

**CITY OF NEWTON
PURCHASING DEPARTMENT**

***CONTRACT FOR PUBLIC WORKS DEPARTMENT
(M.G.L. Ch. 30, §39M)***

**PROJECT MANUAL:
RECONSTRUCTION OF PEARL STREET PARKING LOT
INVITATION FOR BID #22-88
(REBID #21-33 & 22-58)**

Bid Opening Date: June 2, 2022 at 12:00 Noon

MAY 2022

Ruthanne Fuller, Mayor

CITY OF NEWTON, MASSACHUSETTS

PURCHASING DEPARTMENT

INVITATION FOR BID #22-88

The City of Newton invites sealed bids in accordance with M.G.L. c.30, §39M from Contractors for:

RECONSTRUCTION OF PEARL STREET PARKING LOT

Bids will be received until: 12:00 Noon, Thursday, June 2, 2022

at the Purchasing Department, Room 108, Newton City Hall, 1000 Commonwealth Avenue, Newton, MA 02459. Bids will not be accepted nor may submitted bids be corrected, modified or withdrawn after the deadline for bids. Immediately following the deadline for bids, all bids received within the time specified will be publicly opened and read aloud.

The work under this contract consists of furnishing all necessary labor, materials and equipment required for the full depth reclamation and application of intermediate and surface courses. In addition, the contractor shall be expected to install new ADA compliant walkways, driveway aprons, adjust castings, reset and install new granite curb and all other work as shown on the plans, as described in the Contract Documents (unless specifically indicated as not to be done), and as directed by the City Engineer. The work shall be performed at the Pearl Street Parking Lot, Newton.

Documents relating to this Invitation for Bids (Contract Documents) will be available online at www.newtonma.gov/bids or pick up at the Purchasing Department after **10:00AM, May 19, 2022. Bids must be submitted with one Original and two Copies.**

Only paving contractors that have been prequalified by the Massachusetts Department of Transportation (MassDOT) are eligible to bid on this contract. MassDOT will provide a list of Prequalified Construction Contractors to the City of Newton. Bidders will be verified at time of Bid Opening.

A bid deposit in an amount that is not less than five percent (5%) of the value of the bid, including all add alternates, is required. Bid deposits, payable to the City of Newton, shall be either in the form of a bid bond, or cash, or a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company. Bidders are reminded that the bid deposit covers the City for damages when a bidder withdraws its bid after the bid submission date. **Be advised that to the extent permitted by the law the City will retain all bid deposits for withdrawn bids.**

The costs of any bond and any insurance required in this Invitation for Bid are the responsibility of the bidder; such costs will not be reimbursed by City and should be included in your bid.

The City of Newton will award the contract to the lowest eligible and responsible bidder. Please Note: this bid, in accordance with the Chapter 303 Acts of 2008, contains Price Adjustments and new Prevailing Wage requirements. All bidders are required to familiarize themselves with these terms and conditions before submitting a bid.

The start date is the date on which the Notice to Proceed is issued, which is anticipated to be July 1, 2022. Time for completion is prior to September 30, 2022.

All bids are subject to the provisions of M.G.L. c.30, §39M. **Wages are subject** to minimum wage rates determined by the Massachusetts Department of Labor and Industries pursuant to M.G.L. c.149, §26 to 27H. The schedule of wage rates applicable to this contract is included in the bidding documents. In addition, the prevailing wage schedule will be updated annually for all public construction projects lasting longer than one (1) year.

You will be required to pay the rates set out in any updated prevailing wage schedule. Increases in prevailing wage schedules will not be the basis for change order requests. The successful bidder will be required to provide a Certificate of Insurance demonstrating current coverage of the type and amounts set forth in the Project Manual. The successful bidder will be required to furnish a **Labor and Materials Payment Bond** in the amount of **50%** of the contract total. Wages are paid to drivers for all **"on-site"** work.

Once you've downloaded this bid from the internet website (www.newtonma.gov/bids) I strongly suggest you email (purchasing@newtonma.gov) your company's Name, address, EMAIL, phone, fax AND the INVITATION FOR BID NUMBER and Project Title, so that we may add you to the Bidders List and you will be notified of any/all addendums.

The City will reject any and all bids in accordance with the above referenced General Laws. In addition, the City reserves the right to waive minor informalities in any or all bids or to reject any or all bids (in whole or in part) if it be in the public interest to do so.

In the event that any person wishes to attend a bid opening or pre-bid meeting, accessible and reasonable accommodations will be provided to persons requiring assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or (617) 796-1253. For Telecommunications Relay Service, please dial 711.

CITY OF NEWTON

A handwritten signature in black ink that reads "Nicholas Read". The signature is written in a cursive, slightly slanted style.

Nicholas Read
Chief Procurement Officer
May 19, 2022

CITY OF NEWTON
DEPARTMENT OF PURCHASING
INSTRUCTIONS TO BIDDERS

ARTICLE 1 - BIDDER'S REPRESENTATION

- 1.1 Each General Bidder (hereinafter called the "Bidder") by making a bid (hereinafter called "bid") represents that:
1. The Bidder has read and understands the Bidding Documents, Contract Forms, General Conditions, Conditions of the Contract, General Requirements and Project Specification (collectively, referred to as the "Contract Documents") and the bid is made in accordance therewith.
 2. The Bidder has visited the work site (*See* Construction Plans, attached) and is familiar with the local conditions under which the work has to be performed.
- 1.2 Failure to so examine the Contract Documents or visit the work site will not relieve any Bidder from any obligation under the bid as submitted.

ARTICLE 2 - REQUEST FOR INTERPRETATION

- 2.1 Bidders shall promptly notify the City of any ambiguity, inconsistency, or error which they may discover upon examination of the Contract Documents, the site, and local conditions.
- 2.2 Bidders requiring clarification or interpretation of the Contract Documents shall make a written request to the *Chief Procurement Officer*, at purchasing@newtonma.gov or via facsimile (617) 796-1227. The City will answer such requests if received by **Friday, May 27, 2012 at 12:00 noon**.
- 2.3 Interpretation, correction, or change in the Contract Documents will be made by Addendum which will become part of the Contract Documents. The City will not be held accountable for any oral instruction.
- 2.4 Addenda will be emailed to every individual or firm on record as having taken a set of Contract Documents.
- 2.5 Copies of addenda will be made available for inspection at the location listed in the Invitation for Bids where Contract Documents are on file, in addition to being available online [at www.newtonma.gov/bids](http://www.newtonma.gov/bids).
- 2.6 Bidders or proposers contacting ANY CITY EMPLOYEE regarding an Invitation for Bid (IFB) or a Request for Proposal (RFP), outside of the Purchasing Department, once an IFB or RFP has been released may be disqualified from the bidding process.
- 2.7 Bidders downloading information off the internet web site are solely responsible for obtaining any addenda prior to the bid opening. If the bidder makes themselves known to the Purchasing Department, at purchasing@newtonma.gov or via facsimile (617) 796-1227, they shall be placed on the bidder's list. Bidders must provide the Purchasing Department with their company's name, street address, city, state, zip, phone, fax, email address and **INVITATION FOR BID #22-88**.

ARTICLE 3 - MBE PARTICIPATION

- 3.1 Notice is hereby given that the Mayor's Affirmative Action Plan for the City of Newton in effect at the time of this solicitation is applicable to all construction contracts in excess of \$10,000.00.
- 3.2 Notice is hereby given that the City of Newton Minority/Women Business Enterprise Plan and the Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program in effect at the time of this solicitation are applicable to all City contracts for goods and services in excess of \$50,000.00.
- 3.3 Copies of the Plans and Program referred to in Sections 3.1 and 3.2 are available at www.newtonma.gov/purchasing.

ARTICLE 4 - PREPARATION AND SUBMISSION OF BIDS

- 4.1 Bids shall be submitted on the "Bid Form #22-88," attached.
- 4.2 All entries on the Bid Form shall be made by typewriter or in ink.
- 4.3 Where so indicated on the Bid Form, sums shall be expressed in both words and figures. Where there is a discrepancy between the bid sum expressed in words and the bid sum expressed in figures, the words shall control.
- 4.4 Bid Deposits shall be submitted in the amount specified in the Invitation for Bids. They shall be made payable to the City and shall be either in the form of cash, certified check, treasurer's or cashier's check issued by a responsible bank or trust company, or a bid bond issued by a surety licensed to do business in the Commonwealth of Massachusetts; and shall be conditioned upon the faithful performance by the principal of the agreements contained in the bid. Bidders are reminded that the bid deposit covers the City for damages when a bidder withdraws its bid after the bid submission date. **Bid advised that to the extent permitted by law the City will retain all bid deposits for withdrawn bids.**

Bid deposits of the three (3) lowest responsible and eligible Bidders shall be retained until the execution and delivery of the City/Contractor agreement.

- 4.5 The Bid, including the bid deposit shall be enclosed in a sealed envelope with the following plainly marked on the outside:

- * GENERAL BID FOR: **#22-88**
- * NAME OF PROJECT: **RECONSTRUCTION OF PEARL STREET PARKING LOT**
- * BIDDER'S NAME, BUSINESS ADDRESS, AND PHONE NUMBER

- 4.6 Date and time for receipt of bids is set forth in the Invitation for Bids (IFB).
- 4.7 Timely delivery of a bid at the location designated shall be the full responsibility of the Bidder. In the event that Newton City Hall is closed on the date or at the time that bids are due, the date and time for receipt of bids shall be on the next business day following that the Newton City Hall and the Purchasing Department are open.
- 4.8 Massachusetts law requires all employees who work on Massachusetts public works construction sites must have no less than 10 hours of OSHA-approved safety and health training. See M.G.L. c.30, §39M(c), M.G.L. c.30, §39S(a)(1), M.G.L. c.149, §44E(2) & M.G.L. c.149, §44F(2).
1. This requirement will apply to any general bid or sub bid submitted.
 2. This law directs the Massachusetts Attorney General to restrain the award of construction contracts to any contractor who is in violation of this requirement and to restrain the performance of these contracts by non-complying contractors.
 3. The contractor and all subcontractors on this project must certify on the Bid Form compliance with the applicable requirement. Non-compliance with this law will disqualify the bidder.

- 4.9 Price Adjustment Clauses Chapter 90 Funds

It is the intention of the City to include price adjustments in the award of this Contract. These price adjustments shall be for (1) **Fuel**, (2) **Liquid Asphalt** and (3) **Portland Cement** when such commodities have been determined to be integral components of the work.

For those commodities designated to be paid as a 'differential' item then the special provision shall provide for a price adjustment formula for the affected items. This adjustment shall be based on the difference between the **Base Price** and the **Period Price** which shall be evaluated on a **monthly** basis, but price adjustments shall only be made if the monthly cost change exceeds **+/- 5 per cent**. Subsequently each respective price adjustment shall be made as specified under each applicable and separate payment item.

IMPORTANT NOTE: Depending on the prevailing market trends at the time of payment these price adjustments may provide for additional compensation to the Contractor, or they may otherwise result in a repayment to the City. The increase or a decrease in the value of the commodity, during the applicable payment period in which the goods and/or services were rendered, shall be the determinant factor.

The City will refer to the MassDOT price adjustment tables¹ to establish the base price and will be used for the actual period price.

Price Adjustment Clauses – to apply as follows:

This Contract contains price adjustments for hot mix asphalt and Portland cement mixtures, diesel fuel, and gasoline. Price adjustments shall be made on a monthly basis when the monthly change from the Base Price is +/- 5 percent. Base prices for this contract shall be the period prices posted on the MassDOT website, <https://www.mass.gov/topics/highway-construction-resources> at the time of the bid. For reference the base prices are as follows: liquid asphalt \$682.50 per ton, Portland cement \$165.52 per ton, diesel fuel \$4.513 per gallon, and gasoline \$3.441 per gallon.

No price adjustment will be allowed beyond the completion date of the contract unless there is an approved extension of time by the City.

ARTICLE 5 - ALTERNATES

- 5.1 Each Bidder shall acknowledge Alternates (if any) in Section C on the Bid Form.
- 5.2 In the event an Alternate does not involve a change in the amount of the base bid, the Bidder shall so indicated by writing "No Change", or "N/C" or "0" in the space provided for that Alternate.
- 5.3 Bidders shall enter on the Bid Form a single amount for each Alternate which shall consist of the amount for work performed by the Contractor.
- 5.4 The low Bidder will be determined on the basis of the sum of the base bid and the accepted alternates.

ARTICLE 6 - WITHDRAWAL OF BIDS

- 6.1 Any bid may be withdrawn prior to the time designated for receipt of bids on written or electronic request. Electronic withdrawal of bids must be confirmed over the Bidder's signature by written notice postmarked on or before the date and time set for receipt of bids.
- 6.2 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids.
- 6.3 No bids shall be withdrawn within thirty days, Saturdays, Sundays and legal holidays excluded, after the opening of the bids.

ARTICLE 7 - CONTRACT AWARD

- 7.1 The City is soliciting prices for the items set forth in the Item Sheets at 64-79 below. This IFB has three (3) Add Alternates.² It is the City's intent to award one (1) contract to the responsible and eligible bidder offering the lowest Total Base Bid and as many Add Alternates as the City shall elect to award. Alternates can only be awarded in the sequence that they appear in the Bid Form and the Item Sheets. A contract will be awarded within sixty (60) days, Saturdays, Sundays, and legal holidays excluded, after the opening of bids.
- 7.2 The City of Newton reserves the right to waive minor informalities in or to reject any or all Bids if it be in the public interest to do so.

¹ <https://www.mass.gov/service-details/2020-massdot-contract-price-adjustments>

² Alternates are options for which the bidders must submit separate prices that the awarding authority may choose to include in a bid package. The awarding authority reserves the right to select or reject the optional work, based on the prices received. Alternates are permitted only if they are ranked numerically in order of priority. When evaluating the bids, the City may select a specific alternate only after all of the higher ranking alternates have been selected. M.G.L. c. 149, § 44G(B).

- 7.3 The City reserves the right to reject any bidder who has failed to pay any local taxes, fees, assessments, betterments, or any other municipal charge, unless the bidder has a pending abatement application or has entered into a payment agreement with the collector-treasurer.
- 7.4 As used herein, the term "lowest responsible and eligible Bidder" shall mean the Bidder (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who has met all the requirements of the invitation for bids; (3) who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (4) who, where the provisions of section eight B of chapter twenty-nine apply, shall have been determined to be qualified thereunder.
- 7.5 Subsequent to the award and within five (5) days, Saturday, Sundays and legal holidays excluded, after the prescribed forms are presented for signature, the successful Bidder shall execute and deliver to the City a Contract in the form included in the Contract Documents in such number of counterparts as the City may require.
- 7.6 In the event that the City receives low bids in identical amount from two or more responsive and responsible Bidders, the City shall select the successful Bidder by a blind selection process chosen by the City such as flipping a coin or drawing names from a hat. The low Bidders who are under consideration will be invited to attend and observe the selection process.

ARTICLE 8 - TAXES

- 8.1 The Bidder shall not include in this bid any tax imposed upon the sale or rental of tangible personal property in this Commonwealth, such as any and all building materials, supplies, services and equipment required to complete the work.
- 8.2 The City is exempt from payment of the Massachusetts Sales Tax, and the Bidder shall not include any sales tax on its bid. The City's exemption Number is E-046-001-404.

ARTICLE 9 – PROPRIETARY SPECIFICATIONS

- 9.1 The City has used a proprietary specification to describe the supply listed in the specifications. Such specifications are permitted under M.G.L. c. 30, §39M(b), provided that the City state in writing that use of the proprietary specification is in its best interest and that it will accept an "equal" of the item specified. An item is considered equal if (i) it is at least equal in quality, durability, appearance, strength, and design; (ii) will perform the intended function at least equally; and (iii) conforms substantially, even with deviations, to the detailed requirements contained in the specifications. Bidders wishing to provide an equal item should do so with their bids. The City shall have the sole right to determine whether or not said item is equal.
- 9.2 The required determination and justification have been duly prepared, and a copy may be requested in accordance with the Massachusetts Public Records Law, M.G.L. c. 66, §10.

END OF SECTION

**CITY OF NEWTON
DEPARTMENT OF PURCHASING
BID FORM #22-88**

A. The undersigned proposes to supply and deliver the materials specified below in full accordance with the Contract Documents and Project Manual supplied by the City of Newton entitled:

RECONSTRUCTION OF PEARL STREET PARKING LOT

for the contract price specified below, subject to additions and deduction according to the terms of the specifications.

B. This bid includes addenda number(s) _____, _____, _____, _____,

C. The Contractor shall insert prices for each item in ink, in both words and figures.

(1) _____ Dollars and \$ _____
(Total Base Bid Price from the Item Sheets at pp. 64-72 below.)

(2) _____ Dollars and \$ _____
(Total Add Alternate (1) from the Item Sheets at pp. 73-76 below.)

(3) _____ Dollars and \$ _____
(Total Add Alternate (2) from the Item Sheets at pp. 77-78 below.)

(4) _____ Dollars and \$ _____
(Total Add Alternate (3) from the Item Sheets at p.79 below.)

GRAND TOTAL:

_____ Dollars and \$ _____
(The sum of Totals (1), (2), (3) and (4), above)

COMPANY NAME: _____

D. The undersigned has completed and submits herewith the following documents:

- Bidder's Qualifications and References Form, 2 pages
- Signed Bid Form, 2 pages
- Item Sheets, 13 pages
- Certificate of Non-Collusion, 1 page
- Certificate of Foreign Corporation (if applicable), 1 page
- Certificate of Tax Compliance, 1 page
- Debarment Letter, 1 page
- IRS Form W-9, 1 page
- Business Category Information Form, 1 page
- A five percent (5%) bid deposit

E. Prompt Payment Discounts. Bidders are encouraged to offer discounts in exchange for an expedited payment. Payments may be issued earlier than the general goal of within 30 days of receipt of the invoice only when in exchange for discounted prices. Discounts will not be considered in determining the lowest responsible bidder.

Prompt Payment Discount _____% _____ Days
Prompt Payment Discount _____% _____ Days
Prompt Payment Discount _____% _____ Days

F. The undersigned agrees that, if selected as general contractor, s/he will within five days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the City of Newton, execute a contract in accordance with the terms of this bid **and furnish a labor and materials payment bond** of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the City of Newton in the **sum not less than 50% of the contract price**, the premiums for which are to be paid by the contractor and are included in the contract price.

The undersigned hereby certifies that s/he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that s/he will comply fully with all laws and regulations applicable to awards made subject to section forty-four A of M.G.L. c.30, §39M.

The undersigned certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) 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 (“OSHA”) 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 (3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States OSHA that is at least 10 hours in duration. The undersigned understands that any employee found on a worksite subject to this section without documentation of successful completion of 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 shall be subject to immediate removal.

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

The undersigned further certifies under the penalties of perjury that they have familiarized themselves with the changes to the Prevailing Wage Rates, Price Adjustment Clauses, in accordance to Chapter 303 Acts of 2008.

G. Environmentally preferable products information (which is requested but which will not be considered in awarding a contract):

Description of environmental attributes of Bidder’s goods or services:

Steps taken to (a) identify any positive or negative environmental attributes of products or services and (b) ensure that those attributes are being addressed as part of operations:

Date _____

(Name of General Bidder)

BY: _____

(Printed Name and Title of Signatory)

(Business Address)

(City, State Zip)

(Telephone) / (FAX)

(E-mail address)

NOTE: If the bidder is a corporation, indicate state of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses of all partners; if an individual, give residential address if different from business address; and, if operating as a d/b/a give full legal identity. Attach additional pages as necessary.

END OF SECTION

CITY OF NEWTON

BIDDER'S QUALIFICATIONS AND REFERENCES FORM

All questions must be answered, and the data given must be clear and comprehensive. Please type or print legibly. If necessary, add additional sheet for starred items. This information will be utilized by the City of Newton for purposes of determining bidder responsiveness and responsibility with regard to the requirements and specifications of the Contract.

- 1. FIRM NAME: _____
- 2. WHEN ORGANIZED: _____
- 3. INCORPORATED? _____ YES _____ NO DATE AND STATE OF INCORPORATION: _____
- 4. IS YOUR BUSINESS A **MBE**? _____ YES _____ NO **WBE**? _____ YES _____ NO or **MWBE**? _____ YES _____ NO
- * 5. LIST ALL CONTRACTS CURRENTLY ON HAND, SHOWING CONTRACT AMOUNT AND ANTICIPATED DATE OF COMPLETION:

- * 6. HAVE YOU EVER FAILED TO COMPLETE A CONTRACT AWARDED TO YOU?
_____ YES _____ NO
IF YES, WHERE AND WHY?

- * 7. HAVE YOU EVER DEFAULTED ON A CONTRACT? _____ YES _____ NO
IF YES, PROVIDE DETAILS.

- * 8. LIST YOUR VEHICLES/EQUIPMENT AVAILABLE FOR THIS CONTRACT:

- * 9. IN THE SPACES FOLLOWING, PROVIDE INFORMATION REGARDING CONTRACTS COMPLETED BY YOUR FIRM SIMILAR IN NATURE TO THE PROJECT BEING BID. A MINIMUM OF FOUR (4) CONTRACTS SHALL BE LISTED. PUBLICLY BID CONTRACTS ARE PREFERRED, BUT NOT MANDATORY.

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____

DOLLAR AMOUNT: \$ _____ DATE COMPLETED: _____
PUBLICLY BID? _____ YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: _____)
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: _____

OWNER: _____
CITY/STATE: _____
DOLLAR AMOUNT: \$ _____ DATE COMPLETED: _____
PUBLICLY BID? _____ YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: (____) _____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____
DOLLAR AMOUNT: \$ _____ DATE COMPLETED: _____
PUBLICLY BID? _____ YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: (____) _____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____
DOLLAR AMOUNT: \$ _____ DATE COMPLETED: _____
PUBLICLY BID? _____ YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: (____) _____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

10. The undersigned certifies that the information contained herein is complete and accurate and hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the City of Newton in verification of the recitals comprising this statement of Bidder's qualifications and experience.

DATE: _____ BIDDER: _____

SIGNATURE: _____

PRINTED NAME: _____ TITLE: _____

END OF SECTION

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 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 or individuals.

(Signature of individual)

Name of Business

CERTIFICATE OF FOREIGN CORPORATION

The undersigned hereby certifies that it has been duly established, organized, or chartered as a corporation under the laws of:

(Jurisdiction)

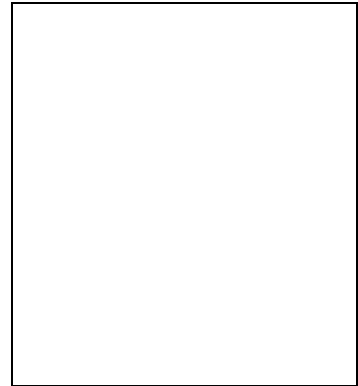
The undersigned further certifies that it has complied with the requirements of M.G.L. c. 30, §39L (if applicable) and with the requirements of M.G.L. c. 156D, §15.03 relative to the registration and operation of foreign corporations within the Commonwealth of Massachusetts.

Name of person signing proposal

Signature of person signing proposal

Name of Business (Please Print or Type)

Affix Corporate Seal here



CERTIFICATION OF TAX COMPLIANCE

Pursuant to M.G.L. c.62C, §49A and requirements of the City, the undersigned acting on behalf of the Contractor certifies under the penalties of perjury that the Contractor is in compliance with all laws of the Commonwealth relating to taxes including payment of all local taxes, fees, assessments, betterments and any other local or municipal charges (unless the Contractor has a pending abatement application or has entered into a payment agreement with the entity to which such charges were owed), reporting of employees and contractors, and withholding and remitting child support.*

**Signature of Individual (Mandatory)

*** Contractor's Social Security Number
(Voluntary) or Federal Identification Number

Print Name: _____

Date: _____

OR

Company Name
(Corporation, Partnership, LLC, etc.)

By: _____
**Corporate Officer (Mandatory)

Print Name: _____

Date: _____

* The provision in this Certification relating to child support applies only when the Contractor is an individual.

** Approval of a contract or other agreement will not be granted until the City receives a signed copy of this Certification.

*** Your social security number may be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended.

Request for Taxpayer Identification Number and Certification

**Give form to the
 requester. Do not
 send to the IRS.**

Print or type See Specific Instructions on page 2.	Name (as shown on your income tax return)	
	Business name, if different from above	
	Check appropriate box: <input type="checkbox"/> Individual/Sole proprietor <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ <input checked="" type="checkbox"/> Exempt payee <input type="checkbox"/> Other (see instructions) ▶	
	Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
	City, state, and ZIP code	
List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Social security number
or
Employer identification number

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here	Signature of U.S. person ▶	Date ▶	Name
------------------	----------------------------	--------	------

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

City of Newton



Mayor
Ruthanne Fuller

Purchasing Department
Nicholas Read *Chief Procurement Officer*
1000 Commonwealth Avenue
Newton Centre, MA 02459-1449
purchasing@newtonma.gov

Telephone
(617) 796-1220
Fax:
(617) 796-1227
TDD/TTY
(617) 796-1089

Date _____

Vendor _____

Re: Debarment Letter for Invitation For Bid # _____

As a potential vendor on the above contract, the City requires that you provide a debarment/suspension certification indicating that you are in compliance with the below Federal Executive Order. Certification can be done by completing and signing this form.

Debarment:

Federal Executive Order (E.O.) 12549 "Debarment and Suspension" requires that all contractors receiving individual awards, using federal funds, and all sub-recipients certify that the organization and its principals are not debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency from doing business with the Federal Government.

I hereby certify under pains and penalties of perjury that neither I nor any principal(s) of the Company identified below is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

(Name)
(Company)
(Address)
(Address)

PHONE _____ FAX _____
EMAIL _____

Signature

Date

If you have questions, please contact Nicholas Read, Chief Procurement Officer at (617) 796-1220.

Business Category Information Form*

IFB No. 22-88

Reconstruction of Pearl Street Parking Lot

Business Type Categories*	Select All That Apply
MBE: Minority-Owned Business Enterprise	
WBE: Women-Owned Business Enterprise	
VBE: Veteran Business Enterprise	
SDVOBE: Service-Disabled Veteran-Owned Business Enterprises	
DOBE: Disability-Owned Business Enterprise	
LGBTBE: Lesbian, Gay, Bisexual, Transgender Business Enterprise	

*Information is being collected as part of a City initiative to open contract opportunities to underrepresented vendors.

I do not wish to complete this form.

There is no penalty for persons who do not complete this Form, and whether or not the Form is completed will not be taken into consideration in awarding a bid.

I certify that the foregoing information is true and correct.

By: _____

Date:

CONTRACT FORMS

The awarded bidder will be required to complete and submit documents substantially similar in form to the following.

These forms may need to be modified on account of changed circumstances and are provided for informational purposes only.

CITY - CONTRACTOR AGREEMENT

CONTRACT NO. C - _____

THIS AGREEMENT made this ___ day of _____ in the year Two Thousand Twenty Two by and between the CITY OF NEWTON, a municipal corporation organized and existing under the laws of the Commonwealth of Massachusetts, hereinafter referred to as the CITY, acting through its Chief Procurement Officer, but without personal liability to him, and hereinafter referred to as the CONTRACTOR.

The parties hereto for the considerations hereinafter set forth agree as follows:

ARTICLE 1. STATEMENT OF WORK. The Contractor shall furnish all labor, materials, and equipment and perform all work required in strict accordance with the Contract Documents for the following project:

RECONSTRUCTION OF PEARL STREET PARKING LOT

ARTICLE 2. TIME OF COMPLETION. The Contractor shall commence work under this Contract on the date specified in the written notice of the City to proceed and shall fully complete all work hereunder within the time specified in the Summary of Work and Specific Work Requirements of the Project Manual. Time is of the essence with regard to this contract. Failure to complete within the time specified shall be subject to the assessment of liquidated damages in accordance with the provisions contained in the Project Manual. **The start date is the date on which the Notice to Proceed is issued, which is anticipated to be July 1, 2022. Time for completion is prior to September 31, 2022.**

ARTICLE 3. THE CONTRACT PRICE. The City shall pay the Contractor for the full and satisfactory performance of the Contract, in current funds a sum not to exceed:

\$

ARTICLE 4. CONTRACT DOCUMENTS. The Contract Documents consist of the following documents which are either attached to this Agreement or are incorporated herein by reference:

- a. This CITY-CONTRACTOR Agreement;
- b. The City's Invitation For Bid #22-58 issued by the Purchasing Department;
- c. The Project Manual for: **RECONSTRUCTION OF PEARL STREET PARKING LOT** including the Instructions to Bidders; General Conditions; Special Conditions; MWBE/AA Requirements, Wage Rate Requirements and Wage Rate Schedule(s) including any updated prevailing wage rate schedules if applicable; The Supplementary Special Conditions; General Requirements and Project Specifications; and Drawings, if included or referenced therein;
- d. Addenda Number(s) _____;
- e. The Bid Response of the CONTRACTOR submitted for this Project and accompanying documents and certifications;
- f. Certificate(s) of Insurance and surety bond(s) submitted by the CONTRACTOR in connection with this Project;
- g. Duly authorized and executed Amendments, Change Orders or Shipping Orders issued by the CITY after execution of this CITY-CONTRACTOR Agreement.

This CITY-CONTRACTOR Agreement, together with the other documents enumerated in this Article, constitute the entire Agreement between the CITY and the CONTRACTOR.

ARTICLE 5. ALTERNATES. The following Alternates have been accepted and their costs are included in the Contract Price stated in Article 3 of this Agreement:

Alternates: _____

ARTICLE 6. INSURANCE REQUIREMENTS

The Contractor shall provide insurance coverage as listed below. This insurance shall be provided at the Contractor's expense and shall be in full force and effect during the full term of this Contract.

WORKER'S COMPENSATION

Worker's Compensation: Per M.G.L. c. 149, §34 and c. 152 as amended.

COMMERCIAL GENERAL LIABILITY

Personal Injury	\$500,000 each occurrence \$1,000,000 aggregate
Property Damage	\$500,000 each occurrence \$1,000,000 aggregate

VEHICLE LIABILITY

Personal Injury	\$500,000 each person \$1,000,000 aggregate
Property Damage	\$300,000 each occurrence \$500,000 aggregate

The City shall be named as additional insureds on the Contractor's Liability Policies.

The Contractor shall not commence the work until proof of compliance with this has been furnished to the City by submitting one copy of a properly endorsed insurance certificate issued by a company authorized to write insurance in the Commonwealth. This certificate shall indicate that the contractual liability coverage is in force.

The Contractor shall file the original and one certified copy of all policies with the City within ten (10) days after contract award. If the City is damaged by the Contractor's failure to maintain such insurance and to so notify the City, then the Contractor shall be responsible for all reasonable costs attributable thereto.

Cancellation of any insurance required by this contract, whether by the insurer or the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and City at least thirty days prior to the effective date thereof, which shall be expressed in said notice.

ARTICLE 7. APPLICABLE STATUTES. All applicable federal, state and local laws and regulations are incorporated herein by reference and the Contractor agrees to comply with same.

THIS SPACE INTENTIONALLY LEFT BLANK

IN WITNESS WHEREOF, the parties have caused this instrument to be executed under seal the day and year first above written.

CONTRACTOR

By _____

Print Name _____

Title _____

Date _____

Affix Corporate Seal Here

Certified that City funds are available in the following accounts:

75901919-586002 _____

I further certify that the Mayor, or her designee, is authorized to execute contracts and approve change orders.

By _____

Comptroller of Accounts

Date _____

CITY OF NEWTON

By _____

Chief Procurement Officer

Date _____

By _____

Commissioner of Public Works

Date _____

Approved as to Legal Form and Character

By _____

Associate City Solicitor

Date _____

CONTRACT & BONDS ARE APPROVED

By _____

Mayor or her designee

Date _____

CERTIFICATE OF AUTHORITY – CORPORATE

- 1 I hereby certify that I am the Clerk/Secretary of _____
(insert full name of Corporation)
- 2 corporation, and that _____
(insert the name of officer who signed the **contract and bonds.**)
- 3 is the duly elected _____
(insert the title of the officer in line 2)
- 4 of said corporation, and that on _____
(insert a date that is **ON OR BEFORE** the date the
officer signed the **contract and bonds.**)

at a duly authorized meeting of the Board of Directors of said corporation, at which all the directors were present or waived notice, it was voted that

5. _____ the _____
(insert **name** from line 2) (insert **title** from line 3)

of this corporation be and hereby is authorized to execute contracts and bonds in the name and on behalf of said corporation, and affix its Corporate Seal thereto, and such execution of any contract of obligation in this corporation’s name and on its behalf, with or without the Corporate Seal, shall be valid and binding upon this corporation; and that the above vote has not been amended or rescinded and remains in full force and effect as of the date set forth below.

