be placed on every bar unless otherwise directed by the Engineer.

B. Solid Lines.

On tangents and on curves of 1000 foot radius or greater, cones shall be spaced not over 80 feet apart and on curves of less than 1000 foot radius the spacing shall be not over 50 feet unless otherwise directed by the Engineer. On edge line adjacent to the median wider spacing may be used at the direction of the Engineer.

In order to control the proper positioning of the cones during the drying period, the Contractor shall assign sufficient personnel as determined by the Engineer. Such control is dependent on traffic density, cone widths, etc.

860.64 Accommodation of Traffic.

All warning signs and traffic control devices as required shall be in accordance with Section 850 of these Specifications.

No work shall be done on this item on roadways open to traffic on Saturdays, Sundays, the day before a holiday or on a holiday except when otherwise specifically directed by the Engineer.

Both lanes of two-lane highways shall remain open to traffic at all times. On multi-lane highways only one lane shall be closed to traffic at any time.

Work under this item may be suspended, at the discretion of the Engineer, during peak traffic hours or at any other time when, in his judgment, traffic is being unduly hampered or delayed by the work, under this item.

COMPENSATION

860.80 Method of Measurement.

Markings are to be paid for on the actual length of lines applied under the various items of the Contract.

The lengths of solid lines will be obtained by:

1. Calculation from established base line stations or
2. Use of a measuring wheel or
3. Vehicle odometer readings.

The length of broken lines (except for broken lines less than 10 feet, the actual length shall be used) will be obtained by using 114 of the results obtained above for solid lines. Patterns, other than lines, are to be paid for by the square foot area under the item in the Contract.

860.81 Basis of Payment.

The work under these items will be paid for at the contract unit price under each item of the Contract based on the measurements as determined by the Engineer. The contract prices shall include all material, labor, and equipment required or incidental to the satisfactory completion of the work.

860.82 Payment Items.

REFLECTORIZED PAVEMENT MARKINGS – EPOXY		
860.04-860.12	4-24 inch reflectorized white line (paint)	Linear Foot
861.04-861.12	4-24 inch reflectorized yellow line (paint)	Linear Foot
864.00	Pavement arrow reflectorized white (paint)	Square Foot
	Pavement legends (paint)	Square Foot
864.07	Pavement Arrow and Legends (Epoxy)	Square Foot
868.06	6- inch Reflectorized White E (Epoxy)	Linear Foot
868.12	12-24 inch Reflectorized White Line (Epoxy)	Linear Foot
869.06	6-inch Reflectorized Yellow Line (Epoxy)	Linear Foot
869.12	12-inch Reflectorized Yellow Line (Epoxy)	Linear foot

General

Work under these items cover white and yellow epoxy reflectorized pavement striping material that is sprayed onto the pavement. As work incidental to these items the Contractor shall furnish to the Department one portable spectrophotometer and one replacement calibration standard with the Department taking ownership of these pieces of equipment. The spectrophotometer shall be delivered to the Research and Materials headquarters at the beginning of line striping work. Following a surface application of glass beads and upon drying, the resultant marking is a reflectorized stripe of specified thickness and width, that is capable of resisting deformation by traffic. Work under these items shall conform to the relevant provisions of Section 860 of the Standard Specifications and the following:

MATERIAL REQUIREMENTS

A. REGULAR-DRY EPOXY SUGGESTED SUPPLIERS

	<u>SUPPLIER/LOCATION</u>
Epoplex LS50	Epoplex - Stonhard Inc. Maple Shade, NJ
Hotline TM 8212 (Part A White)	Baltimore Paint and Chemical Co.
Hotline TM 8213 (part A Yellow)	Division of Sherwin-Williams
Hotline TM 8214 (Part B Hardener or Converter)	Baltimore, MD Edison, NJ
Lumiline, Lumiline II	Accent Stripe, Inc. Orchard Park, NY
Poly-Carb Mark 55.3	Poly-Carb Inc. Solon, OH
Super Lifeline II, III	Linear Dynamics Ball Ground, GA
Thermopoxy Series 100 Part A (Series 101 White) Part A (Series 102 Yellow) Part B (Series 103)	Technical Coatings Corp. Alpharetta, GA

B. Epoxy Material

1. Composition.

The epoxy resin composition shall be specifically formulated for use as a pavement marking material and for hot-spray application at elevated temperatures. The type and amounts of epoxy resins and curing agents shall be at the option of the manufacturer, providing the other composition and physical requirements of this specification are met.

The epoxy marking material shall be two-component (Part A and Part B), 100% solids type system formulated and designed to provide a simple volumetric mixing ratio (e.g. two volumes of Part A to one volume of Part B).

The epoxy marking material shall be supplied as either a regular dry or a slow-dry material. Regular-dry may be used for all marking patterns. Slow-dry material is intended for marking hatch lines, edge lines, and other marking patterns located out of the general path of traffic.

All acceptances of uninstalled epoxy marking material shall expire six (6) months after the date of manufacture.

Part A of both white and yellow shall conform to the following requirements:

PERCENT BY WEIGHT OF PART A.

WHITE Pigment - 18 Minimum, Titanium Dioxide (ASTM D476,
Type II) Epoxy Resin - 75 to 82

YELLOW Pigment - 18 Minimum, Titanium Dioxide (ASTM D476,
Type II), 5 Minimum, Organic Yellow, Epoxy Resin - 73 to 77

The entire pigment composition shall consist of either titanium dioxide or titanium dioxide and organic yellow. No extender pigments are permitted. Yellow pigment shall be lead-free.

The epoxy content of the epoxy resin in Part A will be tested in accordance with ASTM D 1652 and calculated as the weight per epoxy equivalent (WPE) for both white and yellow. The epoxy content will be determined on a pigment free basis. The epoxy content (WPE) shall meet a target value provided by the manufacturer and approved by the Department. A ± 50 tolerance will be applied to the target value to establish the acceptance range.

The amine value of Part B shall be tested in accordance with ASTM D2074(2) to determine its total amine value. The total amine shall meet a target value provided by the manufacturer and approved by the Department. A ± 50 tolerance will be applied to the target value to establish the acceptance range. The manufacturer may specify an alternate test method for determining the amine value subject to the approval of the Department.

2. Physical Properties of Mixed Components (Part A and Part B).

Unless otherwise noted, all samples are to be prepared tested at an ambient temperature of $73 \pm 3^\circ\text{F}$.

a. Color.

Yellowness Index (ASTM 0-1925).

- cure 72 hours after sample preparation
- Take yellow index reading, XYZ $Cf2^\circ$, following 72 hour cure and preceding QUV
- Maximum index before QUV: 8.0
- Place sample in QUV for 72 hours
- Maximum index after QUV: 20

Typical White Standard

X78.5
Y81.1
Z90.4
Y14.7

Typical Yellow Standard

X52.7
Y48.1
Z7.6

b. Directional Reflectance.

The white epoxy composition (without glass spheres) shall have a daylight directional reflectance of not less than 84% relative to a magnesium oxide standard when tested in accordance with ASTM E1347.

The yellow epoxy composition (without glass spheres) shall have a daylight directional reflectance of not less than 55 % relative to a magnesium oxide standard when tested in accordance with ASTM E 1347.

c. Drying Time (Laboratory).

When tested in accordance with ASTM 0711 as modified below, regular-dry epoxy marking material shall reach a no-pick-up time in 30 minutes or less. Under these same test conditions, slow-dry epoxy marking material shall reach a no-pick-up time in 60 minutes or less. A Bird Applicator or other suitable instrument shall be used to spread a nominal 15 ± 1 mil thick wet film. Reflective glass spheres shall be immediately dropped onto the epoxy film at a rate of 18 pounds per gallon.

d. Drying Time (Field).

When installed at 77°F at the specified wet film thickness and reflectorized with glass spheres, regular-dry and slow-dry epoxy markings shall reach a no-track condition in approximately 30 minutes, and 60 minutes, respectively.

Dry to "no-tracking" shall be considered as the condition where no visual deposition of the epoxy marking to the pavement surface is observed when viewed from a distance of 50 feet, after a passenger car is passed over the line.

e. Hardness.

The epoxy composition when tested in accordance with ASTM D2240 shall have a Shore D hardness of between 75 and 100 . Samples shall be allowed to cure for not less than 72 hours nor more than 96 hours prior to testing.

f. Infrared Spectrophotometer Analysis (ASTM 02621).

Samples of Part A and Part B shall be analyzed by infrared spectrography. The spectrum of each component shall be a reasonable match to the spectrum of the original formulation accepted by the Department.

C. Reflective Glass Spheres.

Reflective glass spheres for drop-on application shall conform to the following requirements:

The glass spheres shall be colorless, clean, transparent, free from milkyiness or excessive air bubbles, and essentially clean from surface scarring or scratching. They shall be spherical in shape and at least 80 % of the glass beads shall be true spheres when tested in accordance with ASTM is D-1155, Procedure A.

The refractive index of the spheres shall be a minimum of 1.5 as determined by the liquid immersion method at 77°F.

The silica content of the glass spheres shall not be less than 60 % .

The glass spheres shall have the following gradation when tested in accordance with ASTM D-1214.

ITEMS 864.07 through 869.12 (Continued)

DOUBLE DROP METHOD

TYPE I		TYPE II	
<u>Sieve Opening</u>	<u>% Retained</u>	<u>Sieve Opening</u>	<u>% Retained</u>
No. 10	0	No. 20	0-5
No. 12	0-5	No. 30	5-20
No. 14	5 - 20	No. 50	30-50
No. 16	40 – 80	No. 80	9-32
No. 18	10 - 40	No. 100	0-5
No. 20	0-5	Pan	0-2
Pan	0-2		

The glass spheres, Type I, shall be coated with a silane-type adherence coating to enhance embedding in and adherence to the applied binder film. The coated beads shall emit a yellow-green fluorescence when tested by the Danayl Chloride test procedure. The Type II glass spheres shall be treated with a moisture-proof coating. The beads shall show no tendency to adsorb moisture in storage and shall remain free of clusters and lumps. The beads shall flow freely from the dispensing equipment at any time when surface and atmospheric conditions are satisfactory for marking operations.

