CITY OF NEWTON PURCHASING DEPARTMENT CONTRACT FOR PUBLIC WORKS DEPARTMENT (M.G.L. Ch. 30, §39M) **PROJECT MANUAL: BONDED WEARING COURSE PAVEMENT PRESERVATION INVITATION FOR BID #20-55** Bid Opening Date: May 7, 2020 at 11:30 a.m.

APRIL 2020

Ruthanne Fuller, Mayor

CITY OF NEWTON, MASSACHUSETTS

PURCHASING DEPARTMENT

INVITATION FOR BID #20-55

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

BONDED WEARING COURSE PAVEMENT PRESERVATION

Bids will be received until: 11:30 a.m., Thursday, May 7, 2020* at the Purchasing Department, Room 201, 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 Bids will not be accepted nor may submitted bids be corrected, modified or withdrawn after the deadline for bids.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.

- * To promote the health and safety of City workers and the public, Newton City Hall is closed to the public. The City has adopted the following procedures that may affect your participation in this bid:
- 1. Bidders who wish to attend the Bid Opening can do so by telephone conference call. To attend, call 617.454.5555. When prompted, enter Participant Passcode 1220#. There will be no in person meetings.
- 2. Bids not sent by mail or courier can only be dropped off in a locked drop box at the top of the stairs to left of the main door to City Hall. The box will be checked at the scheduled submission deadline.
- 3. Bids results will be scanned and posted as soon as practicable after the opening. Copies of bids will be available on written request.

The work under this contract includes, but is not limited to, construction services to provide cleaning, general preparation, resetting/adjusting of utility castings, pavement milling, repairs to concrete with mastic, asphalt rubber stress absorbing membrane interlayer (ARSAMI), installation of a bonded wearing course (BWC), and all other specified and incidental work on bituminous concrete and concrete roadways. The Contractor is further advised that this work will involve extensive traffic control measures and coordination with the City. All other work described in the Contract Documents unless specifically indicated as not to be done. The work to be completed under this contract is located at multiple roadway locations and work shall be completed based upon a schedule as determined by the Engineer on a day-to-day basis.

* <u>Notice #1:</u> The quantities represented in this Invitation for Bid are dependent on Massachusetts Department of Transportation (MassDOT) Chapter 90 funding. These monies are customarily allotted, and subsequently apportioned by the City of Newton, on or about April 1 of each calendar year. <u>Therefore the quantities listed in this Invitation for Bid (IFB) may be revised at the time of the bid award</u>.

Documents relating to this Invitation for Bids (Contract Documents) will be available online at <u>www.newtonma.gov/bids</u> or pick up at the Purchasing Department after **10:00 a.m., April 23, 2020. Bids must be submitted with one Original and two Copies.**

Only paving contractors that have been prequalified by Mass DOT 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, <u>including</u> 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 on or before June 1, 2020. Time for completion is prior to December 31, 2020.

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 (<u>www.newtonma.gov/bids</u>) I strongly suggest you email (<u>purchasing@newtonma.gov</u>) 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

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Nicholas Read *Chief Procurement Officer* April 23, 2020

CITY OF NEWTON, MASSACHUSETTS

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 sites (*See* "Limits of Work," p. 79 below.) and is familiar with the local conditions under which the work has to be performed.
- 1.2 Failure to so examine the Contract Documents and work sites 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 <u>purchasing@newtonma.gov</u> or via facsimile (617) 796-1227. The City will answer such requests if received by **Friday**, **May 1**, **2020** 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.**
- 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 <u>purchasing@newtonma.gov</u> 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 #20-55**.

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 <u>www.newtonma.gov/purchasing</u>.

ARTICLE 4 - PREPARATION AND SUBMISSION OF BIDS

- 4.1 Bids shall be submitted on the "Bid Form #20-55," 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: #20-55
 * NAME OF PROJECT: BONDED WEARING COURSE PAVEMENT PRESERVATION
 * 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.
- 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 Bids shall be submitted with one original and one copy.

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 to 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 in the Bid Form compliance with the application 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 allow price adjustments in the award of this Contract. These price adjustments shall be for **Fuel**, **Asphalt, and Portland Cement** when such commodities have been determined to be integral components of the work.

For Fuel a special provision shall provide for a price adjustment formula. 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 MassDOT price adjustment tables as included in this bid package to establish the base price and will be used for the actual period price.

Price Adjustment Clauses – *to apply as follows:*

- **Diesel and Gasoline** Fuel Cost Differentials may be available for items containing Asphalt/Petroleum based products (*See* Item 0.303DFC-A) and items containing Excavation and Back Fill (*See* Item 0.303DFC-EXB). The Base Price, and the Period Price of fuel, shall be the derived from the MassDOT average cost of Diesel Fuel and Gasoline Fuel combined for each applicable payment period. Fuel adjustments shall apply to all work in the contract. The Contractor, at its own election, may either choose to bid fuel costs separately, or it may otherwise elect to incorporate fuel costs into its pricing for construction services. In any event the Contractor's final bid prices shall include the fuel costs for all goods and services rendered under this contract.
- Asphalt A differential may be available for Liquid Asphalt for items containing Asphalt/Petroleum based products. (*See* Item 0.303DLA)
- **Portland Cement Concrete** A differential may be available for items containing Portland Cement. (*See* Item 0.303DPC if provided)

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, p. 80-143. It is the City's intent to award one contract to the responsive and eligible bidder offering the lowest Total Bid Price on Bid Form #20-55. 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.
- 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.

ARTICLE 10 – ENVIRONMENTALLY PREFERABLE PRODUCTS

- 10.1 The City encourages environmentally preferable products, i.e., products or services that have less negative or more positive effects on human health and the environment when compared with competing products or services that serve the same purpose. The city encourages bidders to describe, in the space provided on the Bid Form, the environmental attributes of its goods or services throughout the entire life cycle, including manufacture, use and disposition. This information may include multiple environmental considerations such as natural resource use, recycled content, energy and water efficiency, greenhouse gas emissions, impact on climate change, packaging, hazardous material use, and health and safety impacts on workers, consumers and the community. If you do not currently assess such attributes, please indicate that. However you respond, the City will not take your information into account in evaluating bid proposals.
- 10.2 Bidders are encouraged also to provide information related to steps they take internally to (a) identify any positive or negative environmental attributes of products or services they offer, as specified above, and (b) insure that those attributes are being addressed as part of operations.

END OF SECTION

CITY OF NEWTON, MASSACHUSETTS

DEPARTMENT OF PURCHASING

BID FORM #20-55

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:

BONDED WEARING COURSE PAVEMENT PRESERVATION

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.

____Dollars and \$_____

(Contract price shall equal the Total Bid Price from Item Sheet p. 89.)

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, 10 pages
 - □ Certificate of Non-Collusion, 1 page
 - □ Certificate of Foreign Corporation, 1 page
 - □ Certificate of Tax Compliance, 1 page
 - Debarment Letter, 1 page
 - □ IRS Form W-9, 1 page
 - \Box 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 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:

Date

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

(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.

ING CONTRACT AMOUNT AND ANTICIPA
T AWARDED TO YOU?
T AWARDED TO YOU?
YESNO
THIS CONTRACT:
N REGARDING CONTRACTS COMPLETED D. A MINIMUM OF FOUR (4) CONTRACTS), BUT NOT MANDATORY.
DATE COMPLETED:
ELEPHONE #:)
tract manager, purchasing agent, etc.)

PUBLICLY BID?YESN	
TYPE OF WORK?:	
CONTACT PERSON:	TELEPHONE #: ()
CONTACT PERSON'S RELATION TO PROJECT?:	
PROJECT NAME:	
OWNER:	
CITY/STATE:	
DOLLAR AMOUNT: \$	DATE COMPLETED:
PUBLICLY BID?YESN	NO
TYPE OF WORK?:	
CONTACT PERSON:	TELEPHONE #: ()
CONTACT PERSON'S RELATION TO PROJECT?:	
PROJECT NAME:	
OWNER:	
CITY/STATE:	
DOLLAR AMOUNT: \$	DATE COMPLETED:
PUBLICLY BID?YESN	
TYPE OF WORK?:	
CONTACT PERSON:	TELEPHONE #:()
CONTACT PERSON'S RELATION TO PROJECT?:	
((i.e., contract manager, purchasing agent, etc.)
The undersigned certifies that the information conta	ained herein is complete and accurate and hereby authorizes an
	y information requested by the City of Newton in verification of th
DATE: BIDDER:	·
SIGNATURE:	

PRINTED NAME:	TITLE:
	IIILL.

10.

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

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

Print Name:_____

By:

Date: _____

Corporate Officer (Mandatory, if applicable)

Print Name:____

* 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.

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





Mayor Ruthanne Fuller

Date

Vendor

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

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

Re: Debarment Letter for Invitation For Bid #20-55

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 EMAIL	FAX	(Franciss)
		Signature
	Date	

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



*c*i

Request for Taxpayer Identification Number and Certification

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

Name (as shown on your income tax return)

on page	Business name, if different from above		
rint or type Instructions	Check appropriate box: ☐ Individual/Sole proprietor ☐ Corporation ☐ Partnership ☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=pai ☐ Other (see instructions) ►	rtnership) ►	$\mathbf{X}_{payee}^{Exempt}$
	Address (number, street, and apt. or suite no.)	Requester's name and a	ldress (optional)
P Specific	City, state, and ZIP code		
See S	List account number(s) here (optional)		
Par	t I Taxpayer Identification Number (TIN)		
backu	your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to up withholding. For individuals, this is your social security number (SSN). However, for a re-	sident	ity number
	sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entiti employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> or		or

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

Employer identification nun	nber
1	

Certification Part II

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

- 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 Signature of Here U.S. person ►	Date Name	
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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,

Cat. No. 10231X

Form W-9 (Bev. 10-2007)

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 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 them, 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:

BONDED WEARING COURSE PAVEMENT PRESERVATION

- 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 on or before June 1, 2020. Time for completion is prior to December 31, 2020.
- 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 #20-55 issued by the Purchasing Department;
 - c. The Project Manual for: BONDED WEARING COURSE PAVEMENT PRESERVATION 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. APPLICABLE STATUTES. All applicable federal, state and local laws and regulations are incorporated herein by reference and the Contractor agrees to comply with same.

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

CITY OF NEWTON
By Chief Procurement Officer
Chief Procurement Officer
Date
····
By
By Commissioner of Public Works
Date
Approved as to Legal Form and Character
By
By Associate City Solicitor
Date
CONTRACT & BONDS ARE APPROVED
By Mayor or her designee
Mayor or her designee
mayor or ner designee

CERTIFICATE OF AUTHORITY – CORPORATE

1	I hereby certify that I am the Clerk/Secretary of	
	(ins	sert full name of Corporation)
2.	corporation, and that(insert the name of officer wh	
	(insert the name of officer wh	o signed the <u>contract and bonds</u> .)
3.	is the duly elected	
4.	of said corporation, and that on	(insert the title of the officer in line 2)
7.	(insert a date that	is ON OR BEFORE the date the contract and bonds.)
	at a duly authorized meeting of the Board of Directors of said co notice, it was voted that	rporation, at which all the directors were present or waived
5.	the the	
	(insert name from line 2)	(insert title from line 3)
	of this corporation be and hereby is authorized to execute contr and affix its Corporate Seal thereto, and such execution of any behalf, with or without the Corporate Seal, shall be valid and b been amended or rescinded and remains in full force and effect	y contract of obligation in this corporation's name and on its binding upon this corporation; and that the above vote has not
6.	ATTEST:	AFFIX CORPORATE
	(Signature of Clerk or Secretary)*	SEAL HERE
7.	Name:	
	(Please print or type name in line 6)*	
8.	Date:	

* 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	d firmly bound unto the City of Newton as Obligee, in the sum of	dollar	S	
(\$	_) to be paid to the Obligee, for which payments well and truly to be made, we bind oursely	ves, our re	espec	tive
heirs, executors, admin	nistrators, successors and assigns, jointly and severally, firmly by these presents.			
Whereas, the s	said PRINCIPAL has made a contract with the Obligee, bearing the date of	2020	for	the
construction of	in Newton, Massa	chusetts.		

(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 _____2020.

PRINCIPAL	<u>SURETY</u>				
BY	BY				
(SEAL)	(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.

CITY OF NEWTON, MASSACHUSETTS

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. <u>The Contractor and all subcontractors shall, on a weekly basis throughout the term of the contract, provide to the</u> <u>City of Newton certified payroll affidavits verifying compliance with M.G.L. c.149, Sec. 27, 27A and 27B.</u> 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

				AND WOR BOR STAI	RKFORCE I NDARDS		MENT
CHARLES D. BAKER Governor KARYN E. POLITO Lt. Governor		As determined Massachusetts G	by the Director eneral Laws, Ch	-		ł	ROSALIN ACOSTA Secretary MICHAEL FLANAGAN Interim Director
Awarding Authority:	City of Newton						
Contract Number:	#20-55			4	City/Town:	NEWTON	
Description of Work:	••	Vearing Course, a v and other related w		-		d followed by	hot mix asphalt
Job Location:	Parker/Cherry S	t, Newton					

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.

Issue Date: 04/15/2020

6

Wage Request Number: 20200415-058

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
2 AXLE) DRIVER - EQUIPMENT	12/01/2019	\$35.35	\$12.41	\$13.72	\$0.00	\$61.48
EAMSTERS JOINT COUNCIL NO. 10 ZONE A	06/01/2020	\$36.25	\$12.41	\$13.72	\$0.00	\$62.38
	08/01/2020	\$36.25	\$12.91	\$13.72	\$0.00	\$62.88
	12/01/2020	\$36.25	\$12.91	\$14.82	\$0.00	\$63.98
	06/01/2021	\$37.05	\$12.91	\$14.82	\$0.00	\$64.78
	08/01/2021	\$37.05	\$13.41	\$14.82	\$0.00	\$65,28
	12/01/2021	\$37.05	\$13.41	\$16.01	\$0.00	\$66.47
3 AXLE) DRIVER - EQUIPMENT	12/01/2019	\$35.42	\$12,41	\$13.72	\$0.00	\$61.55
EAMSTER'S JOINT COUNCIL NO. 10 ZONE A	06/01/2020	\$36.32	\$12.41	\$13.72	\$0.00	\$62.45
	08/01/2020	\$36.32	\$12.91	\$13.72	\$0.00	\$62.95
	12/01/2020	\$36.32	\$12.91	\$14.82	\$0.00	\$64.05
	06/01/2021	\$37.12	\$12.91	\$14.82	\$0.00	\$64.85
	08/01/2021	\$37.12	\$13.41	\$14.82	\$0.00	\$65.35
	12/01/2021	\$37.12	\$13.41	\$16.01	\$0.00	\$66.54
4 & 5 AXLE) DRIVER - EQUIPMENT	12/01/2019	\$35.54	\$12.41	\$13.72	\$0.00	\$61.67
EAMSTERS JOINT COUNCIL NO. 10 ZONE A	06/01/2020	\$36.44	\$12.41	\$13.72	\$0.00	\$62.57
	08/01/2020	\$36.44	\$12.91	\$13.72	\$0.00	\$63.07
	12/01/2020	\$36.44	\$12.91	\$14.82	\$0.00	\$64,17
	06/01/2021	\$37.24	\$12.91	\$14.82	\$0.00	\$64.97
	08/01/2021	\$37.24 \$37.24	\$13.41	\$14.82	\$0.00	\$65.47
	12/01/2021	\$37.24	\$13.41	\$16.01	\$0.00	\$66.66
ADS/SUBMERSIBLE PILOT	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
VILE DRIVER LOCAL 56 (ZONE 1)	00/01/2019	3102.70	39.90	<i>\$21.15</i>	30.00	\$155.65
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR	12/01/2019	\$39.90	\$8.10	\$16.60	\$0.00	\$64.60
ABORERS - ZONE	06/01/2020	\$40.89	\$8.10	\$16.60	\$0.00	\$65.59
· · · · · · · · · · · · · · · · · · ·	12/01/2020	\$41.87	\$8.10	\$16.60	\$0.00	\$66.57
· · · · ·	06/01/2021	\$42.89	\$8.10	\$16.60	\$0.00	\$67.59
	12/01/2021	\$43.90	\$8.10	\$16.60	\$0.00	\$68.60
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. Heat & Frost insulators local 6 (boston)	12/01/2019	\$37.00	\$12.50	\$8.85	\$0.00	\$58.35
IEAT & FROST INSULATORS LOCAL 0 (BOSTON)	06/01/2020	\$38.00	\$12.50	\$8.85	\$0.00	\$59.35
	12/01/2020	\$39.00	\$12.50	\$8.85	\$0.00	\$60.35
ASPHALT RAKER	12/01/2019	\$39.40	\$8.10	\$16.60	\$0.00	\$64.10
ABORERS - ZONE I	06/01/2020	\$40.39	\$8.10	\$16.60	\$0.00	\$65.09
· ,	12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
	06/01/2021	\$42.39	\$8.10	\$16.60	\$0.00	\$67.09
	12/01/2021	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE Operating engineers local 4	12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
	06/01/2020	\$49,83	\$12.50	\$15.70	\$0.00	* \$78.03
	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80,28
For apprentice rates such that sales of the construction of GINEERS"	12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$51.40
		-013				

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BACKHOE/FRONT-END LOADER	12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
	12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER LABORERS - ZONE I	12/01/2019	\$39.40	\$8.10	\$16.60	\$0.00	\$64.10
LABORERS - ZONE I	06/01/2020	\$40.39	\$8.10	\$16.60	\$0.00	\$65.09
	12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
	06/01/2021	\$42.39	\$8.10	\$16.60	\$0.00	\$67.09
	12/01/2021	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER	12/01/2019	\$39.90	\$8.10	\$16.60	\$0.00	\$64.60
LABORERS - ZONE I	06/01/2020	\$40.89	\$8.10	\$16.60	\$0.00	\$65.59
	12/01/2020	\$41.87	\$8.10	\$16.60	\$0.00	\$66.57
	06/01/2021	\$42.89	\$8.10	\$16.60	\$0.00	\$67.59
	12/01/2021	\$43.90	\$8.10	\$16.60	\$0.00	\$68,60
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER BOILERMAKERS LOCAL 29	01/01/2020	\$46.10	\$7.07	\$17.98	\$0.00	\$71.15

Apprentice - BOILERMAKER - Local 29 Effective Date - 01/01/2020

	Step	ve Date - 01/ percent	01/2020	pprentice Base Wage	Usalth	Pension	Supplemental Unemployment	Total Rat	
	1	65	<u>^</u>						
	2	65		\$29.97	\$7.07	\$11.69	\$0.00	\$48.7	
	2			\$29.97	\$7.07	\$11.69	\$0.00	\$48.7	
		70		\$32.27	\$7.07	\$12.59	\$0.00	\$51.9	
	4	75		\$34.58	\$7.07	\$13.49	\$0.00	\$55.1	
	5	80		\$36.88	\$7.07	\$14.38	\$0.00	\$58.3	3
	6	85		\$39.19	\$7.07	\$15.29	\$0.00	\$61.5	5
	7	90		\$41.49	\$7.07	\$16.18	\$0.00	\$64.7	4
	8	95		\$43.80	\$7.07	\$17.09	\$0.00	\$67.9	6
	Notes:								
			_						
	Appre	ntice to Journe	worker Ratio:1:4	anna mana maani sanaa samaa m	nanadi manadak menjadak 200				
		ICIAL MASON	IRY (INĊL. MASONRY	02/01/2020	\$54.40	\$10.75	\$21.94	\$0.00	\$87.09
ATERPROC		 WTTONI		08/01/2020	\$55.75	\$10.75	\$22.09	\$0.00	\$88.59
demandia Di	Jene J (ne	" TOLY		02/01/2021	\$56.39	\$10.75	\$22.09	\$0.00	\$89.23
				08/01/2021	\$57.79	\$10.75	\$22.25	\$0.00	\$90.79
				02/01/2022	\$58.38	\$10.75	\$22.25	\$0.00	\$91.38
							x		
		• • • • • • • • •		a de la carda de	и 1 11 – 14		· · · ·	n an	
J.P.				in the second		•	, °	a tran	
sue Date:	04/15/20	·····	Wage Request 1						Page 3 of 37

Classification

		ve Date - 02/01/2020	4	D W	TTaalah	Donation	Supplemental Unemployment	Total Rate	
	Step	percent		Base Wage		Pension \$21.94	\$0.00	\$59.89	
	1	50		27.20	\$10.75			\$65.33	
	2	60		32.64	\$10.75	\$21.94	\$0.00		
	3	70	,	38.08	\$10.75	\$21.94	\$0.00	\$70.77 \$76.21	
	4	80		43.52	\$10.75	\$21.94	\$0.00		
	5	90	· \$	348.96	\$10.75	\$21.94	\$0.00	\$81.65	
	Effect	ive Date - 08/01/2020					Supplemental		
	Step '	percent	Apprentice	Base Wage	Health	Pension	Unemployment	Total Rate	
	1	50	\$	527.88	\$10.75	\$22.09	\$0.00	\$60.72	
	· 2	60	\$	\$33.45	\$10.75	\$22.09	\$0.00	\$66.29	
	3	70	\$	\$39.03	\$10.75	\$22.09	\$0.00	\$71.87	
	4	80	\$	\$44.60	\$10.75	\$22.09	\$0.00	\$77.44	
	5	90	S	\$50.18	\$10.75	\$22.09	\$0.00	\$83.02	
	Notes								
	110100							1	
	Appre	entice to Journeyworker Ratio:1	:5						
ULLDOZER/GRADER/SCRAPER PERATING ENGINEERS LOCAL 4			12/01/201	9 \$48.2	\$12.50	\$15.70	\$0.00	\$76.43	
			06/01/202	0 \$49.3	\$12.50	\$15.70	\$0.00	\$77.51	
		_		12/01/202	0 \$50.4	45 \$12.50	\$15.70	\$0.00	\$78.65
				06/01/202	1 \$51.	54 \$12.50	\$15.70	\$0.00	\$79.74
				12/01/202	1 \$52.0	58 \$12.50	\$15.70	\$0.00	\$80.88
For apprent	ice rates see	"Apprentice- OPERATING ENGINEERS							
		PINNING BOTTOM MAN		12/01/201	9 \$40.3	25 \$8.10	\$16.80	\$0.00	\$65.15
JRERS - FO	JUNDATION	AND MARINE		06/01/202	0 \$41.	24 \$8.10	\$16.80	\$0.00	\$66.14
				12/01/202	0 \$42.3	22 \$8.10	\$16.80	\$0.00	\$67.12
				06/01/202	1 \$43.3	24 \$8.10	\$16.80	\$0.00	\$68.14
		· ·		12/01/202	1 \$44.3	25 \$8.10	\$16.80	\$0.00	\$69.15
		"Apprentice- LABORER"		10/01/201	0 \$20	10 00 10	\$16.80	\$0.00	\$64.00
		PINNING LABORER V <i>and Marine</i>		12/01/201			\$16.80	\$0.00	\$64.00 \$64.99
···			,	06/01/202			\$16.80 \$16.80	\$0.00 \$0.00	\$65.97
•••				12/01/202			\$16.80	\$0.00 \$0.00	\$66.99
				06/01/202			\$16.80	\$0.00	\$68.00
For appren	tice rates see	"Apprentice- LABORER"		12/01/202	1 \$43.	10 \$8.10	310.00	90,00	.900.00
		PINNING TOP MAN		12/01/201	9 \$39.	10 \$8.10	\$16.80	\$0.00	\$64.00
ORERS - FO	OUNDATIO	N AND MARINE		06/01/202	0 \$40.	09 \$8.10	\$16,80	\$0.00	\$64.99
				12/01/202		07 \$8.10	\$16.80	\$0.00	\$65.97
				06/01/202			\$16.80	\$0.00	\$66.99
		,		12/01/202			\$16.80	\$0.00	\$68.00