6. ATTEST: _____ *AFFIX CORPORATE
(Signature of **Clerk or Secretary**)* SEAL HERE*
7. Name: _____
(Please print or type name in line 6)*
8. Date: _____
(insert a date that is **ON OR AFTER** the date the
officer signed the **contract and bonds.**)

* The name and signature inserted in lines 6 & 7 **must** be that of the **Clerk or Secretary** of the corporation.

CITY OF NEWTON, MASSACHUSETTS

PAYMENT BOND

Know All Men By These Presents:

That we, _____, as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the City of Newton as Obligee, in the sum of _____dollars (\$_____) to be paid to the Obligee, for which payments well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the said PRINCIPAL has made a contract with the Obligee, bearing the date of _____, 2022 for the construction of _____ in Newton, Massachusetts.
(Project Title)

Now, the conditions of this obligation are such that if the PRINCIPAL and all Sub-contractors under said contract shall pay for all labor performed or furnished and for all materials used or employed in said contract and in any and all duly authorized modifications, alterations, extensions of time, changes or additions to said contract that may hereafter be made, notice to the SURETY of such modifications, alterations, extensions of time, changes or additions being hereby waived, the foregoing to include any other purposes or items set out in, and to be subject to, provisions of M.G.L. c. 30, sec. 39A, and M.G.L. c. 149 sec. 29, as amended, then this obligation shall become null and void; otherwise it shall remain in full force, virtue and effect.

In Witness Whereof, the PRINCIPAL and SURETY have hereto set their hands and seals this ___day of ____2022.

PRINCIPAL

SURETY

BY _____
(SEAL)

BY _____
(ATTORNEY-IN-FACT) (SEAL)

(Title)

ATTEST: _____

ATTEST: _____

**CITY OF NEWTON, MASSACHUSETTS
PURCHASING DEPARTMENT
GENERAL TERMS AND CONDITIONS**

1. The right is reserved to reject any and all bids, to waive informalities, and to make award as may be determined to be in the best interest of the City of Newton.
2. Prices quoted must include delivery to the City, as specified on the Work Order.
3. No charges will be allowed for packing, crating, freight, Express or cartage unless specifically stated and included in the bid.
4. The award to the successful bidder may be canceled if successful bidder shall fail to prosecute the work with promptness and diligence.
5. Time in connection with discount offered will be computed from the date of delivery to the City, as specified on Work order, or from date correct invoice is received by the City, if the latter date is later than the date of delivery.
6. The successful bidder shall replace, repair or make good, without cost to the City, any defects or faults arising within one (1) year after date of acceptance of articles furnished hereunder (acceptance not to be unreasonably delayed) resulting from imperfect or defective work done or materials furnished by the Seller.
7. The Seller shall indemnify and save harmless the City and all persons acting for on behalf of it from all suits and claims against them, or any of them, arising from or occasioned by the use of any material, equipment or apparatus, or any part thereof, which infringes or is alleged to infringe on any patent rights. In case such material, equipment or apparatus, or any part thereof, in any such suit is held to constitute infringement, the Seller, within a reasonable time, will at its expense, and as the City may elect, replace such material, equipment or apparatus with non-infringing material, equipment or apparatus, or remove the material, equipment or apparatus, and refund the sums paid therefor.
8. The successful bidder shall comply with all applicable Federal State and Local laws and regulations.
9. Purchases made by the City are exempt from Federal excise taxes and bid prices must exclude any such taxes. Tax exemption certificates will be furnished upon request.
10. If so stated in the Invitation for Bid the successful bidder will be required to furnish a performance and/or a labor and material payment bond, in an amount, in a form and with a surety satisfactory to the City. The bidder shall be responsible for the cost of the bond(s).
11. If the Invitation for Bids requires bid surety, this surety shall be in the form of a cash, bid bond, cashier's check, treasurer's check, or certified check on a responsible bank, payable to the City of Newton, and must be filed with the original bid in the Office of the Purchasing Agent. Failure to do so will lead to rejection of bid. The bid surety will be returned to the successful bidder within seven (7) days execution of awarded, and approval by the City of performance and/or payment bond(s). In case of default, the bid surety shall be forfeited to the City.
12. Verbal orders are not binding on the City and deliveries made or work done without formal Work Order or Contract are at the risk of the Seller or Contractor and may result in an unenforceable claim.
13. The Seller shall agree to indemnify, defend and hold the City harmless from any and all claims arising out of the performance of this contract.
14. "Equality - An item equal to that named or described in the specifications of the contract may be furnished by the Vendor and the naming of any commercial name, trademark or other identification shall not be construed to exclude any item or manufacturer not mentioned by name or as limiting competition but shall establish a standard of equality only. An item shall be considered equal to the item so named or described if (1) it is at least equal in quality, durability, appearance, strength and design; (2) it will perform at least equally the function imposed by the general design for the work being contracted for or the material being purchased; and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the specifications. The name and identification of all materials other than the one specifically named shall be submitted to the City in writing for approval, prior to purchase, use or fabrication of such items.

Subject to the provisions of M.G.L., Ch. 30, Sec. 39J, approval shall be at the sole discretion of the City, shall be in writing to be effective, and the decision of the City shall be final. The City may require tests of all materials so submitted to establish quality standards at the Vendor's expense. All directions, specifications and recommendations by manufacturers for installation, handling, storing, adjustment and operation of their equipment shall be complied with; responsibility for proper performance shall continue to rest with the Vendor.

For the use of material other than the one specified, the Vendor shall assume the cost of and responsibility for satisfactorily accomplishing all changes in the work as shown. If no manufacturer is named, the Vendor shall submit the product he intends to use for approval of the City.

Except as otherwise provided for by the provisions of M.G.L., Ch. 30, Sec. 39J, the Vendor shall not have any right of appeal from the decision of the City condemning any materials furnished if the Vendor fails to obtain the approval for substitution under this clause. If any substitution is more costly, the Vendor shall pay for such costs."

15. Notice is hereby given that the City of Newton Minority/Women Business Enterprise Plan dated December 1999 is applicable to all City of Newton contracts for materials and supplies. A copy of this plan may be obtained from the Purchasing Department.

16. Right To Know: Any vendor who receives an order or orders resulting from this invitation agrees to submit a Material Safety Data Sheet (MSDS) for each toxic or hazardous substance or mixture containing such substance, pursuant to M.G.L., Ch. 111F, SS8, 9 and 10 and the regulations contained in 441 CMR SS 21.06 when deliveries are made. The vendor agrees to deliver all containers properly labeled pursuant to M.G.L. Ch. 111F, SS 7 and the regulations contained in 441 CMR SS 21.05. Failure to submit an MSDS and/or label on each container will place the vendor in noncompliance with the work order. Failure to furnish MSDSs and/or labels on each container may result in civil or criminal penalties, including bid debarment and action to prevent the vendor from selling said substances or mixtures containing said substances within the Commonwealth. All vendors furnishing substances or mixtures subject to Chapter 111F of the M.G.L. are cautioned to obtain and read the law and rules and regulations referred to above. Copies can be obtained from the State House Book Store, Secretary of State, State House, Room 117, Boston, MA 02133, (617-727-2834) for \$2.00 plus \$.65 postage.

17. INSURANCE REQUIREMENTS

The Contractor shall provide insurance coverage as listed below. This insurance shall be provided at the Contractor's expense and shall be in full force and effect during the full term of this Contract.

WORKER'S COMPENSATION

Worker's Compensation: Per M.G.L. c. 149, §34 and c. 152 as amended.

COMMERCIAL GENERAL LIABILITY

Personal Injury	\$500,000 each occurrence \$1,000,000 aggregate
Property Damage	\$500,000 each occurrence \$1,000,000 aggregate

VEHICLE LIABILITY

Personal Injury	\$500,000 each person \$1,000,000 aggregate
Property Damage	\$300,000 each occurrence \$500,000 aggregate

The City shall be named as additional insureds on the Contractor's Liability Policies.

The Contractor shall not commence the work until proof of compliance with this has been furnished to the City by submitting one copy of a properly endorsed insurance certificate issued by a company authorized to write insurance in the Commonwealth. This certificate shall indicate that the contractual liability coverage is in force.

The Contractor shall file the original and one certified copy of all policies with the City within ten (10) days after contract award. If the City is damaged by the Contractor's failure to maintain such insurance and to so notify the City, then the Contractor shall be responsible for all reasonable costs attributable thereto.

Cancellation of any insurance required by this contract, whether by the insurer or the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and City at least thirty days prior to the effective date thereof, which shall be expressed in said notice.

FAILURE TO COMPLY WITH THESE TERMS AND CONDITIONS COULD RESULT IN THE CANCELLATION OF YOUR CONTRACT.

END OF SECTION

CITY OF NEWTON

WAGE RATE REQUIREMENTS

1. GENERAL

- A. This section summarizes the requirements for the payment of wages to laborers and mechanics employed under the Contract.
- B. Other duties and requirements of law which may not be specified in this section apply and are inherently a part of the Contract.

2. WAGE RATES

- A. The rate per hour to be paid to mechanics, apprentices, teamsters, chauffeurs, and laborers employed on the Work shall not be less than the rate of wages in the attached "Minimum Wage Rates" as determined by the Commissioner of Labor and Industries. This schedule shall continue to be the minimum rate of wages for said employees during the life of this Contract.
- B. Keep posted on the site a legible copy of said schedule. Keep on file the wage rates and classifications of labor employed on this Work in order that they may be available for inspection by the Owner, Administrator, or the Architect.
- C. Apprentices employed pursuant to this determination of wage rates must be registered and approved by the State Apprenticeship Council wherever rates for journeymen or apprentices are not listed.
- D. Pay reserve police officers employed on the Work the prevailing rate of wages paid to regular police officers as required by M.G.L. c149, Sec. 34B, as amended. Such police officers shall be covered by Workmen's Compensation Insurance and Employers Liability Insurance by the Contractor.
- E. **The Contractor and all subcontractors shall, on a weekly basis throughout the term of the contract, provide to the City of Newton certified payroll affidavits verifying compliance with M.G.L. c.149, Sec. 27, 27A and 27B.** The Contractor is obligated to provide such records to the City directly on a weekly basis. The City may assess a penalty of \$100 for each day beyond the required submission date that such records are received, which amount shall be deducted from any amounts to the Contractor from the City. In the event of chronic late submissions, the City shall report the same to the Office of the Attorney General.
- F. The Contractor and all subcontractors shall provide a Statement of Compliance within 15 days of the completion of its portion of the work. This statement shall be submitted to the Owner on the form found elsewhere in this section.
- G. The Contractor shall maintain accurate and complete records, including payroll records, during the Contract term and for three years thereafter.

END OF SECTION



CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

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

ROSALIN ACOSTA
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority: City of Newton
Contract Number: IFB #22-58 **City/Town:** NEWTON
Description of Work: Reconstruction of Pearl Street Parking Lot; Furnish labor, materials and equipment for full depth pavement construction, hot mix asphalt overlay and removal of bituminous concrete
Job Location: Pearl Street

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>	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>	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>	12/01/2021	\$37.24	\$13.41	\$16.01	\$0.00	\$66.66
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 36 (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>	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
	06/01/2022	\$42.93	\$9.10	\$17.57	\$0.00	\$69.60
	12/01/2022	\$43.93	\$9.10	\$17.57	\$0.00	\$70.60
	06/01/2023	\$44.93	\$9.10	\$17.57	\$0.00	\$71.60
	12/01/2023	\$46.18	\$9.10	\$17.57	\$0.00	\$72.85
For apprentice rates see "Apprentice- LABORER"						
AIR TRACK OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.93	\$9.10	\$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>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
ASPHALT RAKER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$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>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
	06/01/2022	\$42.93	\$9.10	\$17.57	\$0.00	\$69.60
	12/01/2022	\$43.93	\$9.10	\$17.57	\$0.00	\$70.60
	06/01/2023	\$44.93	\$9.10	\$17.57	\$0.00	\$71.60
	12/01/2023	\$46.18	\$9.10	\$17.57	\$0.00	\$72.85
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i> For apprentice rates see "Apprentice- LABORER (Heavy and Highway)	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
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 (NEWTON)</i>	02/01/2022	\$57.15	\$11.39	\$22.34	\$0.00	\$90.88
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Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Newton

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.58	\$11.39	\$22.34	\$0.00	\$62.31
2	60	\$34.29	\$11.39	\$22.34	\$0.00	\$68.02
3	70	\$40.01	\$11.39	\$22.34	\$0.00	\$73.74
4	80	\$45.72	\$11.39	\$22.34	\$0.00	\$79.45
5	90	\$51.44	\$11.39	\$22.34	\$0.00	\$85.17

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$42.33	\$9.10	\$17.72	\$0.00	\$69.15
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For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.18	\$9.10	\$17.72	\$0.00	\$68.00
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Issue Date: 03/18/2022

Wage Request Number: 20220317-060

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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.18	\$9.10	\$17.72	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	03/01/2022	\$44.53	\$8.68	\$19.97	\$0.00	\$73.18
	09/01/2022	\$45.18	\$8.68	\$19.97	\$0.00	\$73.83
	03/01/2023	\$45.78	\$8.68	\$19.97	\$0.00	\$74.43

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 03/01/2022		Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Step	percent					
1	50	\$22.27	\$8.68	\$1.73	\$0.00	\$32.68
2	60	\$26.72	\$8.68	\$1.73	\$0.00	\$37.13
3	70	\$31.17	\$8.68	\$14.78	\$0.00	\$54.63
4	75	\$33.40	\$8.68	\$14.78	\$0.00	\$56.86
5	80	\$35.62	\$8.68	\$16.51	\$0.00	\$60.81
6	80	\$35.62	\$8.68	\$16.51	\$0.00	\$60.81
7	90	\$40.08	\$8.68	\$18.24	\$0.00	\$67.00
8	90	\$40.08	\$8.68	\$18.24	\$0.00	\$67.00

Effective Date - 09/01/2022		Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Step	percent					
1	50	\$22.59	\$8.68	\$1.73	\$0.00	\$33.00
2	60	\$27.11	\$8.68	\$1.73	\$0.00	\$37.52
3	70	\$31.63	\$8.68	\$14.78	\$0.00	\$55.09
4	75	\$33.89	\$8.68	\$14.78	\$0.00	\$57.35
5	80	\$36.14	\$8.68	\$16.51	\$0.00	\$61.33
6	80	\$36.14	\$8.68	\$16.51	\$0.00	\$61.33
7	90	\$40.66	\$8.68	\$18.24	\$0.00	\$67.58
8	90	\$40.66	\$8.68	\$18.24	\$0.00	\$67.58

Notes:
 % Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$30.45/ 3&4 \$36.57/ 5&6 \$56.36/ 7&8 \$62.54
 Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME <i>CARPENTERS -ZONE 2 (Wood Frame)</i>	04/01/2021	\$27.87	\$7.21	\$5.80	\$0.00	\$40.88
	04/01/2022	\$28.62	\$7.21	\$5.80	\$0.00	\$41.63
	04/01/2023	\$28.97	\$7.21	\$5.80	\$0.00	\$41.98

All Aspects of New Wood Frame Work

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CARPENTER (Wood Frame) - Zone 2

Effective Date - 04/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$13.94	\$7.21	\$0.00	\$0.00	\$21.15
2	50	\$13.94	\$7.21	\$0.00	\$0.00	\$21.15
3	55	\$15.33	\$7.21	\$2.00	\$0.00	\$24.54
4	55	\$15.33	\$7.21	\$2.00	\$0.00	\$24.54
5	70	\$19.51	\$7.21	\$5.80	\$0.00	\$32.52
6	70	\$19.51	\$7.21	\$5.80	\$0.00	\$32.52
7	80	\$22.30	\$7.21	\$5.80	\$0.00	\$35.31
8	80	\$22.30	\$7.21	\$5.80	\$0.00	\$35.31

Effective Date - 04/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$14.31	\$7.21	\$0.00	\$0.00	\$21.52
2	50	\$14.31	\$7.21	\$0.00	\$0.00	\$21.52
3	55	\$15.74	\$7.21	\$2.00	\$0.00	\$24.95
4	55	\$15.74	\$7.21	\$2.00	\$0.00	\$24.95
5	70	\$20.03	\$7.21	\$5.80	\$0.00	\$33.04
6	70	\$20.03	\$7.21	\$5.80	\$0.00	\$33.04
7	80	\$22.90	\$7.21	\$5.80	\$0.00	\$35.91
8	80	\$22.90	\$7.21	\$5.80	\$0.00	\$35.91

Notes:
 % Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$19.75/ 3&4 \$24.54/ 5&6 \$32.52/ 7&8 \$35.31

Apprentice to Journeyworker Ratio:1:5

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

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>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$52.38	\$14.00	\$16.05	\$0.00	\$82.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$33.69	\$14.00	\$16.05	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2022	\$53.66	\$8.65	\$23.05	\$0.00	\$85.36
	07/01/2022	\$54.86	\$8.65	\$23.05	\$0.00	\$86.56
	01/01/2023	\$56.06	\$8.65	\$23.05	\$0.00	\$87.76
	07/01/2023	\$57.26	\$8.65	\$23.05	\$0.00	\$88.96
	01/01/2024	\$58.46	\$8.65	\$23.05	\$0.00	\$90.16
	07/01/2024	\$59.66	\$8.65	\$23.05	\$0.00	\$91.36
	01/01/2025	\$60.86	\$8.65	\$23.05	\$0.00	\$92.56

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.83	\$8.65	\$0.00	\$0.00	\$35.48
2	55	\$29.51	\$8.65	\$6.27	\$0.00	\$44.43
3	60	\$32.20	\$8.65	\$6.84	\$0.00	\$47.69
4	65	\$34.88	\$8.65	\$7.41	\$0.00	\$50.94
5	70	\$37.56	\$8.65	\$19.63	\$0.00	\$65.84
6	75	\$40.25	\$8.65	\$20.20	\$0.00	\$69.10
7	80	\$42.93	\$8.65	\$20.77	\$0.00	\$72.35
8	90	\$48.29	\$8.65	\$21.91	\$0.00	\$78.85

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.43	\$8.65	\$0.00	\$0.00	\$36.08
2	55	\$30.17	\$8.65	\$6.27	\$0.00	\$45.09
3	60	\$32.92	\$8.65	\$6.84	\$0.00	\$48.41
4	65	\$35.66	\$8.65	\$7.41	\$0.00	\$51.72
5	70	\$38.40	\$8.65	\$19.63	\$0.00	\$66.68
6	75	\$41.15	\$8.65	\$20.20	\$0.00	\$70.00
7	80	\$43.89	\$8.65	\$20.77	\$0.00	\$73.31
8	90	\$49.37	\$8.65	\$21.91	\$0.00	\$79.93

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN LABORERS - ZONE 1	12/01/2021	\$41.33	\$9.10	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	12/01/2023	\$45.58	\$9.10	\$17.57	\$0.00	\$72.25

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 1	12/01/2021	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	06/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	12/01/2022	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	06/01/2023	\$45.33	\$9.10	\$17.57	\$0.00	\$72.00
	12/01/2023	\$46.58	\$9.10	\$17.57	\$0.00	\$73.25

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS LABORERS - ZONE 1	12/01/2021	\$42.08	\$9.10	\$17.57	\$0.00	\$68.75
	06/01/2022	\$43.08	\$9.10	\$17.57	\$0.00	\$69.75
	12/01/2022	\$44.08	\$9.10	\$17.57	\$0.00	\$70.75
	06/01/2023	\$45.08	\$9.10	\$17.57	\$0.00	\$71.75
	12/01/2023	\$46.33	\$9.10	\$17.57	\$0.00	\$73.00

For apprentice rates see "Apprentice- LABORER"

Issue Date: 03/18/2022

Wage Request Number: 20220317-060

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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 1</i>	12/01/2021	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	06/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	12/01/2022	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	06/01/2023	\$45.33	\$9.10	\$17.57	\$0.00	\$72.00
	12/01/2023	\$46.58	\$9.10	\$17.57	\$0.00	\$73.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$42.08	\$9.10	\$17.57	\$0.00	\$68.75
	06/01/2022	\$43.08	\$9.10	\$17.57	\$0.00	\$69.75
	12/01/2022	\$44.08	\$9.10	\$17.57	\$0.00	\$70.75
	06/01/2023	\$45.08	\$9.10	\$17.57	\$0.00	\$71.75
	12/01/2023	\$46.33	\$9.10	\$17.57	\$0.00	\$73.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.33	\$9.10	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	12/01/2023	\$45.58	\$9.10	\$17.57	\$0.00	\$72.25
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$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
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	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

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - *ELECTRICIAN - Local 103*

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

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$23.50	\$13.00	\$0.71	\$0.00	\$37.21
2	40	\$23.50	\$13.00	\$0.71	\$0.00	\$37.21
3	45	\$26.44	\$13.00	\$15.64	\$0.00	\$55.08
4	45	\$26.44	\$13.00	\$15.64	\$0.00	\$55.08
5	50	\$29.38	\$13.00	\$16.12	\$0.00	\$58.50
6	55	\$32.32	\$13.00	\$16.60	\$0.00	\$61.92
7	60	\$35.26	\$13.00	\$17.07	\$0.00	\$65.33
8	65	\$38.19	\$13.00	\$17.55	\$0.00	\$68.74
9	70	\$41.13	\$13.00	\$18.01	\$0.00	\$72.14
10	75	\$44.07	\$13.00	\$18.49	\$0.00	\$75.56

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>	01/01/2022	\$65.62	\$16.03	\$20.21	\$0.00	\$101.86
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Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ELEVATOR CONSTRUCTOR - Local 4

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>	01/01/2022	\$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>	12/01/2021	\$41.43	\$9.10	\$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>	11/01/2021	\$46.53	\$13.75	\$15.80	\$0.00	\$76.08
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2021	\$48.06	\$13.75	\$15.80	\$0.00	\$77.61
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2021	\$23.16	\$13.75	\$15.80	\$0.00	\$52.71
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 103</i>	03/01/2022	\$57.32	\$13.00	\$20.82	\$0.00	\$91.14
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE <i>LOCAL 103</i>	03/01/2022	\$44.71	\$13.00	\$18.74	\$0.00	\$76.45
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$41.76	\$14.00	\$16.05	\$0.00	\$71.81
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$24.50	\$9.10	\$17.57	\$0.00	\$51.17
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>	03/01/2022	\$49.93	\$8.68	\$20.27	\$0.00	\$78.88

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Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - FLOORCOVERER - Local 2168 Zone I

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.97	\$8.68	\$1.79	\$0.00	\$35.44
2	55	\$27.46	\$8.68	\$1.79	\$0.00	\$37.93
3	60	\$29.96	\$8.68	\$14.90	\$0.00	\$53.54
4	65	\$32.45	\$8.68	\$14.90	\$0.00	\$56.03
5	70	\$34.95	\$8.68	\$16.69	\$0.00	\$60.32
6	75	\$37.45	\$8.68	\$16.69	\$0.00	\$62.82
7	80	\$39.94	\$8.68	\$18.48	\$0.00	\$67.10
8	85	\$42.44	\$8.68	\$18.48	\$0.00	\$69.60

Notes: Steps are 750 hrs.
 % After 10/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)
 Step 1&2 \$32.94/ 3&4 \$39.66/ 5&6 \$60.32/ 7&8 \$67.10

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATOR/LIGHTING PLANT/HEATERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$33.69	\$14.00	\$16.05	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 35 (ZONE 2)</i>	01/01/2022	\$43.16	\$8.65	\$23.05	\$0.00	\$74.86
	07/01/2022	\$44.36	\$8.65	\$23.05	\$0.00	\$76.06
	01/01/2023	\$45.56	\$8.65	\$23.05	\$0.00	\$77.26
	07/01/2023	\$46.76	\$8.65	\$23.05	\$0.00	\$78.46
	01/01/2024	\$47.96	\$8.65	\$23.05	\$0.00	\$79.66
	07/01/2024	\$49.16	\$8.65	\$23.05	\$0.00	\$80.86
	01/01/2025	\$50.36	\$8.65	\$23.05	\$0.00	\$82.06

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - GLAZIER - Local 35 Zone 2

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.58	\$8.65	\$0.00	\$0.00	\$30.23
2	55	\$23.74	\$8.65	\$6.27	\$0.00	\$38.66
3	60	\$25.90	\$8.65	\$6.84	\$0.00	\$41.39
4	65	\$28.05	\$8.65	\$7.41	\$0.00	\$44.11
5	70	\$30.21	\$8.65	\$19.63	\$0.00	\$58.49
6	75	\$32.37	\$8.65	\$20.20	\$0.00	\$61.22
7	80	\$34.53	\$8.65	\$20.77	\$0.00	\$63.95
8	90	\$38.84	\$8.65	\$21.91	\$0.00	\$69.40

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.18	\$8.65	\$0.00	\$0.00	\$30.83
2	55	\$24.40	\$8.65	\$6.27	\$0.00	\$39.32
3	60	\$26.62	\$8.65	\$6.84	\$0.00	\$42.11
4	65	\$28.83	\$8.65	\$7.41	\$0.00	\$44.89
5	70	\$31.05	\$8.65	\$19.63	\$0.00	\$59.33
6	75	\$33.27	\$8.65	\$20.20	\$0.00	\$62.12
7	80	\$35.49	\$8.65	\$20.77	\$0.00	\$64.91
8	90	\$39.92	\$8.65	\$21.91	\$0.00	\$70.48

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS OPERATING ENGINEERS LOCAL 4	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
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Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - OPERATING ENGINEERS - Local 4

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$28.26	\$14.00	\$0.00	\$0.00	\$42.26
2	60	\$30.83	\$14.00	\$16.05	\$0.00	\$60.88
3	65	\$33.40	\$14.00	\$16.05	\$0.00	\$63.45
4	70	\$35.97	\$14.00	\$16.05	\$0.00	\$66.02
5	75	\$38.54	\$14.00	\$16.05	\$0.00	\$68.59
6	80	\$41.10	\$14.00	\$16.05	\$0.00	\$71.15
7	85	\$43.67	\$14.00	\$16.05	\$0.00	\$73.72
8	90	\$46.24	\$14.00	\$16.05	\$0.00	\$76.29

Notes:

Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2022	\$53.70	\$13.80	\$25.60	\$2.79	\$95.89
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 103</i>	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) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	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) <i>PIPEFITTERS LOCAL 537</i>	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PIPEFITTERS LOCAL 537</i>	03/01/2021	\$57.94	\$11.70	\$20.24	\$0.00	\$89.88
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.93	\$9.10	\$17.57	\$0.00	\$68.60
	06/01/2022	\$42.93	\$9.10	\$17.57	\$0.00	\$69.60
	12/01/2022	\$43.93	\$9.10	\$17.57	\$0.00	\$70.60
	06/01/2023	\$44.93	\$9.10	\$17.57	\$0.00	\$71.60
	12/01/2023	\$46.18	\$9.10	\$17.57	\$0.00	\$72.85
For apprentice rates see "Apprentice- LABORER"						
HYDRAULIC DRILLS (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.93	\$9.10	\$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

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Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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 IRONWORKERS LOCAL 7 (BOSTON AREA)	03/16/2022	\$50.60	\$8.20	\$26.50	\$0.00	\$85.30
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Apprentice - IRONWORKER - Local 7 Boston

Effective Date - 03/16/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$30.36	\$8.20	\$26.50	\$0.00	\$65.06
2	70	\$35.42	\$8.20	\$26.50	\$0.00	\$70.12
3	75	\$37.95	\$8.20	\$26.50	\$0.00	\$72.65
4	80	\$40.48	\$8.20	\$26.50	\$0.00	\$75.18
5	85	\$43.01	\$8.20	\$26.50	\$0.00	\$77.71
6	90	\$45.54	\$8.20	\$26.50	\$0.00	\$80.24

Notes:
** Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:**

JACKHAMMER & PAVING BREAKER OPERATOR LABORERS - ZONE 1	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
LABORERS - ZONE 1	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$17.57	\$0.00	\$72.10

Apprentice - LABORER - Zone 1

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.71	\$9.10	\$17.57	\$0.00	\$51.38
2	70	\$28.83	\$9.10	\$17.57	\$0.00	\$55.50
3	80	\$32.94	\$9.10	\$17.57	\$0.00	\$59.61
4	90	\$37.06	\$9.10	\$17.57	\$0.00	\$63.73

Effective Date - 06/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.31	\$9.10	\$17.57	\$0.00	\$51.98
2	70	\$29.53	\$9.10	\$17.57	\$0.00	\$56.20
3	80	\$33.74	\$9.10	\$17.57	\$0.00	\$60.41
4	90	\$37.96	\$9.10	\$17.57	\$0.00	\$64.63

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER (HEAVY & HIGHWAY)	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
LABORERS - ZONE 1 (HEAVY & HIGHWAY)						

Apprentice - LABORER (Heavy & Highway) - Zone 1

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.71	\$9.10	\$17.57	\$0.00	\$51.38
2	70	\$28.83	\$9.10	\$17.57	\$0.00	\$55.50
3	80	\$32.94	\$9.10	\$17.57	\$0.00	\$59.61
4	90	\$37.06	\$9.10	\$17.57	\$0.00	\$63.73

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
LABORERS - ZONE 1	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$17.57	\$0.00	\$72.10

For apprentice rates see "Apprentice- LABORER"

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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$17.57	\$0.00	\$72.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.33	\$9.10	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	12/01/2023	\$45.58	\$9.10	\$17.57	\$0.00	\$72.25
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	06/01/2024	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$17.57	\$0.00	\$72.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.18	\$9.10	\$17.57	\$0.00	\$67.85
	06/01/2022	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	12/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	06/01/2023	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	12/01/2023	\$45.43	\$9.10	\$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"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$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>	02/01/2022	\$43.69	\$11.39	\$20.37	\$0.00	\$75.45

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.85	\$11.39	\$20.37	\$0.00	\$53.61
2	60	\$26.21	\$11.39	\$20.37	\$0.00	\$57.97
3	70	\$30.58	\$11.39	\$20.37	\$0.00	\$62.34
4	80	\$34.95	\$11.39	\$20.37	\$0.00	\$66.71
5	90	\$39.32	\$11.39	\$20.37	\$0.00	\$71.08

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS, TILELAYERS & TERRAZZO MECH <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	02/01/2022	\$57.17	\$11.39	\$22.31	\$0.00	\$90.87
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Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.59	\$11.39	\$22.31	\$0.00	\$62.29
2	60	\$34.30	\$11.39	\$22.31	\$0.00	\$68.00
3	70	\$40.02	\$11.39	\$22.31	\$0.00	\$73.72
4	80	\$45.74	\$11.39	\$22.31	\$0.00	\$79.44
5	90	\$51.45	\$11.39	\$22.31	\$0.00	\$85.15

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 1) <i>MILLWRIGHTS LOCAL 1121 - Zone 1</i>	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

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MILLWRIGHT - Local 1121 Zone 1

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

Effective Date - 01/02/2023

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$26.00	\$8.58	\$5.72	\$0.00	\$40.30
2	65	\$30.73	\$8.58	\$17.93	\$0.00	\$57.24
3	75	\$35.45	\$8.58	\$18.98	\$0.00	\$63.01
4	85	\$40.18	\$8.58	\$20.01	\$0.00	\$68.77

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:1:4

MORTAR MIXER LABORERS - ZONE 1	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35

For apprentice rates see "Apprentice- LABORER"

OILER (OTHER THAN TRUCK CRANES,GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2021	\$23.48	\$14.00	\$16.05	\$0.00	\$53.53
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2021	\$28.44	\$14.00	\$16.05	\$0.00	\$58.49
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OTHER POWER DRIVEN EQUIPMENT - CLASS II OPERATING ENGINEERS LOCAL 4	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 - ZONE 2	01/01/2022	\$53.66	\$8.65	\$23.05	\$0.00	\$85.36
	07/01/2022	\$54.86	\$8.65	\$23.05	\$0.00	\$86.56
	01/01/2023	\$56.06	\$8.65	\$23.05	\$0.00	\$87.76
	07/01/2023	\$57.26	\$8.65	\$23.05	\$0.00	\$88.96
	01/01/2024	\$58.46	\$8.65	\$23.05	\$0.00	\$90.16
	07/01/2024	\$59.66	\$8.65	\$23.05	\$0.00	\$91.36
	01/01/2025	\$60.86	\$8.65	\$23.05	\$0.00	\$92.56