The moisture-resistance of the glass spheres shall be determined on the basis of the following test:

Place one kilogram of spheres in a washed cotton bag having a thread count of approximately 52 per square inch (warp and woof) and immerse the bag in a container of water for 30 seconds. Remove the bag and force excess water from the sample by squeezing the bag. Suspend and allow to drain for two hours at room temperature ($73 \pm 2^{\circ}\text{F}$). Then mix the sample in the bag by shaking thoroughly. Pour the sample slowly into a clean, dry glass funnel having a stem 4 inches in length, with a 0.4 inch inside diameter stem entrance opening and a minimum exit opening of 0.25 inches. The entire sample shall flow freely through the funnel without stoppage. When first introduced into the funnel, if the spheres clog, it is permissible to lightly tap the funnel to initiate the flow.

Reflective glass spheres may be accepted at the job site on the basis of the manufacturer's certification, or they may be submitted to the Research and Materials Laboratory for testing.

D. Packaging and Shipment.

Epoxy pavement marking materials shall be shipped to the job site in strong, substantial containers. Individual containers shall be plainly marked with the following information:

1. Name of Product
2. Item Number
3. Lot Number
4. Batch Number
5. Test Number
6. Date of Manufacture
7. Date of Expiration of Acceptance (6 months from date of manufacture)
8. The Statement (as appropriate): "Part A - Contains Pigment and Epoxy Resin," or "Part B - Contains Catalyst"
9. Quantity
10. Mixing Proportions, Application Temperature and Instructions
11. Safety Information
12. Manufacturer's Name and Address

Reflective glass spheres shall be shipped in moisture resistant bags. Each bag shall be marked with the name and address of the manufacturer and the name and net weight of the material.

EQUIPMENT AND APPLICATION REQUIREMENTS

E. STRIPING EQUIPMENT

The equipment shall have a system capable of spraying the epoxy paint in the manufacturer's recommended proportions and be mounted on a truck of sufficient size and stability, and with an adequate power source to produce lines of uniform dimension and prevent application failure. It shall be capable of placing stripes on the left and right sides and of placing two intermittent lines simultaneously. It shall also be capable of applying glass beads at the rate of 25 pounds per gallon. All guns must be in full view of the operator at all times. The equipment shall be provided with a metering device to register the accumulated installed footage for each gun each day. Each vehicle shall include at least one operator who shall be a technical expert in equipment operations and epoxy application techniques.

Equipment shall have such a design that the pressure gauges for each proportioning pump are constantly visible to the operator at all times during its operation so that any fluctuation and pressure difference can be addressed immediately.

F. SURFACE PREPARATION

The pavement surface on which the epoxy paint material is placed shall be clean and dry. Existing traffic markings shall be removed by blasting or grinding. The curing compound on Portland cement concrete shall also be removed. Existing markings shall be removed so that at least 95% of the underlying pavement is visible. The abrasive material shall be removed from the pavement surface before the pavement is opened to uncontrolled traffic flow.

G. APPLICATION

1. Epoxy

The epoxy paint markings shall have a thickness of 25 mils \pm 1 mil, calculated without drop-on glass beads. All markings shall have uniform thickness with a uniform distribution of glass beads throughout the line width. The width of lines shall be as specified with a tolerance of 0.25 inches. Markings shall have sharp edges and cutoff at the ends.

2. Glass Beads

The glass beads shall be applied by the double drop method, which requires that Type I and Type II reflective glass spheres be injected into or dropped onto the liquid epoxy marking. Each type shall be applied simultaneously, at a minimum rate of 10 to 13 pounds per gallon of resin with a minimum total application of 25 pounds per gallon. Type I beads shall be applied first, immediately followed by Type II beads. The beads shall adhere to the cured epoxy or all marking operations shall cease until corrections are made.

3. Temperature Limitations

During marking operations, the pavement surface where the epoxy is to be placed shall have a minimum temperature of 40° F and the air temperature shall be at least 35° F. The pavement surface temperature, and the air temperature shall be determined at the start of each day of marking operation and at any time deemed necessary by the Engineer. The spraying temperatures shall be in accordance with the manufacturer's recommendations.

4. Application Rates

Application rates will be checked by the Engineer at convenient intervals by comparing tallies of materials used to the length of lines placed. For initial application and occasionally during the course of work, the Engineer may also check application to a pre-weighed sheet specifically placed for test purposes. Drop-on spheres shall not be applied in this test.

5. Protecting Newly installed Markings

Newly installed markings shall be protected from tracking during the setting period by one or more of the following methods:

- 1) Cone off wet lines from traffic
- 2) Use a convoy of moving vehicles to prevent traffic from crossing wet lines
- 3) Saturate lines with glass beads to prevent tracking.

SECTION M7

PAINTS AND PROTECTIVE COATINGS

M7.00.0 General Requirements for Paints and Protective Coatings.

A. General.

All paint shall conform to the following general requirements.

1. Materials.

The raw materials used in the following specifications for paints and protective coatings shall conform to the specification designed by ASTM, Federal serial number or AASHTO unless specified otherwise in the individual specification. Subsequent amendments to the specifications quoted shall apply to all raw materials and finished products. No "or equal" substitution for any specified material shall be made without written consent of the Engineer.

2. Proportions.

Paint proportions and percentages given in the following specification are expressed by weight unless stated otherwise.

3. Condition in the container.

Paint and protective coatings shall be homogeneous, free of contaminant and of a consistency suitable for use in the capacity for which it is specified. The finished product shall be well ground and the pigment shall be properly dispersed and suspended in the vehicle according to the requirements of the paint or protective coating. The dispersion shall be of such nature that the pigment does not settle badly, does not cake or thicken in the container, and does not become granular, jelled or curdled. Any settlement of pigment in the paint or protective coating shall be a thoroughly wetted soft mushy mass permitting the complete and easy vertical penetration of a paddle. Settled pigment shall be easily dispersed, with a minimum resistance to the sidewise manual motion of the paddle across the bottom of the container, to form a smooth uniform product of the proper consistency. The manufacturer shall include in the paint the necessary additives for control of sagging, pigment settling, leveling, and other qualities of a satisfactory working material. The paint shall possess satisfactory properties in all respects which affect its application and curing.

4. Packaging.

The finished paint or protective coating shall be furnished in new five gallon, round, non-tapered containers no thinner than 0.0250 in. unless otherwise specified. The containers shall have the lug type crimp lids with ring seals and be equipped with ears and bails. The containers shall meet U. S. Department of Transportation Hazardous Materials Shipping Regulations. The container must be lined if necessary so as to prevent attack by the paint. The lining must not come off the can as skins.

The following information shall be labeled on each can in a clear legible manner:

- a) Name of Manufacturer
- b) Place of Manufacture
- c) Manufacturer's Batch Number
- d) Mass DPW Specification Number
- e) Date of Manufacture

Precautions concerning the handling and the application of the paint or protective coating shall be shown on the label.

B. Sampling and Testing.

1. Sampling.

At least one sample, not less than one quart, shall be taken for each batch or less of each kind of paint to be used. Samples must be taken in clean, dry, airtight, wide mouth metal cans and the sample must fill the can to within one inch from the top. Each sample forwarded to the Research and Materials Section shall be accompanied by the name of the manufacturer, the batch number, the specification number and the quantity of paint represented.

Before the Contractor will be permitted to use any paint, the material proposed to be used shall have been sampled, tested and approved.

The manufacturer, as may be required by the Engineer, shall permit access to an inspection of his paint and all operations involved in the manufacture of these materials; shall permit sampling of raw materials and shall furnish such reasonable facilities as the Engineer may require for such inspection.

2. Testing.

Testing of paints will be done at the Research and Materials Section in accordance with the latest methods of Federal Test Method Standard Number 141, ASTM and Methods in use by the Research and Materials Section.

In addition the Department reserves the right to make use of any information or methods of testing to determine the quality of paint and paint materials.

The manufacturer may obtain dry color chips from the Research and Materials Section in order to obtain the proper sample color if he so desires or he may submit a wet sample of the paint which he proposes to furnish. If the color of the wet sample is approved, paints matching the wet sample will, as regards to color, be accepted.

The Contractor shall assume all costs arising from the use of patented materials, equipment, devices or processes used or incorporated in the work and agrees to indemnify and save harmless the Commonwealth of Massachusetts and its duly authorized representative from all suits at law or action of every nature for or on account of the use of any patented materials, equipment, device or processes.

A listing of the paints is below. Any copies of individual specifications or a complete set of the specifications may be obtained from the Research and Materials Section, 99 Worcester Street, Wellesley Hills, Massachusetts 02181.

M7 .01 Pavement Markings.