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Fage 4 of 37

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CARBIDE CORE DRILL OPERATOR	12/01/2019	\$39.40	\$8.10	\$16.60	\$0.00	\$64.10
LABORERS - ZONE 1	06/01/2020	\$40.39	\$8.10	\$16.60	\$0.00	\$65.09
	12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
	06/01/2021	\$42.39	\$8.10	\$16.60	\$0.00 ·	\$67.09
	12/01/2021	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
CARPENTER	03/01/2020	\$42.50	\$9.40	\$18,95	\$0.00	\$70.85
CARPENTERS -ZONE 2 (Eastern Massachusetts)	09/01/2020	\$43.15	\$9.40	\$18.95	\$0.00	\$71.50
	03/01/2021	\$43.75	\$9.40	\$18.95	\$0.00	\$72.10
	09/01/2021	\$44.40	\$9.40	\$18.95	\$0.00	\$72.75
	03/01/2022	\$45.00	\$9.40	\$18.95	\$0.00	\$73.35
	09/01/2022	\$45.65	\$9.40	\$18.95	\$0.00	\$74.00
	03/01/2023	\$46.25	\$9.40	\$18.95	\$0.00	\$74.60

Apprentice - CARPENTER - Zone 2 Eastern MA

Effect	ive Date -	03/01/2020				Supplemental		
Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
1	50		\$21.25	\$9.40	\$1.73	\$0.00	\$32.38	
2	60		\$25.50	\$9.40	\$1.73	\$0.00	\$36.63	
3	70		\$29.75	\$9.40	\$13.76	\$0.00	\$52.91	
4	75		\$31.88	\$9.40	\$13.76	\$0.00	\$55.04	
5	80		\$34.00	\$9.40	\$15.49	\$0.00	\$58.89	
6	80		\$34.00	\$9.40	\$15.49	\$0.00	\$58.89	
7	90		\$38.25	\$9.40	\$17.22	\$0.00	\$64.87	
8	90		\$38.25	\$9.40	\$17.22	\$0.00	\$64.87	

Effect	ive Date - 09	//01/2020				Supplemental			
Step	percent	. Apprenti	e Base Wage	Health	Pension	Unemployment	Тс	tal Rate	
1	50		\$21.58	\$9.40	\$1.73	\$0.00		\$32.71	
2	60		\$25.89	\$9.40	\$1.73	\$0.00		\$37.02	
3	70		\$30.21	\$9.40	\$13.76	\$0.00		\$53.37	
4	75		\$32.36	\$9.40	\$13.76	\$0.00		\$55.52	
5	80		\$34.52	\$9.40	\$15.49	\$0.00		\$59.41	
6	80		\$34.52	\$9.40	\$15.49	\$0.00		\$59.41	
7	90		\$38.84	\$9.40	\$17.22	\$0.00		\$65.46	
8	90		\$38.84	\$9.40	\$17.22	\$0.00		\$65.46	
Notes	% Indentured	After 10/1/17; 45/45/55/55/70/70/ 26/ 3&4 \$36.18/ 5&6 \$54.64/ 7&		s'Annual kundungi angganga .		93ed -eees - eessar -	An		
Appre	A TRADE SOUTH SOUTH ST	zyworker Ratio:1:5		arrente statuten recorde re	hada madaan naamaan kain	nann naarafiini, sinipipini, en	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -		
ARPENTER WOOD			10/01/2019	\$27.95	\$7.07	\$7.86	\$0.00		\$42.88
All Aspects of New Wo	od Frame Work								
	а Аларана Аларана	an an State State State State State Stat State State Stat		an an ann an	марана 1	•	a.		an a
sue Date: 04/15/20		Wage Request Numbe			•••••				Page 5 of 37

Classification

Effective Date Base Wage Health Pension

Supplemental Total Rate

	ive Date - 10/01/2019			** 1.5	n	Supplemental	T-41 Data	
Step	percent	A	oprentice Base Wage	Health	Pension	Unemployment	Total Rate	
1	60		\$16.77	\$7.07	\$0.00	\$0.00	\$23.84	
2	60		\$16.77	\$7.07	\$0.00	\$0.00	\$23.84	
3	65		\$18.17	\$7.07	\$7.86	\$0.00	\$33.10	
4	70		\$19.57	\$7.07	\$7.86	\$0.00	\$34.50	
5	75		\$20.96	\$7.07	\$7.86	\$0.00	\$35.89	
6	80		\$22.36	\$7.07	\$7.86	\$0.00	\$37.29	
7	85		\$23.76	\$7.07	\$7.86	\$0.00	\$38.69	
8	90		\$25.16	\$7.07	\$7.86	\$0.00	\$40.09	i.
Notes		ala's more more the second			adaaliada adaaaaada ahaashadii	115.010 statute annual tod		
	% Indentured After 10/							
	Step 1&2 \$19.65/ 3&4	\$27.19/ 5&6 \$34	.50/ 7&8 \$37.29		10.000			
Appro	entice to Journeyworker	Ratio:1:5						
ONRY	/PLASTERING		01/01/202	0 \$49.07	\$12.75	\$22.41	\$0.62	\$84.85

CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 (NEWTON)

Apprentice -	CEMENT MASONRY/PLASTERING - Eastern Mass (Newton)
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	Step	ve Date - 01/01/2020 percent	Apprentice Base Wag	e Health	Pension	Supplemental Unemployment	Total Rat	te
	1	50	\$24.54	\$12.75	\$15.41	\$0.00	\$52.7	'0
	2	60	\$29.44	\$12.75	\$17.41	\$0.62	\$60.2	2
	3	65	\$31.90	\$12.75	\$18.41	\$0.62	\$63.6	18
	4	70	\$34.35	\$12.75	\$19.41	\$0.62	\$67.1	3
	5	75	\$36.80	\$12.75	\$20.41	\$0.62	\$70.5	8
	6	80	\$39.26	\$12.75	\$21.41	\$0.62	\$74.0)4
	7	90	\$44.16	\$12.75	\$22.41	\$0.62	\$79.9	94
	Notes:	Steps 3,4 are 500 hrs. All o	• • • • • • • • • • • • • • • • • • •	- 1977		толого <u>н</u> <u></u> с,о функтур или		9 9 9
IAIN SAW			12/01/20	\$39.4	0 \$8.10	\$16.60	\$0.00	\$64.10
	NE I		06/01/20	\$40.3	9 \$8.10	\$16.60	\$0.00	\$65.09
	NE I		06/01/20 12/01/20			\$16.60 \$16.60	\$0,00 \$0.00	\$65.09 \$66.07
	NE I			\$41.3	7 \$8.10			
BORERS - ZOI		Apprentice- I ABORER*	12/01/20	20 \$41.3 21 \$42.3	7 \$8.10 9 \$8.10	\$16.60	\$0.00	\$66.07
BORERS - ZOI For apprenti LAM SHEL	ce rates see '	'Apprentice- LABORER" RY BUCKETS/HEADING	12/01/20 06/01/20 12/01/20	20 \$41.3 21 \$42.3 21 \$43.4	7 \$8.10 9 \$8.10 0 \$8.10	\$16.60 \$16.60	\$0.00 \$0.00	\$66.07 \$67.09
BORERS - ZOI For apprenti	ce rates see '	RY BUCKETS/HEADING	12/01/20 06/01/20 12/01/20	120 \$41.3 121 \$42.3 121 \$43.4 119 \$49.7	7 \$8.10 9 \$8.10 0 \$8.10 3 \$12.50	\$16.60 \$16.60 \$16.60	\$0.00 \$0.00 \$0.00	\$66.07 \$67.09 \$68.10
BORERS - ZOI For apprenti	ce rates see '	RY BUCKETS/HEADING 0CAL 4	12/01/20 06/01/20 12/01/20 MACHINES 12/01/20	20 \$41.3 21 \$42.3 21 \$43.4 119 \$49.7 320 \$50.8	7 \$8.10 9 \$8.10 0 \$8.10 '3 \$12.50 :3 \$12.50	\$16.60 \$16.60 \$16.60 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00	\$66.07 \$67.09 \$68.10 \$77.93
For apprenti LAM SHEL PERATING EM	ce rates see ' LS/SLUR GINEERS LO	RY BUCKETS/HEADING 0CAL 4	12/01/20 06/01/20 12/01/20 MACHINES 12/01/20 06/01/20	120 \$41.3 121 \$42.3 121 \$43.4 119 \$49.7 120 \$50.8 120 \$51.9	7 \$8.10 9 \$8.10 0 \$8.10 3 \$12.50 3 \$12.50 18 \$12.50	\$16.60 \$16.60 \$16.60 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$66.07 \$67.09 \$68.10 \$77.93 \$79.03

Classification For apprentice rates see "Apprentice- OPERATING ENGINEERS"	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
COMPRESSOR OPERATOR	12/01/2019	\$32.47	\$12.50	\$15.70	\$0.00	\$60.67
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$33.22	\$12.50	\$15.70	\$0.00	\$61.42
	12/01/2020	\$34.00	\$12.50	\$15.70	\$0.00	\$62.20
	06/01/2021	\$34.75	\$12.50	\$15.70	\$0.00	\$62.95
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	\$35.54	\$12.50	\$15.70	\$0.00	\$63.74
DELEADER (BRIDGE)	01/01/2020	\$50.96	\$8.20	\$22.10	\$0.00	\$81.26
PAINTERS LOCAL 35 - ZONE 2	07/01/2020	\$52.06	\$8.20	\$22.10	\$0.00	\$82.36
	01/01/2021	\$53.16	\$8.20	\$22.10	\$0.00	\$83.46

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effecti	ive Date -	01/01/2020				Supplemental	
Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate
1	50		\$25.48	\$8.20	\$0.00	\$0.00	\$33.68
2	55		\$28.03	\$8.20	\$5.94	\$0.00	\$42.17
3	60		\$30.58	\$8.20	\$6.48	\$0.00	\$45.26
4	65		\$33.12	\$8.20	\$7.02	\$0.00	\$48.34
5	70		\$35.67	\$8.20	\$18.86	\$0.00	\$62.73
6	75		\$38.22	\$8.20	\$19.40	\$0.00	\$65.82
7	80		\$40.77	\$8.20	\$19.94	\$0.00	\$68.91
8	90		\$45.86	\$8.20	\$21.02	\$0.00	\$75.08

	Effecti Step	ve Date - 07/01/2020 percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rat	e
	1	50	\$26.03	\$8.20	\$0.00	\$0.00	\$34.2	3
	2	55	\$28.63	\$8.20	\$5.94	\$0.00	\$42.7	7
	3	60	\$31.24	\$8.20	\$6.48	\$0.00	\$45.9	2
	4	65	\$33.84	\$8.20	\$7.02	\$0.00	\$49.0	6
	5	70	× \$36.44	\$8.20	\$18.86	\$0.00	\$63.5	0
	6	75	\$39.05	\$8.20	\$19.40	\$0.00	\$66.6	5
	7	80	\$41.65	\$8.20	\$19.94	\$0.00	\$69.7	9
	8	90	\$46.85	\$8.20	\$21.02	\$0.00	\$76.0	7
	Notes:	Steps are 750 hrs. ntice to Journeyworker Ratio:1:1	 Normal control and the second s					
DEMO: ADZE	MAN	Inte to Journeyworker Kano, 1,1	12/01/201	\$39.30	\$8.10	\$16.60	\$0.00	\$64.00
		Apprentice- LABORER"						
	HOE/LO	ADER/HAMMER OPERATOR	12/01/2019	\$40.30	\$8.10	\$16.60	\$0.00	\$65.00
For apprentice	e rates see "	Apprentice- LABORER"				,		
DEMO: BURN ABORERS - ZON			12/01/2019	\$40.05	\$8.10	\$16.60	\$0.00	\$64.75
For commuting	arates see "	Apprentice-1.ABORER"						

Project Manual #20-55 – Bonded Wearing Course Pavement Preservation Page 31 of 144

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: CONCRETE CUTTER/SAWYER LABORERS - ZONE 1	12/01/2019	\$40.30	\$8.10	\$16.60	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR LABORERS - ZONE I	12/01/2019	\$40.05	\$8.10	\$16.60	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER LABORERS - ZONE 1	12/01/2019	\$39.30	\$8.10	\$16.60	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						<u></u>
DIRECTIONAL DRILL MACHINE OPERATOR	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	00/01/2010	\$ <u>70</u> 50	£0.00	\$21.15	\$0.00	£00.57
DIVER PILE DRIVER LOCAL 36 (ZONE 1)	08/01/2019	\$68.52	\$9.90	\$21.15	\$0.00	\$99.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56 (ZONE I)	08/01/2019	\$73.41	\$9.90	\$21.15	\$0.00	\$104.46
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) ELECTRICIANS LOCAL 103	03/01/2020	\$53.50	\$13.00	\$19.20	\$0.00	\$85.70
ELECTRICIANS LOCAL IUS	09/01/2020	\$54.93	\$13.00	\$19.25	\$0.00	\$87.18
	03/01/2021	\$56.13	\$13.00	\$19.28	\$0.00	\$88.41
	09/01/2021	\$57.56	\$13.00	\$19.33	\$0.00	\$89.89
· · ·	03/01/2022	\$58.76	\$13.00	\$19.36	\$0.00	\$91.12
	09/01/2022	\$60.19	\$13.00	\$19.41	\$0.00	\$92.60
	03/01/2023	\$61.39	\$13.00	\$19.44	\$0.00	\$93.83
For apprentice rates see "Apprentice- ELECTRICIAN"	00/01/0000	650 50	612.00	¢10.20	60.00	695 70
ELECTRICIAN ELECTRICIANS LOCAL 103	03/01/2020	\$53.50	\$13.00	\$19.20	\$0.00	\$85.70
	09/01/2020	\$54.93	\$13.00	\$19.25	\$0.00	\$87.18
	03/01/2021	\$56.13	\$13.00	\$19.28	\$0.00	\$88.41
	09/01/2021	\$57.56	\$13.00	\$19.33	\$0.00	\$89.89
	03/01/2022	\$58.76	\$13.00	\$19.36	\$0.00	\$91.12
	09/01/2022	\$60.19	\$13.00	\$19.41	\$0.00	\$92.60
	03/01/2023	\$61.39	\$13.00	\$19.44	\$0.00	\$93.83
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Issue Date: 04/15/2020 3 Phase set Wage Request	Nataber: 20200415	-058			ورد در ایر از ا ورد ایر ایر	Page 8 of 57
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Classification

Issue Date: 04/15/2020

tive Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Page 9 of 37

Apprentice - ELECTRICIAN - Local 103 Effective Date -03/01/2020 Supplemental Unemployment percent Apprentice Base Wage Health Total Rate Pension Step 1 40 \$21.40 \$13.00 \$0.64 \$0.00 \$35.04 2 40 \$13.00 \$0.64 \$0.00 \$35.04 \$21.40 3 45 \$24.08 \$13.00 \$14.62 \$0.00 \$51.70 4 45 \$24.08 \$14.62 \$0.00 \$51.70 \$13.00 5 50 \$26.75 \$13.00 \$15.04 \$0.00 \$54.79 6 55 \$29.43 \$13.0Ò \$15.46 \$0.00 \$57.89 7 60 \$32.10 \$15.87 \$0.00 \$13.00 \$60.97 8 65 \$34.78 \$13.00 \$16.29 \$0.00 \$64.07 9 70 \$0.00 \$37.45 \$13.00 \$16.70 \$67.15 10 75 \$40.13 \$13.00 \$17.12 \$0.00 \$70.25 Effective Date -09/01/2020 Supplemental Apprentice Base Wage Health Total Rate Step percent Pension Unemployment 1 40 \$21.97 \$13.00 \$0.66 \$0.00 \$35.63 2 40 \$21.97 \$13.00 \$0.66 \$0.00 \$35.63 3 45 \$24.72 \$14.64 \$52.36 \$13.00 \$0.00 4 45 \$24.72 \$13.00 \$14.64 \$0.00 \$52.36 5 50 \$27.47 \$13.00 \$15.06 \$0.00 \$55.53 6 55 \$30.21 \$15.49 \$0.00 \$58.70 \$13.00 7 60 \$32.96 \$13.00 \$15.90 \$0.00 \$61.86 8 65 \$13.00 \$16.32 \$0.00 \$65.02 \$35.70 9 70 \$38.45 \$13.00 \$16.73 \$0.00 \$68.18 10 75 \$41.20 \$13.00 \$17.16 \$0.00 \$71.36 Notes: : App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80 Apprentice to Journeyworker Ratio:2:3*** ELEVATOR CONSTRUCTOR \$18.41 \$0.00 01/01/2020 \$61.42 \$15.73 \$95.56 ELEVATOR CONSTRUCTORS LOCAL 4 01/01/2021 \$63.47 \$15.88 \$19.31 \$0.00 \$98.66 01/01/2022 \$65.62 \$16.03 \$20,21 \$0.00 \$101.86

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Project Manual #20-55 – Bonded Wearing Course Pavement Preservation Page 33 of 144

	1 2 3 4 5 Effectiv Step 1 2 3 4 5	percent 50 55 65 70 80 70 80 70 80 70 50 55 65 70 80 80 80 80 80 80 80 80 80 8	Appres	\$30.71 \$33.78 \$39.92 \$42.99 \$49.14 htice Base Wage \$31.74 \$34.91	\$15.73 \$15.73 \$15.73 \$15.73 \$15.73 Health \$15.88	\$0.00 \$18.41 \$18.41 \$18.41 \$18.41 Pension \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Supplemental Unemployment \$0.00	\$46.44 \$67.92 \$74.06 \$77.13 \$83.28 Total Rate \$47.62	
	3 4 5 Effectiv Step 1 2 3 4 5	65 70 80 re Date - 01/01/2021 percent 50 55 65 70	Apprei	\$39.92 \$42.99 \$49.14 htice Base Wage \$31.74	\$15.73 \$15.73 \$15.73 Health	\$18.41 \$18.41 \$18.41 Pension	\$0.00 \$0.00 \$0.00 Supplemental Unemployment	\$74.06 \$77.13 \$83.28 Total Rate	
	4 5 Effectiv Step 1 2 3 4 5	70 80 7e Date - 01/01/2021 percent 50 55 65 70	Apprei	\$42.99 \$49.14 htice Base Wage \$31.74	\$15.73 \$15.73 Health	\$18.41 \$18.41 Pension	\$0.00 \$0.00 Supplemental Unemployment	\$77.13 \$83.28 Total Rate	
	5 Step 1 2 3 4 5	80 re Date - 01/01/2021 percent 50 55 65 70	Appret	\$49.14 ntice Base Wage \$31.74	\$15.73 Health	\$18.41 Pension	\$0.00 Supplemental Unemployment	\$83.28 Total Rate	:
	Effectiv Step 1 2 3 4 5	re Date - 01/01/2021 percent 50 55 65 70	Apprei	ntice Base Wage \$31.74	Health	Pension	Supplemental Unemployment	Total Rate	:
	Step 1 2 3 4 5	percent 50 55 65 70	Apprei	\$31.74			Unemployment		
	1 2 3 4 5	50 55 65 70	Apprei	\$31.74			Unemployment		
	2 3 4 5	55 65 70			\$15.88	\$0.00	\$0.00	\$47.62	
	3 4 5	65 70		\$34.91			40100	φ 1 102	
	4 5	70			\$15.88	\$19.31	\$0.00	\$70.10	
	5			\$41.26	\$15.88	\$19.31	\$0.00	\$76.45	
		80		\$44.43	\$15.88	\$19.31	\$0.00	\$79.62	
	Notes:			\$50.78	\$15.88	\$19.31	\$0.00	\$85.97	
	-	Steps 1-2 are 6 mos.; Steps	3-5 are 1 year		14772-он ониман ниметор н				
	Apprei	ntice to Journeyworker Rat	io:1:1		warnen install totaller v				
EVÁTOR CO		JCTOR HELPER		01/01/2020	\$42.99	\$15.73	\$18.41	\$0.00	\$77.13
EVATOR CONST	RUCTOR	LUCAL I		01/01/202	\$44.43	\$15.88	\$19.31	\$0.00	\$79.62
P		Apprentice - ELEVATOR CONSTR	UCTOP"	01/01/2023	2 \$45.93	\$16.03	\$20.21	\$0.00	\$82.17
		L ERECTOR		12/01/201	9 \$39.40	\$8.10	\$16.60	\$0.00	\$64.10
BORERS + ZONE	1			, 06/01/2020	0 \$40.39	\$8.10	\$16.60	\$0.00	\$65.09
				12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
				06/01/202	1 \$42.39	\$8.10	\$16.60	\$0.00	\$67.09
For opprentice	ratas saa "	Apprentice- LABORER"		12/01/202	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
ELD ENG.IN	ST.PER	SON-BLDG,SITE,HVY/HW	γγ	11/01/2019	9 \$44.18	\$12.00	\$15.60	\$0.00	\$71.78
ERATING ENGI	NEERS LC	CAL 4		05/01/202	0 \$44.73	\$12.50	\$15.70	\$0.00	\$72.93
				11/01/202	0 \$45.73	\$12.50	\$15.70	\$0.00	\$73.93
				05/01/202	1 \$46.88	\$12.50	\$15.70	\$0.00	\$75.08
				11/01/202	1 \$47.88	\$12.50	\$15.70	\$0.00	\$76.08
For apprentice	rates see "	Apprentice- OPERATING ENGINE	ERS"	05/01/202	2 \$49.03	\$12.50	\$15.70	\$0.00	\$77.23
ELD ENG.PA	ARTY C	HIEF-BLDG,SITE,HVY/HV		11/01/201	9 \$45.68	\$12.00	* \$15.60	\$0.00	\$73.28
PERATING ENGI	NEERS LC	OCAL 4		05/01/202	0 \$46.23	\$12.50	\$15.70	\$0.00	\$74.43
				11/01/202	0 \$47.24	\$12.50	\$15.70	\$0.00	\$75.44
				05/01/202	1 \$48.40	\$12.50	\$15.70	\$0.00	\$76.60
				11/01/202	1 \$49.41	\$12.50	\$15.70	\$0.00	\$77.61
For apprentice		ለሚውምታ የቆቶ ን ግዝሥልቢተኝነት ሲንፍት፣ እት	4.85.	05/01/202	2 \$50.57	\$12.50	\$15.70	° n n n	\$78.77
1 or upprendeo		• • • • • • • • • • • • • • • • • • • •							