Issue Date: 03/18/2022

Wage Request Number: 20220317-060

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Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.83	\$8.65	\$0.00	\$0.00	\$35.48
2	55	\$29.51	\$8.65	\$6.27	\$0.00	\$44.43
3	60	\$32.20	\$8.65	\$6.84	\$0.00	\$47.69
4	65	\$34.88	\$8.65	\$7.41	\$0.00	\$50.94
5	70	\$37.56	\$8.65	\$19.63	\$0.00	\$65.84
6	75	\$40.25	\$8.65	\$20.20	\$0.00	\$69.10
7	80	\$42.93	\$8.65	\$20.77	\$0.00	\$72.35
8	90	\$48.29	\$8.65	\$21.91	\$0.00	\$78.85

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.43	\$8.65	\$0.00	\$0.00	\$36.08
2	55	\$30.17	\$8.65	\$6.27	\$0.00	\$45.09
3	60	\$32.92	\$8.65	\$6.84	\$0.00	\$48.41
4	65	\$35.66	\$8.65	\$7.41	\$0.00	\$51.72
5	70	\$38.40	\$8.65	\$19.63	\$0.00	\$66.68
6	75	\$41.15	\$8.65	\$20.20	\$0.00	\$70.00
7	80	\$43.89	\$8.65	\$20.77	\$0.00	\$73.31
8	90	\$49.37	\$8.65	\$21.91	\$0.00	\$79.93

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

Painter (Spray or Sandblast, New) *	01/01/2022	\$44.56	\$8.65	\$23.05	\$0.00	\$76.26
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$45.76	\$8.65	\$23.05	\$0.00	\$77.46
	01/01/2023	\$46.96	\$8.65	\$23.05	\$0.00	\$78.66
	07/01/2023	\$48.16	\$8.65	\$23.05	\$0.00	\$79.86
	01/01/2024	\$49.36	\$8.65	\$23.05	\$0.00	\$81.06
	07/01/2024	\$50.56	\$8.65	\$23.05	\$0.00	\$82.26
	01/01/2025	\$51.76	\$8.65	\$23.05	\$0.00	\$83.46

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.28	\$8.65	\$0.00	\$0.00	\$30.93
2	55	\$24.51	\$8.65	\$6.27	\$0.00	\$39.43
3	60	\$26.74	\$8.65	\$6.84	\$0.00	\$42.23
4	65	\$28.96	\$8.65	\$7.41	\$0.00	\$45.02
5	70	\$31.19	\$8.65	\$19.63	\$0.00	\$59.47
6	75	\$33.42	\$8.65	\$20.20	\$0.00	\$62.27
7	80	\$35.65	\$8.65	\$20.77	\$0.00	\$65.07
8	90	\$40.10	\$8.65	\$21.91	\$0.00	\$70.66

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.88	\$8.65	\$0.00	\$0.00	\$31.53
2	55	\$25.17	\$8.65	\$6.27	\$0.00	\$40.09
3	60	\$27.46	\$8.65	\$6.84	\$0.00	\$42.95
4	65	\$29.74	\$8.65	\$7.41	\$0.00	\$45.80
5	70	\$32.03	\$8.65	\$19.63	\$0.00	\$60.31
6	75	\$34.32	\$8.65	\$20.20	\$0.00	\$63.17
7	80	\$36.61	\$8.65	\$20.77	\$0.00	\$66.03
8	90	\$41.18	\$8.65	\$21.91	\$0.00	\$71.74

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2022	\$42.62	\$8.65	\$23.05	\$0.00	\$74.32
PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$43.82	\$8.65	\$23.05	\$0.00	\$75.52
	01/01/2023	\$45.02	\$8.65	\$23.05	\$0.00	\$76.72
	07/01/2023	\$46.22	\$8.65	\$23.05	\$0.00	\$77.92
	01/01/2024	\$47.42	\$8.65	\$23.05	\$0.00	\$79.12
	07/01/2024	\$48.62	\$8.65	\$23.05	\$0.00	\$80.32
	01/01/2025	\$49.82	\$8.65	\$23.05	\$0.00	\$81.52

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.31	\$8.65	\$0.00	\$0.00	\$29.96
2	55	\$23.44	\$8.65	\$6.27	\$0.00	\$38.36
3	60	\$25.57	\$8.65	\$6.84	\$0.00	\$41.06
4	65	\$27.70	\$8.65	\$7.41	\$0.00	\$43.76
5	70	\$29.83	\$8.65	\$19.63	\$0.00	\$58.11
6	75	\$31.97	\$8.65	\$20.20	\$0.00	\$60.82
7	80	\$34.10	\$8.65	\$20.77	\$0.00	\$63.52
8	90	\$38.36	\$8.65	\$21.91	\$0.00	\$68.92

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.91	\$8.65	\$0.00	\$0.00	\$30.56
2	55	\$24.10	\$8.65	\$6.27	\$0.00	\$39.02
3	60	\$26.29	\$8.65	\$6.84	\$0.00	\$41.78
4	65	\$28.48	\$8.65	\$7.41	\$0.00	\$44.54
5	70	\$30.67	\$8.65	\$19.63	\$0.00	\$58.95
6	75	\$32.87	\$8.65	\$20.20	\$0.00	\$61.72
7	80	\$35.06	\$8.65	\$20.77	\$0.00	\$64.48
8	90	\$39.44	\$8.65	\$21.91	\$0.00	\$70.00

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, NEW) *	01/01/2022	\$43.16	\$8.65	\$23.05	\$0.00	\$74.86
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$44.36	\$8.65	\$23.05	\$0.00	\$76.06
	01/01/2023	\$45.56	\$8.65	\$23.05	\$0.00	\$77.26
	07/01/2023	\$46.76	\$8.65	\$23.05	\$0.00	\$78.46
	01/01/2024	\$47.96	\$8.65	\$23.05	\$0.00	\$79.66
	07/01/2024	\$49.16	\$8.65	\$23.05	\$0.00	\$80.86
	01/01/2025	\$50.36	\$8.65	\$23.05	\$0.00	\$82.06

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.58	\$8.65	\$0.00	\$0.00	\$30.23
2	55	\$23.74	\$8.65	\$6.27	\$0.00	\$38.66
3	60	\$25.90	\$8.65	\$6.84	\$0.00	\$41.39
4	65	\$28.05	\$8.65	\$7.41	\$0.00	\$44.11
5	70	\$30.21	\$8.65	\$19.63	\$0.00	\$58.49
6	75	\$32.37	\$8.65	\$20.20	\$0.00	\$61.22
7	80	\$34.53	\$8.65	\$20.77	\$0.00	\$63.95
8	90	\$38.84	\$8.65	\$21.91	\$0.00	\$69.40

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.18	\$8.65	\$0.00	\$0.00	\$30.83
2	55	\$24.40	\$8.65	\$6.27	\$0.00	\$39.32
3	60	\$26.62	\$8.65	\$6.84	\$0.00	\$42.11
4	65	\$28.83	\$8.65	\$7.41	\$0.00	\$44.89
5	70	\$31.05	\$8.65	\$19.63	\$0.00	\$59.33
6	75	\$33.27	\$8.65	\$20.20	\$0.00	\$62.12
7	80	\$35.49	\$8.65	\$20.77	\$0.00	\$64.91
8	90	\$39.92	\$8.65	\$21.91	\$0.00	\$70.48

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)	01/01/2022	\$41.22	\$8.65	\$23.05	\$0.00	\$72.92
PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$42.42	\$8.65	\$23.05	\$0.00	\$74.12
	01/01/2023	\$43.62	\$8.65	\$23.05	\$0.00	\$75.32
	07/01/2023	\$44.82	\$8.65	\$23.05	\$0.00	\$76.52
	01/01/2024	\$46.02	\$8.65	\$23.05	\$0.00	\$77.72
	07/01/2024	\$47.22	\$8.65	\$23.05	\$0.00	\$78.92
	01/01/2025	\$48.42	\$8.65	\$23.05	\$0.00	\$80.12

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.61	\$8.65	\$0.00	\$0.00	\$29.26
2	55	\$22.67	\$8.65	\$6.27	\$0.00	\$37.59
3	60	\$24.73	\$8.65	\$6.84	\$0.00	\$40.22
4	65	\$26.79	\$8.65	\$7.41	\$0.00	\$42.85
5	70	\$28.85	\$8.65	\$19.63	\$0.00	\$57.13
6	75	\$30.92	\$8.65	\$20.20	\$0.00	\$59.77
7	80	\$32.98	\$8.65	\$20.77	\$0.00	\$62.40
8	90	\$37.10	\$8.65	\$21.91	\$0.00	\$67.66

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.21	\$8.65	\$0.00	\$0.00	\$29.86
2	55	\$23.33	\$8.65	\$6.27	\$0.00	\$38.25
3	60	\$25.45	\$8.65	\$6.84	\$0.00	\$40.94
4	65	\$27.57	\$8.65	\$7.41	\$0.00	\$43.63
5	70	\$29.69	\$8.65	\$19.63	\$0.00	\$57.97
6	75	\$31.82	\$8.65	\$20.20	\$0.00	\$60.67
7	80	\$33.94	\$8.65	\$20.77	\$0.00	\$63.36
8	90	\$38.18	\$8.65	\$21.91	\$0.00	\$68.74

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.18	\$9.10	\$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>	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

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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 <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35

For apprentice rates see "Apprentice- LABORER"

PIPELAYER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
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For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PLUMBERS & GASFITTERS <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2022	\$61.79	\$14.07	\$18.36	\$0.00	\$94.22
	09/04/2022	\$63.49	\$14.07	\$18.36	\$0.00	\$95.92
	02/26/2023	\$65.19	\$14.07	\$18.36	\$0.00	\$97.62
	09/03/2023	\$66.94	\$14.07	\$18.36	\$0.00	\$99.37
	03/03/2024	\$68.74	\$14.07	\$18.36	\$0.00	\$101.17
	09/01/2024	\$70.54	\$14.07	\$18.36	\$0.00	\$102.97
	03/02/2025	\$72.34	\$14.07	\$18.36	\$0.00	\$104.77

Apprentice - PLUMBER/GASFITTER - Local 12

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$21.63	\$14.07	\$6.63	\$0.00	\$42.33
2	40	\$24.72	\$14.07	\$7.52	\$0.00	\$46.31
3	55	\$33.98	\$14.07	\$10.24	\$0.00	\$58.29
4	65	\$40.16	\$14.07	\$12.04	\$0.00	\$66.27
5	75	\$46.34	\$14.07	\$13.85	\$0.00	\$74.26

Effective Date - 09/04/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$22.22	\$14.07	\$6.63	\$0.00	\$42.92
2	40	\$25.40	\$14.07	\$7.52	\$0.00	\$46.99
3	55	\$34.92	\$14.07	\$10.24	\$0.00	\$59.23
4	65	\$41.27	\$14.07	\$12.04	\$0.00	\$67.38
5	75	\$47.62	\$14.07	\$13.85	\$0.00	\$75.54

Notes:

** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic\$69.00, Step5 with lic\$76.87

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.) <i>PIPEFITTERS LOCAL 537</i>	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"

PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$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>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
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For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

POWDERMAN & BLASTER <i>LABORERS - ZONE 1</i>	12/01/2021	\$42.18	\$9.10	\$17.57	\$0.00	\$68.85
	06/01/2022	\$43.18	\$9.10	\$17.57	\$0.00	\$69.85
	12/01/2022	\$44.18	\$9.10	\$17.57	\$0.00	\$70.85
	06/01/2023	\$45.18	\$9.10	\$17.57	\$0.00	\$71.85
	12/01/2023	\$46.43	\$9.10	\$17.57	\$0.00	\$73.10

Issue Date: 03/18/2022

Wage Request Number: 20220317-060

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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$42.18	\$9.10	\$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>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$33.69	\$14.00	\$16.05	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS 170 - Rosenfeld (Walpole)</i>	01/01/2022	\$25.00	\$11.96	\$8.00	\$0.00	\$44.96
	05/01/2022	\$25.75	\$11.96	\$8.00	\$0.00	\$45.71
	01/01/2023	\$25.75	\$12.46	\$8.00	\$0.00	\$46.21
	05/01/2023	\$26.40	\$12.46	\$8.00	\$0.00	\$46.86
	01/01/2024	\$26.40	\$12.96	\$8.00	\$0.00	\$47.36
	05/01/2024	\$27.00	\$12.96	\$8.00	\$0.00	\$47.96
	01/01/2025	\$27.00	\$13.46	\$8.00	\$0.00	\$48.46
	05/01/2025	\$27.60	\$13.46	\$8.25	\$0.00	\$49.31
	01/01/2026	\$27.60	\$13.96	\$8.25	\$0.00	\$49.81
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc. Roofer Waterproofing & Roofer Damproofg) <i>ROOFERS LOCAL 33</i>	02/01/2022	\$47.03	\$12.28	\$19.45	\$0.00	\$78.76

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ROOFER - Local 33

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.52	\$12.28	\$5.21	\$0.00	\$41.01
2	60	\$28.22	\$12.28	\$19.45	\$0.00	\$59.95
3	65	\$30.57	\$12.28	\$19.45	\$0.00	\$62.30
4	75	\$35.27	\$12.28	\$19.45	\$0.00	\$67.00
5	85	\$39.98	\$12.28	\$19.45	\$0.00	\$71.71

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 <i>ROOFERS LOCAL 33</i>	02/01/2022	\$47.28	\$12.28	\$19.45	\$0.00	\$79.01
For apprentice rates see "Apprentice- ROOFER"						
SHEETMETAL WORKER <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2022	\$53.70	\$13.80	\$25.60	\$2.79	\$95.89

Apprentice - SHEET METAL WORKER - Local 17-A

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>	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>	12/01/2021	\$37.63	\$13.41	\$16.01	\$0.00	\$67.05

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>	03/01/2022	\$64.36	\$10.44	\$22.10	\$0.00	\$96.90
	10/01/2022	\$66.06	\$10.44	\$22.10	\$0.00	\$98.60
	03/01/2023	\$67.76	\$10.44	\$22.10	\$0.00	\$100.30
	10/01/2023	\$69.51	\$10.44	\$22.10	\$0.00	\$102.05
	03/01/2024	\$71.31	\$10.44	\$22.10	\$0.00	\$103.85
	10/01/2024	\$73.11	\$10.44	\$22.10	\$0.00	\$105.65
	03/01/2025	\$74.91	\$10.44	\$22.10	\$0.00	\$107.45

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

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$22.53	\$10.44	\$12.35	\$0.00	\$45.32
2	40	\$25.74	\$10.44	\$13.10	\$0.00	\$49.28
3	45	\$28.96	\$10.44	\$13.85	\$0.00	\$53.25
4	50	\$32.18	\$10.44	\$14.60	\$0.00	\$57.22
5	55	\$35.40	\$10.44	\$15.35	\$0.00	\$61.19
6	60	\$38.62	\$10.44	\$16.10	\$0.00	\$65.16
7	65	\$41.83	\$10.44	\$16.85	\$0.00	\$69.12
8	70	\$45.05	\$10.44	\$17.60	\$0.00	\$73.09
9	75	\$48.27	\$10.44	\$18.35	\$0.00	\$77.06
10	80	\$51.49	\$10.44	\$19.10	\$0.00	\$81.03

Effective Date - 10/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$23.12	\$10.44	\$12.35	\$0.00	\$45.91
2	40	\$26.42	\$10.44	\$13.10	\$0.00	\$49.96
3	45	\$29.73	\$10.44	\$13.85	\$0.00	\$54.02
4	50	\$33.03	\$10.44	\$14.60	\$0.00	\$58.07
5	55	\$36.33	\$10.44	\$15.35	\$0.00	\$62.12
6	60	\$39.64	\$10.44	\$16.10	\$0.00	\$66.18
7	65	\$42.94	\$10.44	\$16.85	\$0.00	\$70.23
8	70	\$46.24	\$10.44	\$17.60	\$0.00	\$74.28
9	75	\$49.55	\$10.44	\$18.35	\$0.00	\$78.34
10	80	\$52.85	\$10.44	\$19.10	\$0.00	\$82.39

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>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS 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

Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103

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	\$15.06	\$0.00	\$50.42
4	50	\$22.36	\$13.00	\$15.06	\$0.00	\$50.42
5	55	\$24.59	\$13.00	\$15.43	\$0.00	\$53.02
6	60	\$26.83	\$13.00	\$15.79	\$0.00	\$55.62
7	65	\$29.06	\$13.00	\$16.16	\$0.00	\$58.22
8	70	\$31.30	\$13.00	\$16.53	\$0.00	\$60.83
9	75	\$33.53	\$13.00	\$16.91	\$0.00	\$63.44
10	80	\$35.77	\$13.00	\$17.27	\$0.00	\$66.04

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$20.89	\$13.00	\$0.63	\$0.00	\$34.52
2	45	\$20.89	\$13.00	\$0.63	\$0.00	\$34.52
3	50	\$23.21	\$13.00	\$15.13	\$0.00	\$51.34
4	50	\$23.21	\$13.00	\$15.13	\$0.00	\$51.34
5	55	\$25.53	\$13.00	\$15.51	\$0.00	\$54.04
6	60	\$27.85	\$13.00	\$15.88	\$0.00	\$56.73
7	65	\$30.17	\$13.00	\$16.26	\$0.00	\$59.43
8	70	\$32.49	\$13.00	\$16.62	\$0.00	\$62.11
9	75	\$34.82	\$13.00	\$17.00	\$0.00	\$64.82
10	80	\$37.14	\$13.00	\$17.37	\$0.00	\$67.51

Notes:

Apprentice to Journeyworker Ratio:1:1

TERRAZZO FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	02/01/2022	\$56.09	\$11.39	\$22.34	\$0.00	\$89.82
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Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.05	\$11.39	\$22.34	\$0.00	\$61.78
2	60	\$33.65	\$11.39	\$22.34	\$0.00	\$67.38
3	70	\$39.26	\$11.39	\$22.34	\$0.00	\$72.99
4	80	\$44.87	\$11.39	\$22.34	\$0.00	\$78.60
5	90	\$50.48	\$11.39	\$22.34	\$0.00	\$84.21

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$42.58	\$9.10	\$17.72	\$0.00	\$69.40
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.30	\$9.10	\$17.72	\$0.00	\$68.12
For apprentice rates see "Apprentice- LABORER"						
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.18	\$9.10	\$17.72	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$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>	12/01/2021	\$37.92	\$13.41	\$16.01	\$0.00	\$67.34
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2021	\$53.41	\$9.10	\$18.17	\$0.00	\$80.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2021	\$55.41	\$9.10	\$18.17	\$0.00	\$82.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2021	\$45.48	\$9.10	\$18.17	\$0.00	\$72.75
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2021	\$47.48	\$9.10	\$18.17	\$0.00	\$74.75
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2021	\$37.34	\$13.41	\$16.01	\$0.00	\$66.76
WAGON DRILL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2021	\$41.43	\$9.10	\$17.57	\$0.00	\$68.10
	06/01/2022	\$42.43	\$9.10	\$17.57	\$0.00	\$69.10
	12/01/2022	\$43.43	\$9.10	\$17.57	\$0.00	\$70.10
	06/01/2023	\$44.43	\$9.10	\$17.57	\$0.00	\$71.10
	12/01/2023	\$45.68	\$9.10	\$17.57	\$0.00	\$72.35
For apprentice rates see "Apprentice- LABORER"						

Issue Date: 03/18/2022

Wage Request Number: 20220317-060

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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 1 (HEAVY & HIGHWAY)</i>	12/01/2021	\$41.43	\$9.10	\$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>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2022	\$63.39	\$13.57	\$17.26	\$0.00	\$94.22
	09/04/2022	\$63.49	\$14.07	\$18.36	\$0.00	\$95.92
	02/26/2023	\$65.19	\$14.07	\$18.36	\$0.00	\$97.62
	09/03/2023	\$66.94	\$14.07	\$18.36	\$0.00	\$99.37
	03/03/2024	\$68.74	\$14.07	\$18.36	\$0.00	\$101.17
	09/01/2024	\$70.54	\$14.07	\$18.36	\$0.00	\$102.97
	03/02/2025	\$72.34	\$14.07	\$18.36	\$0.00	\$104.77
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.

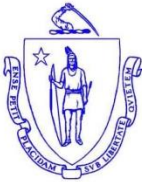
All steps are six months (1000 hours.)

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.



THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF LABOR
DIVISION OF OCCUPATIONAL SAFETY
PREVAILING WAGE PROGRAM
www.mass.gov/dos/pw

NOTICE: TO AWARDING AUTHORITIES AND CONTRACTORS

ISSUED: SEPTEMBER 1, 2006

DRIVERS WHO HAUL BITUMINOUS CONCRETE (ASPHALT)

The Massachusetts Supreme Judicial Court recently affirmed that drivers who haul bituminous concrete to public construction projects are not covered by the Prevailing Wage Law while off-site, including time spent over-the-road and picking-up materials. These drivers are covered by the Prevailing Wage Law only while on-site at the public construction project.

In Teamsters Joint Council No. 10 v. Department of Labor, et al., 447 Mass. 100 (2006), the SJC upheld a 2001 administrative decision limiting the applicability of prevailing wage rates to the time bituminous drivers spend at the public construction site. This most recent decision of the SJC followed a 1989 ruling that had upheld an earlier Department of Labor (and Industries') policy that had deemed this category of drivers to be "teamsters" under the Law and, therefore, entitled to prevailing wage rates. See Construction Industries of Massachusetts v. Commissioner of Labor and Industries, 406 Mass. 162 (1989). However, the earlier court case had left open the question of whether this entitled these bituminous drivers to prevailing wage rates for their over-the-road time as well as their on-site time. This most recent decision has now answered that question.

All of the requirements of the Prevailing Wage Law, including certified weekly payroll requirements, apply to bituminous drivers for all time spent at the public construction site.

DRIVERS WHO HAUL READY-MIX CONCRETE (CEMENT)

Drivers who haul ready-mix concrete to public construction projects are not covered by the Prevailing Wage Law while off-site, including time spent over-the-road and picking-up materials. These drivers are covered by the Prevailing Wage Law while on-site at the public construction project. This applicability determination was established by a 2001 administrative decision of the Department of Labor's Division of Occupational Safety.

All of the requirements of the Prevailing Wage Law, including certified weekly payroll requirements, apply to ready-mix drivers for all time spent at the public construction site.

Please feel free to contact the Division of Occupational Safety at 617-626-6953 if you have any questions. Questions about enforcement of the Prevailing Wage Law may be directed to the Attorney General's Fair Labor and Business Practices Division at 617-727-3465

The Massachusetts Prevailing Wage Law
M.G.L. ch. 149, §§ 26 – 27

NOTICE TO AWARDING AUTHORITIES

- The enclosed wage schedule applies only to the specific project listed at the top and will be updated for any public construction project lasting longer than one (1) year.
- You should request an updated wage schedule from the Division of Occupational Safety if you have not opened bids or selected a contractor within 90 days of the date of issuance of the enclosed wage schedule.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project for which it has been issued.
- Once a contractor has been selected by the awarding authority, the wage schedule shall be made a part of the contract for that project.

NOTICE TO CONTRACTORS

- The enclosed wage schedule, and any updated schedule, must be posted in a conspicuous place at the work site during the life of the project.
- The wages listed on the enclosed wage schedule must be paid to employees on public works projects regardless of whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- The enclosed wage schedule applies to all phases of the project including the final clean up. Contractors whose only role is to perform final clean up must pay their employees according to this wage schedule.
- All apprentices must be registered with the Massachusetts Division of Apprentice Training in order to be paid at the reduced apprentice rates. If a worker is not registered with the Division of Apprentice Training, they must be paid the “total rate” listed on the wage schedule regardless of experience or skill level. For further information, please call (617) 727-3486 or write to the Division of Apprentice Training, 399 Washington Street, 4th Floor, Boston, MA 02108

**WEEKLY PAYROLL RECORDS REPORT
& STATEMENT OF COMPLIANCE**

In accordance with Massachusetts General Law c149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority. This is required to be done on a weekly basis. Once collected, the awarding authority is also required to preserve those records for three years.

In addition, each such contractor, subcontractor or public body shall furnish to the Department of Labor & Workforce Development/Division of Occupational Safety within fifteen days after completion of its portion of the work a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

_____, 2022

I, _____,

(Name of signatory party) (Title)

do hereby state:

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

_____ on the _____

(Contractor, subcontractor or public body) (Building or project)

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

Signature _____

Title _____

DIVISION OF OCCUPATIONAL SAFETY, 399 WASHINGTON STREET, 5TH FL., BOSTON, MA. 02108

WEEKLY PAYROLL REPORT FORM

Company Name:

Prime Contractor

Project Name:

Subcontractor
List Prime Contractor:

Awarding Auth.:

Employer Signature:

Work Week Ending:

Print Name & Title:

Employee Name & Address	Work Classification	Hours Worked							(A) Tot. Hrs.	(B) Hourly Base Wage	Employer Contributions			(F) [B+C+D+E] Hourly Total Wage (prev. wage)	(G) [A*F] Weekly Total Amount
		S	M	T	W	T	F	S			(C) Health & Welfare	(D) Pension	(E) Supp. Unemp		

NOTE: Every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority.

ITEM SHEET

The Contractor shall insert unit prices for each item in ink, in both words and figures, and is to show a total bid price (unit price x estimated quantities). In the event a discrepancy between the written words and figures, the written words shall govern. In the event an error in the bidders total bid price, the corrected total bid obtained by the summation of the products of the unit prices multiplied by the respective quantities shall stand as the bidder's total bid price.

The Contractor is required to review any related plans, conduct a full site review, and read all the provisions in the document before inserting prices, and is further advised to make his own determination as to the accuracy of the estimated quantities before inserting bid prices.

Unbalanced bidding is expressly prohibited, and all unit bid prices will be compared for reasonable conformance with the engineer's estimate. The City has the right to reject award of a bid, or part thereof, to protect the public interest if it is apparent that a bid is mathematically unbalanced, the bidder front-end loads its bid as to amount to an advanced payment, there are extreme variations from the engineer's estimate or other bids received, if in the opinion of the City, the unit prices create a reasonable doubt that that apparent low bidder will actually result in the lowest cost to the Department, and/or if the overall competitive bidding process has been jeopardized.

***The estimated quantities shown here are based solely upon a reasonable assessment of the project parameters, thus the Contractor is advised that the actual quantities may vary substantially as field conditions may necessitate. Regardless of the amount of actual quantities, however, the quoted unit prices shall always apply.**

There is no separate labor charge under this bid: unit prices shall include full compensation for all labor, materials, tools and equipment, and all incidentals necessary to complete the work as specified herein.

NOTICE: In accordance with MGL Chapter 303 of the Acts of 2008 this bid contains price adjustments for 1) Fuel (combination of Gasoline & Diesel), 2) Liquid Asphalt, and 3) Portland Cement Concrete. It is the bidders' responsibility to familiarize themselves with this price adjustment program prior to entering a bid.

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
<p>ITEM 102.51: INDIVIDUAL TREE PROTECTION</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH</p>	7	EA	\$ _____
<p>ITEM 103.01: TREE REMOVED</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH</p>			

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
<p>ITEM 120.1: UNCLASSIFIED EXCAVATION</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER CUBIC YARD</p>	500	CY	\$ _____
<p>ITEM 151.: GRAVEL BORROW (TYPE B)</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER CUBIC YARD</p>	75	CY	\$ _____
<p>ITEM 170.: FINE GRADING AND COMPACTING</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER SQUARE YARD</p>	558	SY	\$ _____
<p>ITEM 402.: DENSE GRADED CRUSHED STONE FOR SUB BASE</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER CUBIC YARD</p>	17	CY	\$ _____
<p>ITEM 403.: RECLAIMED PAVEMENT FOR BASE COURSE AND/OR SUB-BASE</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER SQUARE YARD</p>	3000	SY	\$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 440.: CALCIUM CHLORIDE FOR ROADWAY DUST CONTROL THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER LB	4500	LB	\$ _____
ITEM 450.31: SUPERPAVE SURFACE COURSE – 12.5 (SIC – 12.5) THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER TON	290	TN	\$ _____
ITEM 450.32: SUPERPAVE INTERMEDIATE COURSE – 19.0 (SIC – 19.0) THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER TON	830	TN	\$ _____
ITEM 472.: HOT MIX ASPHALT FOR MISCELLANEOUS WORK THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER TON	4	TN	\$ _____
ITEM 504.: GRANITE CURB TYPE VA4 - STRAIGHT THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT	5	FT	\$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
<p>ITEM 504.1: GRANITE CURB TYPE VA4 - CURVED</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	8	FT	\$ _____
<p>ITEM 505.: GRANITE CURB TYPE VA5 - STRAIGHT</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	172	FT	\$ _____
<p>ITEM 516.: GRANITE CURB CORER TYPE A</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH</p>	10	EA	\$ _____
<p>ITEM 580.: CURB REMOVE AND RESET</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	291	FT	\$ _____
<p>ITEM 582.: GRANITE CURB CORNER REMOVE AND RESET</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH</p>	6	EA	\$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
<p>ITEM 594.: CURB REMOVED AND DISCARDED</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	98	FT	\$ _____
<p>ITEM 596.: GRANITE CURB CORNER REMOVED AND DISCARDED</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH</p>	6	EA	\$ _____
<p>ITEM 657.: TEMPORARY CONSTRUCTION FENCE</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	395	FT	\$ _____
<p>ITEM 697.1: SILT SACK</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH</p>	4	EA	\$ _____
<p>ITEM 701.: CEMENT CONCRETE SIDEWALK</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER SQUARE YARD</p>	234	SY	\$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 701.1: CEMENT CONCRETE SIDEWALK AT DRIVEWAYS THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER SQUARE YARD	40	SY	\$ _____
ITEM 703.1: CONCRETE WHEEL STOP THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH	38	EA	\$ _____
ITEM 707.01: POROUS PAVEMENT THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER SQUARE FOOT	590	SF	\$ _____
ITEM 707.8: STEEL BOLLARD THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH	10	EA	\$ _____
ITEM 707.9: BIKE RACK THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH	4	EA	\$ _____
ITEM 748.: MOBILIZATION THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER LUMP SUM	1	LS	\$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 751.: LOAM BORROW THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER CUBIC YARD	5	CY	\$ _____
ITEM 765.: SEEDING THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER SQUARE YARD	22	SY	\$ _____
ITEM 767.12: COMPOST FILTER TUBES THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT	395	FT	\$ _____
ITEM 832.: WARNING, REGULATORY, AND ROUTE MARKER THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER SQUARE FOOT	154	SF	\$ _____
ITEM 847.01: SIGN SUP POST ASSEMBLY THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH	44	EA	\$ _____
ITEM 852.01: TEMPORARY TRAFFIC CONTROL THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER LUMP SUM	1	LS	\$ _____

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
<p>ITEM 864.04.: PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC)</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER SQUARE FOOT</p>	11	SF	\$ _____
<p>ITEM 866.104: 4" REFLECTORIZED WHITE LINE (THREMOPLASTIC)</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	2266	FT	\$ _____
<p>ITEM 875.11: PARKING KIOSK REMOVE AND RESET</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH</p>	2	EA	\$ _____
<p>ITEM 999.01: MISCELLANEOUS WORK ALLOWANCE (ENG. DISCRETIONARY FUND)</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER ALLOWANCE</p>	1	ALL	\$ <u>5,000</u>
<p>ITEM 999.02: TRAFFIC CONTROL OFFICERS</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER ALLOWANCE</p>	1	ALL	\$ <u>8,000</u>

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 999.05: ELECTRICAL WORK THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER LUMP SUM	1	LS	\$ _____

<p>TOTAL BASE BID:</p> <p>_____ DOLLARS</p> <p style="text-align: center;">AND _____ CENTS</p> <p>(\$ _____)</p> <p style="text-align: center;"><i>Amount in Figures</i></p>
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ADD ALTERNATE (1)