- M7 .01.03 White Thermoplastic Reflectorized Pavement Markings
- M7 .01.04 Yellow Thermoplastic Reflectorized Pavement Markings
- M7 .01.05 White Traffic Paint
- M7.01.06 Yellow Traffic Paint
- M7.01.07 Glass Beads
- M7.01.08 White High Heat Rapid Drying Traffic Marking Material
- M7.01.09 Yellow High Heat Rapid Drying Traffic Marking Material

- M7.01.10 Fast Drying White Traffic Paint
- M7.01.11 Fast Drying Yellow Traffic Paint
- M7.01.12 Striping Powder
- M7.01.14 Black Non-Reflective Lane Tape
- M7.01.15 Black Traffic Paint
- M7.01.16 White and Yellow Temporary Reflective Lane Tape
- M7.01.18 Preformed Permanent Plastic Pavement Markings or Legends
- M7.01.20 Thermoplastic Pavement Marking Compound, Alkyd
- M7.01.21 Green Pavement Coatings

M7.02 Structural Paint

- M7.02.04 Basic Lead Silico Chromate Paint
- M7.02.06 Basic Lead Silico Chromate Intermediate Paint
- M7.02.08 Gray Basic Lead Silico Chromate Paint
- M7.02.11 Basic Lead Silico Chromate Green Finish Paint
- M7.02.12 Basic Lead Silico Chromate Brown Finish Coat
- M7.02.13 White Paint (Stain Resistant)
- M7.02.17 Aluminum Paint
- M7.02.18 Heavy Duty Metal Primer
- M7.02.19 Basic Lead Silico Chromate Finish Coat Reddish Brown
- M7.02.20 Zinc Rich Primer, Organic Vehicle Type
- M7.02.21 Inorganic Zinc Rich Primer
- M7.02.25 High Build Brown Vinyl Finish Paint
- M7.02.28 Green High Build Vinyl Color Coat
- M7.02.29 Lead Free Metal Primer (Iron Oxide, Sr Chromate, Zinc Oxide)
- M7.02.61 Epoxy Ester Based Zinc Rich Primer

M7.03 Enamels

- M7.03.02 Sign and Equipment Enamel

M7.04 Miscellaneous Coatings

- M7.04.01 Coal Tar Protective Coatings
- M7.04.02 Primer, Paint, Exterior, (Undercoat for Wood, Ready Mixed White and Tints)
- M7.04.03 Paint, Zinc Yellow, Iron Oxide Base Ready Mixed (Type II)
- M7.04.04 Paint, Ready Mixed, International Orange
- M7.04.05 Paint, Exterior, Black Ready Mixed
- M7.04.06 Primer Coating, Basic Lead Silico Chromate, Ready Mixed
- M7.04.07 Primer Coating, Zinc Dust-Zinc Oxide (for galvanized surfaces)
- M7.04.08 Enamel Undercoat Interior, Tints and White
- M7.04.09 Paint, Outside, Dull-Black (Formula 104)
- M7.04.10 Primer, Pretreatment (Formula 117 for Metals)
- M7.04.11 Paint, High Zinc Dust Content, Galvanizing Repair

M7.05 Epoxy Protective Coating

- M7.05.01 Epoxy - Polyamide Red Lead Paint
- M7.05.02 Epoxy - Polyamide Green Paint
- M7.05.03 Epoxy - Polyamine Concrete Coating
- M7.05.05 One Coat High Build Epoxy Mastic Coating

M7.10.0 Galvanized Coatings

All galvanized coatings shall conform to the following general requirements:

ASTM-A143 - Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement.

ASTM-A384 - Safeguarding Against Warpage and Distortion during Hot-Dip Galvanizing of Steel Assemblies.

ASTM-A385 - Providing High-Quality Zinc Coatings (Hot-Dip).

AASHTO-M111 - Zinc (Hot-Galvanized) Coatings on Products Fabricated from Rolled, Pressed and Forged Steel Shapes, Plates, Bars, and Strip.

AASHTO-M232 - Zinc coating (Hot-Dip) on Iron and Steel Hardware.

The zinc used shall conform to AASHTO-M 120 and shall be at least equal to the grade designated as "Prime

Western." A minimum of 0.5% nickel (by weight) shall be added to the galvanizing bath.

AASHTO-M298 Coating of Zinc mechanically deposited on iron or steel.

CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity, or group of individuals.

(Signature of individual submitting bid or proposal)

(Name of individual submitting bid or proposal)

Name of Business

Date

Pursuant to M.G.L. Chapter 62C, Section 49A, I certify under the penalties of perjury that I have complied with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

Social Security Number or
Federal Identification Number

Signature of Individual or Responsible
Corporate Officer and Title

**NON-COLLUSION FORMS
MUST BE SIGNED AND
SUBMITTED WITH BID**

OSHA TRAINING

The undersigned hereby certifies that it is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that it will comply fully with all laws and regulations applicable to awards made subject to section forty-four A of Chapter 149 of the General Laws.

Signature: _____

Title: _____

Date: _____



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

Prevailing Wage Rates

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

CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

ROSALIN ACOSTA
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority: Town of Arlington
Contract Number: 21-14 **City/Town:** ARLINGTON
Description of Work: Provide all labor, materials, equipment and supervision necessary for Pavement Markings and Traffic Lines as required.
Job Location: Various Locations

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- 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 from the Department of Labor Standards (“DLS”) 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 any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Department of Labor Standards, Division of Apprentice Standards (DLS/DAS). Apprentice must keep his/her apprentice identification card on his/her person 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 DLS/DAS regardless of whether or not they are registered with any other federal, state, local, or private agency must be paid the journeyworker's rate for the trade.**
- 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. Awarding authorities are required to request these updates 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, 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. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F “rental of equipment” contracts.
- Every contractor or subcontractor which performs construction work on the project is required to 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. A sample of a payroll reporting form may be obtained at <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.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- 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.

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2021	\$37.05	\$13.41	\$14.82	\$0.00	\$65.28
	12/01/2021	\$37.05	\$13.41	\$16.01	\$0.00	\$66.47
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2021	\$37.12	\$13.41	\$14.82	\$0.00	\$65.35
	12/01/2021	\$37.12	\$13.41	\$16.01	\$0.00	\$66.54
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2021	\$37.24	\$13.41	\$14.82	\$0.00	\$65.47
	12/01/2021	\$37.24	\$13.41	\$16.01	\$0.00	\$66.66
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2021	\$41.42	\$8.60	\$17.57	\$0.00	\$67.59
	12/01/2021	\$42.43	\$8.60	\$17.57	\$0.00	\$68.60
	06/01/2022	\$43.43	\$8.60	\$17.57	\$0.00	\$69.60
	12/01/2022	\$44.43	\$8.60	\$17.57	\$0.00	\$70.60
	06/01/2023	\$45.43	\$8.60	\$17.57	\$0.00	\$71.60
	12/01/2023	\$46.68	\$8.60	\$17.57	\$0.00	\$72.85
For apprentice rates see "Apprentice- LABORER"						
AIR TRACK OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$41.42	\$8.60	\$17.57	\$0.00	\$67.59
	12/01/2021	\$42.43	\$8.60	\$17.57	\$0.00	\$68.60
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>HEAT & FROST INSULATORS LOCAL 6 (BOSTON)</i>	12/01/2020	\$38.10	\$12.80	\$9.45	\$0.00	\$60.35
ASPHALT RAKER <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
ASPHALT RAKER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.73	\$13.75	\$15.80	\$0.00	\$80.28
	12/01/2021	\$51.88	\$13.75	\$15.80	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.73	\$13.75	\$15.80	\$0.00	\$80.28
	12/01/2021	\$51.88	\$13.75	\$15.80	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 1</i>	06/01/2021	\$41.42	\$8.60	\$17.57	\$0.00	\$67.59
	12/01/2021	\$42.43	\$8.60	\$17.57	\$0.00	\$68.60
	06/01/2022	\$43.43	\$8.60	\$17.57	\$0.00	\$69.60
	12/01/2022	\$44.43	\$8.60	\$17.57	\$0.00	\$70.60
	06/01/2023	\$45.43	\$8.60	\$17.57	\$0.00	\$71.60
	12/01/2023	\$46.68	\$8.60	\$17.57	\$0.00	\$72.85
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$41.42	\$8.60	\$17.57	\$0.00	\$67.59
	12/01/2021	\$42.43	\$8.60	\$17.57	\$0.00	\$68.60
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2020	\$46.10	\$7.07	\$17.98	\$0.00	\$71.15

Apprentice - BOILERMAKER - Local 29

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
2	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
3	70	\$32.27	\$7.07	\$12.59	\$0.00	\$51.93
4	75	\$34.58	\$7.07	\$13.49	\$0.00	\$55.14
5	80	\$36.88	\$7.07	\$14.38	\$0.00	\$58.33
6	85	\$39.19	\$7.07	\$15.29	\$0.00	\$61.55
7	90	\$41.49	\$7.07	\$16.18	\$0.00	\$64.74
8	95	\$43.80	\$7.07	\$17.09	\$0.00	\$67.96

Notes:

Apprentice to Journeyworker Ratio:1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) <i>BRICKLAYERS LOCAL 3 (BOSTON)</i>	08/01/2021	\$57.15	\$11.39	\$22.25	\$0.00	\$90.79
	02/01/2022	\$57.74	\$11.39	\$22.25	\$0.00	\$91.38

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Boston

Effective Date - 08/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.58	\$11.39	\$22.25	\$0.00	\$62.22
2	60	\$34.29	\$11.39	\$22.25	\$0.00	\$67.93
3	70	\$40.01	\$11.39	\$22.25	\$0.00	\$73.65
4	80	\$45.72	\$11.39	\$22.25	\$0.00	\$79.36
5	90	\$51.44	\$11.39	\$22.25	\$0.00	\$85.08

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.87	\$11.39	\$22.25	\$0.00	\$62.51
2	60	\$34.64	\$11.39	\$22.25	\$0.00	\$68.28
3	70	\$40.42	\$11.39	\$22.25	\$0.00	\$74.06
4	80	\$46.19	\$11.39	\$22.25	\$0.00	\$79.83
5	90	\$51.97	\$11.39	\$22.25	\$0.00	\$85.61

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2021	\$41.82	\$8.60	\$17.72	\$0.00	\$68.14
	12/01/2021	\$42.83	\$8.60	\$17.72	\$0.00	\$69.15
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2021	\$40.67	\$8.60	\$17.72	\$0.00	\$66.99
	12/01/2021	\$41.68	\$8.60	\$17.72	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2021	\$40.67	\$8.60	\$17.72	\$0.00	\$66.99
	12/01/2021	\$41.68	\$8.60	\$17.72	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	09/01/2021	\$44.18	\$8.58	\$19.82	\$0.00	\$72.58
	03/01/2022	\$44.78	\$8.58	\$19.82	\$0.00	\$73.18
	09/01/2022	\$45.43	\$8.58	\$19.82	\$0.00	\$73.83
	03/01/2023	\$46.03	\$8.58	\$19.82	\$0.00	\$74.43