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY	11/01/2019	\$22.57	\$12.00	\$15.60	\$0.00	\$50.17
PPERATING ENGINEERS LOCAL 4	05/01/2020	\$22.64	\$12.50	\$15.70	\$0.00	\$50.84
	11/01/2020	\$23.23	\$12.50	\$15.70	\$0.00	\$51.43
	05/01/2021	\$23.91	\$12.50	\$15.70	\$0.00	\$52.11
	11/01/2021	\$24.51	\$12.50	\$15.70	\$0.00	\$52.71
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	05/01/2022	\$25.18	\$12.50	\$15.70	\$0.00	\$53.38
TRE ALARM INSTALLER	03/01/2020	\$53.50	\$13.00	\$19.20	\$0.00	\$85.70
LECTRICIANS LOCAL 103	09/01/2020	\$54.93	\$13.00	\$19.25	\$0.00	\$87.18
	03/01/2021	\$56.13	\$13.00	\$19.28	\$0.00	\$88.41
	09/01/2021	\$57.56	\$13.00	\$19.33	\$0.00	\$89.89
	03/01/2022	\$58.76	\$13.00	\$19.36	\$0.00	\$91.12
	09/01/2022	\$60.19	\$13.00	\$19.41	\$0.00	\$92.60
	03/01/2023	\$61.39	\$13.00	\$19.44	\$0.00	\$93.83
For apprentice rates see "Apprentice- ELECTRICIAN"						
TRE ALARM REPAIR / MAINTENANCE	03/01/2020	\$40.13	\$13.00	\$17.12	\$0.00	\$70.25
/ COMMISSIONINGELECTRICIANS	09/01/2020	\$41.20	\$13.00	\$17.16	\$0.00	\$71.36
,	03/01/2021	\$42.66	\$13.00	\$17.27	\$0.00	\$72.93
	09/01/2021	\$44.32	\$13.00	\$17.38	\$0.00	\$74.70
	03/01/2022	\$45.83	\$13.00	\$17.49	\$0.00	\$76.32
	09/01/2022	\$47.55	\$13.00	\$17.62	\$0.00	\$78.17
	03/01/2023	\$49,11	\$13.00	\$17.73	\$0.00	\$79.84
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER) DPERATING ENGINEERS LOCAL 4	12/01/2019	\$39.89	\$12.50	\$15.70	\$0.00	\$68.09
	06/01/2020	\$40.80	\$12.50	\$15.70	\$0.00	\$69.00
	12/01/2020	\$41.75	\$12.50	\$15.70	\$0.00	\$69.95
	06/01/2021	\$42.66	\$12.50	\$15.70	\$0.00	\$70.86
	12/01/2021	\$43.61	\$12.50	\$15.70	\$0.00	\$71.81
For apprentice rates see "Apprentice- OPERATING ENGINEERS"				<u></u>		
FLAGGER & SIGNALER Laborers - zone 1	12/01/2019	\$23.50	\$8.10	\$16.60	\$0.00	\$48.20
	06/01/2020	\$23.50	\$8.10	\$16.60	\$0.00	\$48.20
	12/01/2020	\$24.50	\$8.10	\$16.60	\$0.00	\$49.20
	06/01/2021	\$24.50	\$8.10	\$16.60	\$0.00	\$49.20
For apprentice rates see "Apprentice- LABORER"	12/01/2021	\$24.50	\$8.10	\$16.60	\$0.00	\$49.20
LOORCOVERER	03/01/2020	\$47.05	\$9.40	\$19.25	\$0.00	\$75.70
LUURUUY BRERS LUCAL 2100 ZUNE I	09/01/2020	\$47.85	\$9.40	\$19.25	\$0.00	\$76.50
	03/01/2021	\$48.65	\$9.40	\$19.25	\$0.00	\$77.30
	09/01/2021	\$49.45	\$9.40	\$19.25	\$0.00	\$78.10
	03/01/2022	\$50.25	\$9.40	\$19.25	\$0.00	\$78.90
FLOORCOVERERS LOCAL 2168 ZONE 1	09/01/2020 03/01/2021 09/01/2021	\$47.85 \$48.65 \$49.45	\$9.40 \$9.40 \$9.40	\$19.25 \$19.25 \$19.25	\$0.00 \$0.00 \$0.00	
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	Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	50	\$23.53	\$9.40	\$1.79	\$0.00	\$34.72	
	2	55	\$25.88	\$9.40	\$1.79	\$0.00	\$37.07	
	3	60	\$28.23	\$9.40	\$13.88	\$0.00	\$51.51	
	4	65	\$30.58	\$9.40	\$13.88	\$0.00	\$53.86	
	5	70	\$32.94	\$9.40	\$15.67	\$0.00	\$58.01	
	6	75	\$35.29	\$9.40	\$15.67	\$0.00	\$60.36	
	7	80	\$37.64	\$9.40	\$17.46	\$0.00	\$64.50	
	8	85	\$39.99	\$9.40	\$17.46	\$0.00	\$66.85	
	Effecti	ve Date - 09/01/2020				Supplemental		
	Step	percent	Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
	1	50	\$23.93	\$9.40	\$1.79	\$0.00	\$35.12	
	2	55	\$26.32	\$9.40	\$1.79	\$0.00	\$37.51	
	3	60	\$28.71	\$9.40	\$13.88	\$0.00	\$51.99	
	4	65	\$31.10	\$9.40	\$13.88	\$0.00	\$54.38	
	5	70	\$33.50	\$9.40	\$15.67	\$0.00	\$58.57	
	6	75	\$35.89	\$9.40	\$15.67	\$0.00	\$60.96	
	7	80	\$38.28	\$9.40	\$17.46	\$0.00	\$65.14	
	8	85	\$40.67	\$9.40	\$17.46	\$0.00	\$67.53	
	<u> </u>	Step 1&2 \$32.36/ 3&4 \$38.80					COLUMN TRANSFORME	
V LIET/C		ntice to Journeyworker Ratio:				¢15 70	£0.00	
K LIFT/C	HERRY	PICKER	12/01/2019			\$15.70	\$0.00	
	HERRY	PICKER	12/01/2019 06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
	HERRY	PICKER	12/01/2019 06/01/2020 12/01/2020	\$49.83 \$50.98	\$12.50 \$12.50	\$15.70 \$15.70	\$0.00 \$0.00	\$78.03 \$79.18
	HERRY	PICKER	12/01/2019 06/01/2020 12/01/2020 06/01/2021	\$49.83 \$50.98 \$52.08	\$12.50 \$12.50 \$12.50	\$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28
ATING ENG	HERRY INEERS LO	PICKER	12/01/2019 06/01/2020 12/01/2020 06/01/2021 12/01/2021	\$49.83 \$50.98 \$52.08	\$12.50 \$12.50 \$12.50	\$15.70 \$15.70	\$0.00 \$0.00	\$78.03 \$79.18 \$80.28
ATING ENG or apprentice ERATOR	HERRY INEERS LO B rates see '	PICKER DCAL 4 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS	12/01/2019 06/01/2020 12/01/2020 06/01/2021 12/01/2021	\$49.83 \$50.98 \$52.08 \$53.23	\$12.50 \$12.50 \$12.50 \$12.50	\$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43
ATING ENG or apprentice ERATOR	HERRY INEERS LO B rates see '	PICKER DCAL 4 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS	12/01/2019 06/01/2020 12/01/2021 06/01/2021 12/01/2021	 \$49.83 \$50.98 \$52.08 \$53.23 \$32.47 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50	\$15.70 \$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43 \$60.67
ATING ENG	HERRY INEERS LO B rates see '	PICKER DCAL 4 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS	12/01/2019 06/01/2020 12/01/2021 06/01/2021 12/01/2021 :s* 12/01/2019	 \$49.83 \$50.98 \$52.08 \$53.23 \$32.47 \$33.22 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50	\$15.70 \$15.70 \$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43 \$60.67 \$61.42
ATING ENG or apprentice ERATOR	HERRY INEERS LO B rates see '	PICKER DCAL 4 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS	12/01/2019 06/01/2020 12/01/2020 06/01/2021 12/01/2021 12/01/2015 06/01/2020	 \$49.83 \$50.98 \$52.08 \$53.23 \$32.47 \$33.22 \$33.22 \$34.00 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50	\$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43 \$60.67 \$61.42 \$62.20 \$62.95
ATING ENG	HERRY INEERS LO B rates see * /LIGHTI INEERS LO	PICKER DCAL 4 "Apprentice- OPERATING ENGINEER ING PLANT/HEATERS DCAL 4	12/01/2019 06/01/2020 12/01/2020 06/01/2021 12/01/2021 12/01/2021 06/01/2020 12/01/2020 06/01/2021 12/01/2021 12/01/2021	 \$49.83 \$50.98 \$52.08 \$53.23 \$32.47 \$33.22 \$33.22 \$33.4.00 \$34.00 \$34.75 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50	\$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43 \$60.67 \$61.42 \$62.20 \$62.95
ATING ENG or apprentice ERATOR ATING ENG or apprentice	HERRY INEERS LO B rates see " ALIGHTI INEERS LO B rates see "	PICKER DCAL 4 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS	12/01/2019 06/01/2020 12/01/2020 06/01/2021 12/01/2021 12/01/2020 12/01/2020 06/01/2021 12/01/2021 12/01/2021	 \$49.83 \$50.98 \$52.08 \$53.23 \$32.47 \$33.22 \$33.20 \$34.00 \$34.75 \$35.54 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50	\$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$76.93 \$78.03 \$79.18 \$80.28 \$81.43 \$60.67 \$61.42 \$62.20 \$62.95 \$63.74 \$70.76
ATING ENG or apprentice ERATOR ATING ENG or apprentice ZIER (GI (EEMS)	HERRY INEERS LO B rates see ' ALIGHTI INEERS LO B rates see '	PICKER 2CAL 4 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS 2CAL 4 'Apprentice- OPERATING ENGINEER ANK/AIR BARRIER/INTERIC	12/01/2019 06/01/2020 12/01/2021 06/01/2021 12/01/2021 12/01/2020 06/01/2020 12/01/2021 12/01/2021 12/01/2021	 \$49.83 \$50.98 \$52.08 \$53.23 \$32.47 \$33.22 \$33.20 \$34.00 \$34.75 \$35.54 \$40.46 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$8.20	\$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43 \$60.67 \$61.42 \$62.20 \$62.95 \$63.74
ATING ENG or apprentice ERATOR ATING ENG or apprentice ZIER (GI (EEMS)	HERRY INEERS LO B rates see ' ALIGHTI INEERS LO B rates see '	PICKER 2CAL 4 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS 2CAL 4 'Apprentice- OPERATING ENGINEER ANK/AIR BARRIER/INTERIC	12/01/2019 06/01/2020 12/01/2021 06/01/2021 12/01/2021 12/01/2021 06/01/2020 12/01/2020 06/01/2021 12/01/2021 12/01/2021 05/01/2021 05/01/2021	 \$49.83 \$50.98 \$52.08 \$53.23 \$33.22 \$33.22 \$33.22 \$34.00 \$34.75 \$35.54 \$40.46 \$41.56 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$8.20 \$8.20	\$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43 \$60.67 \$61.42 \$62.20 \$62.95 \$63.74 \$70.76 \$71.86
ATING ENG or apprentice ERATOR ATING ENG or apprentice ZIER (GL TEMS) TERS LOCAN	HERRY INEERS LO B rates see ' ALIGHTI INEERS LO B rates see ' LASS PL L 35 (ZONE	PICKER 2CAL 4 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS 2CAL 4 'Apprentice- OPERATING ENGINEER ANK/AIR BARRIER/INTERIC	12/01/2019 06/01/2020 12/01/2021 06/01/2021 12/01/2021 12/01/2021 06/01/2020 12/01/2021 12/01/2021 12/01/2021 12/01/2021 07/01/2020 01/01/2021	 \$49.83 \$50.98 \$52.08 \$53.23 \$33.22 \$33.22 \$33.22 \$34.00 \$34.75 \$35.54 \$40.46 \$41.56 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$8.20 \$8.20 \$8.20	\$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43 \$60.67 \$61.42 \$62.20 \$62.95 \$63.74 \$70.76 \$71.86
ATING ENG or apprentice ERATOR ATING ENG or apprentice ZIER (GL TEMS) TERS LOCAN	HERRY INEERS LO B rates see ' ALIGHTI INEERS LO B rates see ' LASS PL L 35 (ZONE	PICKER <i>CAL 4</i> 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS <i>CAL 4</i> 'Apprentice- OPERATING ENGINEER ANK/AIR BARRIER/INTERIC 7.2)	12/01/2019 06/01/2020 12/01/2021 06/01/2021 12/01/2021 12/01/2021 06/01/2020 06/01/2021 12/01/2021 08 01/01/2021 07/01/2021	 \$49.83 \$50.98 \$52.08 \$53.23 \$33.22 \$33.22 \$33.22 \$34.00 \$34.75 \$35.54 \$40.46 \$41.56 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$8.20 \$8.20	\$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$12.10 \$22.10 \$22.10	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43 \$60.67 \$61.42 \$62.20 \$62.95 \$63.74 \$70.76 \$71.86 \$72.90
aring eng or apprentice ERATOR Aring eng or apprentice ZIER (GL FEMS) ters LOCAI	HERRY INEERS LO B rates see ' ALIGHTI INEERS LO B rates see ' LASS PL L 35 (ZONE	PICKER <i>CAL 4</i> 'Apprentice- OPERATING ENGINEER ING PLANT/HEATERS <i>CAL 4</i> 'Apprentice- OPERATING ENGINEER ANK/AIR BARRIER/INTERIC 7.2)	12/01/2019 06/01/2020 12/01/2021 06/01/2021 12/01/2021 12/01/2021 06/01/2020 12/01/2021 12/01/2021 12/01/2021 12/01/2021 07/01/2020 01/01/2021	 \$49.83 \$50.98 \$52.08 \$53.23 \$33.22 \$33.22 \$33.22 \$34.00 \$34.75 \$35.54 \$40.46 \$41.56 	\$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$12.50 \$8.20 \$8.20 \$8.20	\$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$15.70 \$12.10 \$22.10 \$22.10	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$78.03 \$79.18 \$80.28 \$81.43 \$60.67 \$61.42 \$62.20 \$62.95 \$63.74 \$70.76

Effective Date Base Wage Health

Project Manual #20-55 – Bonded Wearing Course Pavement Preservation Page 36 of 144

Supplemental Total Rate Unemployment

• • • •

Pension

Step

1

2

3

4

5

percent

50

55

60

65

70

ZIER - Local 35 Zone 2 01/01/2020				Supplemental	
	Apprentice Base Wage	Health	Pension	Unemployment	Total Rate
	\$20.23	\$8.20	\$0.00	\$0.00	\$28.43
	\$22.25	\$8.20	\$5.94	\$0.00	\$36.39
	\$24.28	\$8.20	\$6.48	\$0.00	\$38.96
	\$26.30	\$8.20	\$7.02	\$0.00	\$41.52
	\$28.32	\$8.20	\$18.86	\$0.00	\$55.38

Effective Date Base Wage Health

Supplemental

Unemployment

Pension

Total Rate

Apprentice - G	LAZIER - Local 35 Zone 2
Effective Date -	01/01/2020

			• · · · · · ·	+ - · ·	• • • •	• • • •		
	6	75	\$30.35	\$8.20	\$19.40	\$0.00	\$57.9	5
	7	80	\$32,37	\$8.20	\$19.94	\$0.00	\$60,5	1
	8	90	\$36.41	\$8.20	\$21.02	\$0.00	\$65.6	3
	Effecti	ve Date - 07/01/2020				Supplemental		
	Step	percent	Apprentice Base Wage	Health	Pension	Unemployment	Total Rat	e
	1	50	\$20.78	\$8.20	\$0.00	\$0.00	\$28,9	8
	2	55	\$22.86	\$8.20	\$5.94	\$0.00	\$37.0	0
	3	60	\$24.94	\$8.20	\$6.48	\$0.00	\$39.6	2
	4	65	\$27.01	\$8.20	\$7.02	\$0.00	\$42.2	3
	5	70	\$29.09	\$8.20	\$18.86	\$0.00	\$56.1	5
	6	75	\$31.17	\$8.20	\$19.40	\$0.00	\$58.7	7
	7	80	\$33.25	\$8.20	\$19.94	\$0.00	\$61.3	9
	8	90	\$37.40	\$8.20	\$21.02	\$0.00	\$66.6	2
	Notes:		maning we are should bridly provide straight					
	n.	Steps are 750 hrs.					irr andonau	
	Appre	ntice to Journeyworker Ratio:1:1						
		R/CRANES/GRADALLS	12/01/201	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
OPERATING ENG	INEERSLC	ICAL 4	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
		•	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
			06/01/202	I \$52.08	\$12.50	\$15.70	\$0.00	\$80.28
			12/01/202	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43

Issue Date: 04/15/2020 Wage Request Number: 20200415-058

Page 13 of 37

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	Effecti Step	ive Date - 12/ percent	01/2019	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	$\frac{-1}{1}$	55		\$26.80	\$12.50	\$0.00	\$0.00	\$39.30	
	2	60		\$29.24	\$12.50	\$15.70	\$0.00	\$57.44	
	3	65		\$31.67	\$12.50	\$15.70	\$0.00	\$59.87	
	4	70		\$34.11	\$12.50	\$15.70	\$0.00	\$62,31	
	5	75		\$36.55	\$12.50	\$15.70	\$0.00	\$64.75	
	6	80		\$38.98	\$12.50	\$15.70	\$0.00	\$67.18	
	7	85	• .	\$41.42	\$12.50	\$15.70	\$0.00	\$69.62	
	8	90		\$43.86	\$12.50	\$15.70	\$0.00	\$72.06	
	Effecti	ive Date - 06/	01/2020				Supplemental		
	Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
	1	55		\$27.41	\$12.50	\$0.00	\$0.00	\$39.91	
	2	60		\$29.90	\$12.50	\$15.70	\$0.00	\$58.10	
	3	65		\$32.39	\$12.50	\$15.70	\$0.00	\$60.59	
	4	70		\$34.88	\$12.50	\$15.70	\$0.00	\$63.08	
	5	75		\$37.37	\$12.50	\$15.70	\$0.00	\$65.57	
	6	80		\$39.86	\$12.50	\$15.70	\$0.00	\$68.06	
	7	85		\$42.36	\$12.50	\$15.70	\$0.00	\$70.56	
	8	90		\$44.85	\$12.50	\$15.70	\$0.00	\$73.05	
	Notes:			Contract Contraction (2010)	·· ·				
		ntias to Tourno	worker Ratio: 1:6			nyanaa waanaya waxaanaya a			
AC (DI	CTWORK)		worker Kano. 1.0	02/01/202	0 040.04		£24.12	¢0 (1	¢00.14
	WORKERS LO			02/01/202		\$13.35	\$24.12 \$24.12	\$2.61 \$2.66	\$89.44 \$91.09
				08/01/202		\$13.35 \$12.25	\$24.12 \$24.12	\$2.71	\$91.09
				02/01/202		\$13.35 \$13.35	\$24.12	\$2.76	\$92.79 \$94.59
				08/01/202 02/01/202		\$13.35	\$24.12	\$2.81	\$96.39
For appres	ntice rates see '	*Apprentice- SHEET	METAL WORKER*	02/01/202	2 \$56.11	\$13,3J	96 î. î.k	<i>421</i> 01	\$70,J7
		CONTROLS)		03/01/202	0 \$53.50	\$13.00	\$19.20	\$0.00	\$85.70
CTRICIAN	S I.OCAL 103			09/01/202		\$13.00	\$19.25	\$0.00	\$87.18
				03/01/202	1 \$56.13	\$13.00	\$19.28	\$0.00	\$88,41
				09/01/202	1 \$57.56	\$13.00	\$19.33	\$0.00	\$89.89
				03/01/202	2 \$58.76	\$13.00	\$19.36	\$0.00	\$91.12
				09/01/202	2 \$60.19		\$19.41	\$0.00	\$92.60
For annea	ntice rates see	"Apprentice- ELECT	RICIAN"	03/01/202	3 \$61.39	\$13.00	\$19.44	\$0.00	\$93.83
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		1 sea						'an ,	· ·