<p>ITEM 120.1: UNCLASSIFIED EXCAVATION</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER CUBIC YARD</p>	30	CY	\$ _____
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<p>ITEM 151.: GRAVEL BORROW (TYPE B)</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER CUBIC YARD</p>	15	CY	\$ _____
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<p>ITEM 170.: FINE GRADING AND COMPACTING</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER SQUARE YARD</p>	64	SY	\$ _____
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<p>ITEM 402.: DENSE GRADED CRUSHED STONE FOR SUB BASE</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER CUBIC YARD</p>	4	CY	\$ _____
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<p>ITEM 645.148: 48 INCH CHAIN LINK FENCE (PIPE TOP RAIL)</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	42	FT	\$ _____
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ITEM 652.048: 48 INCH CHAIN LINK FENCE END POST			
THE SUM OF: _____ DOLLARS	2	EA	\$ _____
AND _____ CENTS			
(\$ _____) PER EACH			

ITEM 655.2: HAND RAIL			
THE SUM OF: _____ DOLLARS	52	FT	\$ _____
AND _____ CENTS			
(\$ _____) PER FOOT			

ITEM 657.: TEMPORARY CONSTRUCTION FENCE			
THE SUM OF: _____ DOLLARS	10	FT	\$ _____
AND _____ CENTS			
(\$ _____) PER FOOT			

ITEM 701.: CEMENT CONCRETE SIDEWALK			
THE SUM OF: _____ DOLLARS	64	SY	\$ _____
AND _____ CENTS			
(\$ _____) PER SQUARE YARD			

ITEM 767.12: COMPOST FILTER TUBES			
THE SUM OF: _____ DOLLARS	10	FT	\$ _____
AND _____ CENTS			
(\$ _____) PER FOOT			

<p>ITEM 908.5: RETAINING WALL REPAIR</p> <p>THE SUM OF: _____ DOLLARS</p> <p>AND _____ CENTS</p> <p>(\$ _____) PER ALLOWANCE</p>	1	LS	\$ _____
<p>ITEM 999.01: MISCELLANEOUS WORK ALLOWANCE</p> <p>THE SUM OF: _____ DOLLARS</p> <p>AND _____ CENTS</p> <p>(\$ _____) PER ALLOWANCE</p>	1	ALL	\$ <u>500</u>
<p>ITEM 999.02: TRAFFIC CONTROL OFFICERS</p> <p>THE SUM OF: _____ DOLLARS</p> <p>AND _____ CENTS</p> <p>(\$ _____) PER ALLOWANCE</p>	1	ALL	\$ <u>800</u>
<p>ITEM 999.01: MISCELLANEOUS WORK ALLOWANCE (ENG. DISCRETIONARY FUND)</p> <p>THE SUM OF: _____ DOLLARS</p> <p>AND _____ CENTS</p> <p>(\$ _____) PER ALLOWANCE</p>	1	ALL	\$ <u>500</u>
<p>ITEM 999.02: TRAFFIC CONTROL OFFICERS</p> <p>THE SUM OF: _____ DOLLARS</p> <p>AND _____ CENTS</p> <p>(\$ _____) PER ALLOWANCE</p>	1	ALL	\$ <u>800</u>

TOTAL ADD ALTERNATE (1):

_____ DOLLARS

AND _____ CENTS

(\$ _____)

Amount in Figures

ADD ALTERNATE (2)

<p>ITEM 638.01: PRIVACY SCREEN</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	<p>200</p>	<p>FT</p>	<p>\$ _____</p>
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<p>ITEM 645.160: 60 INCH CHAIN LINK FENCE (PIPE TOP RAIL) VINYL COATED (LINE POST OPTION)</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	<p>200</p>	<p>FT</p>	<p>\$ _____</p>
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<p>ITEM 652.060: 60 INCH CHAIN LINK FENCE END POST</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER EACH</p>	<p>2</p>	<p>EA</p>	<p>\$ _____</p>
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<p>ITEM 665.1: CHAIN LINK FENCE REMOVE AND DISCARD</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER FOOT</p>	<p>200</p>	<p>FT</p>	<p>\$ _____</p>
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<p>ITEM 999.01: MISCELLANEOUS WORK ALLOWANCE (ENG. DISCRETIONARY FUND)</p> <p>THE SUM OF: _____ DOLLARS AND _____ CENTS (\$ _____) PER ALLOWANCE</p>	<p>1</p>	<p>ALL</p>	<p>\$ <u>400</u></p>
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ITEM 999.02: TRAFFIC CONTROL OFFICERS			
THE SUM OF: _____ DOLLARS	1	ALL	\$ <u>800</u>
AND _____ CENTS			
(\$ _____) PER ALLOWANCE			

TOTAL ADD ALTERNATE (2):
_____ DOLLARS
AND _____ CENTS
(\$ _____)
<i>Amount in Figures</i>

ADD ALTERNATE (3)

ITEM 999.06: LIGHTING FIXTURES			
THE SUM OF: _____ DOLLARS	1	LS	\$ _____
AND _____ CENTS			
(\$ _____) PER LUMP SUM			

TOTAL ADD ALTERNATE (3):
_____ DOLLARS
AND _____ CENTS
(\$ _____)
<i>Amount in Figures</i>

(Total Bid Price must be placed in paragraph "C" of the Bid Form)

END OF SECTION

CITY OF NEWTON

GENERAL REQUIREMENTS

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SCOPE

- A. The purpose of this section is to define the basis of measurement and payment for the unit price or lump sum items listed in these Contract Documents.
- B. Section 9.00 of the Commonwealth of Massachusetts Department of Transportation Standard Specifications for Highways and Bridges, 2020 Edition, are hereby included in its entirety.

1.02 PAYMENT ITEMS

- A. Work Items of this Project are referenced with Item Numbers and Item Descriptions similar to those currently in use by the MassDOT, Highway Division.

1.03 BASIS OF MEASUREMENT AND PAYMENT

- A. Method of Measurement and Basis of Payment for Work Items shall be as called for under the appropriate section of the MassDOT Standard Specifications, unless modified in the Special Provisions and the Standard Specifications.

1.04 UNIT PRICES

- A. Payment will be computed on the basis of the unit price bid for each Item and the quantity of units completed. Unit prices are to include cost of all necessary materials, labor, equipment, overhead, profit and other applicable costs for items installed complete and accepted by the Engineer. No Payments will be made for the purchase or stockpile of materials or incidentals to the completed items. (See Part 1.06 of this Section.)
- B. The Owner reserves the right to increase or decrease the scope of the Contract work by 25% of the original scope.

1.05 LUMP SUM PRICES

- A. Payment will be computed on the basis of the percentage of work completed on each item in the contract BID as determined by the Engineer. Lump sum prices are to include the cost of all necessary materials, labor, equipment, overhead, profit and other applicable costs for items installed complete and accepted by the Engineer. No Payments will be made for the purchase or stockpile of materials or incidentals to the completed items. (See Part 1.06 of this Section.)
- B. The Contractor's breakdown of the lump sum bid will be used only as a guide to determine the percentage of completion.

1.06 PRICES INCLUDE

- A. The prices stated in the Proposal include full compensation not only for furnishing all the labor, equipment and material needed for, and for performing the work contemplated by the Contract, but also for assuming all risks of any kind for expenses arising to facilitate the work in a timely manner and all items and incidentals included in the Contract Documents.
- B. The Owner shall pay and the Contractor shall receive the prices stipulated in the BID made a part hereof as full compensation for everything performed and for all risks and obligations undertaken by the Contractor under and as required by the Contract.
- C. The prices for those Items which involve excavation shall include compensation for disposal of surplus excavated material and handling water.
- D. In all Items involving excavation, the price shall be based on doing the entire excavation in earth. Where rock is excavated, the price, therefore, shall be in addition to the cost of excavating earth and no deduction will be made in the amount for earth excavation.

1.07 PAYMENT

- A. In general, payment will be made for all Contract work satisfactorily completed through the end of the previous month. The payment will include any additional work which has been completed and approved and change order work agreed upon by the Owner and Contractor which has been completed and approved.
- B. Each application for payment will indicate the total of a minimum percent retainage, held by the Owner on the total of all work completed under the contract and approved for payment to-date.
- C. Monthly applications for payment may also indicate reduction or increase of the total Contract price when an approved change order results in a net reduction or net increase in the cost and quantity of work to be performed under the Contract.
- D. Special billings and charges against the Contract as credit or payment to the Owner, that are not for change order work, may be subtracted from monies due on any monthly application for payment but shall not serve to reduce the total Contract price.
- E. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Engineer multiplied by the unit price for work which is incorporated in or made necessary by the Work.

FIELD ENGINEERING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Survey work and other field engineering responsibilities of the Contractor.

1.02 REQUIREMENTS

- A. **The Contractor shall be responsible for field survey, layout of the work, and the establishing of lines and grades as shown on the plans or as directed for his use.**
- B. Layout and set all lines, levels, grades, elevations, reference marks, batter boards and measurements required for the construction of the work. Verify such marks by instrument to confirm accuracy. The Engineer shall provide information on the baseline and elevation control available.
- C. Locate and protect established horizontal and vertical survey control, and reference points, benchmarks and stone bounds.
- D. Make, check, and be responsible for all measurements and dimensions necessary for the proper horizontal and vertical layout and construction of the Work.
- E. Control datum for survey shall be as established and depicted in the Existing Conditions and Alignment & Survey Control Plan.
- F. Verify location and reset (if needed) street right-of-way bounds and markers by a Professional Land Surveyor (PLS) as per the Contract Documents.
- G. All staking shall be directed and performed by qualified engineering or surveying personnel who are trained, experienced and skilled in construction layout of the type required under this contract. The contractor shall submit the qualifications of the survey personnel to the Owner for review and approval. The owner reserves the right to evaluate the performance of the survey personnel during the course of the work and require the replacement of any personnel whose work, in the judgement of the Owner, is unsatisfactory.
- H. The Engineer will be permitted to check the lines, elevations, reference marks, batter boards, etc., set by the Contractor. The Contractor shall correct any errors found in lines, elevations, reference marks, batter boards, etc. Such a check shall not be construed as approval of the Contractor's work and shall not relieve or diminish the responsibility of the Contractor for the accurate construction and completion of the Work in compliance with the Contract Documents.
- I. The Contractor shall perform an external and garage level inspection and make a video tape and/or photographic record of all existing sideline conditions, prior to the commencement of construction activities, and/or as may be required as the construction activities progress, for the purpose of documenting all decrepit, and/or extraordinary points of concern. All video and picture making shall be done on foot and shall not be 'shot' from a vehicle. This video record shall be made by the Contractor and a copy, or a secondary video tape, shall be delivered to the Engineer. A representative from the Engineering Division shall be present at the time of the inspection and recording.

1.03 QUALITY ASSURANCE

- A. The Contractor shall employ a Civil Engineer or Land Surveyor registered in the State of Massachusetts, acceptable to the Owner.
- B. The Contractor shall submit a certificate signed by the Contractor's Engineer or Land Surveyor stating elevations and locations of the Work are in conformance with the Contract Documents.

PROJECT MEETINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Administrative and procedural requirements for project meetings.

1.02 PRECONSTRUCTION CONFERENCE

- A. The pre-construction conference will be scheduled and administered within 14 calendar days after the dated "Notice to Proceed." The Contractor shall be prepared to address such topics as understanding of the Contract Documents, Federal/State/Local requirements, projected construction schedules, major personnel, critical work areas, construction facilities and shop drawing/certificates of compliance submittals.

1.03 PROGRESS MEETINGS

- A. The Engineer will schedule and administer progress meetings and specially called meetings throughout the duration of the Work at period intervals. Weekly progress meeting are expected in the initial stages of the project. Meetings can later be scheduled to be Bi-Weekly as determined by the Engineer.
- B. The time and location of such meetings shall be designated by the Engineer and shall be convenient for all parties involved.
- C. The Engineer will prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies.

SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for submission of schedules and shop drawings.

1.02 PROGRESS SCHEDULE

- A. Within 14 calendar days after execution of the Contract Documents, the Contractor shall submit to the Engineer for review a construction progress schedule conforming to requirements specified. This schedule should show the proposed dates of commencement and completion of each of the various subdivisions of work required under this Contract and the anticipated monthly percentage of completion, based on the total contract price. The Contractor shall be responsible for updating, and/or revising, this schedule whenever directed by the Engineer throughout the duration of the Contract. The schedule shall also include a Traffic Management Plan to be coordinated with City Engineering and Newton Police Department for each phase and location of work to be constructed under this contract.

- B. Special attention is directed to the requirement that the Contractor shall start the Work, as specified under this Contract, no later than 30 calendar days after the execution of the Contract Documents, unless otherwise authorized by the Owner. The Contractor shall comply with all pre-construction requirements as specified. The Owner reserves the right to delay the commencement of the Work or any part thereof if the specified requirements as determined by the Engineer have not been satisfied. The Owner further reserves the right to limit or, delay construction, or certain activities thereof, in certain areas of the Contract should the Owner deem it to be in the public's best interest and/or safety to do so.
- C. The Contractor shall contact the appropriate city authorities concerning any public or semi-public events that may occur during the construction period that may affect construction. The Contractor alone shall be responsible for arranging his construction sequence to conform to any restrictions these events may impose. No claims for extras will be allowed because of any delay, extra materials handling, extra excavation, etc. caused by the imposed restrictions. However, additional time may be granted for completion of the work to compensate for delays caused by said restrictions.

1.03 SHOP DRAWINGS

- A. Submit electronic copies of shop and working drawings in PDF format for concrete reinforcement, structural details, piping layout, wiring, materials fabricated especially for the Contract, and materials and equipment for which such drawings are specifically requested.
- B. A maximum of two (2) submittals of each shop drawing will be reviewed by the Engineer. If more submittals are required due to the Contractor's neglect or failure to fulfill the requirements of the Contract plans and/or specifications, or to make corrections or modifications required by the Engineer in the review of the first two submittals, the Engineer will review the submittal and the Contractor will be responsible for the cost of the review, as determined by the Owner based on the Engineer's documentation of time and rates for additional services established in the Engineering Agreement between the Owner and the Engineer.
- C. If re-submittals on shop and working drawings are required, the Engineer will retain three (3) copies and three (3) copies will be returned to the Contractor. When re-submittals are returned to the Engineer, electronic copies in PDF format, of the complete submittal shall again be required.
- D. Such drawings shall show the principal dimensions, weight, structural and operating features, space required, clearances, type and/or brand of finish or shop coat, grease fittings, etc., depending on the subject of the drawing. When the dimensions are of particular importance, or when specified, the drawings shall be certified by the manufacturer or fabricator as correct for the Contract. The Contractor shall also be required to certify on the submitted drawings or catalog cuts that the equipment or the assembly are accepted by him and in conformance with the Plans and Specifications.
- E. When so specified or if considered by the Engineer to be acceptable, manufacturer's specifications, catalog data, descriptive matter, illustrations, etc., may be submitted in place of shop and working drawings.
- F. The Contractor shall be responsible for the prompt and timely submittal of all shop and working drawings to eliminate delay to the Work due to the absence of such drawings. All shop and working drawings must be submitted to the Engineer prior to incorporation into the Work, unless otherwise permitted by the Engineer. Prior to the submittal of any shop drawings, the Contractor shall submit a schedule of proposed shop drawing transmittals. The schedule shall identify the subject matter of each transmittal, the corresponding specification section number and the proposed date of submission. Prior to and during the progress of the Work the schedule shall be revised and resubmitted as requested by the Engineer.

- G. No material or equipment shall be purchased or fabricated for the Contract until the required shop and working drawings have been submitted as hereinabove provided and reviewed for conformance to the Contract requirements. All such materials and equipment and the work involved in their installation or incorporation into the Work shall then be as shown in and represented by said drawings.
- H. Until the necessary review has been made, the Contractor shall not proceed with any portion of the Work for which review is required.
- I. All shop and working drawings shall be submitted to the Engineer by and/or through the Contractor, who shall be responsible for obtaining shop and working drawings from his subcontractors and returning reviewed drawings to them. All drawings shall be clearly marked with the names of the Owner, Contractor, and building, equipment, or structure to which the drawing applies, and shall be suitably numbered. Submitted shop drawings shall be accompanied by a multi-part letter of transmittal provided by the Engineer and completed by the Contractor as directed by the Engineer.
- J. Only drawings which have been checked and corrected by the fabricator should be submitted to the Contractor by his subcontractors and vendors. Prior to submitting drawings to the Engineer, the Contractor shall check thoroughly all such drawings to satisfy himself that the subject matter thereof conforms to the Drawings and Specifications in all respects. All drawings which are correct shall be marked with the date, checker's name, and indication of the Contractor's approval, and then shall be submitted to the Engineer; other drawings shall be returned for correction.
- K. If a shop drawing shows any deviation from the Contract requirements, the Contractor shall make specific mention of the deviations in his letter of transmittal.
- L. The review of shop and working drawings by the Engineer will be general only, and nothing contained in this Section shall relieve, diminish or alter in any respect the responsibilities of the Contractor under the Contract Documents and in particular, the specific responsibility of the Contractor for details of design and dimensions necessary for proper fitting and construction of the work as required by the Contract and for achieving the result and performance as specified.
- M. Should the Contractor submit equipment that requires modifications to the structures, piping, electrical conduit, wires, appurtenances, or layouts etc., either existing or as detailed on the Drawings, he shall also submit details of the proposed modifications. If such equipment and modifications are accepted, the Contractor, at no additional cost to the Owner, shall do the work necessary to make such modifications.
- N. The Contractor shall furnish additional copies of shop drawings or catalog cuts when so requested.

1.04 JOB-MIX FORMULA

- A. Work shall not begin on any Newton project nor shall any mixture be accepted until the Contractor has submitted to the Engineer a specific job-mix formula for the particular uniform combination of materials and sources of supply to be used on each project in conformance with the requirements of Section M3 of MassDOT's Standard Specifications. The job-mix formula shall be submitted in writing by the Contractor to the City at least 30 days prior to the start of paving operations.

QUALITY CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for Contractor's quality control of products, suppliers, manufacturers, services, site conditions, and workmanship, to produce work of the specified quality.

1.02 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Comply fully with manufacturers' instructions, including each step in sequence.
- B. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- D. Perform work by persons qualified to produce workmanship of specified quality.
- E. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.03 FIELD SAMPLES

- A. Install field samples at the site as required by individual specifications sections for review.
- B. Acceptable samples represent a quality level for the Work.
- C. Where field sample is specified to be removed, clear area only after field sample has been accepted by the Engineer.

1.04 CERTIFIED WELDERS

- A. Structural welds shall be made only by operators who have been qualified by tests, as prescribed in the "Standard Qualification Procedure" of the American Welders Society, to perform the type of work required.
- B. Pipe welds shall be made only by operators who have been qualified by the National Certified Pipe Welding Bureau and each operator's qualification record shall be submitted to the Engineer before any work is performed.
- C. Shop welding shall be in accordance with the "Code for Welding in Building Construction".

TESTING LABORATORY SERVICES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Qualification, duties, and responsibilities of testing laboratories. Also, coordination and scheduling are responsibilities of the Contractor.
- B. Related Sections
 - 1. Materials and Equipment

1.02 PAYMENT PROCEDURES

- A. Initial Testing: Unless otherwise specified herein, the Owner will pay for additional initial testing services required by the Engineer.
- B. Retesting: When initial tests indicate noncompliance with the Contract Documents, subsequent retesting occasioned by the noncompliance shall be performed by the same testing agency, and costs thereof will be deducted by the Owner from the Contract Sum.
- C. Contractor's Testing: Inspecting and testing performed exclusively for the Contractor's convenience or as required of him by the technical specifications shall be the sole responsibility of the Contractor.

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM)
 - 1. E-329-90, Use in the Evaluation of Testing and Inspection Agencies as Used in Construction.

1.04 REQUIREMENTS

- 1. Asphalt material will only be accepted by the City if the test results from acceptance samples obtained at the production plant and from the compacted pavement indicate conformance to the approved job-mix formula and the quality limits specified in Section M3 of MassDOT's Standard Specifications.
- 2. Work included:
 - 1. Cooperate with the Owner's selected testing agency and all others responsible for testing and inspecting the Work.
 - 2. Provide other testing and inspecting as specified to be furnished by the Contractor in this Section and/or elsewhere in the Contract Documents.
 - 3. Where no testing requirements are described, but the Owner directs testing, the Contractor shall provide testing under the requirements of this Specification.

1.05 QUALITY ASSURANCE

- A. The testing laboratory will be qualified to the Owner's approval in accordance with ASTM E329-90.
- B. Regulatory requirements
 - 1. Testing, when required, will be in accordance with all pertinent codes, regulations, and with selected standards of the American Society for Testing and Materials.
 - 2. Regulatory Requirement Inspections and tests required by codes or ordinances, or by a plan approved authority, and which are made by a legally constituted authority, shall be the responsibility of and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Comply with pertinent provisions of the Materials and Equipment section.
- B. Promptly process and distribute, to the Engineer, required copies of test reports and instructions to assure necessary retesting and replacement of materials with the least possible delay in progress of the Work.

1.07 SCHEDULING

- A. Establishing schedule
 - 1. By advance discussion with the testing laboratory selected by the Owner, determine the time required for the laboratory to perform its tests and to issue each of its findings.
 - 2. Provide all required time within the construction schedule.
 - 3. Coordinate testing activity with the appropriate testing laboratory.
- B. Revising schedule
 - 1. When changes of construction schedule are necessary during construction, coordinate all such changes with the testing laboratory as required.
- C. Adherence to schedule
 - 1. When the testing laboratory is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra charges for testing attributable to the delay may be back-charged to the Contractor and shall not be borne by the Owner.

PART 3 EXECUTION

3.01 FIELD QUALITY CONTROL

- A. Representatives of the testing laboratory shall have access to the Work at all times and at all locations where the Work is in progress. Provide facilities for such access to enable the laboratory to perform its functions properly.

- B. All specimens and samples for testing, unless otherwise provided in the Contract Documents, shall be taken by the testing personnel. All sampling equipment and personnel will be provided by the testing laboratory. All deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.
- C. All work constructed as a deviation from the Contract Documents shall be approved prior by the Engineer in writing. All subject work shall be documented and the submission of required as-builts will be the responsibility of the Contractor.

TEMPORARY UTILITIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for temporary utilities required during construction.

1.02 GENERAL REQUIREMENTS

- A. The Contractor is responsible for payment of all costs associated with the installation and operation of all temporary utilities necessary for the completion of the work. The Contractor shall arrange with the Engineer and Owner methods of determining monthly utility costs for Temporary Utilities prior to connection of any temporary systems. The Contractor shall pay the Owner on a monthly basis for all temporary utility costs. The Temporary Utilities to be paid by the Contractor include, but are not limited to the following: Electricity, Water, Sanitary, Heating, Ventilation, Plumbing and other services required to complete the work.

1.03 TEMPORARY SANITARY FACILITIES

- A. Provide adequate sanitary facilities for the use of those employed on the Work. Sanitary facilities shall be made available when the first employees arrive on the site of the Work, be properly secluded from public observation, and be maintained during the progress of the Work in suitable numbers. The location for the placement of sanitary facilities shall be approved in writing by the Engineer.
- B. Maintain sanitary facilities in an orderly and sanitary condition at all times and enforce their use. Rigorously prohibit the committing of nuisances on the site of the Work, on the lands of the Owner, or any adjacent property.

TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for cleaning, maintenance of the project site, barriers and fences required during construction.

1.02 CLEANING DURING CONSTRUCTION

- A. Contractor shall perform clean-up operations during construction as herein specified, or as specified elsewhere within the Contract Documents.

1. Control accumulation of waste materials and rubbish; promptly dispose of off-site. Bear all costs, including fees resulting from disposal.
 2. Maintain project in accordance with all local, State and Federal Regulatory Requirements.
 3. Store volatile wastes in covered metal containers and remove from premises.
 4. Prevent accumulation of wastes that create hazardous conditions.
 5. Provide adequate ventilation during use of volatile or noxious substances
- B. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
1. Do not burn or bury rubbish and waste materials on site.
 2. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
 3. Do not dispose of wastes into streams or waterways.
 4. Use only those materials which will not create hazards to health or property, and which will not damage surfaces.
 5. Execute cleaning to ensure that the buildings, the sites, and adjacent properties are maintained free from accumulations of waste materials and rubbish and wind-blown debris, resulting from construction operations.
 6. Provide on-site containers for collection of waste materials, debris, and rubbish.
 7. Remove waste materials, debris, and rubbish promptly from the site and dispose of at legal disposal areas off the construction site.
 8. During its progress, the work and the adjacent areas affected thereby shall be kept cleaned up and all rubbish, surplus materials, and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.
 9. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes, structures, work done under this contract, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, pipes, structures, and work, etc. shall, upon completion of the work, be left in a clean and neat condition.

1.03 DUST CONTROL

- A. Provide adequate means for the purpose of preventing dust caused by construction operations throughout the period of the construction contract.
- B. This provision does not supersede any specific requirements for methods of construction or applicable general conditions or performance obligations of the Contractor.
- C. Adequate dust control shall be applied as, and when, directed by the Engineer. No additional compensation will be made for such work and shall be incidental to the Contract.

1.04 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
- B. Minimize amount of bare soil exposed at one time.
- C. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.
- D. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.
- E. Construct sediment control devices for discharge from dewatering trenches.
- F. Construct all sedimentation control devices shown on the plans.

1.05 NOISE CONTROL

- A. Develop and maintain a noise-abatement program and enforce strict discipline over all personnel to keep noise to a minimum.
- B. Execute construction work by methods and by use of equipment which will reduce excess noise.
 - 1. Equip air compressors with Silencers, and power equipment with mufflers.
 - 2. Manage vehicular traffic and scheduling to reduce noise.

1.06 POLLUTION CONTROL

- A. Special care shall be taken to prevent contamination or muddying up or interfering in any way with the stream flows, if any along the line of work. No waste matter of any kind will be allowed to discharge into the stream flows or impounded water of any pools or other bodies of water.

1.07 SURFACE WATER CONTROL

- A. Take all precautions to prevent damage to the work or equipment by high waters or by storms. The Engineer with the approval of the Owner may prohibit the carrying out of any work at any time when in his judgment, high water or storm conditions are unfavorable or not suitable, or at any time, regardless of the weather, when proper precautions are not being taken to safeguard previously constructed work or work in progress.
- B. In case of damage caused by the failure of the Contractor to take adequate precautions, the Contractor shall repair or replace equipment damaged and shall make such repairs or rebuild such parts of the damaged work, as the Engineer may require, at no additional expense to the Owner.
- C.

1.08 BARRIERS AND ENCLOSURES

A. Fences and Barricades

1. Provide and maintain temporary fences, barriers, lights, guardrails, and barricades as indicated in the Contract Documents, or as necessary to secure the Work and adjacent property and protect persons and property.
2. Obtain necessary approvals and permits and provide temporary expedients as necessary to accommodate tasks requiring items mentioned herein.

B. Protection of Trees

1. The Contractor shall notify the Tree Warden before commencing work within the drip line of any Tree.
2. If, in the opinion of the Engineer or Tree Warden, and so directed by either, the Contractor shall be required to provide adequate and satisfactory tree protection (either trunk protection or drip line protection, or both) as directed. No additional compensation will be made for such protection and shall be incidental to the Contract.
3. The Contractor shall take care not to harm trees along the sides of roads or within the existing facility in which the construction work is to be done or trees on adjacent lands except as indicated on the drawings or with the written permission of the Owner and any other owner of the trees involved. Care shall be taken not to cut tree roots to harm the growth of trees to remain.
4. If, in the opinion of the Engineer or Tree Warden, any trees damaged during construction can be repaired, the Contractor shall satisfactorily repair them at no further cost to the Owner.
5. If, in the opinion of the Engineer or Tree Warden, any tree damaged during construction cannot be repaired and should be removed, the Contractor shall satisfactorily remove and replace, with a species specified by and at the direction of the City Tree Warden at no further cost to the Owner.
- 6.

TRAFFIC REGULATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for traffic control for the duration of the Contract.

1.02 REFERENCES

- A. Manual of Uniform Traffic Control Devices (MUTCD) latest edition, including published revisions; Specifications for Temporary Traffic Control.

1.03 PERFORMANCE REQUIREMENTS

- A. The Contractor shall prepare and submit to the Engineer a proposed work schedule which complies with the plans and specifications. No work shall start until the Engineer's approval of the schedule is received.

- B. The Contractor shall have the sole responsibility for the maintenance and protection of traffic.
- C. No construction will be permitted within 300 feet of a school, day care center, or day camp when children are either arriving or departing the facility. The actual hours involved will be obtained by the Contractor from the respective facility.
- D. An authorized representative of the Contractor shall be available on a 24-hour basis for the duration of the Contract for the purpose of correcting construction related impediments or hazards. This contact shall be responsible for making correction within a timely manner. The contact information shall be supplied with the rest of the required submittals.

1.04 SUBMIT TRAFFIC PLANS

- A. In accordance with the Submittals section, submit a traffic plan delineating requirement of this section, the Contract Drawings, and the City of Newton.
- B. Traffic control plans shall detail all typical, and specific, work zones and detours for each roadway and construction activity for the project to complete the work as listed in the Contract Documents and Construction Plans, as well as the planned accessible pedestrian route through, or adjacent to, the work zone.

1.05 SITE CONDITIONS

- A. Replace at no cost to the Owner pavement markings, legends and lane arrows removed or damaged by the construction operation that are not within the Construction Plans.
- B. Restore temporary detours to original condition.
- C. Replace traffic signal loops damaged during construction **within 72 hours**.

1.06 SCHEDULING

- A. The Contractor shall minimize the construction impacts to the traveling public and abutting property owners by limiting the extent of roadway excavation and requiring the restoration of a weather-tight pavement surface as stipulated below. All proposed underground installations (utilities, drainage, sewer, etc.) must be in place prior to the beginning of roadway excavation.
- B. The Owner reserves the right to alter the lengths of excavation and other operations in order to ensure the safety of the traveling public and abutting property owners.

PART 2 PRODUCTS

2.01 TRAFFIC CONTROL DEVICES

- A. All Traffic Control Devices shall be in accordance with the MUTCD and maintained as such. All Devices shall
- B.

PART 3 EXECUTION

3.01 INSTALLATION OF TRAFFIC CONTROL DEVICES

- A. Installations shall be in accordance with all requirements and standards as specified in the Manual on Uniform Traffic Control Devices (MUTCD) and shall be the responsibility of the Contractor to install and maintain as directed by the Engineer.

MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for delivery, storage, handling and installation of systems, materials, manufactured units, equipment, components, and accessories used in the work.

1.02 DELIVERY

- A. Refer to Specifications' Sections for requirements pertaining to delivery and handling of materials and equipment.
- B. Transport products by methods to avoid product damage.
- C. Deliver in undamaged condition in manufacturers' unopened containers or packaging, and dry.
- D. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- E. Promptly inspect shipments to assure that products comply with requirements, that quantities are correct, and products are undamaged.

1.03 STORAGE AND PROTECTION

- A. Refer to Specifications' Sections for requirements pertaining to storage and protection of materials and equipment.
- B. Store products in accordance with manufacturers' instruction, with seals and labels intact and legible. Store sensitive products in weather tight enclosures and maintain within temperature and humidity ranges required by manufacturers' instructions.
- C. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering and provide ventilation to avoid condensation.
- D. Store loose granular materials on solid surfaces in a well-drained area and prevent mixing with foreign matter. Loose material shall also be protected in accordance with Erosion Control specifications.
- E. Arrange storage to provide access for inspection. Periodically inspect to assure that products are undamaged and are maintained under required conditions.
- F. Materials stored and location of storage shall be approved by the Engineer prior to delivery.

1.04 INSTALLATION STANDARDS

- A. Comply with Specifications and referenced standards as minimum requirements.
- B. Components required to be supplied in quantity within a Specification Section shall be the same and shall be interchangeable.
- C. Do not use materials and equipment removed from existing structures, except as specifically required, or allowed, by the Contract Documents.
- D. Perform work by persons qualified to produce workmanship of specified quality.
- E. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.
- F. When work is specified to comply with manufacturers' instructions, submit copies as specified in the Submittals section, distribute copies to persons involved, and maintain one set in field office.
- G. Perform work in accordance with details of instructions and specified requirements.

MAINTENANCE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for maintaining work completed under this Contract.