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.09	\$8.58	\$1.73	\$0.00	\$32.40
2	60	\$26.51	\$8.58	\$1.73	\$0.00	\$36.82
3	70	\$30.93	\$8.58	\$14.63	\$0.00	\$54.14
4	75	\$33.14	\$8.58	\$14.63	\$0.00	\$56.35
5	80	\$35.34	\$8.58	\$16.36	\$0.00	\$60.28
6	80	\$35.34	\$8.58	\$16.36	\$0.00	\$60.28
7	90	\$39.76	\$8.58	\$18.09	\$0.00	\$66.43
8	90	\$39.76	\$8.58	\$18.09	\$0.00	\$66.43

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.39	\$8.58	\$1.73	\$0.00	\$32.70
2	60	\$26.87	\$8.58	\$1.73	\$0.00	\$37.18
3	70	\$31.35	\$8.58	\$14.63	\$0.00	\$54.56
4	75	\$33.59	\$8.58	\$14.63	\$0.00	\$56.80
5	80	\$35.82	\$8.58	\$16.36	\$0.00	\$60.76
6	80	\$35.82	\$8.58	\$16.36	\$0.00	\$60.76
7	90	\$40.30	\$8.58	\$18.09	\$0.00	\$66.97
8	90	\$40.30	\$8.58	\$18.09	\$0.00	\$66.97

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$30.19/ 3&4 \$36.28/ 5&6 \$55.87/ 7&8 \$62.01

Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME	04/01/2021	\$23.16	\$7.21	\$4.80	\$0.00	\$35.17
CARPENTERS-ZONE 3 (Wood Frame)	04/01/2022	\$23.66	\$7.21	\$4.80	\$0.00	\$35.67
	04/01/2023	\$24.16	\$7.21	\$4.80	\$0.00	\$36.17

All Aspects of New Wood Frame Work

Apprentice - CARPENTER (Wood Frame) - Zone 3

Effective Date - 04/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$13.90	\$7.21	\$0.00	\$0.00	\$21.11
2	60	\$13.90	\$7.21	\$0.00	\$0.00	\$21.11
3	65	\$15.05	\$7.21	\$0.00	\$0.00	\$22.26
4	70	\$16.21	\$7.21	\$0.00	\$0.00	\$23.42
5	75	\$17.37	\$7.21	\$3.80	\$0.00	\$28.38
6	80	\$18.53	\$7.21	\$3.80	\$0.00	\$29.54
7	85	\$19.69	\$7.21	\$3.80	\$0.00	\$30.70
8	90	\$20.84	\$7.21	\$3.80	\$0.00	\$31.85

Effective Date - 04/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$14.20	\$7.21	\$0.00	\$0.00	\$21.41
2	60	\$14.20	\$7.21	\$0.00	\$0.00	\$21.41
3	65	\$15.38	\$7.21	\$0.00	\$0.00	\$22.59
4	70	\$16.56	\$7.21	\$0.00	\$0.00	\$23.77
5	75	\$17.75	\$7.21	\$3.80	\$0.00	\$28.76
6	80	\$18.93	\$7.21	\$3.80	\$0.00	\$29.94
7	85	\$20.11	\$7.21	\$3.80	\$0.00	\$31.12
8	90	\$21.29	\$7.21	\$3.80	\$0.00	\$32.30

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$17.63/ 3&4 \$19.95/ 5&6 \$27.22/ 7&8 \$29.54

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 (BOSTON)	01/01/2020	\$49.07	\$12.75	\$22.41	\$0.62	\$84.85
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Apprentice - CEMENT MASONRY/PLASTERING - Eastern Mass (Boston)

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.54	\$12.75	\$15.41	\$0.00	\$52.70
2	60	\$29.44	\$12.75	\$17.41	\$0.62	\$60.22
3	65	\$31.90	\$12.75	\$18.41	\$0.62	\$63.68
4	70	\$34.35	\$12.75	\$19.41	\$0.62	\$67.13
5	75	\$36.80	\$12.75	\$20.41	\$0.62	\$70.58
6	80	\$39.26	\$12.75	\$21.41	\$0.62	\$74.04
7	90	\$44.16	\$12.75	\$22.41	\$0.62	\$79.94

Notes:

Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$51.73	\$13.75	\$15.80	\$0.00	\$81.28
	12/01/2021	\$52.88	\$13.75	\$15.80	\$0.00	\$82.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$33.40	\$13.75	\$15.80	\$0.00	\$62.95
	12/01/2021	\$34.19	\$13.75	\$15.80	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2021	\$52.06	\$8.25	\$22.75	\$0.00	\$83.06

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.03	\$8.25	\$0.00	\$0.00	\$34.28
2	55	\$28.63	\$8.25	\$6.16	\$0.00	\$43.04
3	60	\$31.24	\$8.25	\$6.72	\$0.00	\$46.21
4	65	\$33.84	\$8.25	\$7.28	\$0.00	\$49.37
5	70	\$36.44	\$8.25	\$19.39	\$0.00	\$64.08
6	75	\$39.05	\$8.25	\$19.95	\$0.00	\$67.25
7	80	\$41.65	\$8.25	\$20.51	\$0.00	\$70.41
8	90	\$46.85	\$8.25	\$21.63	\$0.00	\$76.73

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.82	\$8.60	\$17.57	\$0.00	\$66.99
	12/01/2021	\$41.83	\$8.60	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.83	\$8.60	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.83	\$8.60	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.83	\$8.60	\$17.57	\$0.00	\$71.00
	12/01/2023	\$46.08	\$8.60	\$17.57	\$0.00	\$72.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2021	\$41.82	\$8.60	\$17.57	\$0.00	\$67.99
	12/01/2021	\$42.83	\$8.60	\$17.57	\$0.00	\$69.00
	06/01/2022	\$43.83	\$8.60	\$17.57	\$0.00	\$70.00
	12/01/2022	\$44.83	\$8.60	\$17.57	\$0.00	\$71.00
	06/01/2023	\$45.83	\$8.60	\$17.57	\$0.00	\$72.00
	12/01/2023	\$47.08	\$8.60	\$17.57	\$0.00	\$73.25
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: BURNERS <i>LABORERS - ZONE 1</i>	06/01/2021	\$41.57	\$8.60	\$17.57	\$0.00	\$67.74
	12/01/2021	\$42.58	\$8.60	\$17.57	\$0.00	\$68.75
	06/01/2022	\$43.58	\$8.60	\$17.57	\$0.00	\$69.75
	12/01/2022	\$44.58	\$8.60	\$17.57	\$0.00	\$70.75
	06/01/2023	\$45.58	\$8.60	\$17.57	\$0.00	\$71.75
	12/01/2023	\$46.83	\$8.60	\$17.57	\$0.00	\$73.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 1</i>	06/01/2021	\$41.82	\$8.60	\$17.57	\$0.00	\$67.99
	12/01/2021	\$42.83	\$8.60	\$17.57	\$0.00	\$69.00
	06/01/2022	\$43.83	\$8.60	\$17.57	\$0.00	\$70.00
	12/01/2022	\$44.83	\$8.60	\$17.57	\$0.00	\$71.00
	06/01/2023	\$45.83	\$8.60	\$17.57	\$0.00	\$72.00
	12/01/2023	\$47.08	\$8.60	\$17.57	\$0.00	\$73.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2021	\$41.57	\$8.60	\$17.57	\$0.00	\$67.74
	12/01/2021	\$42.58	\$8.60	\$17.57	\$0.00	\$68.75
	06/01/2022	\$43.58	\$8.60	\$17.57	\$0.00	\$69.75
	12/01/2022	\$44.58	\$8.60	\$17.57	\$0.00	\$70.75
	06/01/2023	\$45.58	\$8.60	\$17.57	\$0.00	\$71.75
	12/01/2023	\$46.83	\$8.60	\$17.57	\$0.00	\$73.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.82	\$8.60	\$17.57	\$0.00	\$66.99
	12/01/2021	\$41.83	\$8.60	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.83	\$8.60	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.83	\$8.60	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.83	\$8.60	\$17.57	\$0.00	\$71.00
	12/01/2023	\$46.08	\$8.60	\$17.57	\$0.00	\$72.25
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$68.70	\$9.40	\$23.12	\$0.00	\$101.22
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$49.07	\$9.40	\$23.12	\$0.00	\$81.59
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$73.60	\$9.40	\$23.12	\$0.00	\$106.12
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) <i>DRAWBRIDGE - SEIU LOCAL 888</i>	07/01/2020	\$26.77	\$6.67	\$3.93	\$0.16	\$37.53

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	09/01/2021	\$56.36	\$13.00	\$20.54	\$0.00	\$89.90
	03/01/2022	\$57.32	\$13.00	\$20.82	\$0.00	\$91.14
	09/01/2022	\$58.76	\$13.00	\$20.86	\$0.00	\$92.62
	03/01/2023	\$60.43	\$13.00	\$20.91	\$0.00	\$94.34

Apprentice - *ELECTRICIAN - Local 103*

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$22.54	\$13.00	\$0.68	\$0.00	\$36.22
2	40	\$22.54	\$13.00	\$0.68	\$0.00	\$36.22
3	45	\$25.36	\$13.00	\$15.36	\$0.00	\$53.72
4	45	\$25.36	\$13.00	\$15.36	\$0.00	\$53.72
5	50	\$28.18	\$13.00	\$15.84	\$0.00	\$57.02
6	55	\$31.00	\$13.00	\$16.31	\$0.00	\$60.31
7	60	\$33.82	\$13.00	\$16.77	\$0.00	\$63.59
8	65	\$36.63	\$13.00	\$17.25	\$0.00	\$66.88
9	70	\$39.45	\$13.00	\$17.71	\$0.00	\$70.16
10	75	\$42.27	\$13.00	\$18.19	\$0.00	\$73.46