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
IVAC (TESTING AND BALANCING - AIR)	02/01/2020	\$49.36	\$13.35	\$24.12	\$2.61	\$89.44
SHEETMETAL WORKERS LOCAL 17 - A	08/01/2020	\$50.96	\$13.35	\$24.12	\$2.66	\$91.09
	02/01/2021	\$52.61	\$13.35	\$24.12	\$2.71	\$92.79
	08/01/2021	\$54.36	\$13.35	\$24.12	\$2.76	\$94.59
For apprentice rates see "Apprentice- SHEET METAL WORKER"	02/01/2022	\$56.11	\$13.35	\$24.12	\$2.81	\$96.39
HVAC (TESTING AND BALANCING -WATER)	03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
PIPEFITTERS LOCAL 537	09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"	03/01/2021	\$59.19	\$10.95	\$19.74	\$0.00	\$89.88
IVAC MECHANIC	03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
IPEFITTERS LOCAL 537	09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"	03/01/2021	\$59.19	\$10.95	\$19.74	\$0.00	\$89.88
TYDRAULIC DRILLS	12/01/2019	\$39.90	\$8.10	\$16.60	\$0.00	\$64.60
ABORERS - ZONE 1	06/01/2020	\$40.89	\$8.10	\$16.60	\$0.00	\$65.59
	12/01/2020	\$41.87	\$8.10	\$16.60	\$0.00	\$66.57
	06/01/2021	\$42.89	\$8.10	\$16.60	\$0.00	\$67.59
	12/01/2021	\$43.90	\$8.10	\$16.60	\$0.00	\$68.60
For apprentice rates see "Apprentice- LABORER"						
NSULATOR (PIPES & TANKS) Heat & Frost insulators local 6 (boston)	09/01/2019	\$48.44	\$12.80	\$16.40	\$0.00	\$77.64

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

Effect Step	ive Date - 09/01/2019 percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
1	50	\$24.22	\$12.80	\$11.90	\$0.00	\$48.92	
2	60	\$29.06	\$12.80	\$12.80	\$0.00	\$54.66	
3	70	\$33.91	\$12.80	\$13.70	\$0.00	\$60.41	
4	80	\$38.75	\$12.80	\$14.60	\$0.00	\$66.15	
Notes	Steps are 1 year						
Appro	entice to Journeyworker Ratio:1:4						
IRONWORKER/WEL		03/16/201	9 \$46.6	6 \$8.00	\$23.50	\$0.00	\$78.16

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 Issue Date:
 04/15/2020
 Wage Request Number:
 20200415-058
 Page 15 of 37

Effective Date Base Wage Health Pension Unemp

Supplemental Total Rate Unemployment

	Effect Step	ive Date - 03/16/2019 percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	60	\$28.00	\$8.00	\$23.50	\$0.00	\$59.50	
	2	70	\$32.66	\$8.00	\$23.50	\$0.00	\$64,16	
	3	75	\$35.00	\$8.00	\$23.50	\$0.00	\$66.50	
	4	80	\$37.33	\$8.00	\$23.50	\$0.00	\$68.83	
	5	85	\$39.66	\$8.00	\$23.50	\$0.00	\$71.16	
	6	90	\$41.99	\$8.00	\$23.50	\$0.00	\$73.49	
	Notes			annan an a			····· ···· ···· ···· ··· ··· ··· ··· ·	
		** Structural 1:6; Ornamental 1:4			· .		1	
	Appre	entice to Journeyworker Ratio:**					-	
		VING BREAKER OPERATOR	12/01/2019	\$39.40	\$8.10	\$16.60	\$0.00	\$64.10
ABORERS - ZON	IE I		06/01/2020	\$40.39	\$8.10	\$16.60	\$0.00	\$65.09
			12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
			06/01/2021	\$42.39	\$8.10	\$16.60	\$0.00	\$67.09
			12/01/2021	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
For apprentic	e rates see	"Apprentice- LABORER"						
ABORER			12/01/2019	\$39.15	\$8.10	\$16.60	\$0.00	\$63.85
ABORERS - ZON	IE I		. 06/01/2020	\$40.14	\$8.10	\$16.60	\$0.00	\$64.84
			12/01/2020	\$41.12	\$8.10	\$16.60	\$0.00	\$65.82
			06/01/2021	\$42.14	\$8.10	\$16.60	\$0.00	\$66.84
			12/01/2021	\$43.15	\$8,10	\$16.60	\$0.00	\$67.85

Step	ive Date - 12/ percent	01/2019	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60		\$23.49	\$8.10	\$16.60	\$0.00	\$48.19
2	70		\$27.41	\$8.10	\$16.60	\$0.00	\$52.11
3	80		\$31.32	\$8.10	\$16.60	\$0.00	\$56.02
4	90		\$35.24	\$8.10	\$16.60	\$0.00	\$59.94
Effect	ive Date - 06/	01/2020				Supplemental	
Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate
1	60		\$24.08	\$8.10	\$16.60	\$0.00	\$48.78
2	70		\$28.10	\$8.10	\$16.60	\$0.00	\$52.80
3	80	-	\$32.11	\$8.10	\$16.60	\$0.00	\$56.81
4	90		\$36.13	\$8.10	\$16.60	\$0.00	\$60.83
Notes					an 2000 anna 2000 '		

Assification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ABORER: CARPENTER TENDER	12/01/2019	\$39.15	\$8,10	\$16.60	\$0.00	\$63.85
IBORERS - ZONE I	06/01/2020	\$40.14	\$8.10	\$16.60	\$0.00	\$64.84
	12/01/2020	\$41.12	\$8.10	\$16.60	\$0.00	\$65.82
	06/01/2021	\$42.14	\$8.10	\$16.60	\$0.00	\$66.84
	12/01/2021	\$43.15	\$8.10	\$16.60	\$0.00	\$67.85
For apprentice rates see "Apprentice- LABORER"	•					
ABORER: CEMENT FINISHER TENDER aborers - zone 1	12/01/2019	\$39.15	\$8.10	\$16.60	\$0.00	\$63.85
· ·	06/01/2020	\$40.14	\$8.10	\$16.60	\$0.00	\$64.84
	12/01/2020	\$41.12	\$8.10	\$16.60	\$0.00	\$65.82
	06/01/2021	\$42.14	\$8.10	\$16.60	\$0.00	\$66.84
	12/01/2021	\$43.15	\$8.10	\$16.60	\$0.00	\$67.85
For apprentice rates see "Apprentice- LABORER"						
ABORER: HAZARDOUS WASTE/ASBESTOS REMOVER ABORERS - ZONE 1	12/01/2019	\$39.30	\$8.10	\$16.60	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
ABORER: MASON TENDER	12/01/2019	\$39.40	\$8.10	\$16.60	\$0.00	\$64.10
ABORERS - ZONE I	06/01/2020	\$40.39	\$8.10	\$16.60	\$0.00	\$65.09
/	12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
	06/01/2021	\$42.39	\$8.10	\$16.60	\$0.00	\$67.09
	12/01/2021	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"		•••••				
ABORER: MULTI-TRADE TENDER	12/01/2019	\$39.15	\$8.10	\$16.60	\$0.00	\$63.85
ABORERS - ZONE 1	06/01/2020	\$40.14	\$8.10	\$16.60	\$0.00	\$64.84
	12/01/2020	\$41.12	\$8.10	\$16.60	\$0.00	\$65.82
	06/01/2021	\$42.14	\$8.10	\$16.60	\$0.00	\$66.84
	12/01/2021	\$43.15	\$8.10	\$16.60	\$0.00	\$67.85
For apprentice rates see "Apprentice- LABORER"						
ABORER: TREE REMOVER ABORERS - ZONE 1	12/01/2019	\$39.15	\$8.10	\$16.60	\$0.00	\$63.85
BOALIG - LOVE I	06/01/2020	\$40.14	\$8.10	\$16.60	\$0.00	\$64.84
	12/01/2020	\$41.12	\$8.10	\$16.60	\$0.00	\$65.82
	06/01/2021	\$42.14	\$8.10	\$16.60	\$0.00	\$66.84
	12/01/2021	\$43.15	\$8.10	\$16.60	\$0.00	\$67.85
This classification applies to the removal of standing trees, and the trimming and remov clearance incidental to construction. For apprentice rates see "Apprentice- LABORER"	al of branches and lim	bs when related t	o public work	s construction	or site	
ASER BEAM OPERATOR	12/01/2019	\$39.40	\$8.10	\$16.60	\$0.00	\$64.10
BORERS - ZONE 1	06/01/2020	\$40.39	\$8.10	\$16.60	\$0.00	\$65.09
	12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
	06/01/2021	\$42.39	\$8.10	\$16.60	\$0.00	\$67.09
	12/01/2021	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"	10,01,2021	<i>Q</i> .0110	<i>Q</i> 0110		+	\$00110
IARBLE & TILE FINISHERS	02/01/2020	\$41.49	\$10.75	\$20.12	\$0.00	\$72.36
RICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2020	\$42.57	\$10.75	\$20.27	\$0.00	\$73.59
	02/01/2021	\$43.08	\$10.75	\$20.27	\$0.00	\$74.10
	08/01/2021	\$44.20	\$10.75	\$20.43	\$0.00	\$75.38
· 	02/01/2022	\$44.67	\$10.75	\$20,43	\$0.00	\$75.85

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Notes:

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MARBLE MASONS, TILELAYERS & TERRAZZO MECH BRICKLAYERS LOCAL 3 - MARBLE & TILE

Apprentice to Journeyworker Ratio:1:3

Effective Date Base Wage Health Pension

Supplemental Total Rate

\$65.08

\$69.33

\$87.10

\$88.60

\$89.24 \$90.80

\$91.37

Page 18 of 37

\$0.00

\$0.00

\$21.93

\$22.08

\$22.08

\$22.24

\$22.24

\$0.00

\$0.00

\$0.00

\$0.00

\$0.00

••	ntice - M ive Date -	02/01/2020	SHER - Local 3 Marble & Tile			Supplemental		
Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
1	50		\$20.75	\$10.75	\$20.12	\$0.00	\$51.62	
2	60		\$24.89	\$10.75	\$20.12	\$0.00	\$55.76	
3	70		\$29.04	\$10,75	\$20.12	\$0.00	\$59.91	
4	80		\$33.19	\$10.75	\$20.12	\$0.00	\$64.06	
5	90		\$37.34	\$10.75	\$20.12	\$0.00	\$68.21	
	ive Date -	08/01/2020		TT - 14	Destad	Supplemental	Total Rate	
Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Kate	· · · ·
1	50		\$21.29	\$10.75	\$20.27	\$0.00	\$52.31	
2	60		\$25.54	\$10.75	\$20.27	\$0.00	\$56.56	
3	70		\$29.80	\$10.75	\$20.27	\$0.00	\$60.82	

\$10.75

\$10.75

\$54.42

\$55.77

\$56.41

\$57.81

\$58.38

\$20.27

\$20.27

\$10.75

\$10.75

\$10.75

\$10.75

\$10.75

\$34.06

\$38.31

02/01/2020

08/01/2020

02/01/2021

08/01/2021

02/01/2022

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

Lisue Dete: 1964/15/2020/2009 1999 1999 1997 (1997) Request Numbyer 2020202415/0581 (2009) 2009

Effective Date Base Wage Health

Supplemental Total Rate Unemployment

Pension

Step	ive Date - 02/01/2020 percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.21	\$10.75	\$21.93	\$0.00	\$59.89
2	60	\$32.65	\$10.75	\$21.93	\$0.00	\$65.33
3	70	\$38.09	\$10.75	\$21.93	\$0.00	\$70.77
4	80	\$43.54	\$10.75	\$21.93	\$0.00	\$76.22
5	90	\$48.98	\$10.75	\$21.93	\$0.00	\$81.66

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

5	90		\$48.98	\$10.75	\$21.93	\$0.00	\$81.66	
Effect	ive Date -	08/01/2020				Supplemental		
Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
1	50		\$27.89	\$10.75	\$22.08	\$0.00	\$60.72	
2	60		\$33.46	\$10.75	\$22.08	\$0.00	\$66.29	
3	70		\$39.04	\$10.75	\$22.08	\$0.00	\$71.87	
4	80		\$44.62	\$10.75	\$22.08	\$0.00	\$77.45	
5	90		\$50.19	\$10.75	\$22.08	\$0.00	\$83.02	

Notes:

Apprentice to Journeyworker Ratio: 1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES)	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
MECHANICS MAINTENANCE	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
PPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
MILLWRIGHT (Zone 1) MILLWRIGHTS LOCAL 1121 - Zone 1	04/01/2019	\$42.22	\$9.90	\$18.50	\$0.00	\$70.62

Issue Date: 04/15/2020 Wage Request-Number: 20200415-058 Page 19 of 37

Supplemental Effective Date Base Wage Health Pension Unemployment

Total Rate

	Effective Step	e Date - 04/01/2019 percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	55	\$23.22	\$9.90	\$5.31	\$0.00	\$38.43	
	2	65	\$27.44	\$9.90	\$15.13	\$0.00	\$52.47	
	3	75	\$31.67	\$9.90	\$16.10	\$0.00	\$57.67	
	4	85	\$35.89	\$9.90	\$17.06	\$0.00	\$62.85	
	Notes:		normal provide the provide the block in					
		Steps are 2,000 hours					1	
		lice to Journeyworker Ratio:1:5	alaali ahiiniy tiroon ooroo .					
IORTAR MI	XER		12/01/201	9 \$39.40	\$8.10	\$16.60	\$0.00	\$64.10
ABORERS - ZON	VE 1		06/01/202		\$8.10	\$16.60	\$0.00	\$65.09
			12/01/202		\$8.10	\$16.60	\$0.00	\$66.07
			06/01/202		\$8.10	\$16.60	\$0.00	\$67.09
			12/01/202		\$8.10	\$16.60	\$0.00	\$68.10
For apprentic	ce rates see "A	pprentice- LABORER"						
DILER (OTH		TRUCK CRANES, GRADALLS)	12/01/201	9 \$23.08	\$12.50	\$15.70	\$0.00	\$51.28
PERATING ENG	JINEERS LOC	AL 4	06/01/202	0 \$23.63	\$12.50	\$15.70	\$0.00	\$51.83
			12/01/202	0 \$24.20	\$12.50	\$15.70	\$0.00	\$52.40
			06/01/202	1 \$24.75	\$12.50	\$15.70	\$0.00	\$52.95
			12/01/202	1 \$25.33	\$12.50	\$15.70	\$0.00	\$53.53
		pprentice- OPERATING ENGINEERS"						
DILER (TRUG PERATING ENG		ES, GRADALLS) 2414	12/01/201		\$12.50	\$15.70	\$0.00	\$55.84
			06/01/202		\$12.50	\$15.70	\$0.00	\$56.49
			12/01/202		\$12.50	\$15.70	\$0.00	\$57.17
			06/01/202		\$12.50	\$15.70	\$0.00	\$57.81
For apprentic	re rates see "A	pprentice- OPERATING ENGINEERS"	12/01/202	1 \$30.29	\$12.50	\$15.70	\$0.00	\$58,49
		EN EQUIPMENT - CLASS II	12/01/201	9 \$48.23	\$12.50	\$15.70	\$0.00	\$76.43
PERATING ENG			06/01/202		\$12.50	\$15.70	\$0.00	\$77.51
			12/01/202		\$12.50	\$15.70	\$0.00	\$78.65
			06/01/202		\$12.50	\$15.70	\$0.00	\$79.74
			12/01/202		\$12.50	\$15.70	\$0.00	\$80.88
For apprentic	ce rates see "A	pprentice- OPERATING ENGINEERS*		- •				
AINTER (BI			01/01/202	0 \$50.96	\$8.20	\$22.10	\$0.00	\$81.26
AINTERS LOCA	L 35 - ZONE 1	2	07/01/202	0 \$52.06	\$8.20	\$22.10	\$0.00	\$82.36
			01/01/202	1 \$53.16	\$8.20	\$22.10	\$0.00	\$83.46

Page 21 of 37

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
1	- 50	\$25.48	\$8.20	\$0.00	\$0.00	\$33.68	
2	55	\$28.03	\$8.20	\$5.94	\$0.00	\$42.17	
3	60	\$30.58	\$8,20	\$6.48	\$0.00	\$45.26	
4	65	\$33.12	\$8,20	\$7.02	\$0.00	\$48.34	
5	70	\$35.67	\$8.20	\$18.86	\$0.00	\$62.73	
6	75	\$38.22	\$8.20	\$19.40	\$0.00	\$65.82	
7	80	\$40.77	\$8.20	\$19.94	\$0.00	\$68.91	
8	90	\$45.86	\$8.20	\$21.02	\$0.00	\$75.08	
Effe	tive Date - 07/01/2020				Supplemental		
Step	percent	Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
1	50	\$26.03	\$8.20	\$0.00	\$0.00	\$34.23	
2	55	\$28.63	\$8.20	\$5.94	\$0.00	\$42.77	
3	60	\$31.24	\$8.20	\$6.48	\$0.00	\$45.92	
4	65	\$33.84	\$8.20	\$7.02	\$0.00	\$49.06	
5	70	\$36.44	\$8.20	\$18.86	\$0.00	\$63.50	
6	75	\$39.05	\$8.20	\$19.40	\$0.00	\$66.65	
7	80	\$41.65	\$8.20	\$19.94	\$0.00	\$69.79	
8	90	\$46.85	\$8.20	\$21.02	\$0.00	\$76.07	
Note	S:						
	Steps are 750 hrs.					ver internet	
App	rentice to Journeyworker Ratio:	1:1		NACES			
R (SIGN, PIC	CTORIAL & DISPLAY)	06/01/2013	\$25.8	1 \$7.07	\$7.05	\$0.00	\$39.93
5 LUCAL 33 - 20	NB 2						



Issue Date: 04/15/2020 Page 21 of 3

Effective Date Base Wage Health Pension

Supplemental Total Rate Unemployment

	Effective Date - 06/01/20 Step percent 1 50 2 55 3 60 4 65 5 70 6 75 7 80 8 85 9 90 Notes: Steps are 4 mos.		Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Ra	te
	1	50	\$12.91	\$7.07	\$0.00	\$0.00	\$19.9	8
	2	55	\$14.20	\$7.07	\$2.45	\$0.00	\$23.7	2
	3	60	\$15.49	\$7.07	\$2.45	\$0.00	\$25.0)1
	4	65	\$16.78	\$7.07 [`]	\$2.45	\$0.00	\$26.3	30
	5	70	\$18.07	\$7.07	\$7.05	\$0.00	\$32.1	9
	6	75	\$19.36	\$7.07	\$7.05	\$0.00	\$33.4	18
	7	80	\$20.65	\$7.07	\$7.05	\$0.00	\$34.7	77
	8	85	\$21.94	\$7.07	\$7.05	\$0.00	\$36.0)6
	9	90	\$23.23	\$7.07	\$7.05	\$0.00	\$37.3	35
	Notes						anta, antaine antaine adama	1
		Steps are 4 mos.						
•	Appr	entice to Journeyworker Rati	0:1:1		renewan negalawe yaaabaa	Andrew Million Million of	nangan ngangalan siyari ng Maraka	
,		R SANDBLAST, NEW) *	01/01/2020) \$41.8	6 \$8.20	\$22.10	\$0.00	\$72.16
		infaces to be painted are new c	· · · · · · · · · · · · · · · · · · ·	\$42.9	6 \$8.20	\$22.10	\$0.00	\$73.26
5 w paint rate s	snall 0	e used.PAINTERS LOCAL 35 - ZON	01/01/202	L \$44.0	6 \$8.20	\$22.10	\$0.00	\$74.36

Effective Date Base Wage Health Pension Supplemental **Total Rate** Unemployment

	ep	ve Date - 01/01/2020 percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
1		50	\$20,93	\$8.20	\$0.00	\$0.00	\$29.13	
2		55	\$23.02	\$8.20	\$5.94	\$0.00	\$37.16	
3		60	\$25.12	\$8.20	\$6,48	\$0.00	\$39.80	
4		65	\$27.21	\$8.20	\$7.02	\$0.00	\$42.43	
5		70	\$29.30	\$8.20	\$18.86	\$0.00	\$56.36	
6		75	\$31,40	\$8.20	\$19.40	\$0.00	\$59.00	
7		80	\$33.49	\$8.20	\$19.94	\$0.00	\$61.63	
8		90	\$37.67	\$8.20	\$21.02	\$0.00	\$66.89	
E	ifecti	ve Date - 07/01/2020				Supplemental	-	
St	ер	percent	Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
1		50	\$21.48	\$8.20	\$0.00	\$0.00	\$29.68	
2		55	\$23.63	\$8.20	\$5.94	\$0.00	\$37.77	
3		60	\$25.78	\$8.20	\$6.48	\$0.00	\$40.46	
4		65	\$27.92	\$8.20	\$7.02	\$0.00	\$43.14	
5		70	\$30.07	\$8.20	\$18.86	\$0.00	\$57.13	
. 6		75	\$32.22	\$8.20	\$19.40	\$0.00	\$59.82	
7		80	\$34.37	\$8.20	\$19.94	\$0.00	\$62.51	
8		90	\$38.66	\$8.20	\$21.02	\$0.00	\$67.88	
N	otes:	Steps are 750 hrs.						
	pprei	itice to Journeyworker Ratio: 1:1						
		SANDBLAST, REPAINT)	01/01/2020	\$39.92	\$8.20	\$22.10	\$0.00	\$70.22
ERS LOCAL 35 -	ZONE	2	07/01/2020	\$41.02	\$8.20	\$22.10	\$0.00	\$71.32
			01/01/2021	\$42.12	\$8.20	\$22,10	\$0.00	\$72.42

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Page 23 of 37

6.03 5 A .