1.02 MAINTENANCE PERIOD

- A. The general maintenance period for all construction or materials under this Contract shall be one (1) year after the date of the acceptance of the work by the Owner, or as provided by other sections of this Specification.
- B. If the Owner puts any structure or equipment to use prior to acceptance of all work under the Contract, the maintenance period for such structures or equipment shall be calculated from the time use begins.
- C. Contractor agrees to replace the material which does not conform to the Contract requirements, and to repair any damage of material or work without cost to the Owner, to the satisfaction of Engineer, in conformance with Contract Documents provided orders for replacement and/or repairs are received in writing by the Contractor within the one year period.
- D. This Section shall in no way limit the duration of the Contractor's responsibility for the correction of any defect due to workmanship or materials provided by the Contractor which are not in compliance with the Contract Documents.

1.03 ABUSE OF WORK

- A. Contractor is not obligated to perform work of replacement or repair that he may prove is required because of abuse by parties other than the Contractor, after the date the Owner puts to continuous use the work requiring replacements or repair, or after date the Owner has approved the Certificate of Completion.

1.04 EMERGENCY REPAIRS

- A. If the Owner deems necessary, the Owner shall order replacement or repairs be undertaken within 24 hours.
- B. If the Contractor delays or fails to make the ordered replacement or repairs within the time specified, the Owner shall have the right to make such replacements or repairs and the expense shall be deducted from moneys due the Contractor, or moneys of the Contractor retained by the Owner.

END OF SECTION

CITY OF NEWTON

SCOPE OF WORK

The work under this contract consists of furnishing all necessary labor, materials and equipment required for the full depth reclamation and application of intermediate and surface courses. In addition, the contractor shall be expected to install new ADA compliant walkways, driveway aprons, adjust castings, reset and install new granite curb and all other work as shown on the plans, as described in the Contract Documents (unless specifically indicated as not to be done), and as directed by the City Engineer. The work shall be performed at the Pearl Street Parking Lot, Newton.

All work done under this contract shall be in conformance with:

- the City of Newton Standard Specifications and General Construction Details,
- the Commonwealth of Massachusetts Department of Transportation Standard Specifications for Highways and Bridges, 2020 Edition, as amended,
- the latest Massachusetts Department of Transportation Construction Standard Details,
- the 2006 Massachusetts Highway Department Project Development and Design Guide dated February 25, 2010,
- the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD) with revisions and Massachusetts Amendments,
- the 1990 Standard Drawings for Signs and Supports,
- the 1968 Standard Drawings for Traffic Signals and Highway Lighting,
- the latest edition of American Standard for Nursery Stock,
- the Contract Project Manual with any Project Addenda.

The General Conditions, Supplementary Conditions and Special Provisions shall take precedence over the General Requirements of Division I of the MassDOT Standard Specifications.

References within the Standard Specifications to MassDOT, the Department, or the Engineer shall, for the purposes of this Contract, be construed to mean the City of Newton or its designated representative.

ARCHITECTURAL ACCESS BOARD & AMERICANS WITH DISABILITIES ACT TOLERANCES AND STANDARDS

The Contractor is hereby notified that they are ultimately responsible for constructing all project elements in strict compliance with the current AAB/ADA rules, regulations, and standards.

All construction elements in this project associated with sidewalks, walkways, ramps, and curb cuts are controlled by 521CMR - Rules and Regulations of the Architectural Access Board (AAB). The AAB Rules and Regulations specify maximum slopes and minimum dimensions required for construction acceptance. There is no tolerance allowed for slopes greater than the maximum slope or for dimensions less than the minimum dimensions.

Contractors shall establish grade elevations at all curb cut locations and shall set transition lengths according to the appropriate table in the Construction Standards (or to the details shown on the plans).

ORDERING OF MATERIALS AND DRAWINGS

The Contractor shall provide the Engineer within 30 days of receipt of the contract, written evidence that:

1. Contractor has ordered the shop drawings for the materials for which shop drawings are required for this contract.
2. Contractor has ordered from a supplier or manufacturer materials necessary to complete the project.

The Contractor shall further provide the Engineer written evidence within 30 days of receipt of the Contract that these orders have been confirmed in writing by the manufacturer with delivery dates appropriate for timely completion of the project. These confirmations of orders will become part of the project records.

Failure to comply with any of the ordering requirements shall nullify a request for an extension of the project completion date.

SHOP DRAWING SUBMITTAL (Supplementing Subsection 5.02 of MassDOT's Standard Specifications)

The following is a list of items and materials that require shop drawing or catalog cut approval:

1. **Independent Testing Laboratory to be used**
2. **Individual Tree Protection**
3. **Gravel Borrow (Type B)**
4. **Dense Graded Crushed Stone for Sub-base**
5. **SUPERPAVE Hot Mix Asphalt Job Mix Formula**
6. **Granite Curbing**
7. **Temporary Construction Fence**
8. **Silt Sack**
9. **Cement Concrete**
10. **Concrete Wheel Stop**
11. **Bike Rack**
12. **Detectable Warning Panels**
13. **Loam and Seed**
14. **Compost Filter Tubes**
15. **Porous Pavement (see specification)**
16. **Hand Rail Submittals**
17. **Signage**
18. **Qualifications of construction field survey personnel**
19. **Name and Certification Number of the Massachusetts Certified Arborist**
20. **Epoxy Setting Compound**
21. **Electrical Work Submittals**

JOINTS (Supplementing Subsection 460.49 of MassDOT's Standard Specifications)

The application of hot poured rubberized asphalt sealer, where required in accordance with Subsection 460.49 of the Standard Specifications, shall be considered incidental to the work included under Items 450.22 through 450.53.

CONCURRENT WORK BY OTHERS WITHIN PROJECT LIMITS (Supplementing Subsection 5.06 of MassDOT's Standard Specifications)

Concurrent work may be in progress in the project areas by the City of Newton or utility companies or others. The Contractor is required to coordinate his activities with all work by others within and adjacent to the project limits.

No additional payments will be allowed for any disruption of work schedule caused by or required to coordinate work in this contract and work to be performed by others.

CONSTRUCTION (STAKES) STAKING (Supplementing Subsection 5.07 of MassDOT's Standard Specifications)

The Contractor shall furnish all the surveys, establish the line and grade, and layout the proposed work as shown on the plans or as directed. All survey work will be in accordance with MassDOT, Highway Division standards and done by a licensed surveyor registered in Massachusetts. Cost of survey work shall be deemed to be included in the contract bid prices and no additional payment shall be made therefor.

STEEL PLATES IN CONSTRUCTION ZONES (Supplementing Subsection 7.09 of MassDOT's Standard Specifications)

At the end of each working day, trenches in areas of public travel shall be backfilled and covered with steel plates, each edge of such plates shall either be beveled or protected by a slope of two (2) feet horizontally to one (1) inch vertically. Any temporary patching material may be used to construct the ramps. The cost of necessary patching materials, and their maintenance and removal, will be considered incidental to the item involved with no separate payment.

PUBLIC SAFETY AND CONVENIENCE (Supplementing Subsection 7.09 of MassDOT's Standard Specifications)

Vehicular and pedestrian travel on the public way shall be maintained by the Contractor during construction and access to abutting land shall be provided at all times. If so directed, temporary walkways will be provided by the Contractor to ensure safe passage under various weather conditions.

PROPERTY BOUNDS (Supplementing Subsection 7.13 of MassDOT's Standard Specifications)

The Contractor shall exercise due care when working around all property bounds, which are to remain. The Contractor shall verify the location and reset (if needed) any street right-of-way bounds or markers damaged or moved by result from the actions of the Contractor, the bound shall be accurately replaced and/or realigned by the Contractor as required by the Engineer. The Contractor shall employ a Land Surveyor registered in Massachusetts to perform this work. No further compensation will be due the Contractor for the materials and labor required to re-establish a bound disturbed by the Contractor, except as otherwise noted herein.

PROTECTION OF UNDERGROUND FACILITIES

The Contractor's attention is directed to the necessity of making his own investigation in order to assure that no damage to existing structures, drainage lines, traffic signal conduits, etc., will occur. The Contractor shall notify the City of Newton and Mass. DIG SAFE and procure a DIG SAFE number for each location prior to disturbing the existing ground in any way.

DIG SAFE Call Center 1-888-344-7233

The Contractor shall notify the City and Dig Safe 72 hours prior to start of construction.

NOTICE TO OWNERS OF UTILITIES (Supplementing Subsection 7.13 of MassDOT's Standard Specifications)

The Contractor shall give written notice to all public service corporations or officials, owning or having charge of public or privately owned utilities, of his intention to commence operations affecting such utilities one (1) week in advance of the commencement of such operations. The Contractor shall, at the same time, file a copy of such notice with the Engineer. Before commencing work on service connections, the Contractor shall contact the serving utility to ensure that proper construction procedures are followed.

The following are the names and addresses of some of the agencies which may be affected, and must be notified. Completeness of this list is not guaranteed. The Contractor shall ensure that all affected agencies are notified.

City Contract: Lou Taverna, ltaverna@newtonma.gov, (617) 796-1020
City Construction: Frank Nichols, fnichols@newtonma.gov, (617) 796-1033
Police: Lieutenant Chuck Leone, cleone@newtonma.gov, (617) 796-2146
Fire: Fire Prevention line, (617) 796-2210
Fire Alarm & Wires Division: Glenn Manning (617) 796-2256
Deputy Commissioner (Tree Warden) Marc Welch (617) 796-1500

Water/Sewer/Drain: Bob Sullivan, Chris Casto, Livio Cence (617) 796-1640
National Grid/Gas: Tammy Saporitio, 978-270-5205 tammy.saporitio@nationalgrid
Eversource/Electric: Kim Khounesombat kim.khounesombat@eversource.com
MWRA: Ralph Francesconi, (617) 305-5827
Comcast: Manual Furtado (508) 884-2362
RCN: Joe Volpe (617) 828-6904
Verizon: Stanley Usovicz, stanley.j.usovicz@verizon.com

NOTICE TO UNITED STATES POSTAL SERVICE (USPS) POSTMASTER

The Contractor shall give sufficient notice to the USPS Postmaster of his intention to conduct work in an area where a Mail Collection Box, Mail Transfer Box, or the service thereof may be affected by the construction operations. Before commencing work near a Mail Collection Box that will be affected by the construction, the Contractor shall contact the USPS Postmaster responsible for the Mail Box to ensure that proper procedures are followed. The Contractor may not commence work in this area until the unit has been moved by the USPS or its designee.

PROTECTION OF UTILITIES AND PROPERTY (Supplementing Subsection 7.13 of MassDOT's Standard Specifications)

The Contractor, in constructing or installing facilities, alongside or near sanitary sewers, storm drains, water or gas pipes, electric or telephone conduits, poles, sidewalks, walls or other structures, shall, at his expense, sustain them securely in place, cooperating with the officers and agents of the various utility companies and municipal departments which control them, so that the services of these structures shall be maintained. He shall also be responsible for the repair or replacement, at his own expense, of any damage to such structures caused by his acts or neglect, and shall leave them in the same condition as they existed prior to the commencement of work.

In case of damage to utilities, the Contractor shall promptly notify the owner and shall, if requested by the Engineer, furnish laborers to work temporarily under the owner's direction in providing access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by the City or by the utility company which suffers the loss. The cost of such repairs shall be borne by the Contractor, without compensation therefor.

If, as the work progresses, it is found that any of the utility structures are so placed as to render it impracticable, in the judgment of the Engineer, to do the work called for under this Contract, the Contractor shall protect and maintain the services in such utilities and structures and the City will, as soon thereafter as it reasonably can, cause the position of the utilities to be changed or take such other action as it deems suitable and proper.

If live service connections are to be interrupted by excavation of any kind, the Contractor shall not break the service until new services are provided. Abandoned services shall also be plugged off or otherwise made secure by the utility company involved.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in protecting or repairing property as specified in this section shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

The Contractor shall be required to furnish all labor, materials, and equipment necessary to protect underground structures and electrical vaults within the project site from construction debris and water penetration. When underground structures or electrical vault roofs are excavated, the Contractor shall be responsible for maintaining security of these structures or electrical vaults against unauthorized access.

The Contractor shall be responsible for leaving the structures and vaults in a state of water tightness equal to that existing at the commencement of the contract.

The Contractor will cooperate fully with all utility companies private or public, and will notify all such companies at least twenty-four hours prior to excavating in the vicinity of any utility. It is understood that the Contractor has considered in his bid the existence of the various utilities and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by him due to any interference by said utilities.

The Contractor shall pay the serving utility for their services rendered for the connection of the overhead service connections.

DRAINAGE (Supplementing Subsection 7.13 of MassDOT's Standard Specifications)

It shall be the Contractor's responsibility to maintain proper drainage in the areas under construction until the final system is put into use.

All affected existing pipes and structures within the limits of this contract shall be left in a clean and operable condition at the completion of the work. It shall be the responsibility of the Contractor to make certain that new drainage systems carrying run-off from the limit of this project operate efficiently to their points of discharge into existing systems. Debris in pipes and structures, including deposition of hazardous material as a result of the Contractor's operations shall be removed by the Contractor in accordance with state and federal guidelines without compensation.

All the above work shall be included under the relevant drainage item without additional compensation therefor. Any adjustments made to new drainage structures will be included under the contract unit price for the respective structures.

DRAINAGE SYSTEM

It shall be the Contractor's responsibility to maintain a proper drainage system at all times in the areas under construction. Existing drainage shall not be taken out of service without prior written notice to the City. All pipes and structures installed as part of this Contract shall be left in a clean and operable condition at the completion of the work.

Drainage castings in new pavement areas shall be installed at base or binder course grade, as directed by the Engineer, and reset to proposed finish surface grade prior to placement of the pavement surface course.

All existing pipes to be abandoned shall be plugged with brick masonry not less than eight (8) inches in thickness in conformance with the MassDOT Standard Specifications, Section 201.62.

No separate payment will be made for the maintenance of the existing drainage system or for plugging of pipes, but all costs in connection therewith shall be included in the unit prices bid for the various Contract items.

DRAINAGE STRUCTURES

Where new pipe is shown on the drawings to be connected into an existing drainage structure to remain, the existing structure shall be first cleaned to remove all mud, debris and other material. The existing structure wall shall be carefully and neatly cut to provide the minimum size opening required for the insertion of the new pipe. The proposed pipe end shall be set or cut off flush with the inside face of the existing structure wall and the remaining space around the pipe completely filled with cement grout for the full thickness of the structure wall.

Existing shaped inverts shall be reconstructed, as necessary to provide a smooth and uniform flow channel from the new pipe through the existing structure.

No separate payment will be made for the cost of connecting new pipes into existing structures, cleaning and necessary alterations of existing structures, but all such costs shall be taken as included in the unit prices bid for the various pipe items. In addition no separate cost will be made for existing frame and grate (or cover) to be removed and stacked, but shall be made incidental to the appropriate drainage structure items, whether it be adjusted, change in type, remodeled, abandoned, or proposed.

PROTECTION OF PERSONAL PROPERTY

The Contractor shall exercise due care when working around all personal property and roadside features which are to remain. Trees to remain within work limits shall have tree protection. Any damage resulting from the actions of the Contractor, shall be replaced and/or repaired by the Contractor as directed by the Engineer. No further compensation will be due the Contractor for the materials and labor required to protect personal property, roadside features to remain or protection for trees.

SAWCUTTING

All edges of excavation made in existing pavements, driveways and sidewalks shall be squared by sawcutting with power-driven tools to provide a neat, clean edge for joining new pavement and sidewalks. Ragged, uneven edges shall not be accepted.

Areas which have been broken or undetermined shall be edged neatly with a minimum disturbance to remaining pavement or sidewalks.

All sawcutting will be considered incidental to the associated bid items. Additional sawcutting may be required to prevent damage to adjacent structures as directed by the Engineer.

Saw-cut surfaces shall be sprayed or painted with a uniform thin coat of RS-1 asphalt emulsion immediately before placement of bituminous concrete material against the surface.

FINE GRADING AND COMPACTION

All areas consisting of existing subbase, newly placed subbase, or any other location where fine grading and compaction is necessary, or directed by the Engineer, prior to the installation of top or finish courses shall be thoroughly fine graded and compacted to provide a neat, clean surface for the installation of new materials.

WORK SCHEDULE (Supplementing Subsection 8.02 of MassDOT's Standard Specifications)

Work on this project is restricted to 7:00 A.M. to 4:30 P.M. for **Daytime** work (be advised that the City of Newton may restrict work on arterial streets between the hours of 7:00 A.M. to 9:00 A.M. and from 3:30 P.M. to 4:30 P.M. in certain situations as designated by the Engineer), 8:00 P.M. to 5:00 A.M. of the next day for **Nighttime** work, and 8:00 A.M. to 4:30 P.M. for **Weekend** (Saturday) work (be advised that the City of Newton may restrict work on arterial streets between the hours of 8:00 A.M. to 9:00 A.M. and from 3:30 P.M. to 4:30 P.M. in certain situations as designated by the Engineer). The Contractor is further advised that the hours of operations are set by law. In addition, no weekend or holiday work will be allowed unless special permission is granted. Any work to be completed as part of Nighttime or Weekend time shall be approved or directed by the Engineer. These stipulations apply to the Prime Contractor and all Subcontractors working on the same shift. The Prime Contractor will have a superintendent on site whenever work is being performed. No work shall be done on this contract on Saturdays, Sundays, or Holidays, unless approved by the City in advance. Work will not be allowed the day before or the day after a long weekend, which involves a holiday without prior approval by the City. Exceptions may be taken if so stated in the Contract Documents.

There shall be no work beyond the winter shut down date, unless approved in writing by the Engineer. Workdays shall be continuous to the winter shut down. No additional compensation shall be made for variations in Work Schedule required by the Engineer, and all costs associated with complying with work schedule shall be considered part of the contract bid price.

SCHEDULE OF OPERATIONS (Supplementing Subsection 8.02 of MassDOT's Standard Specifications)

The Contractor shall construct each phase in order as shown in the Construction Plans unless otherwise directed or approved by the Engineer. The Contractor may work on more than one phase at a time, coordinated with and approved by the Engineer. It shall be the Engineer's option to alter the phasing of work at any time during the project when a change is deemed to be in the best interest of the public. It should be noted that any costs of delays, incurred by these procedures, or changes in these procedures shall be deemed to be included in the contract prices bid and not cause for additional compensation.

PROVISIONS FOR TRAVEL AND PROSECUTION OF WORK (Supplementing Subsection 8.03 of MassDOT's

Standard Specifications)

Before starting any work under this Contract, the Contractor shall submit a Schedule of Operation, as provided in Section 8.02. This work schedule shall include a plan of his construction procedures, detours, and the traffic safety devices he will use during the prosecution of the work as set forth in Subsection 850 of MassDOT's Standard Specifications.

Any area which the Contractor may require for storage of equipment and materials, or for other purposes necessary in the performance of the work, shall be secured by the Contractor at his own expense. Materials, including excavation intended for backfill, shall not be stored or stacked on roadway surfaces unless specifically permitted by the Engineer.

In general, the Contractor shall coordinate his work with the work to be done by the public utilities or other agencies and shall so schedule operations as to cause the least interruption to the normal flow of traffic. The Contractor may be required to temporarily suspend operations when such are considered by the Engineer to be a hindrance hazard to traffic.

The Contractor shall not proceed with surfacing operations without written approval of the Engineer. The Contractor shall provide for the removal of all material spilled from his trucks on existing pavement or other property over which it is hauled, or otherwise deposited thereon whenever, in the judgment of the Engineer, the accumulation is sufficient to cause the formation of mud or dust, or interfere with drainage or create a traffic hazard.

In case of damage to utilities, the Contractor shall promptly notify the Owner and shall, if requested, furnish manpower 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 owner, either the municipality or the utility company. The cost of such repairs shall be borne by the Contractor without compensation.

The Contractor shall determine the exact location of all existing utilities before commencing work. The Contractor agrees to be fully responsible for all damages which might be occasioned by his failure to exactly locate and preserve any and all underground utilities. The Contractor shall include in his bid a sufficient allowance to cover the cost of any exploratory excavations, which are needed to verify utility locations and to accomplish all of the required work.

The Contractor shall be responsible for maintenance of flow in all water courses, drains, and other pipes in the way of the proposed work or for any conveyance of the flow to a suitable point of discharge in such a manner that there will be no flow upon or hindrance to other work or cause nuisance of any kind.

Roadways under construction shall remain open to local traffic at all times during the period of time required for the completion of the work, except when specifically directed otherwise by the City. At least one lane of traffic in each direction must be maintained at all times on all roads and all existing turning movements must be maintained through construction. Pedestrian and vehicle access to all abutting properties shall be maintained except for very short periods of time for passing of active construction equipment and vehicles working in the immediate adjacent rights-or-way. When it is necessary to deny access to a property, the Owner shall be informed at least 48 hours in advance and alternative provisions made. **An accessible route for pedestrians shall be made available at all times and shall be properly maintained as such. The accessible route shall be equal to the distance of the route provided to able pedestrians.**

Facilities shall be provided by the Contractor for the safe and convenient passage of pedestrians and vehicles through the project. Particular care should be taken to establish and maintain methods and procedures which will not create unnecessary or unusual hazards to public safety. The placement of necessary devices will be for daily work periods and shall be removed after the completion of work operations.

All proposed utility work must be completed before roadway rehabilitation begins on a particular roadway. Roadway excavations must be squared-off at the end of each day and any open trenches shall be backfilled and covered with steel plates. Backfilling and plating shall be considered incidental to the project and not be cause for additional compensation.

The Contractor may begin excavation at either end of the project but must continue from that end to the completion of the project. During non-working hours, no lateral drop-offs will be permitted within the area of excavation. The excavated areas shall be squared-off and ramped longitudinally at a rate of 12:1 or flatter to meet existing surfaces.

The City reserves the right to alter the lengths of excavation and other operations, for the convenience of the traveling public and abutting property owners.

SAFETY CONTROLS FOR CONSTRUCTION OPERATIONS (Supplementing Subsections 850.21 and 850.61 of MassDOT's Standard Specifications)

Unless otherwise provided for by specific items in this contract, furnishing safety controls for construction operations shall be considered incidental to this contract and the costs for safety controls shall be included in the various price for those contract items requiring such controls.

Positioning, adjusting and re-positioning of all devices such as traffic cones, drums, barricades, concrete barriers, high level warning devices, etc., not otherwise paid for under other items in this contract, is considered incidental and no separate payment will be made.

Signs having messages that are irrelevant to normal traffic conditions will be removed or properly covered at the end of each work period. Signs are to be kept clean at all times, and legends shall be distinctive and unmarred. The Contractor shall provide, place and erect all necessary barricades and warning signs and maintain adequate lights and illumination therefor. He shall be held responsible for all damage to the work due to any failure of signs and barricades needed to protect the work from traffic, pedestrians, or other causes.

Construction Signing and maintenance of Traffic will be paid for under Item 852.01.

TEMPORARY TRAFFIC CONTROL PLAN
Construction Staging and Scheduling

The Contractor shall prepare and submit to the Engineer a proposed work schedule which complies with the plans and specifications. No work shall start until the Engineer's approval of the schedule is received.

The Contractor shall notify the City of Newton 14 calendar days before construction starts.

Materials, including excavation intended for backfill, shall not be stored or stacked on roadway surfaces unless specifically permitted by the Engineer.

The following are the suggested stages to be followed in the prosecution of this contract. No work on any stage may begin unless all requirements of the previous stages have been met. It shall be the Engineer's option to alter the sequence of work for the project at any time during the project when a change in sequence of work is deemed to be in the best interest of the Public. It should be noted that any costs of delays, incurred by these procedures, or changes in these procedures shall be deemed to be included in the contract prices bid and not cause for additional compensation.

General Construction Stages

1. Full-Depth Reclamation
 - a. Construct all proposed utilities below the aggregate base and bring all existing utilities within the proposed roadway limits down to below the aggregate base in areas of full depth reclamation. See plans for additional requirements.
 - b. Construct areas of full depth reclamation to intermediate level as indicated in the plans. Apply a uniform tack coat at the appropriate rate between asphalt layers when applicable.
 - c. Construct areas of trench repair as directed by the Engineer.

2. Sidewalks
 - a. Construct sidewalk and islands

3. Surface Course

- a. Apply a uniform tack coat at the appropriate rate and place surface course for the entire length of the project. Surface course shall be placed after the intermediate course within time frame indicated on the plans.
- b. Apply pavement markings for entire length of project.

General Provisions for Travel and Prosecution of Work

The contractor, as directed by the Engineer, is responsible for the furnishing erecting, and maintaining the signing of the roadways, and the proper removal of the signs upon the completion of the project. Compensation for signing will be provided under the provisions of Section 850 and under the respective items therein.

Reconstruction work on the project shall not commence until the stage construction signing and traffic barriers as described in the MUTCD have been installed and approved.

Particular care shall be taken to establish and maintain such methods and procedures as will not create hazards of an unusual nature. Access to abutting properties shall be maintained in a responsible and safe manner for the duration of the construction period.

The design and placing of all safety devices shall be with the approval of the Engineer. Payments of work and materials involved in providing adequate safety procedures shall be as specified in Section 850.

The Contractor shall carry on his work concurrently and in conjunction with the Utility Companies involved with the project so as to provide for all possible cooperation towards the satisfactory completion of the work with minimum delay and inconvenience. The Contractor shall be responsible for coordination of all utility work within the project limits.

Roadway excavation must be squared-off at the end of each day. At the end of each workday, any open utility trenches shall be backfilled and covered with steel plates. Backfilling and plating shall be considered incidental to the project and not be cause for additional compensation.

The Contractor shall be responsible for maintenance of flow in all water courses, drains and other pipes in the way of the proposed work or for any conveyance of the flow to a suitable point of discharge in such a manner that there will be no flow upon or hindrance to other work or cause nuisance of any kind.

Lowering of structures in areas of full depth construction shall be considered to be for the Contractors convenience and not cause for additional compensation. Rebuilding and adjustment of such structures shall be measured and paid for under the appropriate pay items. The castings of all structures, which are required to be set or reset under this project, shall not be set complete in place to the final grade until after the bituminous concrete binder course has been completed and top course is scheduled to be completed within ten calendar days.

The Contractor shall order all materials and services required for the work immediately after the execution of the contract. The Contractor shall not start any operation until all materials required for the operation are at the site or until the Engineer is satisfied that the materials will be delivered in such order that there will be no interruption to continuous and efficient progress.

Roadways under construction shall remain open to local traffic at all times during the period of time required for the completion of the work except when specifically directed otherwise by the Engineer.

Reasonable facilities shall be provided by the Contractor for the safe and convenient passage of pedestrians and vehicles through project areas within the public right-of-way and where required by the Engineer at all times.

The placement of warning devices will be for daily work periods and shall be removed after the completion of work operations. Signs having messages that are irrelevant to normal traffic conditions will be removed or properly covered at the end of each work period. Signs are to be kept clean at all times and legends shall be distinctive and unmarred.

The Contractor shall take necessary precautions to avoid spillage from his trucks onto the traveled ways. Any material which may drop from the vehicles when being hauled over the street shall be removed immediately by the Contractor.

Sequence of Construction

It is the intent of these Special Provisions to minimize the construction impacts to the traveling public and abutting property owners by limiting the extent of roadway excavation and requiring the restoration of a weather-tight pavement surface as stipulated in the plans and specifications. All proposed underground installations must be in place prior to the beginning of any roadway paving.

The Contractor shall as required or as directed by the Engineer, lower utility castings to ensure that any interim roadway condition is safe for the traveling public. The demolition, plating, and rebuilding of utility structures as required by interim conditions shall be considered incidental to the project and not cause for additional compensation.

The Contractor shall as required or as directed by the Engineer, provide temporary backfill to ensure that any interim sidewalk condition is safe for the traveling public and provides access to all abutters. Gravel may be used as temporary fill. The placement, compaction and subsequent removal of temporary fill as required by interim conditions shall be considered incidental to the project and not cause for additional compensation. Unless directed otherwise by the Engineer, temporary gravel sidewalk surfaces shall remain in place for no more than 7 calendar days where upon the temporary fill will be removed and replaced with the final sidewalk surface.

Intermediate course will be placed on completed base course sections when there is sufficient distance to permit efficient placement operations. Only after the entire project has been completed to intermediate course level will the top course material be allowed to be placed.

The Engineer reserves the right to alter the lengths of excavation and other operations in order to ensure the safety of the traveling public and abutting property owners.

General

The following general conditions will be followed unless otherwise directed by the Engineer.

- Except as permitted by the Engineer, during the day a minimum of one travel lane in each direction must be maintained at all times on Pearl Street.
- At least one sidewalk on one side of the street shall remain open at all times.
- Pedestrian and vehicle access to all abutting properties shall be maintained except for very short periods of time. When it is necessary to deny access to a property, the owner shall be informed at least 48 hours in advance.
- Utility work shall be done prior to the roadway construction operations. The Contractor shall coordinate his work with the City and the utility companies.
- The Contractor shall coordinate his activities with construction operations that may be undertaken concurrently by others.
- Work involving fire hydrants shall be done in accordance with instructions of the City of Newton.
- Alternating fire hydrants shall be kept operative at all stages of the construction, unless otherwise directed in writing by the Engineer. No fire hydrant shall be out of order for more than 12 hours.
- New streetlights shall be installed and activated prior to deactivating the existing street lights. Existing streetlights may be removed before the installation of new lights if so directed by the Engineer; however, temporary lights shall be installed to provide acceptable lighting levels as determined by the Engineer.
- No detouring of traffic from Pearl Street shall be permitted without 72-hour advance approval by the City of Newton.

ENVIRONMENTAL CONTROLS

Contractor shall control all dirt, dust erosion and other related construction emissions from the project to the satisfaction of the City. Contractor shall comply with all applicable local, state and federal environmental regulations and permit requirements.

The Contractor shall clean and flush all affected drainage structures at the end of the work to the satisfaction of the engineer. The price associated with this work will be deemed incidental to the contract.

All construction equipment shall be fitted with suitable muffling devices so that the noise from construction operation shall be properly controlled. The Contractor shall control all dirt, dust erosion and other related construction emissions from the project to the satisfaction of the Engineer.

Calcium chloride for roadway dust control and/or water for roadway dust control shall be applied in accordance with Subsection 440 of MassDOT's Standard Specification at the direction of the Engineer. All costs in connection with the application of calcium chloride and/or water shall be included in the various payment items and no additional compensation will be made unless otherwise provided for by specific items in this contract.

EXCAVATION SUPPORT

Where the Work of the project requires installation of excavation support systems, the furnishing, installing, maintaining, and final removal as required shall be considered incidental to the item to which it pertains. Dewatering, when required, including disposal in accordance with State and Federal guidelines shall also be considered incidental.

DISPOSAL OF SURPLUS MATERIALS

All existing and other materials not required or needed for use on the project, and not required to be removed and stacked, shall become the property of the Contractor and shall be removed from the site during the construction period and legally disposed of. No separate payment will be made for this work, but all costs in connection therewith shall be included in the prices bid for various contract items.

MATERIALS REMOVED AND STACKED

Materials directed to be removed and stacked which are the property of the City, shall be removed, transported and stacked at the Department of Public Works yard at **52 Elliot Street in the Newton Highlands**. All materials shall be neatly stacked as directed by the City. In addition, all materials stacked shall be signed for by a City representative.

If the City's Representative determines that any portions of the stacked materials are unsuitable for re-use by the City, or if other owners decide to abandon part or all of their materials, such materials shall become the property of the Contractor and he shall properly dispose of them off-site subject to the regulations and requirements of local authorities governing the disposal of such materials, at no additional compensation.

CLEARING AND GRUBBING

No tree, including trees in clear & grub areas, shall be removed prior to receiving approval of the City of Newton. The removal of all trees shall be coordinated with the City of Newton prior to removal. The clearing and grubbing work shall be considered incidental to the Contract. No separate payment shall be made for clearing and grubbing.

TRAFFIC OFFICERS

Uniformed Traffic Officers will be required during the construction period. It shall be the responsibility of the Contractor to arrange for the necessary police details when approved by the City for each police detail required. This request and approval may be verbal or in writing at the discretion of the City. 48-hour notice to the Police Department is required.

The City will pay the exact charges for police details ordered, with the approval of the Engineer, by the Contractor for this project. There will be no administrative fee, mark-ups, or any other additional costs paid to the Contractor.