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$22.93	\$13.00	\$0.69	\$0.00	\$36.62
2	40	\$22.93	\$13.00	\$0.69	\$0.00	\$36.62
3	45	\$25.79	\$13.00	\$15.62	\$0.00	\$54.41
4	45	\$25.79	\$13.00	\$15.62	\$0.00	\$54.41
5	50	\$28.66	\$13.00	\$16.10	\$0.00	\$57.76
6	55	\$31.53	\$13.00	\$16.58	\$0.00	\$61.11
7	60	\$34.39	\$13.00	\$17.04	\$0.00	\$64.43
8	65	\$37.26	\$13.00	\$17.52	\$0.00	\$67.78
9	70	\$40.12	\$13.00	\$17.98	\$0.00	\$71.10
10	75	\$42.99	\$13.00	\$18.46	\$0.00	\$74.45

Notes: :

App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80

Apprentice to Journeyworker Ratio:2:3***

ELEVATOR CONSTRUCTOR <i>ELEVATOR CONSTRUCTORS LOCAL 4</i>	01/01/2021	\$63.47	\$15.88	\$19.31	\$0.00	\$98.66
	01/01/2022	\$65.62	\$16.03	\$20.21	\$0.00	\$101.86

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ELEVATOR CONSTRUCTOR - Local 4

Effective Date - 01/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$31.74	\$15.88	\$0.00	\$0.00	\$47.62
2	55	\$34.91	\$15.88	\$19.31	\$0.00	\$70.10
3	65	\$41.26	\$15.88	\$19.31	\$0.00	\$76.45
4	70	\$44.43	\$15.88	\$19.31	\$0.00	\$79.62
5	80	\$50.78	\$15.88	\$19.31	\$0.00	\$85.97

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$32.81	\$16.03	\$0.00	\$0.00	\$48.84
2	55	\$36.09	\$16.03	\$20.21	\$0.00	\$72.33
3	65	\$42.65	\$16.03	\$20.21	\$0.00	\$78.89
4	70	\$45.93	\$16.03	\$20.21	\$0.00	\$82.17
5	80	\$52.50	\$16.03	\$20.21	\$0.00	\$88.74

Notes:

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER <i>ELEVATOR CONSTRUCTORS LOCAL 4</i>	01/01/2021	\$44.43	\$15.88	\$19.31	\$0.00	\$79.62
	01/01/2022	\$45.93	\$16.03	\$20.21	\$0.00	\$82.17
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"						
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2021	\$45.88	\$13.50	\$15.70	\$0.00	\$75.08
	11/01/2021	\$46.88	\$13.50	\$15.70	\$0.00	\$76.08
	05/01/2022	\$48.03	\$13.50	\$15.70	\$0.00	\$77.23
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2021	\$47.40	\$13.50	\$15.70	\$0.00	\$76.60
	11/01/2021	\$48.41	\$13.50	\$15.70	\$0.00	\$77.61
	05/01/2022	\$49.57	\$13.50	\$15.70	\$0.00	\$78.77
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2021	\$22.91	\$13.50	\$15.70	\$0.00	\$52.11
	11/01/2021	\$23.51	\$13.50	\$15.70	\$0.00	\$52.71
	05/01/2022	\$24.18	\$13.50	\$15.70	\$0.00	\$53.38
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 103</i>	09/01/2021	\$56.36	\$13.00	\$20.54	\$0.00	\$89.90
	03/01/2022	\$57.32	\$13.00	\$20.82	\$0.00	\$91.14
	09/01/2022	\$58.76	\$13.00	\$20.86	\$0.00	\$92.62
	03/01/2023	\$60.43	\$13.00	\$20.91	\$0.00	\$94.34
For apprentice rates see "Apprentice- ELECTRICIAN"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING <i>ELECTRICIANS</i>	09/01/2021	\$43.40	\$13.00	\$18.37	\$0.00	\$74.77
<i>LOCAL 103</i>	03/01/2022	\$44.71	\$13.00	\$18.74	\$0.00	\$76.45
	09/01/2022	\$46.42	\$13.00	\$18.87	\$0.00	\$78.29
	03/01/2023	\$48.34	\$13.00	\$19.01	\$0.00	\$80.35
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$41.31	\$13.75	\$15.80	\$0.00	\$70.86
	12/01/2021	\$42.26	\$13.75	\$15.80	\$0.00	\$71.81
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$24.50	\$8.60	\$17.57	\$0.00	\$50.67
	12/01/2021	\$24.50	\$8.60	\$17.57	\$0.00	\$50.67
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>	09/01/2021	\$49.38	\$8.58	\$20.12	\$0.00	\$78.08
	03/01/2022	\$50.18	\$8.58	\$20.12	\$0.00	\$78.88

Apprentice - FLOORCOVERER - Local 2168 Zone 1

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.69	\$8.58	\$1.79	\$0.00	\$35.06
2	55	\$27.16	\$8.58	\$1.79	\$0.00	\$37.53
3	60	\$29.63	\$8.58	\$14.75	\$0.00	\$52.96
4	65	\$32.10	\$8.58	\$14.75	\$0.00	\$55.43
5	70	\$34.57	\$8.58	\$16.54	\$0.00	\$59.69
6	75	\$37.04	\$8.58	\$16.54	\$0.00	\$62.16
7	80	\$39.50	\$8.58	\$18.33	\$0.00	\$66.41
8	85	\$41.97	\$8.58	\$18.33	\$0.00	\$68.88

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.09	\$8.58	\$1.79	\$0.00	\$35.46
2	55	\$27.60	\$8.58	\$1.79	\$0.00	\$37.97
3	60	\$30.11	\$8.58	\$14.75	\$0.00	\$53.44
4	65	\$32.62	\$8.58	\$14.75	\$0.00	\$55.95
5	70	\$35.13	\$8.58	\$16.54	\$0.00	\$60.25
6	75	\$37.64	\$8.58	\$16.54	\$0.00	\$62.76
7	80	\$40.14	\$8.58	\$18.33	\$0.00	\$67.05
8	85	\$42.65	\$8.58	\$18.33	\$0.00	\$69.56

Notes: Steps are 750 hrs.
% After 10/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)
Step 1&2 \$32.59/ 3&4 \$39.26/ 5&6 \$59.69/ 7&8 \$66.41

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.73	\$13.75	\$15.80	\$0.00	\$80.28
	12/01/2021	\$51.88	\$13.75	\$15.80	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATOR/LIGHTING PLANT/HEATERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$33.40	\$13.75	\$15.80	\$0.00	\$62.95
	12/01/2021	\$34.19	\$13.75	\$15.80	\$0.00	\$63.74

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 35 (ZONE 2)</i>	01/01/2021	\$41.56	\$8.25	\$22.75	\$0.00	\$72.56

Apprentice - GLAZIER - Local 35 Zone 2

Effective Date - 01/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.78	\$8.25	\$0.00	\$0.00	\$29.03
2	55	\$22.86	\$8.25	\$6.16	\$0.00	\$37.27
3	60	\$24.94	\$8.25	\$6.72	\$0.00	\$39.91
4	65	\$27.01	\$8.25	\$7.28	\$0.00	\$42.54
5	70	\$29.09	\$8.25	\$19.39	\$0.00	\$56.73
6	75	\$31.17	\$8.25	\$19.95	\$0.00	\$59.37
7	80	\$33.25	\$8.25	\$20.51	\$0.00	\$62.01
8	90	\$37.40	\$8.25	\$21.63	\$0.00	\$67.28

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.73	\$13.75	\$15.80	\$0.00	\$80.28
	12/01/2021	\$51.88	\$13.75	\$15.80	\$0.00	\$81.43

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - OPERATING ENGINEERS - Local 4

Effective Date - 06/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$27.90	\$13.75	\$0.00	\$0.00	\$41.65
2	60	\$30.44	\$13.75	\$15.80	\$0.00	\$59.99
3	65	\$32.97	\$13.75	\$15.80	\$0.00	\$62.52
4	70	\$35.51	\$13.75	\$15.80	\$0.00	\$65.06
5	75	\$38.05	\$13.75	\$15.80	\$0.00	\$67.60
6	80	\$40.58	\$13.75	\$15.80	\$0.00	\$70.13
7	85	\$43.12	\$13.75	\$15.80	\$0.00	\$72.67
8	90	\$45.66	\$13.75	\$15.80	\$0.00	\$75.21

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$28.53	\$13.75	\$0.00	\$0.00	\$42.28
2	60	\$31.13	\$13.75	\$15.80	\$0.00	\$60.68
3	65	\$33.72	\$13.75	\$15.80	\$0.00	\$63.27
4	70	\$36.32	\$13.75	\$15.80	\$0.00	\$65.87
5	75	\$38.91	\$13.75	\$15.80	\$0.00	\$68.46
6	80	\$41.50	\$13.75	\$15.80	\$0.00	\$71.05
7	85	\$44.10	\$13.75	\$15.80	\$0.00	\$73.65
8	90	\$46.69	\$13.75	\$15.80	\$0.00	\$76.24

Notes:

Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 17 - A	08/01/2021	\$51.95	\$13.80	\$25.60	\$2.74	\$94.09
	02/01/2022	\$53.70	\$13.80	\$25.60	\$2.79	\$95.89

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 103	09/01/2021	\$56.36	\$13.00	\$20.54	\$0.00	\$89.90
	03/01/2022	\$57.32	\$13.00	\$20.82	\$0.00	\$91.14
	09/01/2022	\$58.76	\$13.00	\$20.86	\$0.00	\$92.62
	03/01/2023	\$60.43	\$13.00	\$20.91	\$0.00	\$94.34

For apprentice rates see "Apprentice- ELECTRICIAN"

HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 17 - A	08/01/2021	\$51.95	\$13.80	\$25.60	\$2.74	\$94.09
	02/01/2022	\$53.70	\$13.80	\$25.60	\$2.79	\$95.89