Effective Date Base Wage Health Pension Supplemental Total Rate Unemployment

	Step	ve Date - percent	01/01/2020	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	50		\$19.96	\$8.20	\$0.00	\$0.00	\$28.16	
	2	55		\$21.96	\$8.20	\$5.94	\$0.00	\$36.10	
	3	60		\$23.95	\$8.20	\$6.48	\$0.00	\$38.63	
	4	65		\$25.95	\$8.20	\$7.02	\$0.00	\$41.17	
	5	70		\$27.94	\$8.20	\$18.86	\$0.00	\$55.00	
	6	75		\$29.94	\$8.20	\$19.40	\$0.00	\$57.54	
	7	80		\$31.94	\$8.20	\$19.94	\$0.00	\$60.08	
	8	90		\$35.93	\$8.20	\$21.02	\$0.00	\$65.15	
		ve Date -	07/01/2020	Ammentics Doop Ware	Haalth	Pension	Supplemental Unemployment	Total Rate	
	Step	percent		Apprentice Base Wage					
	2	50 55		\$20.51	\$8.20 \$8.20	\$0.00 \$5.04	\$0.00 \$0.00	\$28.71 \$36.70	
	3	55 60		\$22.56 \$24.61	\$8.20 \$8.20	\$5.94 \$6.48	\$0.00 \$0.00	\$36.70	
	4	65		\$24.61 \$26.66	\$8.20 \$8.20	30.48 \$7,02	\$0.00	\$39.29	
	5	70		\$28.71	\$8.20 \$8.20	\$18.86	\$0.00	\$55.77	
	6	75		\$30.77	\$8.20	\$19.40	\$0.00	\$58.37	
	7 .	80	· ·	\$32.82	\$8.20	\$19.94	\$0.00	\$60.96	
	8	90		\$36.92	\$8,20	\$21.02	\$0.00	\$66.14	
	Notes:	Steps are	750 hrs. purneyworker Ratio:1:1						
AINTER (TF		ARKING	rs)	12/01/2011	9 \$39.15	\$8.10	\$16.60	\$0.00	\$63.85
ABORERS - ZON	VE 1			06/01/202	0 \$40.14	\$8.10	\$16.60	\$0.00	\$64.84
				12/01/202	0 \$41.12	\$8.10	\$16.60	\$0.00	\$65.82
				06/01/202	1 \$42.14	\$8.10	\$16.60	\$0.00	\$66.84
				12/01/202	I \$43.15	\$8.10	\$16.60	\$0.00	\$67.85
For Apprenti				01/01/202	0 \$40.46	\$8.20	\$22.10	\$0.00	\$70.76
			painted are new construction				\$22.10 \$22.10	\$0.00	\$70.76
W paint rat	te shall be	used.PAIN	TERS LOCAL 35 - ZONE 2	01/01/202			\$22.10	\$0.00	\$72.96
				,					

Effective Date Base Wage Health Pension Supplemental Unemployment

lemental Total Rate

	Step	percent		Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	50		\$20.23	\$8.20	\$0.00	\$0.00	\$28.43	
	2	55		\$22.25	\$8.20	\$5.94	\$0.00	\$36.39	
	3	60		\$24.28	\$8.20	\$6.48	\$0.00	\$38.96	
	4	65		\$26.30	\$8.20	\$7.02	\$0.00	\$41.52	
	5	70		\$28.32	\$8.20	\$18.86	\$0.00	\$55.38	
	6	75		\$30.35	\$8.20	\$19.40	\$0.00	\$57.95	
	7	80		\$32.37	\$8.20	\$19.94	\$0.00	\$60.51	
	8	90		\$36.41	\$8.20	\$21.02	\$0.00	\$65.63	
• • •	Effecti	ve Date -	07/01/2020				Supplemental		
	Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
	1	50		\$20.78	\$8.20	\$0.00	\$0.00	\$28.98	
	2	55		\$22.86	\$8.20	\$5.94	\$0.00	\$37.00	
	3	60		\$24.94	\$8.20	\$6.48	\$0.00	\$39.62	
	4	65		\$27.01	\$8.20	\$7.02	\$0.00	\$42.23	
	5	70		\$29.09	\$8.20	\$18.86	\$0.00	\$56.15	
	6	75		\$31.17	\$8.20	\$19.40	\$0.00	\$58.77	
	7	80		\$33.25	\$8.20	\$19.94	\$0.00	\$61.39	
	8	90		\$37.40	\$8.20	\$21.02	\$0.00	\$66.62	
	Notes:	<u> </u>							
		Steps are 7	50 hrs.						
	Appre	ntice to Jou	rneyworker Ratio:1:1						
		RUSH, REP.	AINT) .	01/01/202	0 \$38.52	\$8.20	\$22.10	\$0.00	\$68.82
INTERS LOCA	4L 35 - ZON	62		07/01/202	0 \$39.62	\$8.20	\$22.10	\$0.00	\$69.92
				01/01/202	1 \$40.72	\$8.20	\$22.10	\$0.00	\$71.02

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW

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Issue Date: 04/15/2020		3.10 C F F 1	Page 25 of 37

Effective Date Base Wage Health

Supplemental Total Rate

Pension

	Step	ve Date - percent	01/01/2020	Apprenti	ce Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	50			\$19.26	\$8.20	\$0.00	\$0.00	\$27.46	
	2	55			\$21.19	\$8.20	\$5.94	\$0.00	\$35.33	
	3	60			\$23.11	\$8.20	\$6.48	\$0.00	\$37.79	
	4	65			\$25.04	\$8.20	\$7.02	\$0.00	\$40.26	
	5	70			\$26.96	\$8.20	\$18.86	\$0.00	\$54.02	
	6	75			\$28.89	\$8.20	\$19.40	\$0.00	\$56.49	
	7	80			\$30.82	\$8.20	\$19.94	\$0.00	\$58.96	
	8	90			\$34.67	\$8.20	\$21.02	\$0.00	\$63.89	
	Effect	ve Date -	07/01/2020					Cumulamental		
	Step	percent	• • • • • • • • • • • • • • • • • • • •	Apprenti	ce Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	50			\$19.81	\$8.20	\$0.00	\$0.00	\$28.01	
	2	55			\$21.79	\$8.20	\$5.94	\$0.00 ·	\$35.93	
	3	60			\$23.77	\$8.20	\$6.48	\$0.00	\$38.45	
	4	65			\$25.75	\$8.20	\$7.02	\$0.00	\$40.97	
	5	70			\$27.73	\$8.20	\$18.86	\$0.00	\$54.79	
	6	75			\$29.72	\$8.20	\$19.40	\$0.00	\$57.32	
	7	80			\$31.70	\$8.20	\$19.94	\$0.00	\$59.84	
	8	90			\$35.66	\$8.20	\$21.02	\$0.00	\$64.88	
	Notes	s 								
	110003		e 750 hrs.						anne -	
	Appre	ntice to Jo	ourneyworker Ratio:1:1							
ANEL & PI					12/01/2019	\$35.18	\$12.41	\$13.72	\$0.00	\$61.31
EAMSTERS JO	NTCOUNC	1L NO. 10 ZC	ONE A		06/01/2020	\$36.08	\$12.41	\$13.72	\$0.00	\$62.21
					08/01/2020	\$36.08	\$12.91	\$13.72	\$0.00	\$62.71
					12/01/2020	\$36.08	\$12.91	\$14.82	\$0.00	\$63.81
					06/01/2021	\$36.88	\$12.91	\$14.82	\$0.00	\$64.61
					08/01/202	\$36.88	\$13.41	\$14.82	\$0.00	\$65.11
					12/01/202	\$36.88	\$13.41	\$16.01	\$0.00	\$66.30
PIER AND D DECK) VILE DRIVER LO			FOR (UNDERPINNING A	ND	08/01/2019) \$48.94	\$9.90	\$21.15	\$0.00	\$79.99
			PILE DRIVER"							
ILE DRIVE		WE 11			08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
PILE DRIVER LO	<i>LAL</i> 30 (20	I)								
							а Мар			

Supplemental Effective Date Base Wage Health Pension Unemployment

\$59.19 \$10.95 \$19.74 \$0.00

Total Rate

\$89.88

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
1	50	\$24.47	\$9.90	\$21.15	\$0.00	\$55.52	
2	60	\$29.36	\$9.90	\$21.15	\$0.00	\$60.41	
3	70	\$34.26	\$9.90	\$21.15	\$0.00	\$65.31	
4	75	\$36.71	\$9.90 ⁻	\$21.15	\$0.00	\$67.76	
5	80	\$39.15	\$9.90	\$21.15	\$0.00	\$70.20	
6	80	\$39.15	\$9.90	\$21.15	\$0.00	\$70.20	
. 7	90	\$44.05	\$9.90	\$21.15	\$0.00	\$75.10	
8	90	\$44.05	\$9.90	\$21.15	\$0.00	\$75.10	
Note	28:			naang ahadha, androg		 	
						· ·	
App	rentice to Journeyworker	Ratio:1:5	nany ananana aranana ara				
	TER & STEAMFITTER		\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
EFIITERS LOCAL 537	7	09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38

03/01/2021

ercent		Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
10		\$22.48	\$10.95	\$8.00	\$0.00	\$41.43
15		\$25.29	\$10.95	\$19.74	\$0.00	\$55.98
50		\$33.71	\$10.95	\$19.74	\$0.00	\$64.40
70		\$39.33	\$10.95	\$19.74	\$0.00	\$70.02
30		\$44.95	\$10.95	\$19.74	\$0.00	\$75.64
Date - 09/0	1/2020				Supplemental	
ercent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate
10		\$23.08	\$10.95	\$8.00	\$0.00	\$42.03
45		\$25.96	\$10.95	\$19.74	\$0.00	\$56.65
50		\$34.61	\$10.95	\$19.74	\$0.00	\$65.30
70		\$40.38	\$10.95	\$19.74	\$0.00	\$71.07
30		\$46.15	\$10.95	\$19.74	\$0.00	\$76.84
	45 50 70 30 Date - 09/0 ercent 40 45 50 70	45 50 70 80 Date - 09/01/2020 ercent 40 45 50 70	15 \$25,29 50 \$33,71 70 \$39,33 80 \$44,95 Date - 09/01/2020 ercent 40 \$23,08 15 \$25,96 50 \$34,61 70 \$40,38	45 \$25.29 \$10.95 50 \$33.71 \$10.95 50 \$39.33 \$10.95 70 \$39.33 \$10.95 80 \$44.95 \$10.95 Date - 09/01/2020 ercent Apprentice Base Wage Health \$23.08 \$10.95 40 \$23.08 \$10.95 50 \$34.61 \$10.95 50 \$34.61 \$10.95 70 \$40.38 \$10.95	45 \$25.29 \$10.95 \$19.74 50 \$33.71 \$10.95 \$19.74 70 \$39.33 \$10.95 \$19.74 80 \$44.95 \$10.95 \$19.74 Date - 09/01/2020 ercent Apprentice Base Wage Health Pension 40 \$23.08 \$10.95 \$8.00 45 \$25.96 \$10.95 \$19.74 50 \$34.61 \$10.95 \$19.74 70 \$40.38 \$10.95 \$19.74	x_{1} x_{2} x_{1} x_{1} x_{1} x_{1} x_{1} x_{2} x_{2} x_{1} x_{1} x_{1} x_{1} x_{1} x_{1} x_{2} x_{2} x_{2} x_{1} x_{1} x_{1} x_{1} x_{1} x_{2} x_{2} x_{2} x_{2} x_{2} x_{2} x_{2} x_{1} x_{2} <td< td=""></td<>

Issue Date: 04/15/2020 Wage Request Number: 20200415-058 Page 27 of 37

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIPELAYER	12/01/2019	\$39.40	\$8.10	\$16.60	\$0.00	\$64.10
LABORERS - ZONE I	06/01/2020	\$40.39	\$8.10	\$16.60	\$0.00	\$65.09
	12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
	06/01/2021	\$42.39	\$8.10	\$16.60	\$0.00	\$67.09
	12/01/2021	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
PLUMBERS & GASFITTERS	03/01/2020	\$58.69	\$12.07	\$17.26	\$0.00	\$88.02
PLUMBERS & GASFITTERS LOCAL 12	09/01/2020	\$60.19	\$12.07	\$17.26	\$0.00	\$89.52
	03/01/2021	\$61.69	\$12.07	\$17.26	\$0.00	\$91.02

	Step	ve Date - percent	03/01/2020	Apprentice B	ase Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	35		\$2	0.54	\$12.07	\$6.24	\$0.00	\$38.85	
	2	40		\$2	3.48	\$12.07	\$7.08	\$0.00	\$42.63	
	3	55		\$3	2.28	\$12.07	\$9.63	\$0.00	\$53.98	
	4	65		\$3	8.15	\$12.07	\$11.33	\$0.00	\$61.55	
	5	75		\$4	4.02	\$12.07	\$13.03	\$0.00	\$69.12	
	Effecti	ve Date -	09/01/2020					Supplemental		
	Step	percent		Apprentice B	ase Wage	Health	Pension	Unemployment	Total Rate	
	1	35		\$2	1.07	\$12.07	\$6.24	\$0.00	\$39.38	
	2	40		\$2	4.08	\$12.07	\$7.08	\$0.00	\$43.23	
	3	55		\$3	3.10	\$12.07	\$9.63	\$0.00	\$54,80	
	4	65		\$3	9.12	\$12.07	\$11.33	\$0.00	\$62.52	
	5	75		\$4	5.14	\$12.07	\$13.03	\$0.00	\$70.24	
	Appre	Step4 wi	:6; 3:10; 4:14; 5:19/Step th lic\$65.32, Step5 with purneyworker Ratio:**	lic\$72.89	•					
PNEUMATIC		OLS (TEM	4P.)		03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
TETITERSLO	CAL JJ/				09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
For apprentic	a rataz raa	"Annrentice.	PIPEFITTER" or "PLUMBER		03/01/2021	\$59.17	7 \$10.95	\$19.74	\$0.00	\$89.86
PNEUMATIC					12/01/2019	\$39.40) \$8.10	\$16.60	\$0.00	\$64.10
ABORERS - ZON	IE I				06/01/2020	\$40.39	9 \$8.10	\$16.60	\$0.00	\$65.09
					12/01/2020	\$41.3	7 \$8.10	\$16.60	\$0.00	\$66.07
					06/01/202	\$42.39	\$8.10	\$16.60	\$0.00	\$67.09
					12/01/202	l \$43.40	5 \$8.10	\$16.60	\$0.00	\$68.10
For apprentic			LABORER"		12/01/2019	\$40.1	5 \$8.10	\$16.60	\$0.00	\$64.85
LABORERS - ZOI			••		06/01/2020			\$16.60	\$0.00	\$65.84
	,				12/01/2020			\$16.60	\$0.00	\$66.82
					06/01/202			\$16.60	\$0.00	\$57.31
						÷			\$0.00	

Classification For apprentice rates see "Apprentice- LABORER"	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
OWER SHOVEL/DERRICK/TRENCHING MACHINE	12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
PERATING ENGINEERS LOCAL 4	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
	12/01/2021	\$53,23	\$12.50	\$15.70	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
UMP OPERATOR (CONCRETE) PPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
PERAING ENGINEERG LOCH, 4	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43
UMP OPERATOR (DEWATERING, OTHER)	12/01/2019	\$32.47	\$12.50	\$15.70	\$0.00	\$60.67
PPERATING ENGINEERS LOCAL 4	06/01/2020	\$33.22	\$12.50	\$15.70	\$0.00	\$61.42
	12/01/2020	\$34.00	\$12.50	\$15.70	\$0.00	\$62.20
	06/01/2021	\$34.75	\$12.50	\$15.70	\$0.00	\$62.95
	12/01/2021	\$35.54	\$12.50	\$15.70	\$0.00	\$63,74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	\$5515 T	\$12.50	•••••	•••••	\$0017 I
READY-MIX CONCRETE DRIVER	01/01/2020	\$23.50	\$11.01	\$8.00	\$0.00	\$42.51
EAMSTERS 170 - Rosenfeld (Walpole)	01/01/2021	\$23.50	\$11.51	\$8.00	\$0.00	\$43.01
RECLAIMERS	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
PPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
UDE-ON MOTORIZED BUGGY OPERATOR <i>aborers - zone 1</i>	12/01/2019	\$39.40	\$8.10	\$16.60	\$0.00	\$64.10
ABOKEKS - ZONE 1 i	06/01/2020	\$40.39	\$8.10	\$16.60	\$0.00	\$65.09
	12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
	06/01/2021	\$42.39	\$8.10	\$16.60	\$0.00	\$67.09
	12/01/2021	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
COOFER (Inc.Roofer Waterproofing & Roofer Damproofg)	03/01/2020	\$45.67	\$11.50	\$15.90	\$0.00	\$73.07
OOFERS LOCAL 33	08/01/2020	\$47.10	\$11.50	\$15.90	\$0.00	\$74.50
	02/01/2020	\$48.53	\$11.50	\$15.90	\$0.00	\$75.93
	02/01/2021	348.33 \$49.96	\$11.50	\$15.90	\$0.00	\$73.93 \$77.36
	02/01/2022	\$49.90 \$51.39	\$11.50	\$15.90	\$0.00	\$78.79
	02/01/2022	<i>931,39</i>	911.30	ψ13. 9 0	\$V.0V	@10.17

Effective Date Base Wage Health Pension Supplemental Total Rate Unemployment

Apprentice - ROOFER - Local 33 Effective Date - 03/01/2020 Supplemental Unemployment Total Rate Apprentice Base Wage Health Pension Step percent 1 50 \$22.84 \$11.50 \$3.69 \$0.00 \$38.03 2 60 \$27.40 \$11.50 \$15.90 \$0.00 \$54.80 3 \$0.00 \$57.09 \$15.90 \$29.69 \$11.50 65 4 \$0.00 \$61.65 75 \$34.25 \$11.50 \$15.90 5 \$66.22 85 \$38.82 \$11.50 \$15.90 \$0.00 08/01/2020 Effective Date -Supplemental Apprentice Base Wage Health Pension Unemployment Total Rate Step percent 1 \$0.00 \$38.74 50 \$23.55 \$11.50 \$3.69 2 60 \$28.26 \$11.50 \$15.90 \$0.00 \$55.66 3 \$58.02 \$11.50 \$15.90 \$0.00 65 \$30.62 4 75 \$35.33 \$11.50 \$15.90 \$0.00 \$62.73 5 85 \$40.04 \$11.50 \$15.90 \$0.00 \$67.44 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 03/01/2020 \$45.92 \$11.50 \$15.90 \$0.00 \$73.32 ROOFERS LOCAL 33 \$15.90 \$0.00 \$74.75 08/01/2020 \$11.50 \$47.35 02/01/2021 \$48.78 \$11.50 \$15.90 \$0.00 \$76.18 \$15.90 \$0.00 \$77.61 08/01/2021 \$50.21 \$11.50 02/01/2022 \$51.64 \$11.50 \$15.90 \$0.00 \$79.04 For apprentice rates see "Apprentice- ROOFER" SHEETMETAL WORKER \$49.36 \$24.12 \$2.61 \$89.44 02/01/2020 \$13.35 SHEETMETAL WORKERS LOCAL 17 - A \$2.66 \$24.12 \$91.09 08/01/2020 \$50.96 \$13.35 02/01/2021 \$52.61 \$13.35 \$24.12 \$2.71 \$92.79 \$13.35 \$24.12 \$2.76 \$94.59 08/01/2021 \$54.36 \$24.12 \$2.81 \$96.39 02/01/2022 \$56.11 \$13.35

Supplemental Total Rate

	Effecti Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	42	\$20.73	\$13.35	\$5.89	\$0.00	\$39.97	
	2	42	\$20.73	\$13.35	\$5.89	\$0.00	\$39.97	
	3	47	\$23.20	\$13.35	\$11.13	\$1.43	\$49.11	
	4	47	\$23.20	\$13.35	\$11.13	\$1.43	\$49.11	
	5	52	\$25.67	\$13.35	\$12.08	\$1.53	\$52.63	
	6	52	\$25.67	\$13.35	\$12.33	\$1.54	\$52.89	
	7	60	\$29.62	\$13.35	\$13.70	\$1.70	\$58.37	
	8	65	\$32.08	\$13.35	\$15.15	\$1.80	\$62.38	
	9	75	\$37.02	\$13.35	\$16.56	\$2.01	\$68.94	
	10	85	\$41.96	\$13.35	\$17.96	\$2.20	\$75.47	
	Effecti	ve Date - 08/01/2020				Supplemental		
	Step	percent	Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
	1	42	\$21.40	\$13.35	\$5.89	\$0.00	\$40.64	
	2	42	\$21.40	\$13.35	\$5.89	\$0.00	\$40.64	
	3	47	\$23.95	\$13.35	\$11.13	\$1.45	\$49.88	
	4	47	\$23.95	\$13.35	\$11.13	\$1.45	\$49.88	
	5	52	\$26.50	\$13.35	\$12.08	\$1.56	\$53.49	
	6	52	\$26.50	\$13.35	\$12,33	\$1.57	\$53.75	
	7	60	\$30.58	\$13.35	\$13.70	\$1.73	\$59.36	
	8	65	\$33.12	\$13.35	\$15.15	\$1.85	\$63.47	
	9	75	\$38.22	\$13.35	\$16.56	\$2.04	\$70.17	
	10	85	\$43.32	\$13.35	\$17.96	\$2.24	\$76.87	
	Notes:						 	
		Steps are 6 mos.					L. C.	
	Appre	ntice to Journeyworker Ratio:1:4						
		I MOVING EQUIP < 35 TONS	12/01/2019	9 \$35.0	54 \$12.41	\$13.72	\$0.00	\$61.7
TERS JOH	NTCOUNC	IL NO. 10 ZONE A	06/01/2020	\$36.:	54 \$12.41	\$13.72	\$0.00	\$62.6
		·	08/01/2020) \$36.:	54 \$12.91	\$13.72	\$0.00	\$63.1
			12/01/2020) \$36.:	54 \$12.91	\$14.82	\$0.00	\$64.2
			06/01/202	1 \$37.3	34 \$12.91	\$14.82	\$0.00	\$65.0
			08/01/202	I \$37.:	34 \$13.41	\$14.82	\$0.00	\$65.5
			12/01/202	1 \$37.3	34 \$13.41	\$16.01	\$0.00	\$66.7
					,			

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPECIALIZED EARTH MOVING EQUIP > 35 TONS	12/01/2019	\$35.93	\$12.41	\$13.72	\$0.00	\$62.06
EAMSTERS JOINT COUNCII, NO. 10 ZONE A	06/01/2020	\$36.83	\$12.41	\$13.72	\$0.00	\$62.96
	08/01/2020	\$36.83	\$12.91	\$13.72	\$0.00	\$63.46
	12/01/2020	\$36.83	\$12.91	\$14.82	\$0.00	\$64.56
	06/01/2021	\$37.63	\$12.91	\$14.82	\$0.00	\$65.36
	08/01/2021	\$37.63	\$13.41	\$14.82	\$0.00	\$65.86
	12/01/2021	\$37.63	\$13.41	\$16.01	\$0.00	\$67.05
SPRINKLER FITTER	03/01/2020	\$60.82	\$9.68	\$20.55	\$0.00	\$91.05
SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1	10/01/2020	\$62.32	\$9.68	\$20.55	\$0.00	\$92.55
	03/01/2021	\$63.82	\$9.68	\$20.55	\$0.00	\$94.05