If the Contractor fails to cancel any police detail not needed, by the required deadline, as set forth by the Newton Police Department, the cost for such detail as invoiced to the City shall be deducted from the total reimbursement to the Contractor, unless otherwise waived by the City. There will be no separate payment for the Contractor's coordination with the Police Department or City to obtain police details.

PRICE ADJUSTMENTS

In accordance with MGL Chapter 30, Section 38A, this Contract shall be subject to the MassDOT Special provisions for price adjustments relative to energy escalation. Price adjustments for hot mix asphalt and Portland cement mixtures, diesel fuel and gasoline shall be made on a monthly basis when the monthly change from the Base Price is +/- 5 percent. Base prices for this contract shall be the period prices posted on the MassDOT website, <https://www.mass.gov/topics/highway-construction-resources>, at the time of the bid. For reference the base prices are as follows: liquid asphalt \$665.00 per ton, Portland cement \$165.52 per ton, diesel fuel \$3.376 per gallon, and gasoline \$2.958 per gallon.

END OF SECTION

CITY OF NEWTON

CONSTRUCTION SPECIFICATIONS

ITEMS

The following items reflect special conditions particular to this project. As such, they amend and/or supplement the provisions governing the Item, as described in the MassDOT Standard Specifications.

METHOD OF AWARD

TO ENSURE CONTRACTOR ACCOUNTABILITY, THE OWNER INTENDS TO AWARD ALL ITEMS TO A SINGLE CONTRACTOR. ACCORDINGLY, CONTRACTORS MUST BID ON ALL ITEMS OF WORK, AND THE LOW BIDDER WILL BE THE CONTRACTOR WHOSE TOTAL BID PRICE IS THE LOWEST. THE BID QUANTITIES ARE NOT GUARANTEED, AND THEIR PRIMARY PURPOSE IS FOR THE DETERMINATION OF THE LOW BIDDER.

102.51	Individual Tree Protection	EA
103.01	Tree Removed	EA
120.1	Unclassified Excavation	CY
151.	Gravel Borrow (Type B)	CY
170.	Fine Grading and Compacting	SY
402.	Dense Graded Crushed Stone for Sub-Base	CY
403.	Reclaimed pavement for base course and/or sub-base	SY
440.	Calcium Chloride for Roadway Dust Control	LB
450.23	SUPERPAVE Surface Course – 12.5 (SSC – 12.5)	TN
450.32	SUPERPAVE Intermediate Course - 19.0 (SIC – 19.0)	TN
472.	Hot Mix Asphalt for Miscellaneous Work	TN
504.	Granite Curb Type VA4 – Straight	FT
504. 1	Granite Curb Type VA4 – Curved	FT
505.	Granite Curb Type VA5 - Straight	FT
516.	Granite Curb Corner Type A	EA
580.	Curb Removed and Reset	FT
582.	Granite Curb Corner Remove and Reset	EA
594.	Curb Removed and Discarded	FT
596.	Granite Curb Corner Removed and Discarded	EA
638.01	Privacy Screen	FT
645.148	48 Inch Chain Link Fence (Pipe Top Rail) Vinyl Coated (Line Post Option)	FT
645.160	60 Inch Chain Link Fence (Pipe Top Rail) Vinyl Coated (Line Post Option)	FT
652.048	48 Inch Chain Link Fence End Post	EA
652.060	60 Inch Chain Link Fence End Post	EA
655.2	Hand Rail	FT
657.	Temporary Construction Fence	FT
665.1	Chain Link Fence Remove and Discard	FT
697.1	Silt Sack	EA
701.	Cement Concrete Sidewalk	SY
701.1	Cement Concrete Sidewalk at Driveways	SY
703.1	Concrete Wheel Stop	EA
707.01	Porous Pavement	SF
707.8	Steel Bollard	EA
707.9	Bike Rack	EA

748.	Mobilization	LS
751.	Loam Borrow	CY
765.	Seeding	SY
767.12	Compost Filter Tubes	FT
832.	Warning, Regulatory, and Route Marker	SF
847.01	Sign Sup Post Assembly	EA
852.01	Temporary Traffic Control	LS
864.04	Pavement Arrows and Legends Reflectorized White (Thermoplastic)	SF
866.104	4" Reflectorized White Line (Thermoplastic)	FT
875.11	Parking Kiosk Remove and Reset	EA
908.5	Retaining Wall Repair	LS
999.01	Miscellaneous Work Allowance (Eng. Discretionary Fund)	ALLOW
999.02	Allowance for Payment of Traffic Control Officers	ALLOW
999.05	Electrical Work	LS
999.06	Lighting Fixtures	LS

ITEM 102.51	INDIVIDUAL TREE PROTECTION	EACH
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DESCRIPTION

The work under this item shall conform to the relevant provisions of Sections 771 and shall be for furnishing and installing temporary tree trunk protection and for limb pruning to prevent injury to the tree from construction equipment and activities.

The purpose of this item is to prevent damage to branches, stems and root systems of existing individual trees as well as shrubs and other quality vegetation to remain, and to ensure their survival. To the extent possible, to avoid soil compaction within the root zone, construction activities including, but not limited to, vehicle movement, excavation, embankment, staging and storage of materials or equipment shall not occur underneath the canopy (drip line) of trees to remain. Where these activities will occur within 10 feet of the canopy of trees or where directed, the Contractor shall take the appropriate protective measures specified herein.

Trunk armoring is for instances where construction activity (the use of heavy equipment) comes close enough to potentially damage the tree trunk or limbs. It is to be used where shown on the plans and as directed by the Engineer.

Incidental to the cost of this item, the Contractor shall retain the services of a certified arborist, who shall make recommendations as to the specific appropriate treatment of trees within or near the work zone.

REFERENCES

If requested, the Contractor shall provide to the Engineer one copy of the latest edition of the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance: Part 1-Pruning and Part 5-Construction Management Standard. Provision of reference shall be incidental to this item.

Prior to the start of any construction activity, the Contractor shall submit the name and certification number of the Massachusetts Certified Arborist referenced herein to the Engineer for approval. Cost for Certified Arborist for all activities pertaining to this Item shall be incidental to this item.

MATERIALS

Trunk armoring shall be such that it prevents damage to the trunk from construction equipment. Selected material shall be such that installation and removal will not damage the trunk.

Acceptable materials include 2x4 re-cycled plastic cladding with wire or metal strapping, Height of cladding shall be from base of tree (including root flare) to the bottom of the first branch or as recommended by the Arborist. Material and methods shall be approved by the Engineer.

Incidental to this item, the Contractor shall provide water for maintaining plants in the construction area that will have exposed root systems for any period during construction.

Other materials or methods may be acceptable if approved by the City of Newton.

CONSTRUCTION METHODS

Prior to construction activities, the Engineer, the Contractor, the City Tree Warden, and the Arborist, shall review trees noted on the plans to be protected and as required by the Engineer shall walk the site with the Engineer and City Tree Warden to identify which trees will require protection and to determine approved measures. Final decision as to trees armored and/or pruned shall be per the Engineer.

Care shall be taken to avoid damage to the bark during installation and removal of armoring. Trunk armoring shall be replaced and maintained such that it is effective for as long as required and shall be removed immediately upon completion of work activities adjacent to trees.

Pruning of limbs shall conform to the techniques and standards of the most recent ANSI A300 standards.

Some pruning of roots and branches may be a necessary part of construction. Pruning will be performed on the same side of the tree that roots have been severed.

The Contractor's Arborist shall oversee any cutting of limbs, stem or roots of existing trees. All cuts shall be clean and executed with an approved tool. Under no circumstances shall excavation in the tree protection area be made with mechanical equipment that might damage the existing root systems.

Any tree root area exposed by construction shall be covered and watered immediately. Exposed tree roots shall be protected by dampened burlap at all times until they can be covered with soil.

Water each tree within the construction area where work is in progress twice per week until the surrounding soil of each tree is saturated for the duration of construction activities. Watering is to be implemented according to Subsection 771.74 Watering.

Where excavation within canopy is unavoidable, the Contractor shall use equipment and methods that shall minimize damage to the tree roots, per recommendations of the Certified Arborist. Such methods may require root pruning prior to, as well as during, any excavation activities.

After all other construction activities are complete, but prior to final seeding, wood chips, temporary fencing, branch protection, and trunk protection materials shall be removed and disposed off site by the Contractor at no additional cost.

DAMAGES & PENALTIES

In the event that trees designated for protection under this item are damaged, including root damage from unapproved trespassing onto the root zone, the Contractor shall, at his own expense obtain an Arborist. The Arborist shall be approved by the Engineer.

If, based on the recommendations of the Arborist, the Engineer determines that damages can be remedied by corrective measures, such as repairing trunk or limb injury, soil compaction remediation, pruning, and/or watering, the damage will be repaired as soon as possible within the appropriate season for such work and according to industry standards.

If the Engineer determines that damages are irreparable, the Contractor shall pay for the damages in the amount of \$500.00 per diameter inch at breast height (DBH) per tree.

Additionally, if the Engineer determines that the damages are such that the tree is sufficiently compromised as to pose a future safety hazard, the tree shall be removed. Tree removal will include clean-up of all wood parts, grinding of the stump to a depth sufficient to plant a replacement tree or plant, removal of all chips from the stump site, and filling the resulting hole with topsoil.

If existing shrubs, vines and groundcover which are to be saved are damaged, as determined by the Engineer, they shall be replaced with plants of equal type and size. All costs incurred shall be paid for by the Contractor at his own expense. The tree protection fence shall be removed just prior to spreading of loam.

MEASUREMENT AND PAYMENT

Item 102.51 will be measured and paid at the contract unit price per each. This will include full compensation for all labor, equipment, materials, and incidentals for the satisfactory completion of the work including the services of a certified arborist, wood chips, water, temporary fence, cutting or pruning of roots, cladding, burlap and the subsequent removal and satisfactory disposal of the protective materials upon completion of the contract.

In the event of tree damage, cost of Arborist services, of remediation measures, and/or tree removal will be borne by the Contractor.

Payment under this item will be scheduled throughout the length of contract:

- 40% of value shall be paid upon installation of trunk armoring and completion of pruning work, if required.
- 60% shall be paid at the end of construction operations that would damage the tree and after protection materials have been removed and properly disposed of by the Contractor. In the event of repairable damages, payment shall be made after the completion of remediation measures.

In the event of irreparable damage due to lack of proper protective measures being take there will be no compensation in addition to the \$500.00 per diameter inch penalty.

<u>ITEM 103.01</u>	<u>TREE REMOVED</u>	<u>EACH</u>
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DESCRIPTION

The work under these Items shall conform to the relevant provisions of Section 101 of the Standard Specifications and the following:

The work shall consist of the removal and legal immediate disposal of trees and stumps designated by the Engineer or Tree Warden to be removed, complete with the stump and major root system.

CONSTRUCTION METHOD

The trees, together with stump and major roots, shall be disposed of outside the project limits. Stumps and major root systems shall be removed by method of excavation, grinding will not be acceptable. The method of disposal of all materials shall become the responsibility of the Contractor and shall be approved by the Engineer. All methods of disposal shall be accomplished in accordance with all applicable Federal, State and local ordinances. The burning of trees, brush, stumps, etc., will not be permitted.

MEASUREMENT AND PAYMENT

Payment for tree and stump removal shall be at the Contract Unit Price bid per Each and shall include all trees (all diameters) including those with a diameter less than 9 inches and stumps (with major roots), removal, legal immediate disposal, backfill, cleanup of the site and for all other incidentals required to finish the work to the satisfaction of the Engineer. The hole left by the stump shall be backfilled with suitable material and compacted in accordance with the Standard Specifications and shall be considered incidental to this item. No trees shall be cut without the approval of the Engineer or Tree Warden and all applicable Federal, State and local regulations and laws for the posting and removal of trees shall be followed. Stump removal associated with removal of existing trees shall be paid for under Item 103.01.

ITEM 120.1

UNCLASSIFIED EXCAVATION

CUBIC YARD

DESCRIPTION

The work to be done under this item shall consist of removing and disposing of excavated materials in accordance with the relevant provisions of Subsection 120 of MassDOT's Standard Specifications, in work locations as shown on the plans or as directed by the Engineer, except for those materials for which payment is made inclusive with work specified to be performed under other items of this Contract.

CONSTRUCTION METHOD

In the event that roadway patching is needed as deemed so by the Engineer, the areas shall be saw-cut to the extents as directed by the Engineer and removed to a depth of four (4) inches. The remaining subbase shall be trimmed, fine graded, and compacted as part of this item. Any additional gravel needed shall be paid for under Item 151. Gravel Borrow. Any handwork necessary shall be considered part of the work of this section.

Before starting any excavation, the Contractor shall field check and verify all utilities, vaults, septic systems, sprinkler systems, and other sub-surface features in the project area and be sure that the excavation will not disturb or damage such features. The Contractor will coordinate his construction activities with the owners of such features and obtain approval or permits, if necessary, prior to starting the excavation. Any damage to sub-surface features during the construction process will be the responsibility of the Contractor and will be repaired by the Contractor at his own expense. If the owner so wishes, he will repair the damage himself and bill the Contractor for his expenses.

The work under this item shall include all excavation not otherwise included for payment under other items of this contract. Unclassified excavation shall include but not be limited to removal and disposal of substandard or damaged curb, curb inlets, edging, concrete, rock, cobblestones, drainage structures, castings, pipes, guardrail, fence and all other materials not classified and paid for under other items.

Edges of excavations made in existing pavements shall be squared by saw cutting with power-driven tools to provide a neat, clean edge for joining new pavement. Ragged, uneven edges shall not be acceptable. Pavement areas which have been broken or undermined shall be edged neatly with minimum disturbance to remaining pavement.

Foundations left in place under the roadway surface shall be removed to a depth of 3 feet; all other foundations left in place shall be removed to a depth of 12 inches below the finished grade.

When working next to existing retaining walls or buildings, the Contractor shall exercise extreme caution not to disturb existing walls. Any handwork necessary shall be considered part of the work of this section. If existing structures are disturbed, they shall be reconstructed at the Contractor's expense to thoroughly match the existing structure in color, texture, material and workmanship.

Removal of castings, lowering and plating of structures shall also be considered part of the work of this section.

In the event that roadway patching is needed as deemed so by the Engineer, the areas shall be saw-cut to the extents as directed by the Engineer and removed to a depth shown on the plans. The remaining subbase shall be trimmed, fine graded, and compacted as part of this item. Any additional gravel needed shall be paid for under Item 151. Gravel Borrow. Any handwork necessary shall be considered part of the work of this section.

Before starting any excavation, the Contractor shall field check and verify all utilities, vaults, septic systems, sprinkler systems, and other sub-surface features in the project area and be sure that the excavation will not disturb or damage such features. The Contractor will coordinate his construction activities with the owners of such features and obtain approval or permits, if necessary, prior to starting the excavation. Any damage to sub-surface features during the construction process will be the responsibility of the Contractor and will be repaired by the Contractor at his own expense. If the owner so wishes, he will repair the damage himself and bill the Contractor for his expenses.

The shaping, trimming, compacting and finishing of the surface of the subgrade, the grading and finishing of all unpaved areas, and the preparation of all areas for topsoil, loam, slopes, and sidewalk/roadway paving shall be made in close conformance with the lines, grades, dimensions and design shown on the plans, as described in the Field Engineering section of the General Requirements of these specifications, or as required by the Engineer.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Price bid per Cubic Yard, which price shall include all labor, materials, and equipment necessary to complete the saw-cutting, excavation and legal disposal of unwanted or surplus material not covered by other items of this contract and permits.

ITEM 151.	GRAVEL BORROW (TYPE B)	CUBIC YARD
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DESCRIPTION

Work under this Item shall conform to the relevant provisions of Subsections 150 and 170 of the MassDOT Standard Specifications and the following:

Gravel Borrow shall conform to Material Specifications M1.03.0 (Type B).

SUBMITTALS

A minimum of thirty (30) days prior to the start of any construction activity, the contractor shall submit the gravel gradation to the City for review and approval.

CONSTRUCTION METHOD

Gravel Borrow shall be placed with a maximum lift thickness of six (6) inches. Where required, trenches shall be backfilled with approved granular materials and properly compacted to the minimum density of 90 percent of the maximum density as determined by ASTM D1557 (Modified Proctor). All other gravel areas shall be compacted to the minimum density of 95 percent of the maximum density. Any settlements or other defective work and material shall be promptly repaired or replaced at the Contractor's expense. The density of the compacted fill shall be determined by the ASTM D6938 Nuclear Method or latest ASTM standard.

The shaping, trimming, compacting and finishing of the surface of the subgrade, the grading and finishing of all unpaved areas, and the preparation of all areas for topsoil, loam, slopes, and sidewalk/roadway paving shall be made in close conformance with the lines, grades, dimensions and design shown on the plans, as described in the Field Engineering section of the General Requirements of these specifications, or as required by the Engineer.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Price bid per Cubic Yard, which price shall include all labor, materials, equipment necessary, necessary testing and any other incidentals to complete the work to the satisfaction of the Engineer.

ITEM 170. FINE GRADING AND COMPACTING SQUARE YARD

DESCRIPTION

Work under this Item shall conform to the relevant provisions of Subsection 170 of the MassDOT Standard Specifications and the following:

CONSTRUCTION METHODS

All areas consisting of existing subbase, newly placed subbase, or any other location where fine grading and compaction is necessary, or directed by the Engineer, prior to the installation of top or finish courses shall be thoroughly fine graded and compacted to provide a neat, clean surface for the installation of new materials.

The shaping, trimming, compacting and finishing of the surface of the subgrade, the grading and finishing of all unpaved areas, and the preparation of all areas for topsoil, loam, slopes, and sidewalk/roadway paving shall be made in close conformance with the lines, grades, dimensions and design shown on the plans, as described in the Field Engineering section of the General Requirements of these specifications, or as required by the Engineer.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Price bid per square yard, which price shall include the shaping and compaction of the subgrade, and all labor, materials, and equipment necessary to complete the work according to the plans or as required to the satisfaction of the Engineer.

Grading and finishing other than subgrade areas or existing gravel areas to remain in place will be included in the price of the other respective items of work involved.

ITEM 402. DENSE GRADED CRUSHED STONE FOR SUB-BASE CUBIC YARD

DESCRIPTION

Work under this Item shall conform to the relevant provisions of Section 402 of the MassDOT Standard Specifications and the following:

Dense Graded Crushed Stone for Sub-base consist of crusher-run coarse aggregates of crushed stone or gravel and fine aggregates of natural sand or stone screenings uniformly pre-mixed and placed on the subgrade or sub-base in close conformity with the lines, grades, dimensions and design shown on the plans, as described in the Field Engineering section of the General Requirements of these specifications, or as required by the Engineer.

SUBMITTALS

Prior to the start of any construction activity, the contractor shall submit the dense graded crushed stone gradation to the City for review and approval.

MATERIALS

Material shall meet the requirements specified in Subsection M2.01.7 of MassDOT's Standard Specifications.

CONSTRUCTION METHODS

Grade control shall conform to the Field Engineering section of the General Requirements of these specifications. The Contractor shall furnish, set, and maintain all line and grade stakes.

The Dense Graded Crushed Stone shall be spread in layers from self-spreading vehicles equipped with automated grade control equipment. Power graders or conventional self-spreading vehicles may be used only with prior written approval of the Engineer. The Dense Graded Crushed Stone shall be placed to the tolerance as stipulated in Section 401, Gravel Sub-base of MassDOT's Standard Specifications. Suitable watering devices shall be available at the source of supply and on the project for use as directed by the Engineer to prevent segregation in transit and during spreading and to obtain proper density and stability of the mixture. The specified density of the Dense Graded Crushed Stone shall be maintained by determining the number of passes of a roller that are required to produce a constant and uniform density, after conducting a series of tests either using the sand/volume method or a nuclear device.

MEASUREMENT AND PAYMENT

Dense Graded Crushed Stone shall be at the Contract Unit Price bid per Cubic Yard, to the limits specified on the plans or as directed by the Engineer, with no percentage added, which price shall include all labor, materials, equipment, fine grading, compaction, testing, and any incidentals necessary to complete the work to the satisfaction of the Engineer.

Layout of the work to establish line and grade will be paid for at the contract unit price per lump sum under Item 999., Construction Staking.

ITEM 403. RECLAIMED PAVEMENT FOR BASE COURSE AND/OR SUB-BASE SQUARE YARD

DESCRIPTION

Work performed under this item shall conform to the relevant provisions of Subsection 403 of the Standard Specifications and the following:

CONSTRUCTION METHOD

The work under this item shall consist of full-depth pavement reclamation as specified within the Standard Specifications, including producing a stabilized base course and/or sub-base through the recycling of the existing pavement structure and a specified depth of acceptable sub-base material. This combination of pavement and sub-base material is to be uniformly crushed, pulverized, and blended, and then spread graded and compacted to the line as shown on the plans or as directed by the Engineer.

A minimum of two weeks prior to the start of the reclamation, the Contractor shall take and analyze test pits to the depth to be recycled and obtain the following information for each:

1. The location of the test pit
2. The depth of existing asphalt pavement material to be recycled
3. The aggregate gradation of the underlying material to be recycled

The information obtained is intended to be an indication of the existing conditions and in no way releases the Contractor from the responsibility of fulfilling the requirements of this specification.

Any gradation deficiencies in the existing materials, as indicated by the test pits, shall be corrected by blending the appropriate aggregate sizes(s) into the mixture.

When required by the Engineer and/or City, the Contractor shall supplement reclaimed subbase material with approved gravel borrow material Item 151. Gravel Borrow (Cubic Yard) meeting the specifications set forth in Section 150 of the Standard Specifications and the latest Supplemental Specifications.

Existing suitable surplus reclaimed material shall be used, when available, at no additional compensation. All unsuitable material and/or excess reclaimed material shall become the property of the Contractor to be properly disposed of outside of the project limits.

The reclaimed material shall be rolled, compacted, and fine graded to the specified grades shown on the plans or as established by the Engineer.

The reclaimed base course shall be tested for compaction and smoothness and accuracy in grade in accordance with the applicable provisions of section 401.60: Gravel Sub-base. The required density shall be measured by a Nuclear Density Gauge supplied by the Contractor's independent testing agency. If any portions are found to be unacceptable by the Engineer, such portions shall be reprocessed, regraded, and recompacted until required smoothness and accuracy are obtained.

The Contractor shall provide a pavement reclamation schedule to the City for approval prior starting the work.

MEASUREMENT AND PAYMENT

Work under this item shall be paid at the Contractor bid price for Item 403. Reclaimed Pavement for Base Course and/or Sub-Base per Square Yard. This unit price shall include all compensation for crushing, pulverizing, blending, spreading, grading, sawcutting the existing asphalt at the direction of the Engineer, compacting, blending with aggregate, moving the processed material to allow for modifications to the remaining base course and/or sub-grade, moving reclaimed material from one location to another within the project and any incurred costs resulting for the Contractor's decision to process off site.

It shall also include full compensation for all labor, tools, equipment, materials, and all incidental work necessary to complete the work as specified.

Removal and disposal of unsuitable material and surplus reclaimed material shall be paid for at the contract unit price per cubic yard for Item 120.1, Unclassified Excavation.

Aggregate used to correct gradation deficiencies shall be paid for at the contractor unit price bid for Item 151. Gravel Borrow per cubic yard (CY).

ITEM 440.	CALCIUM CHLORIDE FOR ROADWAY DUST CONTROL	POUND
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Work under this item shall be done in accordance with Subsection 440. Roadway Dust Control of the MassDOT Standard Specifications.

ITEM 450.23	SUPERPAVE SURFACE COURSE – 12.5 (SSC – 12.5)	TON
ITEM 450.32	SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC – 19.0)	TON

DESCRIPTION

Work under these items (including incidentals for Asphalt Emulsion for Tack Coat and/or Joint Sealant) shall conform to the relevant provisions of Subsection 460 of the MassDOT Standard Specifications and the following:

The PGAB Grade selected for this Contract is **PG 64-28**. The emulsion under this specification shall be Grade RS-1H and shall meet the requirements of AASHTO M 140.

All required sawcutting in the existing pavement shall be done in accordance with Section 450 of MassDOT's Standard Specifications and shall be incidental to these contract Items.

SUBMITTALS

Prior to the start of any construction activity, the contractor shall submit the hot mix asphalt job mix formula (JMF) to the City for review and approval.

MATERIALS

Material shall meet the requirements specified in Section 450 of the MassDOT Standard Specifications.

CONSTRUCTION METHOD

The work shall be scheduled such that overlay pavement is placed within 10 business days of the completion of the milling operation. Exceptions will be determined by the Engineer in the event that excessive pavement/trench/structure repair is required on a particular roadway.

Prior to placing the SUPERPAVE pavement over the previous course, the Contractor shall spread suitable asphalt emulsion tack coat meeting the requirements of the Standard Specifications, to ensure a proper bond between the two layers of pavement. The tack coat must be applied by a tack truck.

The contractor is responsible for cutting all keys to match existing pavement to the SUPERPAVE pavement. All key cuts will be sealed on the same day as the paving is completed. All joint locations and vertical surfaces where proposed pavement meets existing pavement shall be sealed with hot poured joint sealer.

Price for asphalt emulsion for tack coat, cutting of keys, and hot poured joint sealer will be considered incidental to the work and shall be included in the contract unit price bid for these Items.

Tack Coat

Material for this work shall conform to the requirements of Subsection 460.43 of the MassDOT Standard Specifications.

Tack coat will be used at the rate of 0.06 to 0.08 GAL/SY on unmilled surfaces or 0.07 to 0.09 GAL/SY on milled surfaces applied by a pressure distributor prior to placement of the next pavement course.

In addition, all vertical surfaces of curbs, edging, utilities, and drainage structures that will be abutted by new pavement shall receive a thorough tack coat application immediately prior to placing each HMA pavement course.

Tack coat shall be applied to cover a minimum of 95% of the pavement surface, will be considered incidental to the work and shall be included in the contract unit price bid for these Items.

Hot Poured Joint Sealer

Hot Poured Joint Sealer shall be placed at paving joints and shall be considered incidental to the work of this Item.

Material for this work shall conform to the requirements of M3.05.0 of the MassDOT Standard Specifications.

All transverse joints and all longitudinal joints of the surface course shall be treated prior to laying the next lane of SUPERPAVE asphalt as follows:

The joint shall be coated with a hot poured joint sealer meeting the requirements of M3.05.0.

When using pavers in tandem, the use of the hot poured joint sealer will be omitted, provided the temperature of the mixture at the longitudinal joint does not fall below 200°F (95°C) prior to the placement of the adjacent mat. No re-heating of the joint shall be permitted.

Longitudinal and transverse joints shall be made in a careful manner, well bonded and sealed, and true to line and grade.

When the longitudinal edge of any HMA pavement course is placed against an adjoining edge such as existing pavement, curb, gutter, drainage or utility structure, or any metal surface, a tack coat shall be uniformly applied to the entire vertical joint surface in accordance with 460.43: Preparation of Underlying Surface prior to placement of the HMA.

Quality Control

Quality Control responsibilities shall be in accordance with the Contractor Quality Control requirements contained in Subsection 460 of the MassDOT Standard Specifications.

MEASUREMENT AND PAYMENT

Tonnage shall be determined by weight slips submitted to the Engineer. Also, this number will be verified by the inch per square yard method of determining tonnage (inches of approved thickness, multiplied by square yard unit measurement, multiplied by the volume to weight conversion factor of 0.056 tons/inch/square yard).

Payment under these Items shall be at the Contract Unit Price bid per Ton for the specified thickness of intermediate and surface courses, complete in place, which price shall be considered full compensation for all labor, equipment, materials, and incidental work necessary to complete the work as specified, including tack coat, hot poured joint sealer, Contractor Quality Control, and sweeping of underlying surfaces.

ITEM 472.	HOT MIX ASPHALT FOR MISCELLANEOUS WORK	TON
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DESCRIPTION

Work under this Item shall conform to the relevant provisions of Subsection 472 of the MassDOT Standard Specifications and the following:

Hot mix asphalt for miscellaneous work shall be used to provide temporary access and egress to those properties abutting the work area as determined by the Engineer. It shall also be used for temporary restoration of pavement surface after the installation of drainage pipes, conduits, where not included in the payment of other items of this contract and where such areas are specified by the Engineer. It shall also be used to safeguard raised utility structures as approved or directed by the Engineer. It shall also be used for permanent areas where handwork is required, such as areas behind newly installed driveway sections of sidewalk to match into the existing grade. The Contractor is advised that this is material which will be spread primarily by hand.

CONSTRUCTION METHOD

Hot Mix Asphalt for miscellaneous work shall be placed only upon the direction of the Engineer, to the thickness directed and compacted to the satisfaction of the Engineer.

MEASUREMENT AND PAYMENT

Compensation for this Item shall be paid for at the Contract Unit Price per Ton, which price shall include all labor, materials, equipment for surface preparation, placement, maintenance and removal, and incidental costs necessary to complete the work to the satisfaction of the Engineer.

The Contractor shall be required to maintain areas of temporary pavement in reasonable repair, as determined by the Engineer, and not be compensated for additional materials, labor and incidentals required to do so.

No payment will be made for roadway patching done outside the excavation pay limits shown on the plans.

The subsequent removal of this material, if directed by the Engineer, shall also be considered incidental to this Item.

ITEM 504.	GRANITE CURB TYPE VA4 – STRAIGHT	FOOT
ITEM 504.1	GRANITE CURB TYPE VA4 – CURVED	FOOT
ITEM 505.	GRANITE CURB TYPE VA5 – STRAIGHT	FOOT
ITEM 516.	GRANITE CURB CORNER TYPE A	EACH
ITEM 580.	CURB REMOVE AND RESET	FOOT
ITEM 582.	GRANITE CURB CORNER REMOVE AND RESET	EACH
ITEM 594.	CURB REMOVED AND DISCARDED	FOOT
ITEM 596.	GRANITE CURB CORNER REMOVED AND DISCARDED	EACH

DESCRIPTION

Work under these Items shall conform to the relevant provisions of Section 500 of the MassDOT Standard Specifications, the City of Newton General Construction Details and as follows:

The work under Items shall include furnishing and installing granite curb, Type VA/VB, including straight or curved sections, transition pieces for curb cuts, the removal and resetting of existing granite curb and corners, the removal and stacking of existing granite curb, and the removal and discarding of existing granite curb. Transition curb shall be measured as part of Item 504. or 504.1 respectively. Granite curb corner pieces shall match existing or be approved by the Engineer. The length of transition pieces shall be installed to meet all ADA Standards, slopes, and requirements.

SUBMITTALS

A minimum of thirty (30) days prior to the start of any construction activity, the contractor shall submit shop drawings for the granite curb to the City for review and approval.

CONSTRUCTION METHOD

All new curbing shall be provided with concrete support, in accordance with the details of design as shown on the plans. Concrete support shall be provided on both sides of curbing that does not have a hard surface backing it up. Concrete for curb lock shall not extend further than two (2) inches below finished roadway elevation. Cost of all concrete support shall be included in the price bid for curb.

Where granite curb is used to stabilize areas of cut at the back of a sidewalk or curb cuts, it shall be measured and paid for under Items 504. And 504.1 respectively.

Existing curbing to be reused shall be installed in continuous sections and shall not be intermingled with new curbing. Any interim stacking or other extra handling or relocating of the curb shall be considered for the Contractor’s convenience and not cause for additional compensation.

Granite curb shall be set in close conformity with the lines, grades, dimensions and design shown on the plans, as described in the Field Engineering section of the General Requirements of these specifications, or as required by the Engineer.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Prices bid per Foot (or per each for corners) for furnishing and installing new granite curb of all types, including sawcutting, excavation, fine grading and compacting of both subbase and existing subgrade, concrete support, backfill and removing, resetting and discarding of all types of curb, labor, materials and equipment, and all incidentals to complete the work to the satisfaction of the Engineer.

ITEM 638.01	PRIVACY SCREEN	FOOT
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DESCRIPTION

The work under this item shall consist of fastening a 5' privacy screen on the parking lot side of the proposed chain link fence, where shown on the plans or as directed by the Engineer.

MATERIALS

5' Vinyl Coated Polyester Mesh Windscreen shall be manufactured by Sportsfield Specialties (www.ss.direct.com) 41155 State Highway 10 Delhi, NY 13753 Model #VCP6-GREEN or an approved equivalent.