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (TESTING AND BALANCING - WATER) PIPEFITTERS LOCAL 537	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
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For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

HVAC MECHANIC PIPEFITTERS LOCAL 537	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
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For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HYDRAULIC DRILLS <i>LABORERS - ZONE 1</i>	06/01/2021	\$41.42	\$8.60	\$17.57	\$0.00	\$67.59
	12/01/2021	\$42.43	\$8.60	\$17.57	\$0.00	\$68.60
	06/01/2022	\$43.43	\$8.60	\$17.57	\$0.00	\$69.60
	12/01/2022	\$44.43	\$8.60	\$17.57	\$0.00	\$70.60
	06/01/2023	\$45.43	\$8.60	\$17.57	\$0.00	\$71.60
	12/01/2023	\$46.68	\$8.60	\$17.57	\$0.00	\$72.85
For apprentice rates see "Apprentice- LABORER"						
HYDRAULIC DRILLS (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$41.42	\$8.60	\$17.57	\$0.00	\$67.59
	12/01/2021	\$42.43	\$8.60	\$17.57	\$0.00	\$68.60
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
INSULATOR (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (BOSTON)</i>	09/01/2021	\$51.40	\$13.80	\$17.14	\$0.00	\$82.34
	09/01/2022	\$53.85	\$13.80	\$17.14	\$0.00	\$84.79

Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Boston

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.70	\$13.80	\$12.42	\$0.00	\$51.92
2	60	\$30.84	\$13.80	\$13.36	\$0.00	\$58.00
3	70	\$35.98	\$13.80	\$14.31	\$0.00	\$64.09
4	80	\$41.12	\$13.80	\$15.25	\$0.00	\$70.17

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.93	\$13.80	\$12.42	\$0.00	\$53.15
2	60	\$32.31	\$13.80	\$13.36	\$0.00	\$59.47
3	70	\$37.70	\$13.80	\$14.31	\$0.00	\$65.81
4	80	\$43.08	\$13.80	\$15.25	\$0.00	\$72.13

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (BOSTON AREA)</i>	09/16/2020	\$48.66	\$8.10	\$25.10	\$0.00	\$81.86
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Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - IRONWORKER - Local 7 Boston

Effective Date - 09/16/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$29.20	\$8.10	\$25.10	\$0.00	\$62.40
2	70	\$34.06	\$8.10	\$25.10	\$0.00	\$67.26
3	75	\$36.50	\$8.10	\$25.10	\$0.00	\$69.70
4	80	\$38.93	\$8.10	\$25.10	\$0.00	\$72.13
5	85	\$41.36	\$8.10	\$25.10	\$0.00	\$74.56
6	90	\$43.79	\$8.10	\$25.10	\$0.00	\$76.99

Notes:

** Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:**

JACKHAMMER & PAVING BREAKER OPERATOR LABORERS - ZONE 1	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35

For apprentice rates see "Apprentice- LABORER"

LABORER LABORERS - ZONE 1	06/01/2021	\$40.67	\$8.60	\$17.57	\$0.00	\$66.84
	12/01/2021	\$41.68	\$8.60	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.68	\$8.60	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.68	\$8.60	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.68	\$8.60	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.93	\$8.60	\$17.57	\$0.00	\$72.10

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - LABORER - Zone 1

Effective Date - 06/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.40	\$8.60	\$17.57	\$0.00	\$50.57
2	70	\$28.47	\$8.60	\$17.57	\$0.00	\$54.64
3	80	\$32.54	\$8.60	\$17.57	\$0.00	\$58.71
4	90	\$36.60	\$8.60	\$17.57	\$0.00	\$62.77

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.01	\$8.60	\$17.57	\$0.00	\$51.18
2	70	\$29.18	\$8.60	\$17.57	\$0.00	\$55.35
3	80	\$33.34	\$8.60	\$17.57	\$0.00	\$59.51
4	90	\$37.51	\$8.60	\$17.57	\$0.00	\$63.68

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER (HEAVY & HIGHWAY)	06/01/2021	\$40.67	\$8.60	\$17.57	\$0.00	\$66.84
LABORERS - ZONE 1 (HEAVY & HIGHWAY)	12/01/2021	\$41.68	\$8.60	\$17.57	\$0.00	\$67.85

Apprentice - LABORER (Heavy & Highway) - Zone 1

Effective Date - 06/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.40	\$8.60	\$17.57	\$0.00	\$50.57
2	70	\$28.47	\$8.60	\$17.57	\$0.00	\$54.64
3	80	\$32.54	\$8.60	\$17.57	\$0.00	\$58.71
4	90	\$36.60	\$8.60	\$17.57	\$0.00	\$62.77

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.01	\$8.60	\$17.57	\$0.00	\$51.18
2	70	\$29.18	\$8.60	\$17.57	\$0.00	\$55.35
3	80	\$33.34	\$8.60	\$17.57	\$0.00	\$59.51
4	90	\$37.51	\$8.60	\$17.57	\$0.00	\$63.68

Notes:

Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: CARPENTER TENDER <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.67	\$8.60	\$17.57	\$0.00	\$66.84
	12/01/2021	\$41.68	\$8.60	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.68	\$8.60	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.68	\$8.60	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.68	\$8.60	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.93	\$8.60	\$17.57	\$0.00	\$72.10
	For apprentice rates see "Apprentice- LABORER"					
LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.67	\$8.60	\$17.57	\$0.00	\$66.84
	12/01/2021	\$41.68	\$8.60	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.68	\$8.60	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.68	\$8.60	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.68	\$8.60	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.93	\$8.60	\$17.57	\$0.00	\$72.10
	For apprentice rates see "Apprentice- LABORER"					
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.82	\$8.60	\$17.57	\$0.00	\$66.99
	12/01/2021	\$41.83	\$8.60	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.83	\$8.60	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.83	\$8.60	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.83	\$8.60	\$17.57	\$0.00	\$71.00
	12/01/2023	\$46.08	\$8.60	\$17.57	\$0.00	\$72.25
	For apprentice rates see "Apprentice- LABORER"					
LABORER: MASON TENDER <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	06/01/2024	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
	For apprentice rates see "Apprentice- LABORER"					
LABORER: MASON TENDER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.67	\$8.60	\$17.57	\$0.00	\$66.84
	12/01/2021	\$41.68	\$8.60	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.68	\$8.60	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.68	\$8.60	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.68	\$8.60	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.93	\$8.60	\$17.57	\$0.00	\$72.10
	For apprentice rates see "Apprentice- LABORER"					
LABORER: TREE REMOVER <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.67	\$8.60	\$17.57	\$0.00	\$66.84
	12/01/2021	\$41.68	\$8.60	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.68	\$8.60	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.68	\$8.60	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.68	\$8.60	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.93	\$8.60	\$17.57	\$0.00	\$72.10
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"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LASER BEAM OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	08/01/2021	\$43.69	\$11.39	\$20.30	\$0.00	\$75.38
	02/01/2022	\$44.16	\$11.39	\$20.30	\$0.00	\$75.85

Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile

Effective Date - 08/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.85	\$11.39	\$20.30	\$0.00	\$53.54
2	60	\$26.21	\$11.39	\$20.30	\$0.00	\$57.90
3	70	\$30.58	\$11.39	\$20.30	\$0.00	\$62.27
4	80	\$34.95	\$11.39	\$20.30	\$0.00	\$66.64
5	90	\$39.32	\$11.39	\$20.30	\$0.00	\$71.01

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.08	\$11.39	\$20.30	\$0.00	\$53.77
2	60	\$26.50	\$11.39	\$20.30	\$0.00	\$58.19
3	70	\$30.91	\$11.39	\$20.30	\$0.00	\$62.60
4	80	\$35.33	\$11.39	\$20.30	\$0.00	\$67.02
5	90	\$39.74	\$11.39	\$20.30	\$0.00	\$71.43

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS, TILELAYERS & TERRAZZO MECH <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	08/01/2021	\$57.17	\$11.39	\$22.24	\$0.00	\$90.80
	02/01/2022	\$57.74	\$11.39	\$22.24	\$0.00	\$91.37

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 08/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.59	\$11.39	\$22.24	\$0.00	\$62.22
2	60	\$34.30	\$11.39	\$22.24	\$0.00	\$67.93
3	70	\$40.02	\$11.39	\$22.24	\$0.00	\$73.65
4	80	\$45.74	\$11.39	\$22.24	\$0.00	\$79.37
5	90	\$51.45	\$11.39	\$22.24	\$0.00	\$85.08

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.87	\$11.39	\$22.24	\$0.00	\$62.50
2	60	\$34.64	\$11.39	\$22.24	\$0.00	\$68.27
3	70	\$40.42	\$11.39	\$22.24	\$0.00	\$74.05
4	80	\$46.19	\$11.39	\$22.24	\$0.00	\$79.82
5	90	\$51.97	\$11.39	\$22.24	\$0.00	\$85.60

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88
MECHANICS MAINTENANCE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88
MILLWRIGHT (Zone 1) <i>MILLWRIGHTS LOCAL 1121 - Zone 1</i>	03/01/2021	\$43.77	\$8.58	\$21.57	\$0.00	\$73.92
	01/03/2022	\$45.52	\$8.58	\$21.57	\$0.00	\$75.67
	01/02/2023	\$47.27	\$8.58	\$21.57	\$0.00	\$77.42

Apprentice - MILLWRIGHT - Local 1121 Zone 1

Effective Date - 03/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$24.07	\$8.58	\$5.72	\$0.00	\$38.37
2	65	\$28.45	\$8.58	\$17.93	\$0.00	\$54.96
3	75	\$32.83	\$8.58	\$18.98	\$0.00	\$60.39
4	85	\$37.20	\$8.58	\$20.01	\$0.00	\$65.79