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

Effect	ive Date -	03/01/2020				Supplemental		
Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate	
1	35		\$21.29	\$9.68	\$11.61	\$0.00	\$42.58	
2	40		\$24.33	\$9.68	\$12.30	\$0.00	\$46.31	
3	45		\$27.37	\$9.68	\$12.99	\$0.00	\$50.04	
4	50		\$30.41	\$9.68	\$13.73	\$0.00	\$53.82	
5	55		\$33.45	\$9.68	\$14.36	\$0.00	\$57.49	
6	60		\$36.49	\$9.68	\$15.05	\$0.00	\$61.22	
7	65		\$39.53	\$9.68	\$15.74	\$0.00	\$64.95	
8	70		\$42.57	\$9.68	\$16.43	\$0.00	\$68.68	
9	75		\$45.62	\$9.68	\$17.11	\$0.00	\$72.41	
10	80		\$48.66	\$9.68	\$17.80	\$0.00	\$76.14	

Effect	ive Date -	10/01/2020				Supplemental	
Step	percent		Apprentice Base Wage	Health	Pension	Unemployment	Total Rate
1	35		\$21.81	\$9.68	\$11.61	\$0.00	\$43.10
2	40		\$24.93	\$9.68	\$12.30	\$0.00	\$46.91
3	45		\$28.04	\$9.68	\$12.99	\$0.00	\$50.71
4	50		\$31.16	\$9.68	\$13.73	\$0.00	\$54.57
5	55		\$34.28	\$9.68	\$14.36	\$0.00	\$58.32
6	60		\$37.39	\$9.68	\$15.05	\$0.00	\$62.12
7	65		\$40.51	\$9.68	\$15.74	\$0.00	\$65.93
8	70		\$43.62	\$9.68	\$16.43	\$0.00	\$69.73
9	75		\$46.74	\$9.68	* \$17.11	\$0.00	\$73.53
10	80		\$49.86	\$9.68	\$17.80	\$0.00	\$77.34
Notes	40/45/50/	entered prior 9/30/10: 55/60/65/70/75/80/85 850 hours					n teorina announ dantaire
Annre	ntice to Jo	urneyworker Ratio: 1:3		anna aite a an		····· ····· ····· ·····	The first factors are successed

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
STEAM BOILER OPERATOR	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	· · · · · · · · · · · · · · · · · · ·					
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TELECOMMUNICATION TECHNICIAN	03/01/2020	\$40.13	\$13.00	\$17.12	\$0.00	\$70.25
ELECTRICIANS LOCAL 103	09/01/2020	\$41.20	\$13.00	\$17.16	\$0.00	\$71.36
	03/01/2021	\$42.66	\$13.00	\$17.27	\$0.00	\$72.93
	09/01/2021	\$44.32	\$13.00	\$17.38	\$0.00	\$74.70
	03/01/2022	\$45.83	\$13.00	\$17.49	\$0.00	\$76.32
	09/01/2022	\$47.55	\$13.00	\$17.62	\$0.00	\$78.17
	03/01/2023	\$49.11	\$13.00	\$17.73	\$0.00	\$79.84

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Issue Date: 04/15/2020 Mage Request Number: 20200415-058

Effective Date Base Wage Health Pension Supplemental Unemployment

plemental Total Rate

			1/2020 Apprenti	ce Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	Step 1	percent 45	Арргени				\$0.00	\$31.60	
	2			\$18.06	\$13.00	\$0.54			
		45		\$18.06	\$13.00	\$0.54	\$0.00	\$31.60	
	3	50		\$20.07	\$13.00	\$14.00	\$0.00	\$47.07	
	4	50		\$20.07	\$13.00	\$14.00	\$0.00	\$47.07	
	5	55 ·		\$22.07	\$13.00	\$14.31	\$0.00	\$49.38	
	6	60		\$24.08	\$13.00	\$14.62	\$0.00	\$51.70	
	7	65		\$26.08	\$13.00	\$14.94	\$0.00	\$54.02	
	8	70		\$28.09	\$13.00	\$15.26	\$0.00	\$56.35	
	9	75		\$30.10	\$13.00	\$15.56	\$0.00	\$58.66	
	10	80		\$32.10	\$13.00	\$15.87	\$0.00	\$60.97	
	Effecti	ive Date - 09/0	1/2020				Supplemental		
	Step	percent	Apprenti	ce Base Wage	Health	Pension	Unemployment	Total Rate	
	1	45		\$18.54	\$13.00	\$0.57	\$0.00	\$32.11	
	2	45		\$18.54	\$13.00	\$0.57	\$0.00	\$32.11	
	3	50		\$20.60	\$13.00	\$14.02	\$0.00	\$47.62	
	4	50		\$20.60	\$13.00	\$14.02	\$0.00	\$47.62	
	5	55		\$22.66	\$13.00	\$14.33	\$0.00	\$49.99	
	6	60		\$24.72	\$13.00	\$14.64	\$0.00	\$52.36	
	7	65		\$26.78	\$13.00	\$14.96	\$0.00	\$54.74	
	8	70		\$28.84	\$13.00	\$15.28	\$0.00	\$57.12	
	9	75		\$30.90	\$13.00	\$15.59	\$0.00	\$59.49	
	10	80		\$32.96	\$13.00	\$15.90	\$0.00	\$61.86	
	Notes:						······ ····· ····· ·····		
	l							.	
		-	worker Ratio:1:1						
RRAZZO				02/01/202	0 \$53.3	4 \$10.75	\$21.94	\$0.00	\$86.03
CKLAYERS	OCAL 3 - M	ARBLE & TILE		08/01/202	0 \$54.6	9 \$10.75	\$22.09	\$0.00	\$87.53
				02/01/202	1 \$55.3	3 \$10.75	\$22.09	\$0.00	\$88.17
				08/01/202	1 \$56.7.	3 \$10.75	\$22.25	\$0.00	\$89.73
				02/01/202	2 \$57.3	2 \$10.75	\$22.25	\$0.00	\$90.32
		1							
	*		•						
-	-								
							•		
						··· ·	· · · · · · · · · · · · · · · ·		

pprentice - TELECOMMUNICATION TECHNICIAN - Local 103

	Step	ive Date - 02/01/2020 percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	50	\$26.67	\$10.75	\$21.94	\$0.00	\$59.36	
	2	60	\$32.00	\$10.75	\$21.94	\$0.00	\$64.69	
	3	70	\$37.34	\$10.75	\$21.94	\$0.00		
	4	80	\$42.67	\$10.75	\$21.94	\$0.00	\$75.36	
	5	90 ·	\$48.01	\$10.75	\$21.94	\$0.00	\$80.70	
	Effecti Step	ive Date - 08/01/2020 percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
	1	50						
	2	60	\$27.35	\$10.75	\$22.09	\$0.00	\$60.19	
	3	70	\$32.81	\$10.75	\$22.09	\$0.00	\$65.65	
	4	80	\$38.28	\$10.75	\$22.09	\$0.00	\$71.12	
	5	90	\$43.75 \$49.22	\$10.75 \$10.75	\$22.09 \$22.09	\$0.00 \$0.00	\$76.59 \$82.06	
			•	310.75	922.09	30.00	302.00	
	Notes:							
	Appre	ntice to Journeyworker Ratio	11.3				···· ···· ···· ····	
EST BORIN			12/01/2019	\$40.50	\$8.10	\$16.80	\$0.00	\$65.40
ABORERS - FO	UNDATION	AND MARINE	06/01/2020	\$41.49	\$8.10	\$16.80	\$0.00	\$66.39
			12/01/2020	\$42.47	\$8.10	\$16.80	\$0.00	\$67.37
			06/01/2021	\$43.49	\$8.10	\$16.80	\$0.00	\$68.39
			12/01/2021	\$44.50	\$8.10	\$16.80	\$0.00	\$69.40
		'Apprentice- LABORER"						
EST BORIN 4BORERS - FO		ER HELPER and marine	12/01/2019			\$16.80	\$0.00	\$64.12
			06/01/2020			\$16.80	\$0.00	\$65.11
			12/01/2020			\$16.80	\$0.00	\$66.09
			06/01/2021			\$16.80	\$0.00	\$67.11
For apprenti	na ratas saa "	Apprentice- LABORER"	12/01/2021	\$43.22	\$8.10	\$16.80	\$0.00	\$68.12
EST BORIN			12/01/2019	\$39.10	¢0 10	\$16.80	\$0.00	\$64.00
ABORERS - FO			06/01/2019			\$16.80	\$0.00	\$64.99
			12/01/2020			\$16.80	\$0.00 \$0.00	\$65.97
			. 06/01/2021			\$16.80	\$0.00	\$66.99
			12/01/2021			\$16.80	\$0.00	\$68.00
For apprenti	ce rates see "	Apprentice- LABORER*		943.10	\$0.10	\$10.00	\$0.00	\$00.00
		LE STEAM GENERATORS	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
PERATING EN	GINEERS LO	OCAL 4	06/01/2020			\$15.70	\$0.00	\$77.51
			12/01/2020			\$15.70	\$0.00	\$78.65
			06/01/2021			\$15.70	\$0.00	\$79.74
, . .		the second second	12/01/2021	\$52.68		\$15.70	\$0.00	\$80.88
	ce rates see "	Apprentice- OPERATING ENGINEER	S"	1990 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -				

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
RAILERS FOR EARTH MOVING EQUIPMENT	12/01/2019	\$36.22	\$12.41	\$13.72	\$0.00	\$62.35
EAMSTERS JOINT COUNCIL NO. 19 ZONE A	06/01/2020	\$37.12	\$12.41	\$13.72	\$0.00	\$63.25
	08/01/2020	\$37.12	\$12.91	\$13.72	\$0.00	\$63.75
	12/01/2020	\$37.12	\$12.91	\$14.82	\$0.00	\$64.85
	06/01/2021	\$37.92	\$12.91	\$14.82	\$0.00	\$65.65
	08/01/2021	\$37.92	\$13.41	\$14.82	\$0.00	\$66.15
	12/01/2021	\$37.92	\$13.41	\$16.01	\$0.00	\$67.34
UNNEL WORK - COMPRESSED AIR	12/01/2019	\$51.38	\$8.10	\$17.20	\$0.00	\$76.68
ABORERS (COMPRESSED AIR)	06/01/2020	\$52.37	\$8.10	\$17.20	\$0.00	\$77.67
	12/01/2020	\$53.35	\$8.10	\$17.20	\$0.00	\$78.65
	06/01/2021	\$54.37	\$8.10	\$17.20	\$0.00	\$79.67
	12/01/2021	\$55.38	\$8.10	\$17.20	\$0.00	\$80.68
For apprentice rates see "Apprentice- LABORER"						
UNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>ABORERS (COMPRESSED AIR)</i>	12/01/2019	\$53.38	\$8,10	\$17.20	\$0.00	\$78.68
	06/01/2020	\$54.37	\$8.10	\$17.20	\$0.00	\$79.67
	12/01/2020	\$55.35	\$8.10	\$17.20	\$0.00	\$80.65
	06/01/2021	\$56.37	\$8.10	\$17.20	\$0.00	\$81.67
	12/01/2021	\$57.38	\$8.10	\$17.20	\$0.00	\$82.68
For apprentice rates see "Apprentice- LABORER"	10/01/0010		¢0.10	\$17.20	£0.00	\$/0 7F
UNNEL WORK - FREE AIR aborers (free Air tunnel)	12/01/2019	\$43.45	\$8.10	\$17.20	\$0.00	\$68.75
	06/01/2020	\$44.44	\$8.10	\$17.20	\$0.00	\$69.74
	12/01/2020	\$45.42	\$8.10	\$17.20	\$0.00	\$70.72
	06/01/2021	\$46.44	\$8.10	\$17.20	\$0.00	\$71.74
For apprentice rates see "Apprentice- LABORER"	12/01/2021	\$47.45	\$8.10	\$17.20	\$0.00	\$72.75
UNNEL WORK - FREE AIR (HAZ. WASTE)	12/01/2019	\$45.45	\$8.10	\$17.20	\$0.00	\$70.75
ABORERS (FREE AIR TUNNEL)	06/01/2020	\$46.44	\$8.10	\$17.20	\$0.00	\$71.74
	12/01/2020	\$47.42	\$8.10	\$17.20	\$0.00	\$72.72
	06/01/2021	\$48.44	\$8.10	\$17.20	\$0.00	\$73.74
	12/01/2021	\$49.45	\$8.10	\$17.20	\$0.00	\$74.75
For apprentice rates see "Apprentice- LABORER"	12/01/2022	\$15.15	\$6.10	+	40000	<i></i>
/AC-HAUL	12/01/2019	\$35,64	\$12.41	\$13.72	\$0.00	\$61.77
EAMSTERS JOINT COUNCIL NO. 10 ZONE A	06/01/2020	\$36.54	\$12.41	\$13.72	\$0.00	\$62.67
	08/01/2020	\$36.54	\$12.91	\$13.72	\$0.00	\$63.17
	12/01/2020	\$36.54	\$12.91	\$14.82	\$0.00	\$64.27
	06/01/2021	\$37.34	\$12.91	\$14.82	\$0.00	\$65.07
	08/01/2021	\$37,34	\$13.41	\$14.82	\$0.00	\$65.57
	12/01/2021	\$37.34	\$13.41	\$16.01	\$0.00	\$66.76
VAGON DRILL OPERATOR	12/01/2019	\$39.40	\$8.10	\$16.60	\$0.00	\$64.10
ABORERS - ZONE 1	06/01/2020	\$40.39	\$8.10	\$16.60	\$0.00	\$65.09
	12/01/2020	\$41.37	\$8.10	\$16.60	\$0.00	\$66.07
· · · · · · · · · · · · · · · · · · ·	06/01/2021	\$42.39	\$8.10	\$16.60	\$0.00	\$67.09
	12/01/2021	\$43.40	\$8.10	\$16.60	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"		·				
· · · · · · · · · · · · · · · · · · ·						

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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WASTE WATER PUMP OPERATOR	12/01/2019	\$48.73	\$12,50	\$15.70	\$0.00	\$76.93
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
	12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43
WATER METER INSTALLER	03/01/2020	\$58.69	\$12.07	\$17.26	\$0.00	\$88.02
I,UMBERS & GASFITTERS LOCAL 12	09/01/2020	\$60.19	\$12.07	\$17.26	\$0,00	\$89.52
	03/01/2021	\$61.69	\$12.07	\$17.26	\$0.00	\$91.02
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUME	BER/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. e. 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.

Page 37 of 37

Issue Date: 125 04/15/2020 Wage Request Number: 20200415-058 ... Page 37 of



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 <u>Teamsters Joint Council No. 10 v. Department of Labor, et al.</u>, 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 <u>Construction Industries of</u> <u>Massachusetts v. Commissioner of Labor and Industries</u>, 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

¹⁹ Staniford Street •• 2nd Floor •• Boston, Massachusetts 02114 •• Tel: 617-626-6953 •• Fax: 617-626-6944

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

Ι,_

(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

Prime Contractor

Company Name:

Project Name:

Awarding Auth .:

Work Week Ending:

Employer Signature:

Subcontractor List Prime Contractor: Print Name & Title:

Provide State Stat			 -	 		
(G) [A*F] Weekly Total	IIIIOIIIA					
(F) [B+C+D+E] Hourly Total Wage	(picv. wage)					
Employer Contributions	(E) Supp. Unemp					
	(D) Pension					
	(C) Health & Welfare					
(B) Hourly Base Warre	W ago					
(A) Tot.	.6111					
Hours Worked		s				
		Ц				
		Н				
		M				
		H				
		M				
		s				
Work Classification				-		×
Employee Name & Address						

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

CITY OF NEWTON, MASSACHUSETTS

DEPARTMENT OF PUBLIC WORKS

GENERAL CONDITIONS OF THE CONTRACT

ARTICLE 1 Definitions

The word "Commissioner" shall mean the official duly authorized to act for the City of Newton in the execution of the work of this contract, acting directly or through properly authorized agents.

The word "Engineer," or "City Engineer," shall mean the City Engineer of the City of Newton, acting directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

The word "Contractor" shall mean the party or parties contracting to perform the work covered by this contract or his, or their, legal representatives, successors or assigns.

The word "Plans" shall mean plans, and all related drawings, diagrams, profiles and specifications referred to and included in the Project Manual for this contract.

The word "City" shall mean the City of Newton.

The word "Project" shall mean the services which are the subject of the Contract Documents.

The words "Subcontract" and Subcontractor" shall refer to project contracts between the Contractor and a subcontractor, and the subcontractor thereunder.

The term "Substantial Completion" shall mean either that the work required by the contract has been completed except for the work having a contract price of less than one per cent of the then adjusted contract price, or substantially all of the work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the work required by the contract.

ARTICLE 2 Plans, Drawings, Profiles

1. The work shall be done in accordance with Plans referred to in Article 1 and such further working and detail plans, drawings and profiles as may be furnished from time to time by the Engineer. All said plans, general and detail, are to be deemed a part of this contract, and the said Plans, specifications and contract are to be considered together, so that any work mentioned in the contract, though not shown on the Plans, and any work shown on the Plans though not mentioned in the contract, is to be provided by the Contractor as a part of this contract. Figured dimensions are to prevail over scale. All things which in the opinion of the Engineer may fairly be inferred from the contract, Plans and specifications, are to be executed by the Contractor as a part of the Engineer shall be sole judge as to whether detail plans, drawings and profiles conform to the Plans and the contract.

Discrepancy in Plans

2. The Contractor shall carefully examine all said Plans, profiles, drawings, specifications and orders; all figures, dimensions, lines, marks and scales thereof, and all directions of the Commissioner and the Engineer relating to the work, and conform to those in relation to which there is no doubt or discrepancy, but at once submit all cases of doubt or discrepancy to the Engineer for adjustment. Anything done on any part of the work for which special information or drawing should be procured, unless done in accordance with such information or drawing, or anything done in relation to which there is doubt or discrepancy, except in accordance with the adjustment thereof, or done in violation of law or public authority, is to be redone if the Commissioner shall so direct.

The Contractor in carrying on the contract shall conform to all determinations and directions of the Engineer relating to the proper interpretation of the Plans, , the fitness of persons employed on the work or the number thereof, or the suitableness, amount, quality, and value of anything done or any materials used, and the Contractor shall permit the Commissioner and/or the Engineer and/or persons designated by them to enter upon the work and inspect the same at all times and in all places, and shall provide safe and convenient facilities for making such entry and inspection.

ARTICLE 4 Change in Plans and Work

The City, acting through the Commissioner and upon his written order only, from time to time given to the Contractor or his foreman, may change, increase or take away any part of the work, or change the specifications, Plans, drawings, form or materials thereof. Any deduction or addition thereto is to be allowed, or paid for at a price to be determined, within not more than 15 days of the completion of the change, by the City Engineer acting in the same capacity as an architect in a building contract as between City and Contractor. Any demand for addition or deduction must be made in writing to the City Engineer within seven (7) days of the time change was ordered.

ARTICLE 5

Time and Manner of Doing the Work

1. The Contractor shall begin work upon receipt of written Notice to Proceed. Once begun the work shall be carried out in a continuous and uninterrupted fashion with sufficient workforce and resources to assure completion by the date for completion established by the Contract Documents.

2. The Contractor shall carry on the work in accordance with the requirements of law and of all other public authorities, and to the satisfaction of the Commissioner; he shall give all notices, take out all permits, pay all charges and fees, give personal supervision to the work and keep thereon a competent foreman and sufficient employees, skilled in the several parts which are given them to do.

Maintenance of Travel

3. As applicable, the Contractor shall conduct his work so as to interfere as little as possible with public travel, and shall give property owners proper means of access to their property where existing access has been cut off by the work. The Contractor shall keep the streets open for through travel except where, in the opinion of the Commissioner, it is necessary to close the street. The continuous length of the street occupied for the work shall be kept as short as possible, and no part of the work shall be unnecessarily delayed. Wherever the Commissioner shall direct, trenches shall be bridged by the Contractor in a proper and secure manner so as not to interrupt travel. Free access shall be maintained at all times to all water gates, gas gates, and fire hydrants.

Abandonment of Work by Contractor

4. In the event the City Engineer certifies to the Commissioner that the work is not being so carried forward or if the Contractor at any time is not carrying on the work to the satisfaction of the Commissioner, or is not observing any of the provisions of the contract, or has abandoned the work, or become insolvent or assigned his property, the City, acting by the Commissioner and at his discretion, may, with or without notice to the Contractor, or advertising for doing the work, and by contract, day labor or otherwise, do any part of the work which the Contractor has failed to do or replace any part not done to the satisfaction of the Commissioner, or take possession of the work and complete the same, and in doing so may use any implements, machinery or materials on or about the work which are the property of the Contractor, charging the Contractor any excess cost for completing the work, which excess cost the Contractor agrees to pay.

ARTICLE 6 Compensation for Work

1. Subject to the provisions of Paragraph 10 of this Article, the price named in the proposal and accepted by the City shall be paid by the City and received by the Contractor as full compensation for furnishing materials and for use of tools, forms, machinery and other implements, and for labor in moving materials and executing all the work contemplated in this contract, also for loss or damage arising from delay however occasioned, or out of the nature of the work aforesaid or from the action of the elements, from floods, or from any unforeseen obstructions or difficulties which may be encountered in the prosecution of the same and for all risks

of every description connected with the work and for well and faithfully completing the work in the proper manner and according to the plans and specifications and requirements of the Commissioner under them.

2. During the first week of each calendar month, the City Engineer shall cause all work done by the Contractor during the previous month to be measured and shall estimate the value thereof and, on or before the 10th of each month issue a certificate to the Commissioner of the measurements and the amount due the Contractor according to the terms of his contract.

3. The City shall pay the Contractor on approval of the Commissioner monthly on or before the 18th of each month for all work done during the preceding month according to the aforementioned certificate of the City Engineer, less 5 per cent of the amount of such work and less any amounts due the City by the Contractor.