MEASUREMENT AND PAYMENT

Payment under this item shall be at the contract unit price bid per linear foot for the privacy screen, complete-in-place, inclusive of, but not limited to, ties and the disposal of all displaced surplus material which price shall include full compensation for all labor, materials, tools and equipment, and all incidentals necessary to complete the work under this item, as shown on the plans, as directed by the Engineer, and as specified herein.

ITEM 645.148	48 INCH CHAIN LINK FENCE (PIPE TOP RAIL) VINYL COATED	FOOT
ITEM 645.160	60 INCH CHAIN LINK FENCE (PIPE TOP RAIL) VINYL COATED	FOOT
ITEM 652.048	48 INCH CHAIN LINK FENCE END POST	EACH
ITEM 652.060	60 INCH CHAIN LINK FENCE END POST	EACH

DESCRIPTION

Work under this item shall conform to the relevant provisions of Subsection 644 of the MassDOT Standard Specifications and as follows:

CONSTRUCTION METHOD

The posts shall be set true to the line and grade of the proposed fence.

End Posts shall be set in concrete bases as shown in the MassDOT Construction Standards.

The posts in walls shall be set in pipe sleeves or sockets.

All line posts, except those which are unstable due to soil condition as described hereinafter, shall have drive anchor assemblies as shown in the MassDOT Construction Standards.

Line Posts, which in the opinion of the Engineer are unstable due to soil condition, shall be placed in a concrete base as shown in the MassDOT Construction Standards.

Where solid rock is encountered without an overburden of soil, line posts shall be set a minimum depth of 8 in., and end, corner, gate and intermediate posts a minimum of 12 in. in the solid rock. The hole shall have a minimum width or diameter of 1 in. greater than the largest dimension of the post section to be set. The posts shall be cut, before installation to lengths which will give the required length of post above ground, or if the Contractor so elects they may use an even length of post above ground, or if the Contractor so elects they may use an even length of post set at greater depth into the solid rock.

After the post is set and plumbed the hole shall be filled with grout consisting of one part Portland cement and one part clean, well graded sand. The grout shall be thoroughly worked into the hole so as to leave no voids. Where posts are set in the above manner, concrete footings will not be required.

Where solid rock is covered by an overburden of soil or loose rock, the posts shall be set to the full depth shown in the MassDOT Construction Standards unless the penetration into solid rock reaches the minimum depths specified above, in which case the depth of penetration may be terminated. Concrete footings shall be constructed from the solid rock to the top of the ground as designated. Grouting will be required on the portion of the posts in solid rock.

End posts shall be braced as shown in the MassDOT Construction Standards.

MEASUREMENT AND PAYMENT

Chain Link Fence shall be paid for at the contract unit price bid per foot, complete in place, which shall include all drive anchors, line posts, fabric, top rail, cable or wire, fasteners, clips and all material and equipment necessary to complete the work in a satisfactory manner.

End post including brace will be paid for at the contract unit price each under item for Chain Link Fence End Post, complete in place. The chain link fence fabric and posts shall be of the type used throughout the installation.

<u>ITEM 655.2</u>	<u>HAND RAIL</u>	<u>FOOT</u>
<u>DESCRIPTION</u>		

Work under this Item shall conform to the relevant provisions of Section M8 of MassDOT's Standard Specifications and the following:

SUBMITTALS

At least thirty days prior to intended use, the Contractor shall provide the following samples and submittals for approval in conformance with the requirements of this specification.

Do not order materials until Engineer's approval of samples, certifications or test results have been attained. Delivered materials shall closely match the approved samples.

Shop Drawings: Submit detailed shop drawings for handrails. Include plans, sections, and details as required to show completely materials, layout, jointing, clearances and connections. Shop drawings for handrails requiring accurate dimensional relationships to existing site conditions shall be prepared following a review and confirmation of existing site measurements and conditions for areas scheduled to receive handrails.

Material Samples: Submit samples of railing tube material and finishes – submit one (1) sample of brushed stainless steel per manufacturer's recommendation and Owner's direction.

Manufacturer's Literature: Submit three (3) copies each of manufacturer's material descriptions and installation instructions for the Non-shrink cement grout and Sealant

Finishing Schedule: Submit a complete schedule outlining all items to be color finished together with a breakdown of surface preparation techniques and primer and color finish materials to be applied.

The shop drawings shall be complete and checked, showing sizes, layout, method of assembly, fastenings, anchorage or connection with other work, finish, and coatings, etc. Shop drawings for aluminum work shall indicate alloys, temper and finish to be used. The Contractor shall certify that all dimensions are correct prior to fabrication.

MATERIALS

Steel pipe for straight sections and for pipe sleeves shall be schedule 40 circular seamless steel pipe in accordance with ASTM A120.

Steel pipe for all railings with curved sections shall be Schedule 40, circular, seamless steel pipe in accordance with ASTM A53 requirements. Curves shall be formed to maintain uniform cross-section of pipe and to produce smooth and continuous alignments.

Square or rectangular steel tubing as required, shall conform to requirements for ASTM A500, Grade B, structural steel tubing. Wall thickness shall be one-eighth inch (1/8") or as detailed. Steel hardware for designated structural purposes shall conform to ASTM A325 requirements for galvanized hardware. Handrail, guardrail, and tubular steel pipe size shall be one and one-half inches (1.5") O.D. unless designated otherwise on the details.

Fabrication: Steel railings shall be fabricated in accordance with details, specifications and approved shop drawings. Steel fabrication shall be accomplished using the highest standards of workmanship. Individual steel pieces shall be saw-cut, formed with "fish-mouth" joints, and shall be full seam welded, ground smooth and sanded to produce a high standard of surface smoothness. No grinding marks shall be visible in the finished work.

Welding shall be in conformance to AWS code.

Cement grout for anchoring of railings shall be a pourable, quick-setting, non-metallic and non-shrinking hydraulic cement grout equal to "Por-Rok Cement" supplied by Waldo Bros., Roslindale, MA, "Rockite" as manufactured by Hartline Co., Cleveland, OH, "Wedj-Rok" as manufactured by Metalcrete Manufacturing Co., Cleveland, OH, or approved equal.

Sealants shall be polyurethane-based, one component, elastomeric sealants complying with Fed. Spec. TT-S-00230C, Class A, Type 2. Color to be selected by Landscape Architect. Sealants shall be non-sag, gun-grade type, equal to the following:

- Vulkem 116, as manufactured by Mameko International, Cleveland, OH.
- Sikaflex 1-a, as manufactured by Sika Corp., East Hartford, CT.
- Dynatrol 1, as manufactured by Pecora Corporation and supplied by Waldo Brothers, Boston, MA.

Poured-in-place concrete footings, where required, shall conform to requirements for twenty-eight (28) day compressive strength 3,000 psi, three-quarter inch (3/4") aggregate concrete, with in accordance with the requirements of section M4 of MassDOT's Standards Specifications.

FINISHES shall be as follows: Stainless steel handrails shall be brushed finish.

CONSTRUCTION METHOD

Post sleeves, in the appropriate sizes, as shown on the drawings shall have been placed during the construction of the ramp in accordance with the details shown on the drawings and the pertinent provisions of Section M8 of MassDOT's Standard Specifications.

After the ramp has sufficiently set and cured, as determined by the Engineer, the handrail posts shall be positioned in the sleeves and temporarily wedged in place so that the handrail is vertically plumb and horizontally straight for its complete length.

After the handrail has been satisfactorily positioned, the sleeves shall be filled with the approved anchoring cement with care taken not to create voids between the post and sleeves nor spill excess cement on adjacent concrete. The handrail shall be braced in position until the cement has properly set. Any movement caused by the Contractor's negligence shall be remedied as directed by the Engineer.

After erection, all scratches or abrasions in the color galvanized surface shall be repaired or replaced to the satisfaction of the Engineer.

Fabricate and install steel pipe handrails in conformance to details, and approved shop drawings. Measure on-site conditions to receive rails prior to preparing shop drawings.

For railings longer than twenty feet (20'), provide an internal sleeved expansion coupling joint at approximately fifteen foot on center (15' o.c.) intervals, using a six inch (6") length of internally sleeved pipe welded to one side of joint.

Install railings within cored holes at the location shown on the plans.

Grout rails to within one-half inch (1/2") of top surface and provide a sealant joint to finished grade. Sealant color to be approved by Engineer.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Prices bid per Foot of handrail complete in place, which piece shall include ties, the disposal of all displaced surplus material, all labor, materials, tools, equipment, and all incidentals necessary to complete the work under this item, as shown on the plans, as directed by the Engineer, and as specified herein.

ITEM 657.	TEMPORARY CONSTRUCTION FENCE	FOOT
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DESCRIPTION

Temporary construction fence shall conform to the relevant provisions of Subsection 644 of the MassDOT Standard Specifications and the following:

Temporary construction fence shall be erected as shown on the plans or as directed by the Engineer.

SUBMITTALS

The methods of installation(s) and fence detail(s) shall be submitted a minimum of thirty (30) days prior to the start of any construction activity for approval by the Engineer.

MATERIALS

Temporary fence shall be clean and shall be continuous runs of chain link fence at least 6 feet in height, of uniform appearance and in good condition.

CONSTRUCTION METHOD

The method of installation shall be approved by the Engineer prior to the start of construction operations. Gates with locks for Contractor access may be required for existing vehicle access locations. A set of keys for the locks shall be provided to the Engineer.

Temporary fence shall be reset as often as required by the contractor activities to meet the project schedule and to stage the construction, subject to approval by the Engineer.

The contractor shall inspect the condition of temporary fence on a daily basis. Temporary construction fence that is damaged shall be promptly replaced.

MEASUREMENT AND PAYMENT

Temporary Construction Fence will be paid for at the contract unit price per linear foot, which price shall include all labor, materials and equipment to complete the work, including delivery to the site, setup and removal to the satisfaction of the Engineer.

DESCRIPTION

Under Item 665.1, the Contractor shall remove and immediately dispose of the existing chain link fence on the west side of the parking lot, inclusive of the concrete footings, and shall simultaneously backfill and compact the residual apertures that will result from the execution of this work.

MATERIALS

Gravel for refilling a residual aperture shall be 'run-of-the-bank' gravel containing no stone larger than three (3) inches in diameter and shall be free from roots, or other foreign matter, but having a binding quality that will compact to a ninety-five (95) per cent compaction requirement or otherwise dense graded crushed stone shall conform to Division III, Materials, subsection M2.01.7 of the Commonwealth of Massachusetts Department of Public Works Standard Specifications for Highway and Bridges, dated 1988. All gravel and dense graded crushed stone shall be subject to the approval of the Engineer.

CONSTRUCTION METHOD

Under this Item, the Contractor shall strategically and systematically dismantle the applicable site amenities such that at the end of each workday the site is clear of all residual waste materials generated by these activities and all residual apertures have been carefully backfilled and compacted with suitable gravel and/or dense graded material. To that end the Contractor shall ensure that any unsuitable material which has fallen and/or has shed into the aperture as a result of the removal activities, has been thoroughly cleared prior to the refilling of the aperture.

The backfilling and compacting of the apertures, generated under these activities, shall occur on the day they are created, with each aperture being compacted in six (6") lifts with the use of adequately sized tamping bits and pneumatic hammers.

However, in all cases, the Contractor is solely responsible for achieving 95% density compaction requirements so that no settlements occur subsequent to these activities. In the event settlements do occur within two years from the date of the Final Payment (for the entire project) then the Contractor shall repair such failed areas and shall subsequently sealcoat the entire surface area at no expense to the City.

The excavation and disposal of fence post footings shall include the removal and immediate off-site disposal of all masonry, castings, and deleterious materials, in their entirety, as none of the structural remnants and/or associated materials generated by these activities shall be used in the backfilling of the aperture.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the contract unit price bid per foot for the complete systematic removal and immediate off-site disposal of the existing chain link fence system, inclusive of the concrete footings, and for the subsequent backfilling and compaction of the residual apertures, and shall include full compensation for all labor, materials, tools, disposal costs, equipment and all incidentals necessary to complete the work under this item in accordance with the plans, as directed by the Engineer and as specified herein.

DESCRIPTION

The work under this Item shall conform to the relevant provisions of Subsection 670 of the MassDOT Standard Specifications and the following:

The work under this Item shall consist of the furnishing, installing, maintaining, and removing silt sacks from all catch basins, drop inlets, and gutter inlets within the limit of work, or otherwise required by the Engineer.

SUBMITTALS

A minimum of thirty (30) days prior to the start of any construction activity, the contractor shall submit shop drawings for the silt sack to the City for review and approval.

MATERIALS

Silt sacks shall be made out of woven polypropylene geotextile fabric and sewn by a double needle machine, using a high strength nylon thread. Devices shall be ACF Environmental (800)-448-3636; Reed & Graham, Inc. Geosynthetics (888)-381-0800; The BMP Store (800)-644-9223; or approved equal.

Silt sacks shall be manufactured to fit the opening of the catch basins and all curb openings shall be blocked to prevent stormwater from bypassing the device. Silt sacks shall be manufactured with two dump straps attached at the bottom of the silt sack. Silt sacks shall have a ¼-inch nylon expansion restraint rope with two (2) inch flat washers to keep the sides of the silt sacks away from the catch basin walls. Silt sacks shall be manufactured so that they have a certified average wide width strength per ASTM D-4884 standards of 165.0 lb./in for regular flow.

CONSTRUCTION METHOD

When the expansion restraint rope is covered with sediment, the silt sack shall be emptied, cleaned, and placed back into the catch basin.

All material removed from the silt sacks shall be properly handled and disposed of by the Contractor, and this must be done in accordance with all DEP regulations, policies, and guidance and at no additional cost to the City. The responsibility for the proper handling and disposal of this material shall be solely the Contractor's.

Material removed from silt sacks shall be transported immediately to the place of disposal in machines or trucks that will not spill the material along the roadway. Any material falling on the roadway shall be removed at the Contractor's own expense.

Silt sack cleanings are classified as a solid waste by the Massachusetts Department of Environmental Protection (DEP) and may be disposed of at any landfill that is permitted by DEP to accept solid waste. Materials containing free-flowing liquids are prohibited from being accepted at landfills. The DEP encourages the beneficial reuse of this material whenever possible; however, use not in accordance with DEP determination, or disposal or use as fill in an unapproved location is not acceptable.

It is anticipated that most, if not all, of the material will be landfilled, therefore the Contractor should be aware that many landfills may require testing and analysis of the material prior to accepting it for disposal at the facility.

The Contractor should be aware that in the event that test results indicate a hazardous waste that cannot be landfilled, the Contractor shall be responsible for all costs associated with adhering to special regulations regarding disposal of hazardous waste. The Contractor should take this into consideration in preparing the bid.

Silt sacks shall remain in place until the placement of the pavement overlay or surface course and the graded areas have become permanently stabilized by vegetative growth. All materials used for the silt sacks will become the property of the Contractor and shall be removed from the site.

The Contractor shall inspect the condition of silt sacks after each rainstorm and during major rain events. Silt sacks shall be cleaned periodically to remove and dispose of accumulated debris as required. Silt sacks, which become damaged during construction operations, shall be repaired or replaced immediately at no additional cost to the City.

When emptying the silt sack, the contractor shall take all due care to prevent sediment from entering the structure. Any silt or other debris found in the drainage system at the end of construction shall be removed at the Contractor's expense. The silt and sediment from the silt sack shall be legally disposed of offsite. Under no condition shall silt and sediment from the insert be deposited on site and used in construction.

When the silt sacks are removed after the work has been completed, the Contractor shall clean and flush all drainage structures as incidental to this item.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Price bid per each, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work. No separate payment will be made for testing, inspections, maintenance, removal and disposal of the sediment from the insert or for the final removal and disposal of the silt sack, but all costs in connection therewith shall be included in the Contract Unit Price Bid.

<u>ITEM 701.</u>	<u>CEMENT CONCRETE SIDEWALK</u>	<u>SQUARE YARD</u>
<u>ITEM 701.1</u>	<u>CEMENT CONCRETE SIDEWALK AT DRIVEWAYS</u>	<u>SQUARE YARD</u>
DESCRIPTION		

The work under these Items shall conform to the relevant provisions of Subsection 701 of the MassDOT Standard Specifications and the following:

All work shall conform to the latest edition of the MassDOT and ADA Standards, including the MassDOT 2017 Construction Standards.

The Contractor is hereby notified that they are ultimately responsible for constructing all project elements in strict compliance with the current AAB/ADA rules, regulations and standards.

The AAB Rules and Regulations specify maximum slopes and minimum dimensions required for construction acceptance. There is no tolerance allowed for slopes greater than the maximum slope, nor for dimensions less than the minimum dimensions.

SUBMITTALS

Prior to the start of any construction activity, the contractor shall submit shop drawings for the cement concrete to City for review and approval.

CONSTRUCTION METHOD

The Contractor shall apply Lamp Black into the concrete mixture per City standards at the rate of 2 lbs./c.y.

On the foundation of fine graded and compacted subbase, the concrete shall be placed in such quantity that after being thoroughly consolidated in place sidewalks shall be four (4) inches in depth, and driveways shall be six (6) inches in depth (which shall extend to the outermost limits of the driveway transition curbs where they meet the straight curb reveal) or as required by the Engineer.

All driveway joints and transition sections which define grade changes shall be formed, staked and checked prior to placing cement concrete. All grade changes are to be made at joints.

Sidewalks and driveways shall be constructed in accordance with requirements of the Standard Specifications, including placement of alternating sections, 30 feet in length and provided with expansion joints. Expansion filler shall also be used at pours against buildings, walls or other hard objects.

All concrete work shall be in accordance with the procedures of NRMCA CIP-14 (Appendix B) regarding strike off and finishing operations and timing. If an evaporation retarder is required due to hot weather conditions, ensure that the evaporation retarder is applied in strict compliance with the manufacturer's recommendations. An evaporation retarder should not be used as a finishing aid. The Contractor shall cure the surface using a curing membrane meeting the requirements of ASTM C 309/1315 Type 1 Class B (Cureshield EX or equal).

Contractor is responsible for securing areas with curing concrete, and shall supply barricades or watchmen, as necessary to prevent defacement of concrete surfaces. The Contractor shall be responsible for maintaining new concrete work and shall insure that no defects, markings, or damage by vandals or animals occurs. It shall be the responsibility of the Contractor to replace any damaged portions of the work at their own expense.

MEASUREMENT AND PAYMENT

Payment under this Item shall include temporary removal and resetting of obstructions (such as fences) for the purposes of forming and placing sidewalks, at no expense to the Owner. The Contractor shall be responsible for the removal, safeguarding, stockpiling, and resetting of obstacles. If the obstacle cannot be reset, the Contractor will be responsible for furnishing and installing in-kind new fixtures, at no cost to the City.

Payment for Items 701. And 701.1 shall be at the respective Contract Unit Prices bid per Square Yard complete in place, to the satisfaction of the Engineer, including but not limited to, all saw cutting, expansion joints, protection and finishing, including curing compounds and other additives. Payment shall also include temporary removal of obstructions for the purposes of forming and pouring sidewalks or driveways.

The reconstruction of all items included in restoring steps, walls, and other abutting structures shall be considered incidental to the work of this section.

ITEM 703.1	CONCRETE WHEEL STOP	EACH
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DESCRIPTION

The work under this Item shall consist of furnishing and installing concrete wheel stops at the locations indicated and in conformance with the plans or as directed by the Engineer.

MATERIALS

Precast concrete wheel stops shall be constructed of 4,000 psi cement concrete as manufactured by Shea Concrete Products Bumper Curbing Single Face or approved equivalent.

Reinforcement shall conform to ASTM A-615, Grade 60.

CONSTRUCTION METHOD

Precast concrete wheel stops shall be installed where shown on the plans in accordance with the manufacturer's installation instructions.

Pin holes shall be cast into the wheel stop.

Steel pins for securing wheel stops shall extend down 2' from the finished grade. Two (2) #5 rebar steel pins shall be installed per wheel stop.

MEASUREMENT AND PAYMENT

Concrete wheel stops shall be measured and paid for at the contract unit price per each, complete in place, which price shall include all labor, equipment, materials, and all other incidentals, including steel pins, required to complete the work to the satisfaction of the Engineer.

ITEM 707.01

POROUS PAVEMENT

SQUARE FOOT

The work under this Item shall consist of installing porous pavement at existing trees to remain at the locations shown on the plans and as specified herein. The porous pavement shall be made using approved materials.

QUALIFICATIONS

The installer's craftsmen or crew chief shall be certified by the porous pavement manufacturer.

The porous pavement shall be supplied by a manufacturer with at least 10 years of experience that can supply references for similar applications and installations, and that has successfully installed a minimum of 10,000 square feet of porous pavement in the Northeast region within the last two years.

The Porous Pavement installer shall employ an adequate number of skilled workers who are certified by the manufacturer of the Porous Pavement and are familiar with the specified contract requirements and the methods needed for its installation.

SUBMITTALS

Provide a list of successfully installed Porous Pavement projects, including the address, year of installation, square footage, and photographs for each project.

Provide a list and copies of the certificates of the manufacturer certified workers on staff.

Certificates stating that materials meet or exceed the specified contract requirements, site handling and storage instructions.

Mixing and installation instructions.

A sample that reflects the characteristics of the materials to be installed. The sample, upon arrival, shall be maintained as the standard of minimum quality for all the proposed surfacing and paving work required for the project.

Material color samples for selection.

MATERIALS

The materials for the porous pavement shall be GeoPaveX as manufactured by Complete Streets USA; Flexi-Pave HD2000 as manufactured by K.B. Industries, Inc.; PerkePave; or an approved equivalent product.

The aggregate base for the aggregate shall be 3/4 inch double washed crushed stone, clean and free of fines.

The City will choose the porous pavement locally sourced aggregate color upon receipt of the material color samples.

METHOD OF CONSTRUCTION

The porous pavement shall be installed in accordance with the manufacturer written instructions to an average depth of 1.5 inches over the prepared base.

Place a geotextile porous filter fabric over the fine graded and compacted sub-base. This fabric must be water permeable and designed to prevent fine dirt particles from migrating into the 3/4-inch stone.

Install the double washed crushed stone base as described in the specifications and shown on the contract drawings.

The four inches deep base of 3/4 inch double washed crushed stone shall be installed on top of the geotextile filter fabric to a depth of 1.5 inches below the desired finished grade. Crushed stone shall be compacted to achieve a level and even finish.

Suitable edging as recommended by the manufacturer and approved by the Engineer shall be used to support the perimeter edge of the material.

Install the porous pavement to the depth and width as described in the specifications and shown in the contract drawings.

Reduce the risk of damage to the porous pavement surface by not allowing construction equipment or vehicles on the porous pavement during or following installation.

The porous pavement shall be installed in 40°F to 85°F conditions and allowed to cure for 24 hours. The hardness of the porous pavement shall be verified by a certified installer before use.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Porous Pavement shall be paid for at the Contract Unit Price bid per Square Foot, complete in place, which price shall include the geotextile porous filter fabric, crushed stone base, all labor, materials, tools, equipment, and incidental work necessary to complete the work as specified.

ITEM 707.8	STEEL BOLLARD	EACH
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DESCRIPTION

Work under this Item shall consist of furnishing and installing concrete filled steel pipe bollards as shown on the plans, in accordance with the City of Newton General Construction Details and as specified herein.

MATERIALS

Bollards shall be 4" diameter concrete filled ductile iron field fabricated bollards as shown on the plans. The top of the bollards shall be round concrete fill.

Three (3) inch wide yellow reflector tape shall be placed 8" below the top.

Bollards shall be powder coated black and shall conform to the relevant provisions of Subsection 960 of MassDOT's Standards Specifications.

Cement concrete for bollards and footing shall be 3,000 psi and shall conform to Subsection M4.02.00 of MassDOT's Standard Specifications.

CONSTRUCTION METHOD

All bollards shall be set vertically plumb and securely anchored in cement concrete footings as called for on the construction detail.

The concrete footing shall be placed in such quantity that after being thoroughly consolidated in place the concrete shall be four 3.5' below the finished grade.

Contractor is responsible for securing areas with curing concrete, and shall supply barricades or watchmen, as necessary to prevent damage to newly installed bollards.

The Contractor shall be responsible for maintaining new concrete work and shall insure that no defects, markings, or damage by vandals or animals occurs. It shall be the responsibility of the Contractor to replace any damaged portions of the work at their own expense.

The cut edges of the ductile iron tube shall be beveled and rendered safe prior to placement of the dome shaped concrete filled top.

MEASUREMENT AND PAYMENT

Payment for this Items shall be at the respective Contract Unit Price bid per each steel bollard, complete in place, to the satisfaction of the Engineer, including but not limited to all saw cutting, excavation, protection, materials, labor, equipment, and all other incidentals necessary to complete the work to the satisfaction of the Engineer.

ITEM 707.9.	BIKE RACK	EACH
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DESCRIPTION

This section specifies requirements for the bike rack, as shown on the Drawings and as specified herein:

SUBMITTALS

Prior to the start of any construction activity, the contractor shall submit shop drawings for the bike rack to the City for review and approval.

MATERIALS

Bike racks shall be "Round Rack" model with in-ground mount as manufactured by DERO Bike Racks, Cycle-Safe, Inc. or approved equivalent product.

Tube shall be 1.5" schedule 40 pipe (1.9" OD) and finish shall be Stainless.

Cast in place concrete for foundations shall be 4000 psi 28 day compressive strength with ¾" aggregate in compliance with requirements of Section 900 of the Standard Specifications.

The Contractor shall submit shop drawings detailing the concrete foundation as per this specification.

Reinforcing steel shall have a recycled content of 30% or greater and shall conform to the following standards: Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed. Low-Alloy Steel Reinforcing Bars: ASTM A 706/A 706M, deformed. Plain-Steel Wire: ASTM A 82, as drawn. Plain Steel Welded Wire Fabric: ASTM A185, fabricated from as-drawn steel wire into flat sheets. Reinforcing shall be uncoated unless indicated otherwise on the Contract Drawings.

CONSTRUCTION METHOD

Coordinate and furnish anchorages and setting drawings, diagrams, templates, instructions and directions for installing bike racks having integral anchors that are to be embedded in concrete or masonry construction.

Bike racks shall be positioned in the required location as indicated on the plans and firmly secured to the pavement in accordance with manufacturer's recommendations.

Fabricator to wrap all components with protective wrap prior to leaving Fabricator's shop.

Protect finishes from damage during construction period with temporary protective coverings. Remove protective covering at the time of Substantial Completion.

Restore finishes damaged during installation and construction so no evidence remains of correction work.

Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit; or provide new units.

Clean surfaces by washing thoroughly with clean water and soap followed by thorough rinsing with clean water.

Provide concrete foundations and install at proper elevation to allow paving to match the top of the foundation.

Install in accordance with manufacturer's recommendations and as shown on the Drawings.

Grout anchorages and seal joint at pavement surface.

Install plumb.

MEASUREMENT AND PAYMENT

Payment for this Item shall be at the contract unit price bid per each bike rack, complete-in-place, which price shall include excavation, surface mounting appurtenances, pipe, hardware, concrete slab and footings, cleaning and touch-up, painting, protecting the items from damage, any other materials, labor, equipment, and all other incidentals necessary to complete the work to the satisfaction of the Engineer.

<u>ITEM 748.</u>	<u>MOBILIZATION</u>	<u>LUMP SUM</u>
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DESCRIPTION

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

METHOD OF COMPLIANCE

This item shall consist of preparatory work and operations, including, but not limited to those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site for the establishment of all contractor's facilities necessary for the work on the project and all other work and operations which must be performed or for costs which must be incurred prior to the beginning work. The unit price bid for Item 748, Mobilization shall not exceed 3% of the contract bid total, exclusive of this item. Failure to observe this requirement may result in rejection of the bid in accordance with subsection 2.04: Preparation of Proposals.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Price bid per lump sum in accordance with subsection 748.81, Basis of Payment.

<u>ITEM 751.</u>	<u>LOAM BORROW</u>	<u>CUBIC YARD</u>
<u>ITEM 765.</u>	<u>SEEDING</u>	<u>SQUARE YARD</u>

DESCRIPTION

The work under these Items shall conform to the relevant provisions of Section 751, 765, 767, and 770 of the MassDOT Standard Specifications and the following:

Work includes the placement of approved loam borrow, lime, fertilizer, and hydro seeding to restore all disturbed grassed areas as authorized by the Engineer.

CONSTRUCTION METHOD

Loam Borrow shall meet with Material Specifications M1.07.0. Loam Borrow shall pass a 3/8" screen and laid in a minimum depth of 4" after compacted and shall be free of grass and any other unsuitable materials. The placement of new loam borrow shall be as follows.

In new areas or areas of significant disturbance, loam borrow shall be placed with a minimum depth of four (6) inches after compaction. In existing grass areas to remain, or where there is minimal disturbance to the surface, depressions shall be filled and a top dressing of loam borrow shall be applied to a general depth of one (1) inch after compaction. Prior to the application of the top dressing, the Contractor shall be required to mechanically aerate these areas by a means acceptable to the Engineer.

Loam Borrow shall be used to fill depressions and shape the surface to provide for proper flow of drainage, as well as enhance the general appearance of these grassed areas. Areas adjacent to curbs and other such hard surfaces shall be pre-worked and tapered down one (1) to two (2) inches so as to allow the top dressing to end up flush with the hard surface.

Loam Borrow shall be installed in close conformity with the lines, grades, dimensions and design shown on the plans, as described in the Field Engineering section of the General Requirements of these specifications, or as required by the Engineer.

Lime shall be ground limestone containing not less than 95% calcium and magnesium carbonates. Lime shall be applied at a rate of 75 to 100 lbs. per 1,000 square feet prior to seeding.

Hydro seeding shall conform to the requirements of Section 765.65. The hydro seed mixture shall be applied at a rate sufficient to promote lush rapid growth of grass. Fertilizer shall be a complete commercial fertilizer, 10-20-20 grade. Fertilizer in the hydro-seed mixture shall be applied at the rate of 30 lbs. per 1,000 square feet and seed in the hydro-seed mixture shall be applied at a rate of at least 120 lbs. per acre or three (3) lbs. per 1,000 square feet.

The Contractor shall be responsible for watering the hydro seeded areas daily for a minimum of two (2) weeks or until the grass has become established.

MEASUREMENT AND PAYMENT

Payment under Item 751 shall be at the Contract Unit price bid per cubic yard, which price shall be full compensation for preparing surfaces including furnishing, placing, raking, shaping and tamping new loam borrow, and furnishing and applying lime.

Payment under Item 765 shall be at the Contract Unit price bid per square yard, which price shall be full compensation preparing the loam surface, furnishing and applying hydro-seed, inclusive of fertilizer, as well as the maintenance of hydro-seeded areas as noted above.

Payment shall be made as follows: 85 percent of the complete installed quantity will be paid at the time of initial seeding. The remaining 15 percent will be paid when the newly seeded areas have been accepted by the Engineer.

Unless otherwise approved by the Engineer, surfaces disturbed outside the Construction Plans shown for the Contractor's convenience, shall be restored as specified herein, at the Contractor's own expense.

<u>ITEM 767.12</u>	<u>COMPOST FILTER TUBES</u>	<u>FOOT</u>
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This item shall conform to the relevant provisions of Subsections 751 and 767 of the MassDOT Standard Specifications and the following:

The purpose of this item is to provide a linear, compost-filled tube for filtering suspended sediments from storm water flow.

SUBMITTALS

Prior to the start of any construction activity, the contractor shall submit shop drawings for the compost filter tubes to the City for review and approval.

MATERIALS

Material for the filter tubes shall be compost meeting M1.06.0, except that no manure or bio-solids shall be used. In addition, no kiln-dried wood or construction debris shall be allowed.

Particle size analysis:

- 98% shall pass through a 3 inch (75mm) sieve
- 30-50% shall pass 3/8 inches (10mm) sieve

Tubes for compost filters shall be a minimum of 12 inches and a maximum of 18 inches in diameter. Tube material shall be a knitted mesh with 1/8" - 3/8" (3-10 mm) openings, and made of biodegradable (cotton or jute) materials. Photodegradable fabric may be used; however, photodegradable fabric must be removed and disposed of by the contractor, at his expense, at the end of the contract. Additional tubes shall be used at the direction of the Engineer.

Stakes for anchors, if required, shall be nominal 2 x 2 stakes.

CONSTRUCTION METHOD

Tubes of compost may be filled on site or shipped. Tubes shall be placed, filled and staked in place as required to ensure stability against water flows. All tubes shall be tamped to ensure good contact with soil. Stakes shall not puncture compost tubes.