Effective Date - 01/03/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$25.04	\$8.58	\$5.72	\$0.00	\$39.34
2	65	\$29.59	\$8.58	\$17.93	\$0.00	\$56.10
3	75	\$34.14	\$8.58	\$18.98	\$0.00	\$61.70
4	85	\$38.69	\$8.58	\$20.01	\$0.00	\$67.28

Notes: Step 1&2 Appr. indentured after 1/6/2020 receive no pension, but do receive annuity. (Step 1 \$5.72, Step 2 \$6.66)
Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER LABORERS - ZONE 1	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS) OPERATING ENGINEERS LOCAL 4	06/01/2021	\$23.40	\$13.75	\$15.80	\$0.00	\$52.95
	12/01/2021	\$23.98	\$13.75	\$15.80	\$0.00	\$53.53
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	06/01/2021	\$28.26	\$13.75	\$15.80	\$0.00	\$57.81
	12/01/2021	\$28.94	\$13.75	\$15.80	\$0.00	\$58.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II OPERATING ENGINEERS LOCAL 4	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 - ZONE 2	01/01/2021	\$52.06	\$8.25	\$22.75	\$0.00	\$83.06

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.03	\$8.25	\$0.00	\$0.00	\$34.28
2	55	\$28.63	\$8.25	\$6.16	\$0.00	\$43.04
3	60	\$31.24	\$8.25	\$6.72	\$0.00	\$46.21
4	65	\$33.84	\$8.25	\$7.28	\$0.00	\$49.37
5	70	\$36.44	\$8.25	\$19.39	\$0.00	\$64.08
6	75	\$39.05	\$8.25	\$19.95	\$0.00	\$67.25
7	80	\$41.65	\$8.25	\$20.51	\$0.00	\$70.41
8	90	\$46.85	\$8.25	\$21.63	\$0.00	\$76.73

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2021	\$42.96	\$8.25	\$22.75	\$0.00	\$73.96
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* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New

Effective Date - 01/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.48	\$8.25	\$0.00	\$0.00	\$29.73
2	55	\$23.63	\$8.25	\$6.16	\$0.00	\$38.04
3	60	\$25.78	\$8.25	\$6.72	\$0.00	\$40.75
4	65	\$27.92	\$8.25	\$7.28	\$0.00	\$43.45
5	70	\$30.07	\$8.25	\$19.39	\$0.00	\$57.71
6	75	\$32.22	\$8.25	\$19.95	\$0.00	\$60.42
7	80	\$34.37	\$8.25	\$20.51	\$0.00	\$63.13
8	90	\$38.66	\$8.25	\$21.63	\$0.00	\$68.54

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2021	\$41.02	\$8.25	\$22.75	\$0.00	\$72.02
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PAINTERS LOCAL 35 - ZONE 2

Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 01/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.81	\$8.25	\$0.00	\$0.00	\$28.06
2	55	\$21.79	\$8.25	\$6.16	\$0.00	\$36.20
3	60	\$23.77	\$8.25	\$6.72	\$0.00	\$38.74
4	65	\$25.75	\$8.25	\$7.28	\$0.00	\$41.28
5	70	\$27.73	\$8.25	\$19.39	\$0.00	\$55.37
6	75	\$29.72	\$8.25	\$19.95	\$0.00	\$57.92
7	80	\$31.70	\$8.25	\$20.51	\$0.00	\$60.46
8	90	\$35.66	\$8.25	\$21.63	\$0.00	\$65.54

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$40.67	\$8.60	\$17.57	\$0.00	\$66.84
	12/01/2021	\$41.68	\$8.60	\$17.57	\$0.00	\$67.85

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

PANEL & PICKUP TRUCKS DRIVER <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2021	\$36.88	\$13.41	\$14.82	\$0.00	\$65.11
	12/01/2021	\$36.88	\$13.41	\$16.01	\$0.00	\$66.30

PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$49.07	\$9.40	\$23.12	\$0.00	\$81.59

For apprentice rates see "Apprentice- PILE DRIVER"

PILE DRIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2020	\$49.07	\$9.40	\$23.12	\$0.00	\$81.59
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Apprentice - PILE DRIVER - Local 56 Zone 1

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.54	\$9.40	\$23.12	\$0.00	\$57.06
2	60	\$29.44	\$9.40	\$23.12	\$0.00	\$61.96
3	70	\$34.35	\$9.40	\$23.12	\$0.00	\$66.87
4	75	\$36.80	\$9.40	\$23.12	\$0.00	\$69.32
5	80	\$39.26	\$9.40	\$23.12	\$0.00	\$71.78
6	80	\$39.26	\$9.40	\$23.12	\$0.00	\$71.78
7	90	\$44.16	\$9.40	\$23.12	\$0.00	\$76.68
8	90	\$44.16	\$9.40	\$23.12	\$0.00	\$76.68

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
Step 1&2 \$34.01/ 3&4 \$41.46/ 5&6 \$62.80/ 7&8 \$69.25

Apprentice to Journeyworker Ratio:1:5

PIPEFITTER & STEAMFITTER <i>PIPEFITTERS LOCAL 537</i>	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
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Apprentice - PIPEFITTER - Local 537

Effective Date - 03/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$23.18	\$11.70	\$8.25	\$0.00	\$43.13
2	45	\$26.07	\$11.70	\$20.24	\$0.00	\$58.01
3	60	\$34.76	\$11.70	\$20.24	\$0.00	\$66.70
4	70	\$40.56	\$11.70	\$20.24	\$0.00	\$72.50
5	80	\$46.35	\$11.70	\$20.24	\$0.00	\$78.29

Notes:

** 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.
Refrig/AC Mechanic **1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

Apprentice to Journeyworker Ratio:**

PIPELAYER LABORERS - ZONE 1	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35

For apprentice rates see "Apprentice- LABORER"

PIPELAYER (HEAVY & HIGHWAY) LABORERS - ZONE 1 (HEAVY & HIGHWAY)	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10

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

PLUMBERS & GASFITTERS PLUMBERS & GASFITTERS LOCAL 12	03/01/2021	\$60.19	\$13.57	\$17.26	\$0.00	\$91.02
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Apprentice - PLUMBER/GASFITTER - Local 12

Effective Date - 03/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$21.07	\$13.57	\$6.24	\$0.00	\$40.88
2	40	\$24.08	\$13.57	\$7.08	\$0.00	\$44.73
3	55	\$33.10	\$13.57	\$9.63	\$0.00	\$56.30
4	65	\$39.12	\$13.57	\$11.33	\$0.00	\$64.02
5	75	\$45.14	\$13.57	\$13.03	\$0.00	\$71.74

Notes:

** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic\$67.89, Step5 with lic\$75.59

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.) PIPEFITTERS LOCAL 537	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
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For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
POWDERMAN & BLASTER <i>LABORERS - ZONE 1</i>	06/01/2021	\$41.67	\$8.60	\$17.57	\$0.00	\$67.84
	12/01/2021	\$42.68	\$8.60	\$17.57	\$0.00	\$68.85
	06/01/2022	\$43.68	\$8.60	\$17.57	\$0.00	\$69.85
	12/01/2022	\$44.68	\$8.60	\$17.57	\$0.00	\$70.85
	06/01/2023	\$45.68	\$8.60	\$17.57	\$0.00	\$71.85
	12/01/2023	\$46.93	\$8.60	\$17.57	\$0.00	\$73.10
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$41.67	\$8.60	\$17.57	\$0.00	\$67.84
	12/01/2021	\$42.68	\$8.60	\$17.57	\$0.00	\$68.85
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.73	\$13.75	\$15.80	\$0.00	\$80.28
	12/01/2021	\$51.88	\$13.75	\$15.80	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.73	\$13.75	\$15.80	\$0.00	\$80.28
	12/01/2021	\$51.88	\$13.75	\$15.80	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$33.40	\$13.75	\$15.80	\$0.00	\$62.95
	12/01/2021	\$34.19	\$13.75	\$15.80	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY MIX CONCRETE DRIVERS after 4/30/12 (Drivers Hired After 4/30/2012) <i>TEAMSTERS 25 (Metro) - Aggregate</i>	08/01/2021	\$29.15	\$11.41	\$15.25	\$0.00	\$55.81
	05/01/2022	\$30.40	\$11.41	\$15.25	\$0.00	\$57.06
	08/01/2022	\$30.40	\$11.91	\$15.25	\$0.00	\$57.56
READY-MIX CONCRETE DRIVER <i>TEAMSTERS 25 (Metro) - Aggregate</i>	08/01/2021	\$33.66	\$11.41	\$15.25	\$0.00	\$60.32
	05/01/2022	\$34.41	\$11.41	\$15.25	\$0.00	\$61.07
	08/01/2022	\$34.41	\$11.91	\$15.25	\$0.00	\$61.57
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofer Waterproofing &Roofer Damproofg)	08/01/2021	\$47.03	\$12.28	\$18.15	\$0.00	\$77.46
ROOFERS LOCAL 33	02/01/2022	\$48.46	\$12.28	\$18.15	\$0.00	\$78.89

Apprentice - ROOFER - Local 33

Effective Date - 08/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.52	\$12.28	\$4.56	\$0.00	\$40.36
2	60	\$28.22	\$12.28	\$18.15	\$0.00	\$58.65
3	65	\$30.57	\$12.28	\$18.15	\$0.00	\$61.00
4	75	\$35.27	\$12.28	\$18.15	\$0.00	\$65.70
5	85	\$39.98	\$12.28	\$18.15	\$0.00	\$70.41

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.23	\$12.28	\$4.56	\$0.00	\$41.07
2	60	\$29.08	\$12.28	\$18.15	\$0.00	\$59.51
3	65	\$31.50	\$12.28	\$18.15	\$0.00	\$61.93
4	75	\$36.35	\$12.28	\$18.15	\$0.00	\$66.78
5	85	\$41.19	\$12.28	\$18.15	\$0.00	\$71.62