Final and Substantial Completion

4. Upon substantial completion of the work required by the Contract, the Contractor must present to the City Engineer written certification that the work is substantially complete. Within 21 calendar days after such certification is presented, the City Engineer shall present to the Contractor either a written declaration that the work is substantially complete or an itemized list of incomplete or unsatisfactory work items sufficient to demonstrate that the work is not substantially complete. The City Engineer shall include with such itemized list a date by which the work items must be completed, which date may not be earlier than the date for substantial completion established in the Contractor's certification shall become the date for effective declaration of substantial completion.

5. Within 15 calendar days after the effective declaration of substantial completion, the City Engineer shall send to the Contractor by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory work items. Unless delayed by causes beyond the Contractor's control, with an extension of time granted pursuant to Article 8, the Contractor must complete the work items within 45 calendar days after receipt of the list, or by the contractual completion date, whichever is later? If the contractor fails to complete the work within the required time the City may, notwithstanding other rights and remedies at its disposal, and upon seven days written notice to the Contractor terminate the contract and complete the incomplete or unsatisfactory work items and charge the cost of same to the Contractor.

6. Within 65 calendar days following the effective declaration of substantial completion, the City Engineer shall issue to the Commissioner who shall cause to be paid to the Contractor a substantial completion estimate which estimate shall consist of the balance of the then current contract price less a one percent retention, the estimated cost to complete incomplete or unsatisfactory work items, the value of any outstanding claims against the Contractor and the sum of all demands for direct payment made pursuant to Article 12 herein, provided that until final acceptance, the City shall retain five percent of the value of all items planted in the ground.

7. The Contractor shall provide written notice to the City Engineer when the work has been brought to final completion. Within ten days following receipt of such notice, and providing his inspection shows no work items remain incomplete or unsatisfactory, the City Engineer shall issue to the Commissioner a final certificate of the total amount of work done and the money due the Contractor therefor, crediting thereon the amounts of the previous payments. In making the final certificate, the City Engineer shall not be bound by any preceding certificate or estimate of the amount of work done or materials furnished.

8. Within 30 calendar days following receipt of final completion, the City shall pay the Contractor, on the approval of the Commissioner, the percentages retained and the balance due the Contractor according to the aforementioned final certificate of the City Engineer less any indebtedness of the Contractor for incomplete or unsatisfactory work or claims made by or against the City. If a claim or claims are made, or notice of liability given, such amounts due the Contractor may be paid upon satisfaction of such claims or upon furnishing of indemnity to said City against all loss, cost, damage or expense by reason of such claims.

9. The City, on making any payment after the completion of the work, shall be released from all claim or liability to the Contractor for anything done or used, or for any loss or injury sustained in carrying on the contract, or for any act, omission, neglect or mistake of the City or any person relating to or affecting the contract, except for the balance of any sum retained as aforesaid.

Extra Work

10. The Contractor shall be paid for any additions, or deductions as provided in Article 4, paragraph 1, and for extra labor done by, and for extra materials furnished by them in compliance with the written order only of the Commissioner, calling for work not similar in character to that covered by the items given in the proposal, and for which no price is set in the said written order, the direct (not including consequential) cost to the Contractor, as determined to be reasonable by the Commissioner, plus fifteen per cent of said costs as so determined in regard to labor only. For teams or trucks so furnished, no payment shall be made to the Contractor beyond the current local rate as determined by the Commissioner in each case. The direct cost of labor may include the cost of mechanics and laborers furnished and a reasonable proportion of the time of the foreman and timekeeper, but it shall in no case include any charge for the use of tools, for establishment charges or for time spent by the Contractor. The actual cost of insurance on extra pay rolls and of materials furnished for extra work shall be paid without any addition. The labor and materials so ordered shall constitute a part of the work to be done under the contract; and all and singular the provisions of the contract shall apply to said labor and materials as if the same were specified therein. The Contractor shall have no claim for the above-mentioned extra labor and materials unless he furnishes the details and bills therefor within one week after doing any such labor or furnishing any such materials.

11. No claim of the Contractor against the City under this contract shall be deemed valid unless such claim is presented to the Commissioner within ten days from the time when the Contractor first knows of, or has opportunity to know of, the facts and circumstances on which such claim is based.

12. A payment or payments to the Contractor, in cases where these provisions or any of them, are not complied with, shall not be construed as a waiver of said provisions or any part thereof.

Contract Made Subject to Appropriations

13. This contract is made subject to appropriation heretofore made and shall not be altered unless the Contractor, the sureties on the bond, if any, the officer making the contract and the Mayor shall in writing agree thereto.

ARTICLE 7 Liquidated Damages

1. In case the work embraced in the contract shall not have been substantially completed by the date(s) stipulated therein, the Contractor shall pay to the City of Newton as liquidated damages a designated sum per calendar day for the entire period of overrun until the work is substantially completed in accordance with the following Schedule of Deductions and, in addition, the Contractor shall pay without reimbursement the entire cost of all traffic officers, railroad flagmen, in spectors, or other personnel the City Engineer and/or the Chief Engineer of the railroad determines to be necessary during the period of overrun of time.

SCHEDULE OF DEDUCTIONS

Daily Charge To and Including	Per Calendar Day
\$25,000.00	\$30.00
\$50,000.00	\$50.00
\$100,000.00	\$100.00
\$1,000,000.00	\$150.00
\$2,000,000.00	\$200.00
	\$300.00
	<u>To and Including</u> \$25,000.00 \$50,000.00 \$100,000.00 \$1,000,000.00

2. In case the work covered by the contract shall not have been brought to final completion within 45 calendar days following the date of declaration of substantial completion, the Contractor shall pay to the City of Newton as liquidated damages the sum of \$150.00 for each week or portion thereof during the period of overrun until the work is complete.

3. Whatever sum of money may become due and payable to the City of Newton by the Contractor under this Article may be retained out of money belonging or owed to the Contractor in the hands and possession of or by the City of Newton. It is agreed that this Article shall be construed and treated by the parties to the contract not as imposing a penalty upon said Contractor for failing fully to complete said work as agreed on or before the time specified in the proposal, but as liquidated damages to compensate said City of Newton for all additional costs incurred by it because of the failure of the Contractor fully to complete said work on or before the date of completion specified in the proposal.

ARTICLE 8 Delays and Extensions of Time

1. If the Contractor is delayed at any time in the progress of the work by an act or neglect of the City, or by changes in the work ordered by the City, or by unseasonably inclement weather, or by other causes deemed by the City Engineer to be beyond the Contractor's control, and which the City Engineer determines may justify delay, then the time for completion may be extended for such reasonable time as the City Engineer may determine.

2. No such extension of time will be allowed unless the Contractor submits a written request for an extension to the City Engineer no later than 10 calendar days of the start of the occurrence or event-giving rise thereto. Each such request must describe the occurrence or event and specify the manner and extent that such occurrence or event is causing or has caused a delay in the work. The City Engineer shall promptly investigate each request and make his written determination to the Commissioner and the Contractor within 10 days after receipt of the request. In his determination the City Engineer may either grant, deny, or modify the length of the requested extension.

3. If the City Engineer's determination so warrants, the Commissioner shall authorize a written Change Order to the Contract extending the time for completion. No extension of time shall be deemed as granted until said Change Order has been duly executed by the parties.

4. Change Orders which may be executed by the City and the Contractor in connection with additions, extra labor and/or extra materials shall not be considered as allowing extensions of the time for completion unless the change order expressly specifies that additional time is allowed in connection with the work under the change order. Once a Change Order has been executed by the parties, any request by the Contractor for an extension of time based solely on the fact that additions, extra labor and/or extra materials are required by the Change Order will be denied by the City Engineer.

5. Permitting the Contractor to continue and finish the work or any part of it after the times fixed for its completion, or after the date to which the time for completion may have been extended, shall in no way operate as a waiver on the part of the City of Newton of any of its rights under the contract. The Contractor remains liable for damages caused other than by delay.

ARTICLE 9 Lines and Grades

The Contractor shall retain a Registered Land Surveyor who shall furnish such boards and stakes and cause to be placed thereon, such lines, marks and directions relating to the work as the Commissioner or City Engineer shall from time to time direct.

ARTICLE 10 Public Service Pipes and Conduits

1. The Contractor shall maintain such pipes or conduits of public service corporations or of the City as are across or within the lines of the work until such time as said public service corporations or the City assume the maintenance or removal of said pipes or conduits. The Commissioner will notify such public service corporations to that effect on the existence of such obstructions to the work being brought to his notice by the Contractor. The City will relocate either temporarily or permanently all water mains and water service pipes, or hydrants, and drains or sewers which may interfere with the work contemplated in this contract. (This clause is not to be construed as applying to such pipes as may be readily supported and protected during the progress of the work.) The cost of shutting off and turning on water in water mains during blasting shall be assumed by the City.

Protection of Existing Structures

2. All existing gas pipes, water pipes, sewers, drains, conduits, or other structures which are uncovered by the excavation shall be carefully supported and protected from injury by the Contractor, and, in case of injury, they shall be restored by them, without compensation therefor, to as good condition as that in which they were found, and shall be kept in repair until 6 months after the completion of the work. The Contractor shall provide suitable temporary channels for water at all water courses. Wherever the work passes under or adjacent to street railway tracks, the Contractor shall make all necessary arrangements with the railway company for doing any work which may affect the property of the company or interfere with the operating of the railway, and he shall be liable for any damage that may be caused by any act, omission or neglect on his part, and shall pay all expenses of every kind incidental to this work.

Changing the Location of Existing Structures

3. Whenever it becomes necessary to change the location of any water or gas pipes, sewers, drains, conduits or other structures not otherwise provided for in these specifications, the Contractor shall do the whole or such portions of the work of making such changes as the Commissioner may require, and shall receive in payment therefor the reasonable cost of the work done as determined by the Commissioner plus 15 per cent of such cost. In estimating such cost, no allowance shall be made to the Contractor for the use of tools not especially provided for this work, for general superintendence, or for any overhead expenses except liability insurance.

ARTICLE 11 Co-operation with Other Contractors

The Contractor shall conduct the work in such manner as not to interfere with other work being done by the City, by contract or otherwise, and if deemed necessary by the Commissioner, the work under this contract shall conform to the progress of said other work; shall co-operate with other contractors or employees who may be doing work for the City, and with public service corporations affected by the work, in arranging for storage places, connections, bracings, temporary support for structures, repairs, etc.

ARTICLE 12 Subcontracts

1. The Contractor, in any contract with a Subcontractor, shall provide that the Subcontractor shall be subject to all specifications, terms, provisions, conditions, requirements and liabilities set forth in this contract so far as such specifications, terms, provisions, conditions, requirements and liabilities are applicable to the work to be done under such Subcontract, and shall also provide that such Subcontract shall be terminated by the Contractor whenever the Commissioner shall certify to them in writing that in his opinion the work of the Subcontractor is unnecessarily or unreasonably delayed or that the Subcontractor has violated any of the provisions of this contract. The Contractor shall at once terminate such subcontract if the Commissioner, after certifying as previously mentioned, shall in writing direct the Contractor to make such termination.

2. Subcontracts shall be made in writing and the Contractor shall furnish the Commissioner with a copy of all Subcontracts on demand.

3. Pursuant to the provisions of M.G.L. Ch. 30, Sec. 39F (1), the following provisions are included in the General Conditions:

(a) Forthwith after the Contractor receives payment on account of a periodic estimate, the Contractor shall pay to each Subcontractor the amount paid for the labor performed and the materials furnished by that Subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the Contractor.

(b) Not later than the sixty-fifth day after each Subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the Subcontract less amounts retained by the City as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the Subcontractor; and the City shall pay that amount to the Contractor. The Contractor shall forthwith pay to the Subcontractor the full amount received from the City less any amount specified in any court proceedings barring the payment and also less any amount claimed due from the Subcontractor.

(c) Each payment made by the City to the Contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a Subcontractor shall be made to the Contractor for the account of the Subcontractor; and the City shall take reasonable steps to compel the Contractor to make each such payment to each such Subcontractor. If the City has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the Contractor or which is to be included in a payment to the Contractor for payment to the Subcontractor as provided in subparagraphs (a) and (b), the City shall act upon the demand as provided in this section.

(d) If, within seventy days after the Subcontractor has substantially completed the Subcontract work, the Subcontractor has not received from the Contractor the balance due under the Subcontract including any amount due for extra labor and materials furnished to the Contractor, less any amount retained by the City, the demand shall be by a sworn statement delivered to or sent by certified mail to the City , and a copy shall be delivered to or sent by certified mail to the Contractor at the same time.

The demand shall contain a detailed breakdown of the balance due under the Subcontract and also a statement of the status of the completion of the Subcontract work shall be valid even if delivered or mailed prior to the seventieth day after which the Subcontractor has substantially completed the Subcontract work. Within ten days after the Subcontractor has delivered or so mailed the demand to the City and delivered or so mailed a copy to the Contractor, the Contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the City and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the Subcontract including any amount due for extra labor and materials furnished to the Contractor and of the amount due for each claim made by the Contractor against the Subcontractor.

(e) Within fifteen days after receipt of the demand by the City, but in no event prior to the seventieth day after substantial completion of the Subcontract work, the City shall make direct payment to the Subcontractor of the balance due under the Subcontract including any amount due for extra labor and materials furnished to the Contractor, less any amount (i) retained by the City as the estimated cost of completing the incomplete or unsatisfactory items of work (ii) specified in any court proceedings barring such payment, or, (iii) if the reply shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The City shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

(f) The City shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the Contractor and the Subcontractor in a bank in Massachusetts selected by the City or agreed upon by the Contractor and the Subcontractor and shall notify the Contractor and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.

(g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable to the Contractor at the time of receipt of a demand for direct payment from a Subcontractor and out of amounts which later become payable to the Contractor and in the order of receipt of such demands from Subcontractors. All direct payments shall discharge the obligation of the City to the Contractor to the extent of such payment.

(h) The City shall deduct from payments to a Contractor amounts which, together with deposits in interest-bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from Subcontractors. All such amounts shall be earmarked for such direct payments, and the Subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the Contractor.

ARTICLE 13

Responsibility for Work-Contractor's Responsibility

The Contractor has made his proposal from his own examinations and estimates, and shall not hold the City, its agents, or employees, responsible for or bound by, any schedule, estimate, sounding, boring, or any plan of any part of the work; shall, if any error in any plan, drawing, specification or direction relating to anything to be done under the contract come to his knowledge, report it at once to the Commissioner; shall not, except as the Commissioner shall authorize in writing, assign or sublet any part of the contract except for the supply of materials and plant, or of anything to be done thereunder; shall, subject to the provisions of the contract take all responsibility of, and bear all losses resulting to them in carrying on the contract, and shall assume the defense of, and hold the City, its agents and employees harmless from all suits and claims against them, or any of them, arising from the use of any invention, patent or patent right, material, labor or implement, by or from any act or omission or neglect of the Contractor, his Subcontractor, his agents or employees, in carrying on the contract, or for any liability of any nature arising under the contract. The Contractor shall be solely responsible and liable for, and shall fully protect and indemnify the City against all claims for damages to persons or property occasioned by or resulting from blasting or other methods or processes in the work of construction, whether such damages be attributable to negligence of the Contractor, his Subcontractor or otherwise.

ARTICLE 14 LIGHTS--GUARDS

1. The Contractor shall assume all responsibilities of the work and take all proper precautions to protect persons and property from injury and unnecessary interference; leave a reasonably unobstructed way along public and private places for pedestrians, teams, and vehicles, and for access to hydrants; provide proper walks over or around any obstruction made in a public or private place in carrying on the contract, and maintain from the beginning of twilight through the whole of every night, on or near the obstruction sufficient lights and guards to protect travelers from injury thereby, and if, after one

notification from the Commissioner that said lights and guards are not sufficient, the Contractor has not placed additional lights and guards to the satisfaction of the Commissioner, the Commissioner shall have the right to take charge of that part of the work at the expense of the Contractor. While the work is suspended he shall keep all roadways and sidewalks in proper condition, and when the work is completed put the place and vicinity in proper condition and so leave them.

2. The Contractor shall provide proper means of access to property where the existing access is cut off by the Contractor and replace or put in good condition every conduit, catch-basin, tree, wall, fence, or other thing injured by the Contractor in carrying on the contract, unless the same has been permanently done away with, on approval of the Commissioner, as being necessary to the proper carrying on of the contract.

ARTICLE 15 Guaranty

1. Any settlement or other defect, or the failure of any part of the structure or the work due to defective materials or workmanship, that occurs within one year after the work is completed, is to be immediately repaired by the Contractor. In the event of any such settlement, defect, or failure causing liability to the City for damage to persons or property, the Contractor does by this clause agree to hold the City harmless and to assume the defense of any claims therefor.

2. Responsibility under this guaranty for the adequacy of the work does not relieve the Contractor of his obligation to comply with the terms of the contract and to conform to all the requirements of the plans and specifications, nor does it give them the right to deviate in any way from the details of design of the structure or the work.

ARTICLE 16 Defective Work and Materials

The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill his contract as herein described, and defective work shall be made good and unsuitable materials may be rejected, notwithstanding that such work and materials have been previously overlooked by the Engineer and accepted or estimated for payment. If the work or materials, or any part thereof shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good such defect in a manner satisfactory to the Engineer, and if any material brought upon the ground for use in the work or selected for the same, shall be condemned by the Engineer as unsuitable or not in conformity with the specifications, the Contractor shall forthwith remove such materials from the vicinity of the work. Nothing in this contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the work or the soil, but all materials shall, upon being so attached or affixed, become the property of the City.

ARTICLE 17 Employment of Labor

The Contractor shall give preference in employment, first to citizens of Massachusetts, second, to other citizens of the United States; and shall allow all employees on said work to lodge, board and trade where they choose, and shall not obstruct any other person in doing work for the City; and shall conform to all labor laws of the Commonwealth; and no laborer or teamster, workman or mechanic working within this Commonwealth in the employ of the Contractor or Subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the Contractor shall be requested to, or required to, or work more than eight hours in any one calendar day. This contract is subject to all the laws of the Commonwealth and ordinances of the City and if any clause thereof does not conform to such laws and ordinances, such clause shall be void and such laws and ordinances operated in lieu thereof.

ARTICLE 18

Laws and Regulations - Contractor to Comply with Law

The Contractor shall keep fully informed of all existing or future acts of the legislature, and of all municipal ordinances, prohibitions, rules and regulations in any manner affecting the conduct of the work, and of all orders or decrees of anybody or tribunal having any jurisdiction or authority over the materials, times, places and actions of those employed in the work embraced in the contract. The Contractor shall at all times observe and comply with all existing and future acts, ordinances, prohibitions, rules, regulations, orders and decrees; and shall protect and indemnify the city and its employees against any and all claims arising from or based on any violation of such acts, ordinances, prohibitions, rules, regulations, orders or decrees, and against all violations of law by the Contractor or his agents or employees.

END OF SECTION

DEPARTMENT OF PUBLIC WORKS

SUMMARY OF WORK AND SPECIFIC REQUIREMENTS OF THE CONTRACT

I. <u>SUMMARY OF WORK</u>

A.

The work under this contract includes, but is not limited to, construction services to provide cleaning, general preparation, resetting/adjusting of utility castings, pavement milling, repairs to concrete with mastic, asphalt rubber stress absorbing membrane interlayer (ARSAMI), installation of a bonded wearing course (BWC), and all other specified and incidental work on bituminous concrete and concrete roadways. The Contractor is further advised that this work will involve extensive traffic control measures and coordination with the City. All other work described in the Contract Documents unless specifically indicated as not to be done. The work to be completed under this contract is located at multiple roadway locations and work shall be completed based upon a schedule as determined by the Engineer on a day-to-day basis.^{**}

* **Notice #1:** The quantities represented in this Invitation for Bid are dependent on Massachusetts Department of Transportation (MassDOT) Chapter 90 funding. These monies are customarily allotted, and subsequently apportioned by the City of Newton, on or about April 1 of each calendar year. Therefore, the quantities listed in this Invitation for Bid (IFB) may be revised at the time of the bid award.

- 2. All other work described in the Project Manual and/or shown on the Plan(s) unless specifically indicated as not to be done.
- B. In addition the work under the contract includes:
 - 1. Work outside the Project Site as called for in the Project Manual and/or Plan(s) and as required for the performance of the work.
 - 2. The restoration of any items damaged or destroyed by encroaching upon areas outside the Project Site.
 - 3. All labor, materials, tools, and equipment necessary to do all the work required for the completion of each item as specified, which shall limited not only to the exact intent mentioned, but shall include incidental work necessary or customarily performed for the completion of that item.
 - 4. All items not specifically mentioned or noted in the Project Manual and/or Plan(s), but which are obviously necessary to make a complete working installation.
- C. The Proposed Contract Price shall be complete costs, including overhead, profit, insurance, transportation, and all other costs connected with, or incidental to the work described.

II. <u>TIME FOR COMPLETION AND LIQUIDATED DAMAGES</u>

A. Upon notification the Contractor shall commence the work specified in the Project Manual as directed by the City. The work shall proceed in a continuous uninterrupted fashion with adequately staffed crews, in a satisfactory manner, which will assure that the work is completed in a timely manner to the satisfaction of the City.

B. The time for substantial completion pursuant to:

NOTICE: * TIME IS OF THE ESSENCE *

Within five (5) business days of the Notice of Award the Contractor shall submit to the Purchasing Department:

- A signed contract.
- A Certificate of Insurance (naming the City as an additional insured)
- A Labor and Materials Payment Bond in the amount of 50% of the contract total.

The start date is the date on which the Notice to Proceed is issued, which is anticipated to be on or before June 1, 2020. Time for completion is prior to December 31, 2020. This work is to be performed in conjunction with a separately issued paving contract. The successful bidder must be able to accommodate the City of Newton in the scheduling and/or coordination of this work.

Time is of the essence for the completion of this contract. If the Contractor fails to achieve substantial or final completion of the Work within the time required by the contract, and unless an extension of time is granted, the Contractor shall pay to the City as liquidated damages, the applicable amount specified in <u>Article 6A</u> of the <u>General Conditions</u> for each day of delay. If different completion dates are specified in the Contract for separate parts or stages of the work, the amount of liquidated damages shall be assessed on those parts or stages which are delayed. To the extent that the Contractor's delay or nonperformance is excused under another section in this Contract, liquidated damages shall not be due the City. The Contractor remains liable for damages caused other than by delay.