The Contractor shall ensure that the filter tubes function as intended at all times. Tubes shall be inspected after each rainfall and at least daily during prolonged rainfall. The Contractor shall immediately correct all deficiencies, including, but not limited, to washout, overtopping, clogging due to sediment, and erosion. The contractor shall review location of tubes in areas where construction activity causes drainage runoff to ensure that the tubes are properly located for effectiveness. Where deficiencies exist, such as overtopping or wash-out, additional staking or compost material shall be installed as directed by the Engineer. Contractor shall remove sediment deposits as necessary to maintain the filters in working condition. The functional integrity of filter tubes shall be maintained in sound condition at all times. Filter tubes that are decomposing, cut, or otherwise compromised shall be repaired or replaced as directed by the Engineer and be incidental to this item.

Filter tube fabric and stakes shall be removed by the Contractor when site conditions are sufficiently stable to prevent surface erosion, and after receiving permission to do so from the Engineer. All biodegradable tube fabric shall be cut and laid flat in place to decompose on-site at the direction of the Engineer. Tube fabric that is not decomposing satisfactorily shall be removed and disposed off-site by the Contractor. At the direction of the Engineer, the Contractor may rake out and seed compost so that it is no greater than 2 inches in depth on soil substrate.

COMPENSATION

Payment under this Item shall be at the Contract Unit Price bid per foot, which price shall include stakes and tube fabric, compost mulch wedge along top of tubes, removal and disposal of fabric and stakes, raking and seeding compost, all labor, materials, equipment and any other incidentals necessary to complete the work to the satisfaction of the Engineer.

ITEM 832.	WARNING, REGULATORY, AND ROUTE MARKER	SQUARE FOOT
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DESCRIPTION

Work under this item shall conform to the relevant provisions of Subsections 828 and 840 of the MassDOT Standard Specifications, the Manual on Uniform Traffic Control Devices (MUTCD) and the following:

Work under this item shall consist of removing and disposing or staking existing signage and posts, furnishing materials, and the installation of new signs and hardware.

MATERIALS

Sign panels shall be made of Aluminum Type A. All hardware shall be Aluminum. Retro-Reflective sheeting shall be Type IV, or higher. The Contractor shall apply the legend using electrocure films, screen printing, or color printing in keeping with manufacturer’s specifications in accordance with warranty information.

MEASUREMENT AND PAYMENT

Payment for Item 832 shall be at the Contract Unit Price bid per Square Foot, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work, including but not limited to the removal and disposal or staking of the existing signage, the coordination of proposed signage locations, style and size with the Engineer, furnishing materials and the installation of new signs and hardware in accordance with these specifications.

SIGN SUP (N/GUIDE)+RTE MARKER

ITEM 847.01 W/I BREAKAWAY POST ASSEMBLY - STEEL **EACH**

DESCRIPTION

Work under this item shall conform to the applicable requirements of the Standard Specifications as well as the Manual on Uniform Traffic Control Devices (MUTCD). This item shall consist of removing and disposing or stacking existing posts, furnishing materials and the installation of new sign posts and hardware.

MATERIALS

Signposts shall be Standard Ground Mounted Sign Supports with a Breakaway Design, be painted Semi-gloss in a color to be approved by the Engineer and be in compliance with City Specifications.

MEASUREMENT AND PAYMENT

Payment for this Item shall be at the Contract Unit Price bid per Each, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work, including but not limited to removal and disposal or stacking of the existing posts, coordination of proposed signage location, size with the Engineer, furnishing materials and the installation of new posts in accordance with these specifications.

ITEM 852.01 TEMPORARY TRAFFIC CONTROL **LUMP SUM**

DESCRIPTION

Work under this item shall conform to the applicable requirements of Subsection 850 of the MassDOT Standard Specifications, The Manual on Uniform Traffic Control Devices (MUTCD) and the following:

The Contractor shall furnish, erect, maintain, wash, move, adjust, repair, relocate, re-erect, and store all temporary construction signs, sign mountings, portable barricades, traffic cones, drums, delineators, and other warning devices when, where, and as required by the Engineer.

CONSTRUCTION METHOD

Temporary Traffic Control devices shall cover all work related to the furnishing, installation, maintenance, and movement of traffic protective devices on the project. The Contractor shall provide a sufficient number of signs and other warning devices as required by the nature of the work as determined by the MUTCD and/or the Engineer. Devices that do not meet or exceed MUTCD standards will not be considered an acceptable means for temporarily controlling traffic.

When, in the opinion of the Engineer, the sign or device shall be so severely damaged as to warrant replacement, the Contractor shall provide a new device that shall be deemed to be included in this item without additional compensation.

The Contractor shall keep all signs, barricades, and other protective devices in proper position, clean, and legible at all times. Care shall be taken so that weeds, shrubbery, construction materials, equipment and spoil are not allowed to obscure any sign, lights, or barricade. Signs that do not apply to existing conditions shall be removed or adjusted so that the legend is not visible to approaching traffic. All signs and markers shall indicate actual conditions existing and shall be moved, removed, or changed immediately, as conditions require. When construction is not in progress, all unnecessary signs will be adequately covered.

No work is to be undertaken until the Contractor has established construction signs and/or safety devices around and about the project zone periphery. To that end, the Contractor shall not commence operations until he has verified that semi-permanent signs (i.e. 'Road Under Construction') and/or daily signing, (i.e. 'Detour') has been appropriately established. The Contractor shall be responsible for establishing supplemental signage, and/or safety devices, as he deemed necessary in order to further provide for the safety of the pedestrian and the motoring public, as well as for affording the opportunity to move the construction process forward without interruption.

Under the above clause, the Contractor shall work closely with the Engineer to coordinate the signing activities in a timely and reasonable manner. Said devices shall conform to the Temporary Traffic Control section of the most recent version of the Manual on Uniform Traffic Control Devices (MUTCD). Further, due to the nature of this work, the Contractor shall be required, from time to time, to erect, move, relocate, repair, and/or to remove at days end, any site sign in order to either expedite his work or to otherwise accommodate the safety and/or delineate the project zone and/or its active or inactive detour status and route line, and this work shall be done either at his discretion and/or at the request of the Engineer. Non-compliance with any such request, as herein described, shall be grounds for the City to halt work until such remedial measures have been taken, and any such loss of time by the Contractor shall be at his own expense. Any devices provided which are lost, stolen, destroyed, or deemed unacceptable while their use is required on the project shall be replaced without additional compensation.

The lump sum for this item shall include full compensation for all labor, equipment, materials, and incidentals needed to complete the following:

1. Fabricating, furnishing, erecting, maintaining, removing, and relocating the traffic management devices for the entire project duration, complete-in-place and as directed by the Engineer.
2. Providing additional traffic management devices to provide a clear and visible traffic control through the project area, if required.
3. The Contractor shall be required to reposition the traffic control devices as many times as necessary to ensure the safe passage of vehicular traffic and pedestrians. Supplemental signs and traffic control devices directing traffic around and/or through the work zones shall be supplied as operations require or as directed by the Engineer. Payment for these traffic control measures shall be included, as part of this item and no additional payment will be made.
4. At a minimum, traffic control shall include the following:
 - a. Temporary Traffic Control Signs including detour signs as required.
 - b. Channelizing Devices including drum barricades and/or traffic cones.
 - c. Type III Barricades.
 - d. Temporary Barriers.
 - e. Temporary Pedestrian Bypass.

Other work, whether direct or incidental, associated with the traffic control not specifically identified herein.

MEASUREMENT AND PAYMENT

Payment under this item shall be by the Contract Unit Price bid per Lump Sum. If, after notice by the City, signage is determined to be inadequate, the City may withhold payment on this item until it is addressed satisfactorily by the Contractor. The prices so-stated constitute full and complete compensation for all labor, materials, and equipment associated with, but not limited to, furnishing, erecting, maintaining, washing, movement, adjustment, repair, relocation, re-erection, storing of all temporary construction signs, sign mountings, portable barricades, traffic cones, delineators, drum barricades, channelizing devices, and all other devices, clean-up, legal disposal of all materials, and all other incidentals required to finish the work, complete and accepted by the Engineer. Any damage shall be the Contractor's responsibility.

ITEM 864.04	PAVEMENT ARROWS AND LEGENDS WHITE (THERMOPLASTIC)	SQUARE FOOT
ITEM 866.104	4" REFLECTORIZED WHITE LINE (THERMOPLASTIC)	FOOT

DESCRIPTION

The work under these items consists of furnishing materials and the application of reflectorized thermoplastic pavement markings in accordance with these plans and specifications and the Massachusetts Department of Transportation Standard Specifications Section 860 and M7.0. This Item shall consist of furnishing materials and the application of reflectorized diagonal lines, and white or yellow lines in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

All pavement markings shall be complete and installed **no later than 30 days** after the installation of the final roadway application materials.

MATERIALS

All materials under these items shall adhere to the appropriate items under Subsection 860 of the Standard Specifications, White Thermoplastic Reflectorized Pavement Markings – M7.01.03.

MEASUREMENT AND PAYMENT

The contractor shall not be paid for the gaps found in any dashed pavement applications.

Payment under these items shall be at the Contract Unit price bid per Foot (square foot for Item 864.04) for furnishing and applying 4" Reflectorized White lines and White pavement arrows and legends complete in place, which unit price shall include full compensation for all labor, materials, tools, equipment, and all incidentals necessary to complete the work under these items as shown on the plans, as directed by the Engineer and as specified herein.

ITEM 875.11	PARKING KIOSK REMOVE AND RESET	EACH
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DESCRIPTION

Work to be performed under this Item shall consist of removing and resetting (R&R) parking kiosks and installing new foundations in accordance with the plans and/or as directed by the Engineer, and the following:

The work to be done under this item involves the careful removal of the existing parking kiosks and resetting at the locations shown on the plans in accordance with the manufacturer installation guide.

MATERIALS

The concrete foundation shall be proportioned to produce a 28-Day Compressive Strength of 3,500 psi and shall fully cure in preparation for drilling.

CONSTRUCTION METHOD

The conduit to power parking kiosk shall be routed underground before the concrete foundation is poured and terminate inside the parking kiosk lower cabinet in accordance with the manufacturer installation guide.

The installation of the new foundations and resetting of the parking kiosks shall be in accordance with the manufacturer installation guide.

Existing parking kiosks are IPS Group Inc. Multi-Space Parking Meter (MS1).

MEASUREMENT AND PAYMENT

Payment for parking kiosk remove and reset shall be at the Contract Unit price bid per each, complete in place, which price shall include the installation of new concrete foundations, all labor, materials, equipment and incidental necessary to complete the work to the satisfaction of the Engineer.

ITEM 908.5	RETAINING WALL REPAIR	LUMP SUM
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DESCRIPTION

Work under this Item shall conform to the relevant provisions of Sections 901, M4.02.00 and M8.01.7 of the MassDOT Standard Specifications and the following:

The work to be done under this item involves the cleaning of any dirt, vegetation, debris, and loose material; the removal of deteriorated material; the core drilling of holes in the existing concrete wall for the embedment of new reinforcement bars; the installation of temporary form boards; and the filling of the void with new cast-in-place concrete mix on top of the existing wall along the pedestrian access to the parking lot from Bacon Street.

MATERIALS

The materials shall be constructed in close conformity to the lines and grades shown on the plans and as directed by the Engineer.

The concrete mix shall be proportioned to produce a 28-Day Compressive Strength of 4,000 psi.

The epoxy setting compound for the new rebar in the drilled holes shall be Sikadur-32 Hi-Mod as manufactured by Sika Corp. or an approved equivalent product.

CONSTRUCTION METHOD

The Contractor shall clean the surface of the existing wall to remove any loose material and confine any dust or debris from migrating to the abutting property.

Additional deteriorated material as determined by the Engineer shall be removed with the careful use of a concrete chiseling machine capable of removing the deteriorated material without causing damage to existing concrete which is to be retained.

Once clean, the Contractor shall core drill holes in the existing concrete wall for the embedment of #3 vertical steel reinforcement bars a minimum of 6 inches into the existing concrete and spaced at 12 inches on center as shown on the plans or as directed by the Engineer.

All holes must be core drilled. No impact or percussion type drills will be allowed. The Contractor shall prevent damage to existing concrete during the drilling operation. All damage to existing concrete which is to be retained shall be repaired to a condition equal to that existing prior to drilling at the Contractor's expense.

All core drilled holes shall be clear of any loose material prior to placing the epoxy setting compound. The Contractor shall have the approval of the Engineer certifying that the cored holes are sufficiently clean before any epoxy setting compound is placed.

The Contractor shall follow the recommendations of the manufacturer for mixing and placing the epoxy setting compound prior to placement of the #3 vertical steel rebars. When placing the epoxy setting compound, the Contractor shall conform to the manufacturer's specifications for minimum and maximum temperature requirements. Any excessive epoxy setting compound around the hole after placement of the #3 vertical steel rebars shall be struck off smooth while the epoxy setting compound is still fresh.

Steel rebar embedment must be adequate to fully develop the bond strength of the bar. The Contractor shall tie #3 horizontal steel rebar to the vertical bars. The minimum clearance from the top of the steel rebar to the finished top of wall shall be 2 inches as shown on the plans.

Once the steel rebar and temporary form boards installation has been approved by the Engineer, the concrete mix shall be pumped through a hose of the appropriate size to ensure that the concrete mix is placed deep into the voids. A concrete vibrator shall be used to work the cement mix into the inner reaches of the void. The cement mix shall be placed in lifts small enough to ensure that no voids are created as the hose is retracted. The finished top of wall shall match the original wall height.

The finish shall be done by hand with a sponge to give a semi rough texture to the wall.

The Contractor shall submit to the Engineer for approval a complete description of the equipment and the method of application proposed for this work.

The Contractor shall be responsible for maintaining the stability of the wall throughout the process.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the contract unit price bid per lump sum, complete in place and shall include the cleaning of the surface of the existing retaining wall, removal of deteriorated material, core drilling of holes, epoxy setting compound, steel reinforcement bars, temporary form boards, and all labor, materials, equipment and incidentals necessary to complete the work to the satisfaction of the Engineer.

<u>ITEM 999.01</u>	<u>MISCELLANEOUS WORK ALLOWANCE</u>	<u>ALLOWANCE</u>
<u>DESCRIPTION</u>		

The intent of this section is not for work or materials typically incidental to other work items performed and/or rendered under this contract, or for work and/or materials which are otherwise called for under these specifications, and/or for work which is indicated on the plans, but for work and materials which are unique in nature and rendered as a direct request of the Engineer or other approved contingencies.

This item may also be used for work completed by others on private utility castings. These items of work shall be completed only when and as directed by the Engineer.

The Contractor may not proceed with any work under this section without the written notice of the Engineer to complete the work under the "Miscellaneous Work Allowance" item.

MEASUREMENT AND PAYMENT

All work under this item shall be paid for by one or more or a combination of the following methods at the City's discretion:

1. Unit prices previously bid
2. An agreed lump sum
3. The actual cost of:
 - a. labor, including foreman
 - b. materials entering permanently into the work
 - c. the ownership or rental cost of construction plant and equipment during the time of use on the extra work
 - d. power and consumable supplies for the operation of power equipment
 - e. insurance
 - f. social security and old age, and unemployment benefits

To the cost for this item shall be added a fixed fee to be agreed upon, but not to exceed fifteen per cent (15%) of the actual cost of the work. The fee shall be compensation to cover the cost of supervision, overhead, bond, profit and any other general expense.

The City shall retain a cash credit in full or in part, in the event that the final cost of materials and/or equipment is lower than the original cash allowance provided.

To the estimated cost or actual cost for work performed by subcontractors, there shall be added a fixed fee of ten per cent (10%) as compensation to cover the subcontractor's cost of supervision, overhead, profit and any other subcontract general expense, plus ten per cent (10%) as compensation to cover the General Contractor's cost of supervision, overhead, profit, bond, and any other general expenses.

Payment for work completed under this item shall be as specified above, in full or in part, as pre-approved by the Engineer.

ITEM 999.02 ALLOWANCE FOR PAYMENT OF TRAFFIC CONTROL OFFICERS ALLOWANCE

DESCRIPTION

The Contractor shall include in his bid an allowance for payment of traffic control officers as approved by the Engineer. This allowance will be used as a basis for comparison of bids only.

Under this item the Contractor shall be responsible for ordering, and for canceling details on a day-to-day basis. In the event the Contractor has ordered police details and does not give the police department ample advance notice that work has been cancelled for that day due to inclement weather or for any other reason, then the Contractor shall bear the expense of that billed detail.

The Contractor shall completely familiarize himself with the current policies regarding and/or regulating police details.

In the event police detail requests cannot be completely filled to cover the Contractor's scheduled work for any particular day, then the Contractor shall adjust his work schedule accordingly and shall not hold the City responsible for any loss of time, or for any other financial loss. The City of Newton will however grant an extension of time to the original contract term for each day lost due to insufficient police staffing.

Uniformed Traffic Officers will be required during the construction period and shall be paid for directly by the City. It shall be the responsibility of the Contractor to arrange for the necessary police details when approved by the City for each police detail required. This request and approval may be verbal or in writing at the discretion of the City. **Forty-Eight (48) hour notice to the Police Department is required.**

The City will pay the exact charges for police details ordered, with the approval of the Engineer, by the Contractor for this project. There will be no administration fee, mark-ups, or any other additional costs paid to the Contractor.

If the Contractor fails to cancel any police detail not needed, by the required deadline, as set forth by the Newton Police Department, the cost for such detail as invoiced to the City shall be deducted from the total reimbursement to the Contractor, unless otherwise waived by the City. There will be no separate payment for the Contractor's coordination with the Police Department or City to obtain police details.

MEASUREMENT AND PAYMENT

Under Item 999.02, the Contractor shall submit paid invoices to the Engineer. The Contractor shall then be reimbursed the full invoice amount for City of Newton Police Department charges and/or, when applicable, for Massachusetts State Police charges, as full reimbursement under the allowance for payment of Police officers.

The original invoice issued by the billing authority must be submitted to the Engineer for payment under this item.

ITEM 999.05	ELECTRICAL WORK	LUMP SUM
ITEM 999.06	LIGHTIG FIXTURES	LUMP SUM

SECTION 16010: BASIC ELECTRICAL REQUIREMENTS

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Basic Electrical Requirements specifically applicable to Division 16 Sections, in addition to Division 1 - General Requirements.

1.2 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code.

1.3 SUBMITTALS

- A. Submit shop drawings and product data grouped to include complete submittals of related systems, products, and accessories in a single submittal.
- B. Mark dimensions and values in units to match those specified.

1.4 REGULATORY REQUIREMENTS

- A. Conform to applicable State Building Code.
- B. Electrical: Conform to National Electrical Code with State amendments.
- C. Obtain permits, and request inspections from authority having jurisdiction.

1.5 PROJECT/SITE CONDITIONS

- A. Install Work in locations shown on Drawings, unless prevented by Project conditions.
- B. Prepare drawings showing proposed rearrangement of Work to meet Project conditions, including changes to Work specified in other Sections. Obtain permission of Architect/Engineer before proceeding.

1.6 SEQUENCING AND SCHEDULING

- A. Construct Work in sequence under provisions of Section 01010.

END OF SECTION

SECTION 16111: CONDUIT

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Metal conduit.
- B. Flexible metal conduit.
- C. Liquid tight flexible metal conduit.
- D. Electrical metallic tubing.
- E. Nonmetallic conduit.
- F. Electrical nonmetallic tubing.
- G. Flexible nonmetallic conduit.
- H. Fittings and conduit bodies.

1.2 RELATED SECTIONS

- A. Section 07270 - Fire Stopping.
- B. Section 16130 - Boxes.
- C. Section 16170 - Grounding and Bonding.
- D. Section 16190 - Supporting Devices.
- E. Section 16195 - Electrical Identification.

1.3 REFERENCES

- A. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
- B. ANSI C80.3 - Electrical Metallic Tubing, Zinc Coated.
- C. ANSI C80.5 - Rigid Aluminum Conduit.
- D. ANSI/NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
- E. ANSI/NFPA 70 - National Electrical Code.

- F. NECA "Standard of Installation."
- G. NEMA RN 1 - Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit.
- H. NEMA TC 2 - Electrical Plastic Tubing (EPT) and Conduit (EPC-40 and EPC-80).
- I. NEMA TC 3 - PVC Fittings for Use with Rigid PVC Conduit and Tubing.

1.4 DESIGN REQUIREMENTS

- A. Conduit Size: ANSI/NFPA 70.

1.5 SUBMITTALS

- A. Product Data: Provide for metallic conduit, flexible metal conduit, liquid tight flexible metal conduit, metallic tubing, nonmetallic conduit, flexible nonmetallic conduit, nonmetallic tubing, fittings, conduit bodies.

1.6 PROJECT RECORD DOCUMENTS

- A. Accurately record actual routing of conduits larger than 2 inches.

1.7 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. testing firm acceptable to authority having jurisdiction as suitable for purpose specified and shown.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle Products to site.
- B. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.
- C. Protect PVC conduit from sunlight.

1.9 PROJECT CONDITIONS

- A. Verify that field measurements are as shown on Drawings.
- B. Verify routing and termination locations of conduit prior to rough-in.
- C. Conduit routing is shown on Drawings in approximate locations unless dimensioned. Route as required to complete wiring system.

2 PART 2 PRODUCTS

2.1 CONDUIT REQUIREMENTS

- A. Minimum Size: 1/2 inch unless otherwise specified.
- B. Underground Installations:
 - a. In or Under Slab on Grade: Use rigid steel conduit, intermediate metal conduit, plastic coated conduit, thick wall nonmetallic conduit.
 - b. Minimum Size: 3/4 inch.
- C. Outdoor Locations, Above Grade: Use rigid steel and, intermediate metal conduit.
- D. Wet and Damp Locations: Use rigid steel and aluminum conduit, intermediate metal conduit.
- E. Dry Locations:
 - 1. Concealed: Use rigid steel, intermediate metal conduit, electrical metallic tubing
 - 2. Exposed: Use rigid steel and aluminum conduit, intermediate metal conduit.

2.2 METAL CONDUIT

- A. Rigid Steel Conduit: ANSI C80.1.
- B. Rigid Aluminum Conduit: ANSI C80.5.
- C. Intermediate Metal Conduit (IMC): Rigid steel.
- D. Fittings and Conduit Bodies: ANSI/NEMA FB 1; material to match conduit.

2.3 FLEXIBLE METAL CONDUIT

- A. Description: Interlocked steel aluminum construction.
- B. Fittings: ANSI/NEMA FB 1.

2.4 LIQUIDTIGHT FLEXIBLE METAL CONDUIT

- A. Description: Interlocked steel aluminum construction with PVC jacket.
- B. Fittings: ANSI/NEMA FB 1.

2.5 ELECTRICAL METALLIC TUBING (EMT)

- A. Description: ANSI C80.3; galvanized tubing.
- B. Fittings and Conduit Bodies: ANSI/NEMA FB 1; steel set screw type.

2.6 NONMETALLIC CONDUIT

- A. Description: NEMA TC 2; Schedule 40 80 PVC.
- B. Fittings and Conduit Bodies: NEMA TC 3.

3 PART 3 EXECUTION

3.1 INSTALLATION

- A. Install conduit in accordance with NECA "Standard of Installation."
- B. Install nonmetallic conduit in accordance with manufacturer's instructions.
- C. Arrange supports to prevent misalignment during wiring installation.
- D. Support conduit using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.
- E. Group related conduits; support using conduit rack. Construct rack using steel channel; provide space on each for 25 percent additional conduits.
- F. Fasten conduit supports to building structure and surfaces under provisions of Section 16190.
- G. Do not support conduit with wire or perforated pipe straps. Remove wire used for temporary supports
- H. Do not attach conduit to ceiling support wires.
- I. Arrange conduit to maintain headroom and present neat appearance.
- J. Route exposed conduit parallel and perpendicular to walls.
- K. Route conduit installed above accessible ceilings parallel and perpendicular to walls.
- L. Route conduit in and under slab from point-to-point.
- M. Do not cross conduits in slab.
- N. Maintain adequate clearance between conduit and piping.
- O. Maintain 12-inch (300 mm) clearance between conduit and surfaces with temperatures exceeding 104 degrees F (40 degrees C).
- P. Cut conduit square using saw or pipe cutter; de-burr cut ends.
- Q. Bring conduit to shoulder of fittings; fasten securely.
- R. Join nonmetallic conduit using cement as recommended by manufacturer. Wipe nonmetallic conduit dry and clean before joining. Apply full even coat of cement to entire area inserted in fitting. Allow joint to cure for 20 minutes, minimum.
- S. Use conduit hubs or sealing locknuts to fasten conduit to sheet metal boxes in damp and wet locations and to cast boxes.

- T. Install no more than equivalent of three 90-degree bends between boxes. Use conduit bodies to make sharp changes in direction, as around beams. Use hydraulic one-shot bender to fabricate or factory elbows for bends in metal conduit larger than 2-inch (50 mm) size.
- U. Avoid moisture traps; provide junction box with drain fitting at low points in conduit system.
- V. Provide suitable fittings to accommodate expansion and deflection where conduit crosses seismic, control and expansion joints.
- W. Provide suitable pull string in each empty conduit except sleeves and nipples.
- X. Use suitable caps to protect installed conduit against entrance of dirt and moisture.
- Y. Ground and bond conduit under provisions of Section 16170.
- Z. Identify conduit under provisions of Section 16195.

3.2 INTERFACE WITH OTHER PRODUCTS

- A. Install conduit to preserve fire resistance rating of partitions and other elements, using materials and methods under the provisions of Section 07270.
- B. Route conduit through roof openings for piping and ductwork or through suitable roof jack with pitch pocket. Coordinate location with roofing installation.

END OF SECTION

SECTION 16123: BUILDING WIRE AND CABLE

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Building wire and cable.
- B. Metal clad cable.
- C. Wiring connectors and connections.

1.2 RELATED SECTIONS

- A. Section 16111 - Conduit.
- B. Section 16130 - Boxes.
- C. Section 16195 - Identification.

1.3 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code.

1.4 SUBMITTALS

- A. Product Data: Provide for each cable type.
- B. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements.

1.5 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. testing firm acceptable to authority having jurisdiction as suitable for purpose specified and shown.

1.6 PROJECT CONDITIONS

- A. Verify that field measurements are as shown on Drawings.
- B. Conductor sizes are based on copper.
- C. Wire and cable routing shown on Drawings is approximate unless dimensioned. Route wire and cable as required to meet Project Conditions.
- D. Where wire and cable routing are not shown, and destination only is indicated, determine exact routing and lengths required.

1.7 COORDINATION

- A. Determine required separation between cable and other work.
- B. Determine cable routing to avoid interference with other work.

2 PART 2 PRODUCTS

2.1 BUILDING WIRE AND CABLE

- A. Description: Single conductor insulated wire.
- B. Conductor: Copper.
- C. Insulation Voltage Rating: 600 volts.
- D. Insulation: ANSI/NFPA 70, Type THW RHW TW THHN/THWN XHHW

2.2 METAL CLAD CABLE

- A. Description: ANSI/NFPA 70, Type MC.

- B. Conductor: Copper.
- C. Insulation Voltage Rating: 600 volts.
- D. Insulation Temperature Rating: 90 degrees C.
- E. Insulation Material: Thermoplastic.
- F. Armor Material: Steel.
- G. Armor Design: Interlocked metal tape, Corrugated tube, Smooth tube.
- H. Jacket: None.

3 PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that interior of building has been protected from weather.
- B. Verify that mechanical work likely to damage wire and cable has been completed.

3.2 PREPARATION

- A. Completely and thoroughly swab raceway before installing wire.

3.3 WIRING METHODS

- A. Concealed Dry Interior Locations: Use only building wire, Type TW THW THHN/THWN XHHW insulation, in raceway.
- B. Exposed Dry Interior Locations: Use only building wire, Type TW THW THHN/THWN XHHW insulation, in raceway.
- C. Above Accessible Ceilings: Use only building wire, Type TW THW THHN/THWN XHHW insulation, in raceway.
- D. Wet or Damp Interior Locations: Use only building wire, Type TW THW THHN/THWN XHHW insulation, in raceway.
- E. Exterior Locations: Use only building wire, Type TW THW THHN/THWN XHHW insulation, in raceway.
- F. Underground Installations: Use only building wire, Type TW THW THHN/THWN XHHW insulation, in raceway.
- G. In Partitions: Use only building wire, Type TW THW THHN/THWN XHHW insulation, in raceway or metal clad cable.
- H. Use wiring methods indicated on Drawings.

3.4 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
 - B. Use solid or stranded conductor for feeders and branch circuits 10 AWG and smaller.
 - C. Use stranded conductors for control circuits.
 - D. Use conductor not smaller than 12 AWG for power and lighting circuits.
 - E. Use conductor not smaller than 16 AWG for control circuits.
 - F. Pull all conductors into raceway at same time.
 - G. Use suitable wire pulling lubricant for building wire 4 AWG and larger.
 - H. Protect exposed cable from damage.
- I. Support cables above accessible ceiling, using spring metal clips or metal plastic cable ties to support cables from structure or ceiling suspension system. Do not rest cable on ceiling panels.
- J. Use suitable cable fittings and connectors.
 - K. Neatly train and lace wiring inside boxes, equipment, and panelboards.
 - L. Clean conductor surfaces before installing lugs and connectors.
 - M. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
 - N. Use split bolt connectors for copper conductor splices and taps, 6 AWG and larger. Tape uninsulated conductors and connector with electrical tape to 150 percent of insulation rating of conductor.
 - O. Use solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
 - P. Use insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.

3.5 INTERFACE WITH OTHER PRODUCTS

- A. Identify wire and cable under provisions of Section 16195.
- B. Identify each conductor with its circuit number or other designation indicated on Drawings.

3.6 FIELD QUALITY CONTROL

- A. Inspect wire and cable for physical damage and proper connection.
- B. Measure tightness of bolted connections and compare torque measurements with manufacturer's recommended values.

- C. Verify continuity of each branch circuit conductor.

END OF SECTION

SECTION 16170: GROUNDING AND BONDING

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Grounding electrodes and conductors.
- B. Equipment grounding conductors.
- C. Bonding.

1.2 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code.

1.3 GROUNDING ELECTRODE SYSTEM

- A. Existing Metal underground water pipe.
- B. Metal frame of the building.
- C. Concrete-encased electrode.
- D. Rod electrode.
- E. Plate electrode.

1.4 PERFORMANCE REQUIREMENTS

- A. Grounding System Resistance: 5 ohms.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data for grounding electrodes and connections.
- C. Manufacturer's Instructions: Include instructions for storage, handling, protection, examination, preparation and installation of exothermic connectors.

1.6 PROJECT RECORD DOCUMENTS

- A. Accurately record actual locations of grounding electrodes.

1.7 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.

- B. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

2 PART 2 PRODUCTS

2.1 ROD ELECTRODE

- A. Material: Copper-clad steel.
- B. Diameter: 3/4 inch.
- C. Length: 10 feet.

2.2 MECHANICAL CONNECTORS

- A. Material: Bronze.

2.3 EXOTHERMIC CONNECTIONS

- A. Manufacturers:
 - 1. CAD-WELD.

2.4 WIRE

- A. Material: Stranded copper.
- B. Grounding Electrode Conductor: Size to meet NFPA 70 requirements.

3 PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that final backfill and compaction has been completed before driving rod electrodes.

3.2 INSTALLATION

- A. Install Products in accordance with manufacturer's instructions.
- B. Install rod electrodes at locations indicated. Install additional rod electrodes as required to achieve specified resistance to ground.
- C. Provide grounding electrode conductor and connect to reinforcing steel in foundation footing where indicated.
- D. Provide bonding to meet Regulatory Requirements.
- E. Bond together metal siding not attached to grounded structure, bond to ground.

- F. Bond together each metallic raceway, pipe, duct and other metal object.
 - G. Provide isolated grounding conductor for circuits supplying electronic cash registers personal computers and equipment as noted.
- 3.3 FIELD QUALITY CONTROL
- A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.
 - B. Use suitable test instrument to measure resistance to ground of system. Perform testing in accordance with test instrument manufacturer's recommendations using the fall-of-potential method.

END OF SECTION

**Bidders are responsible for downloading the specifications
from the City's web site www.newtonma.gov/bids .**