Notes: ** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1
 Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.
 (Hot Pitch Mechanics' receive \$1.00 hr. above ROOFER)

Apprentice to Journeyworker Ratio:**

ROOFER SLATE / TILE / PRECAST CONCRETE	08/01/2021	\$47.28	\$12.28	\$18.15	\$0.00	\$77.71
ROOFERS LOCAL 33	02/01/2022	\$48.71	\$12.28	\$18.15	\$0.00	\$79.14
For apprentice rates see "Apprentice- ROOFER"						
SHEETMETAL WORKER	08/01/2021	\$51.95	\$13.80	\$25.60	\$2.74	\$94.09
SHEETMETAL WORKERS LOCAL 17 - A	02/01/2022	\$53.70	\$13.80	\$25.60	\$2.79	\$95.89

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SHEET METAL WORKER - Local 17-A

Effective Date - 08/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	42	\$21.82	\$13.80	\$6.01	\$0.00	\$41.63
2	42	\$21.82	\$13.80	\$6.01	\$0.00	\$41.63
3	47	\$24.42	\$13.80	\$11.26	\$1.48	\$50.96
4	47	\$24.42	\$13.80	\$11.26	\$1.48	\$50.96
5	52	\$27.01	\$13.80	\$12.23	\$1.59	\$54.63
6	52	\$27.01	\$13.80	\$12.48	\$1.60	\$54.89
7	60	\$31.17	\$13.80	\$13.87	\$1.77	\$60.61
8	65	\$33.77	\$13.80	\$14.84	\$1.87	\$64.28
9	75	\$38.96	\$13.80	\$16.77	\$2.09	\$71.62
10	85	\$44.16	\$13.80	\$18.20	\$2.28	\$78.44

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	42	\$22.55	\$13.80	\$6.01	\$0.00	\$42.36
2	42	\$22.55	\$13.80	\$6.01	\$0.00	\$42.36
3	47	\$25.24	\$13.80	\$11.26	\$1.51	\$51.81
4	47	\$25.24	\$13.80	\$11.26	\$1.51	\$51.81
5	52	\$27.92	\$13.80	\$12.23	\$1.62	\$55.57
6	52	\$27.92	\$13.80	\$12.48	\$1.63	\$55.83
7	60	\$32.22	\$13.80	\$13.87	\$1.80	\$61.69
8	65	\$34.91	\$13.80	\$14.84	\$1.91	\$65.46
9	75	\$40.28	\$13.80	\$16.77	\$2.13	\$72.98
10	85	\$45.65	\$13.80	\$18.20	\$2.33	\$79.98

Notes:

Steps are 6 mos.

Apprentice to Journeyworker Ratio:1:4

SPECIALIZED EARTH MOVING EQUIP < 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2021	\$37.34	\$13.41	\$14.82	\$0.00	\$65.57
	12/01/2021	\$37.34	\$13.41	\$16.01	\$0.00	\$66.76
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2021	\$37.63	\$13.41	\$14.82	\$0.00	\$65.86
	12/01/2021	\$37.63	\$13.41	\$16.01	\$0.00	\$67.05
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>	03/01/2021	\$62.45	\$10.00	\$21.25	\$0.00	\$93.70

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1

Effective Date - 03/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$21.86	\$10.00	\$11.99	\$0.00	\$43.85
2	40	\$24.98	\$10.00	\$12.70	\$0.00	\$47.68
3	45	\$28.10	\$10.00	\$13.41	\$0.00	\$51.51
4	50	\$31.23	\$10.00	\$14.13	\$0.00	\$55.36
5	55	\$34.35	\$10.00	\$14.84	\$0.00	\$59.19
6	60	\$37.47	\$10.00	\$15.55	\$0.00	\$63.02
7	65	\$40.59	\$10.00	\$16.26	\$0.00	\$66.85
8	70	\$43.72	\$10.00	\$16.98	\$0.00	\$70.70
9	75	\$46.84	\$10.00	\$17.69	\$0.00	\$74.53
10	80	\$49.96	\$10.00	\$18.40	\$0.00	\$78.36

Notes: Apprentice entered prior 9/30/10:
40/45/50/55/60/65/70/75/80/85
Steps are 850 hours

Apprentice to Journeyworker Ratio:1:3

STEAM BOILER OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 103</i>	09/01/2021	\$43.40	\$13.00	\$18.37	\$0.00	\$74.77
	03/01/2022	\$44.71	\$13.00	\$18.74	\$0.00	\$76.45
	09/01/2022	\$46.42	\$13.00	\$18.87	\$0.00	\$78.29
	03/01/2023	\$48.34	\$13.00	\$19.01	\$0.00	\$80.35

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$19.53	\$13.00	\$0.59	\$0.00	\$33.12
2	45	\$19.53	\$13.00	\$0.59	\$0.00	\$33.12
3	50	\$21.70	\$13.00	\$14.75	\$0.00	\$49.45
4	50	\$21.70	\$13.00	\$14.75	\$0.00	\$49.45
5	55	\$23.87	\$13.00	\$15.12	\$0.00	\$51.99
6	60	\$26.04	\$13.00	\$15.47	\$0.00	\$54.51
7	65	\$28.21	\$13.00	\$15.84	\$0.00	\$57.05
8	70	\$30.38	\$13.00	\$16.20	\$0.00	\$59.58
9	75	\$32.55	\$13.00	\$16.57	\$0.00	\$62.12
10	80	\$34.72	\$13.00	\$16.92	\$0.00	\$64.64

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$20.12	\$13.00	\$0.60	\$0.00	\$33.72
2	45	\$20.12	\$13.00	\$0.60	\$0.00	\$33.72
3	50	\$22.36	\$13.00	\$15.02	\$0.00	\$50.38
4	50	\$22.36	\$13.00	\$15.02	\$0.00	\$50.38
5	55	\$24.59	\$13.00	\$15.39	\$0.00	\$52.98
6	60	\$26.83	\$13.00	\$15.74	\$0.00	\$55.57
7	65	\$29.06	\$13.00	\$16.11	\$0.00	\$58.17
8	70	\$31.30	\$13.00	\$16.48	\$0.00	\$60.78
9	75	\$33.53	\$13.00	\$16.85	\$0.00	\$63.38
10	80	\$35.77	\$13.00	\$17.20	\$0.00	\$65.97

Notes:

Apprentice to Journeyworker Ratio:1:1

TERRAZZO FINISHERS	08/01/2021	\$56.09	\$11.39	\$22.25	\$0.00	\$89.73
BRICKLAYERS LOCAL 3 - MARBLE & TILE	02/01/2022	\$56.68	\$11.39	\$22.25	\$0.00	\$90.32

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile

Effective Date - 08/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.05	\$11.39	\$22.25	\$0.00	\$61.69
2	60	\$33.65	\$11.39	\$22.25	\$0.00	\$67.29
3	70	\$39.26	\$11.39	\$22.25	\$0.00	\$72.90
4	80	\$44.87	\$11.39	\$22.25	\$0.00	\$78.51
5	90	\$50.48	\$11.39	\$22.25	\$0.00	\$84.12

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.34	\$11.39	\$22.25	\$0.00	\$61.98
2	60	\$34.01	\$11.39	\$22.25	\$0.00	\$67.65
3	70	\$39.68	\$11.39	\$22.25	\$0.00	\$73.32
4	80	\$45.34	\$11.39	\$22.25	\$0.00	\$78.98
5	90	\$51.01	\$11.39	\$22.25	\$0.00	\$84.65

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2021	\$42.07	\$8.60	\$17.72	\$0.00	\$68.39
	12/01/2021	\$43.08	\$8.60	\$17.72	\$0.00	\$69.40
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2021	\$40.79	\$8.60	\$17.72	\$0.00	\$67.11
	12/01/2021	\$41.80	\$8.60	\$17.72	\$0.00	\$68.12
For apprentice rates see "Apprentice- LABORER"						
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2021	\$40.67	\$8.60	\$17.72	\$0.00	\$66.99
	12/01/2021	\$41.68	\$8.60	\$17.72	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.19	\$13.75	\$15.80	\$0.00	\$79.74
	12/01/2021	\$51.33	\$13.75	\$15.80	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2021	\$37.92	\$13.41	\$14.82	\$0.00	\$66.15
	12/01/2021	\$37.92	\$13.41	\$16.01	\$0.00	\$67.34
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	06/01/2021	\$52.90	\$8.60	\$18.17	\$0.00	\$79.67
	12/01/2021	\$53.91	\$8.60	\$18.17	\$0.00	\$80.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	06/01/2021	\$54.90	\$8.60	\$18.17	\$0.00	\$81.67
	12/01/2021	\$55.91	\$8.60	\$18.17	\$0.00	\$82.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2021	\$44.97	\$8.60	\$18.17	\$0.00	\$71.74
	12/01/2021	\$45.98	\$8.60	\$18.17	\$0.00	\$72.75
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2021	\$46.97	\$8.60	\$18.17	\$0.00	\$73.74
	12/01/2021	\$47.98	\$8.60	\$18.17	\$0.00	\$74.75

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	08/01/2021	\$37.34	\$13.41	\$14.82	\$0.00	\$65.57
	12/01/2021	\$37.34	\$13.41	\$16.01	\$0.00	\$66.76
WAGON DRILL OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.93	\$8.60	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.93	\$8.60	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.93	\$8.60	\$17.57	\$0.00	\$71.10
	12/01/2023	\$46.18	\$8.60	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	06/01/2021	\$40.92	\$8.60	\$17.57	\$0.00	\$67.09
	12/01/2021	\$41.93	\$8.60	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2021	\$50.73	\$13.75	\$15.80	\$0.00	\$80.28
	12/01/2021	\$51.88	\$13.75	\$15.80	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2021	\$60.19	\$13.57	\$17.26	\$0.00	\$91.02
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						

Additional Apprentice Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours.)

Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

** Multiple ratios are listed in the comment field.

*** APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.

**** APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.