III. INSURANCE REQUIREMENTS

- A. The Contractor shall carry and maintain until acceptance of the work such Workmen's Compensation, Automobile Liability, Public Liability, Contingent Public Liability, Property Damage and Contingent Property Damage Insurance, each including blasting coverage, as shall protect them and any sub-contractor performing work covered by this contract from all claims and liability for damages for personal injury, including accidental death, and for property damage which may arise from operations under this contract, whether such operations be by themselves or by any sub-contractor or by any one directly or indirectly employed by either of them.
- B. The City shall be named as an additional insured on such policy.
- C. The amounts of such insurance shall be as follows:
 - 1. Workmen's Compensation Insurance as required by Massachusetts General Law.
 - 2. Automobile Liability Insurance on all vehicles owned or hired for a.) Bodily Injury in an amount not less than \$500,000.00 for each occurrence, and not less than \$1,000,000.00 aggregate; b.) Property Damage in an amount not less than \$300,000.00 each occurrence, and not less than \$500,000.00 aggregate.
 - 3. Public Liability Insurance and Contingent Public Liability Insurance in an amount not less than \$500,000.00 for injuries, including accidental death to any one person, and subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of one accident.
 - 4. Property Damage Insurance and Contingent Property Damage Insurance in an amount not less than \$300,000.00 on account of one accident, and in an amount of not less than \$500,000.00 on account of all accidents.
 - 5. General Liability Insurance shall include Contractual Liability Insurance.

- D. Before any work is started, the successful bidder shall be required to file with the Chief Procurement Officer certificates of insurance coverage as detailed above, with policy numbers and dates of expiration.
- E. The Contractor shall indemnify, hold harmless and defend the City and its departments, officers, employees, servants, and agents from and against all actions, causes of actions, claims, demands, damages, costs, loss of services, expenses and compensation, including attorney's fees and interest arising out of or resulting directly or indirectly from the services rendered pursuant to this Contract, provided that any such action, cause of action, claim, demand, damage, cost, loss of service, expense, compensation (1) in any way grows out of bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, which (2) is caused in whole or in part by any act or omission of the Contractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

END OF SECTION

DEPARTMENT OF PUBLIC WORKS

GENERAL CONDITIONS

The work under this contract includes, but is not limited to, construction services to provide cleaning, general preparation, resetting/adjusting of utility castings, pavement milling, repairs to concrete with mastic, asphalt rubber stress absorbing membrane interlayer (ARSAMI), installation of a bonded wearing course (BWC), and all other specified and incidental work on bituminous concrete and concrete roadways. The Contractor is further advised that this work will involve extensive traffic control measures and coordination with the City. All other work described in the Contract Documents unless specifically indicated as not to be done. The work to be completed under this contract is located at multiple roadway locations and work shall be completed based upon a schedule as determined by the Engineer on a day-to-day basis.^{**}

* <u>Notice #1:</u> The quantities represented in this Invitation for Bid are dependent on Massachusetts Department of Transportation (MassDOT) Chapter 90 funding. These monies are customarily allotted, and subsequently apportioned by the City of Newton, on or about April 1 of each calendar year. <u>Therefore, the quantities listed in this Invitation for Bid (IFB) may be revised at the time of the bid award</u>.

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 dated 2020
- the 2017 Construction Standards and the Supplemental Drawings dated April 2003,
- 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.

All work shall comply with the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973, Specifically the ADA Standards for Accessible Design, Latest Edition, with all revisions, at a minimum and the Public Right-of-Way Accessibility Guidelines (PROWAG) where possible, and the Architectural Access Board (AAB) Section 521 of the Code of Massachusetts Regulations where applicable.

The General Conditions, Supplementary Conditions and these Special Provisions shall take precedence over the General Requirements of Division 1 of the Standard Specifications of the Massachusetts Department of Transportation (MassDOT).

If during construction operations the contractor disturbs any survey monuments (temporary or permanent) the Engineer may direct the contractor to reestablish the survey monuments at no additional cost to the owner. The contractor shall be required to use a Professional Surveyor registered in the Commonwealth of Massachusetts, unless otherwise directed by the Engineer.

It shall be the responsibility of the contractor to coordinate with all third party utility companies that maybe affected by this contract. This shall include but not limited to adjustment or replacement of existing structures as directed by the appropriate utility company. The owner shall not compensate the contractor for work done on behalf of a third party.

The scheduling of this work shall be solely at the discretion of the Engineer.

• All roadways shall be paved within <u>10</u> business days of cold planning, weather permitting, unless otherwise directed by the Engineer. Failure to comply may result in a fine of up to \$5,000 per day. The Contractor shall have all temporary pavement markings applied within <u>24</u> hours of cold-planing operations, misc. asphalt applications, and permanent paving.

The Contractor shall also have permanent pavement markings applied within <u>30</u> business days of applying the final top course to the roadway. Failure to do so may result in a penalty of \$2,000 per day per street. 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. Failure to maintain a clear accessible route shall result in a penalty of \$5,000 per day per street.

- The objective of this project is to provide, to the extent possible, a 2% cross slope on roadway. Other criteria are as follows: Minimum profile & gutter gradient 1%; New final roadway pavement shall not alter current overland drainage patterns; and Apply level course of dense binder, as required to meet cross slope requirement and / or as directed by the Engineer.
- If schools are present within the paving limits or along a detour route, such work shall be avoided to the extent feasible and as directed by the Engineer while school is in session. Roadway Construction shall not interfere with school operations.
- The contractor shall maintain a clean and orderly staging area within city limits for the duration of the project. The staging area shall be free of construction debris by the end of the week (Friday) unless receiving written permission from the Engineer. Failure to comply may result in a fine of up to \$1,000.00 per day per staging area.
- Work will not be permitted on Federal, State or City Holidays. Work will not be permitted on religious holidays as designated by the City Engineer.
- The Contractor shall not be allowed to move any equipment required for the proposed work found in this contract from project zone to project zone under its own power unless prior permission is granted by the Engineer.
- All aspects of this target list are subject to modification as the work progresses. The intended purpose of the road list is to provide bidders with a guide of street types to be completed with each treatment.
- Night work is scheduled by Newton Police Department, in consultation with Public Works. Night work shall be performed when road construction during the day interferes with traffic operations to such an extent that public safety is compromised.
- Prior to the final installation of the top course, the Engineer may require a pre-construction meeting/walk through to assure that all conditions and specifications required to be completed before final paving have been finalized satisfactory to the Engineer.
- All requests for payment shall be submitted with quantities separated by a street-by-street basis as well as totaled in a summary street. No request for payment will be considered "received" unless this requirement is met by the Contractor.

DEPARTMENT OF PUBLIC WORKS

LIMITS OF WORK

The exact limits of work and the depth of milling and paving must be reviewed and delineated with the Engineer in the field prior to the Contractor beginning work. The Contractor is responsible for taking accurate measurements of actual field conditions prior to ordering proposed materials or beginning construction.

STREET	FROM	ТО
Cherry Street	River Street	Derby Street
Parker Street	Dedham Street	Boylston Street

DPARTMENT OF PUBLIC WORKS

ITEM SHEETS

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.

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 the 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.

<u>NOTICE:</u> In accordance with MGL Chapter 303 of the Acts of 2008 this bid may contain 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.	UNIT	TOTAL COST
 ITEM 0.303DFC-A: DIFFERENTIAL FUEL COSTS FOR AS Bidders may elect <u>NOT</u> to utilize the cost of fuel(s) separation inserting the term <u>N/A</u> (i.e. Not Applicable) in the following this item. This is a mandatory requirement to verify the Cont waived their option to bid the cost of fuel(s) separately and he elected to factor their fuel costs into the respective bid price for To waive the utilization of the cost of fuel(s) write N/A here The City of Newton reserves the right to validate the Contract consumption information before and after awarding the bid. 0.303DFC-A= total combined number of gallons of Fuel (Gasoline) to install One Ton of Asphalt: (IN WORDS) Gallons x (Base Price (per MassDOT) \$1.662/\$1.251 (diesel/gasoline) = Fuel cost per ton 	rately by space for ractor has as instead that item. 	TN	The Base Price (BPF) shall be used to determine the monthly price differential. (See Spec. Prov.) \$N/A

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 0.303DFC-EXB: DIFFERENTIAL FUEL COSTS FOR EXCAVATION AND BACKFILL • Bidders may elect NOT to utilize the cost of fuel(s) separately by inserting the term N/A (i.e. Not Applicable) in the following space for this item. This is a mandatory requirement to verify the Contractor has waived their option to bid the cost of fuel(s) separately and has instead elected to factor their fuel costs into the respective bid price for that item. • To waive the utilization of the cost of fuel(s) write N/A here: • The City of Newton reserves the right to validate the Contractor's fuel consumption information before and after awarding the bid. • O.303DFC-EXB= total combined number of gallons of Fuel (Diesel & Gasoline) to install One Ton of Asphalt: (IN WORDS) Gallons Cubic Yard Gallons x (Base Price (per MassDOT) \$\frac{1}{1.662/\$1.251}\$ (diesel/gasoline) = Fuel cost per cubic yard	N/A	СҮ	The Base Price (BPF) shall be used to determine the monthly price differential. (See Spec. Prov.) \$ <u>N/A</u>
 ITEM 0.303DC-LA: DIFFERENTIAL COST FOR LIQUID ASPHALT Bidders may elect NOT to utilize the cost of fuel(s) separately by inserting the term N/A (i.e. Not Applicable) in the following space for this item. This is a mandatory requirement to verify the Contractor has waived their option to bid the cost of fuel(s) separately and has instead elected to factor their fuel costs into the respective bid price for that item. To waive the utilization of the cost of asphalt write N/A here:	N/A	TN	The Base Price (BPLA) shall be used to determine the monthly price differential. (See Spec. Prov.) \$ <u>N/A</u>

ITEM DESCRI	PTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 220:	ADJUSTMENT OF EXISTING STRUCTURES (FRAME & GRATE/COVER)	×		
THE SUM OF:	DOLLARS	89	EA	\$
AND	CENTS	07	LA	Φ
(\$) PER UNIT			
ITEM 220.01:	ADJUSTMENT OF EXISTING STRUCTURES (FRAME & GRATE/COVER) (BINDER)			
THE SUM OF:	DOLLARS	28	EA	\$
AND	CENTS			
(\$) PER UNIT			
ITEM 220.02:	ADJUSTMENT OF EXISTING STRUCTURES IN CONCRETE ROAD (FRAME & GRATE/COVER)			
THE SUM OF:	DOLLARS	12	ЕА	\$
AND	CENTS			Ψ
(\$) PER UNIT			
ITEM 220.03:	MAN HOLE RISER			
THE SUM OF:	DOLLARS			
AND	CENTS	2	EA	\$
(\$) PER UNIT			
ITEM 220.2:	STRUCTURE REBUILT			
THE SUM OF:	DOLLARS			
AND	CENTS	40	VF	\$
(\$) PER UNIT			

ITEM DESCRI	PTION & BID PRICE	EST. OTY*	UNIT	TOTAL COST
ITEM 220.201:	STRUCTURE REBUILT (BINDER)	Q11		
	DOLLARSCENTS	12	VF	\$
(\$) PER UNIT			
ITEM 220.202:	STRUCTURE REBUILT IN CONCRETE ROAD			
THE SUM OF:	DOLLARS	8	VF	\$
AND	CENTS			
(\$) PER UNIT			
ITEM 222.3:	FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD			
THE SUM OF:	DOLLARS	10	EA	\$
AND	CENTS			
(\$) PER UNIT			
ITEM 222.301:	FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD (BINDER)			
THE SUM OF:	DOLLARS	3	EA	\$
AND	CENTS			
(\$) PER UNIT			
ITEM 222.302:	FRAME AND GRATE IN CONCRETE ROAD (OR COVER) MUNICIPAL STANDARD			
THE SUM OF:	DOLLARS	2	EA	\$
AND	CENTS			
(\$) PER UNIT			

ITEM DESCRI	PTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 357:	GATE BOX	X		
THE SUM OF:				
	DOLLARS	3	EA	\$
	CENTS			
(\$) PER UNIT			
ITEM 357.01:	GATE BOX (BINDER)			
THE SUM OF:	DOLLARS			
	DOLLARS	13	EA	\$
	CENTS			
(\$) PER UNIT			
ITEM 357.02:	GATE BOX IN CONCRETE ROAD			
THE SUM OF:	DOLLARS			
	DOLEARS	1	EA	\$
(\$) PER UNIT			
ITEM 358:	GATE BOX ADJUSTED			
THE SUM OF:	DOLLARS			
	CENTS	12	EA	\$
) PER UNIT			
	GATE BOX ADJUSTED (BINDER)			
THE SUM OF:	DOLLARS			
AND	CENTS	54	EA	\$
) PER UNIT			
	GATE BOX ADJUSTED IN CONCRETE ROAD			
	GATE DOA ADJUSTED IN CONCRETE KUAD			
THE SUM OF:	DOLLARS			
AND	CENTS	4	EA	\$
) PER UNIT			

ITEM DESCRI	PTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 358.03:	6 INCH GATE BOX RISER	<u>x</u>		
THE SUM OF:				
	DOLLARS	11	EA	\$
AND	CENTS			
(\$) PER UNIT			
ITEM 399.01:	PROTECTOR RING 10 INCHES			
THE SUM OF:				
	DOLLARS	64	EA	\$
AND	CENTS			
(\$) PER UNIT			
ITEM 399.02:	PROTECTOR RING 28 INCHES OR 31 INCHES			
THE SUM OF:				
	DOLLARS	66	EA	\$
AND	CENTS			
(\$) PER UNIT			
ITEM 415.3:	PAVEMENT MICRO MILLING			
THE SUM OF:				
	DOLLARS	4,100	SY	\$
AND	CENTS	,		
(\$) PER UNIT			
ITEM 460.01:	HOT MIX ASPHALT LEVELING COURSE			
THE SUM OF:				
	DOLLARS	100	TN	\$
AND	CENTS			
(\$) PER UNIT			
ITEM 460.3:	BONDED WEARING COURSE			
THE SUM OF:				
	DOLLARS	24,120	SY	\$
AND	CENTS	, -		
(\$) PER UNIT			

ITEM DESCRI	PTION & BID PRICE		EST. OTY*	UNIT	TOTAL COST
ITEM 466.01:	ASPHALT RUBBER STRESS MEMBRANE INTERLAYER	ABSORBING	<u>v</u>		
THE SUM OF:		DOLLARS	24,120	SY	\$
			24,120	51	φ
(\$) PER UNIT				
ITEM 472:	HOT MIX ASPHALT FOR MISC WORK	CELLANEOUS			
THE SUM OF:		_DOLLARS	25	TN	\$
AND		CENTS			
(\$) PER UNIT				
ITEM 482.1:	CRACK SEALANT				
THE SUM OF:		DOLLARS			
			100	GAL	\$
(\$) PER UNIT				
ITEM 697.1:	SILT SACK				
THE SUM OF:		DOLLARS			
AND			63	EA	\$
(\$) PER UNIT				
ITEM 767.121:	SEDIMENT CONTROL BARRIER				
THE SUM OF:		_ DOLLARS			
AND		CENTS	380	FT	\$
(\$) PER UNIT				

ITEM DESCRI	PTION & BID PRICE	EST. OTY*	UNIT	TOTAL COST
ITEM 852.01:	TEMPORARY TRAFFIC CONTROL	Q11		
THE SUM OF:	DOLLARS			
AND	CENTS	1	LS	\$
(\$) PER UNIT			
ITEM 854.016:	TEMPORARY PAVEMENT MARKINGS - 4 INCH (PAINTED)			
THE SUM OF:	DOLLARS	12,500	FT	\$
AND	CENTS			
(\$) PER UNIT			
ITEM 854.1:	PAVEMENT MARKING REMOVAL			
THE SUM OF:	DOLLARS			
	CENTS	12,980	SF	\$
(\$) PER UNIT			
ITEM 856.12:	PORTABLE CHANGEABLE MESSAGE SIGN			
THE SUM OF:	DOLLARS			
AND	CENTS	4	EA	\$
(\$) PER UNIT			
ITEM 864.04:	PAVEMENT ARROWS AND LEGENDS (THERMOPLASTIC)			
THE SUM OF:	DOLLARS	525	SF	\$
	CENTS			¥
(\$) PER UNIT			

ITEM DESCRIPTI	ION & BID PRICE			EST. QTY*	UNIT	TOTAL COST
	' REFLECTORIZED THERMOPLASTIC)	WHITE	LINE	X		
THE SUM OF:		DC	LLARS	12,500	FT	\$
AND		,	CENTS	,		*
(\$) PER U	JNIT				
	2" REFLECTORIZED THERMOPLASTIC)	WHITE	LINE			
THE SUM OF:		DC	LLARS			
				1,090	FT	\$
) PER U					
ITEM 867.104: 4" (T	' REFLECTORIZED THERMOPLASTIC)	YELLOW	LINE			
THE SUM OF:						
				12,500	FT	\$
) PER U		CLIVIS			
ITEM 999.01: R	EPAIRS TO CONCRETE W	ITH MAST	IC			
THE SUM OF:		DC	LLARS			
AND			CENTS	3,000	LBS	\$
(\$) PER U	JNIT				
	IISCELLANEOUS WORK A ISCRETIONARY FUND)	ALLOWAN	CE (ENG.			
THE SUM OF:	Twenty Thousand	DC	LLARS	1	ALL	\$ 20,000.00
AND	Zero		CENTS	T		φ20,000.00
(\$. <u>000.00</u>) PER U	JNIT				

ITEM DESCRIPTION & BID PRICE	EST. QTY*	UNIT	TOTAL COST
ITEM 999.03: ALLOWANCE FOR PAYMENT OF TRAFFIC CONTROL OFFICERS	-		
THE SUM OF: <u>Fifty Thousand</u> DOLLARS	1	ALL	\$ <u>50,000.00</u>
AND Zero CENTS			
(\$) PER UNIT			
TOTAL BID PRICE:		1	
			DOLLARS
AND			CENTS
(\$)
Amount in Figures			

DEPARTMENT OF PUBLIC WORKS

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 (MassDOT) Standard Specifications for Highways and Bridges 2020 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 Construction 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 Par. 1.06, 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 Par. 1.06, 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 for his use.
- B. Establish elevations, lines, levels, reference marks, batter boards, etc., required during the progress of the Work. Verify such marks by instrument to confirm accuracy.
- C. Locate and protect established survey control and reference points.
- D. Make, check, and be responsible for all measurements and dimensions necessary for the proper construction of the Work.
- E. 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.
- F. Control datum for survey shall be a relative one per street established by the Contractor.
- G. Verify location and reset (if needed) street right-of-way bounds and markers.
- H. The Contractor is to 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 present at the time of the 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.

1.01 SECTION INCLUDES

A. Administrative and procedural requirements for project meetings.

1.02 PRECONSTRUCTION CONFERENCE

- A. Pre-bid conference will be held for this project. Attendance at this meeting is optional.
- B. 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 six (6) copies of shop and working drawings of 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, six copies 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 them 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 within 30 calendar days 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 themselves 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 Construction 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 them 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

- A. 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 Construction Specifications.
- B. Work included:
 - 1. Cooperate with the Owner's selected testing agency and all others responsible or 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.

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 or 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 considered to 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.

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 considered to 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 so as 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 same 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, same at no further cost to the Owner.

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 requirements 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 Limits of Work, 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 limits of work.
- 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 also meet and be maintained in compliance with the Specifications,

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; deliver in undamaged condition in manufacturers' unopened containers or packaging, dry.
- C. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- D. 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; 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; provide ventilation to avoid condensation.
- D. Store loose granular materials on solid surfaces in a well-drained area; 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 subsequent to 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

DEPARTMENT OF PUBLIC WORKS

SCOPE OF WORK

The work under this contract includes, but is not limited to, construction services to provide cleaning, general preparation, resetting/adjusting of utility castings, pavement milling, repairs to concrete with mastic, asphalt rubber stress absorbing membrane interlayer (ARSAMI), installation of a bonded wearing course (BWC), and all other specified and incidental work on bituminous concrete and concrete roadways. The Contractor is further advised that this work will involve extensive traffic control measures and coordination with the City. All other work described in the Contract Documents unless specifically indicated as not to be done. The work to be completed under this contract is located at multiple roadway locations and work shall be completed based upon a schedule as determined by the Engineer on a day-to-day basis.

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 dated 2020,
- the 2017 Construction Standards and the Supplemental Drawings dated April 2003,
- 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.

All work shall comply with the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973, Specifically the ADA Standards for Accessible Design, Latest Edition, with all revisions, at a minimum and the Public Right-of-Way Accessibility Guidelines (PROWAG) where possible, and the Architectural Access Board (AAB) Section 521 of the Code of Massachusetts Regulations where applicable.

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, curb 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 ramp 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)

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. Gravel Borrow (Type B)
- 3. Frame and Grate (or cover) Municipal Standard
- 4. Gate Box
- 5. Service Box
- 6. Protector Rings
- 7. Granite Curbing
- 8. Detectable Warning Panels
- 9. Loam and Seed
- **10. Signage**

11. See Appendix for Required Submittals and Material Testing

JOINTS (Supplementing Subsection 460.65)

The application of hot poured rubberized asphalt sealer, where required in accordance with Subsection 460.65 of the Supplemental Specifications, shall be considered incidental to the work included under Item 460 and 460.01.

CONCURRENT WORK BY OTHERS WITHIN PROJECT LIMITS (Supplementing Subsection 5.06)

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.

STEEL PLATES IN CONSTRUCTION ZONES (Supplementing Subsection 7.09)

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.

PROPERTY BOUNDS (Supplementing Subsection 7.13)

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)

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:	Gabe Federico, gfederico@newtonma.gov, (617) 796-1020
Police:	Lieutenant Dan Walsh, dwalsh@newtonma.gov, (617) 796-2100
Fire:	Fire Prevention line, (617) 796-2210
Fire Alarm & Wires Division:	Glenn Manning (617) 796-2256
Tree Warden	Marc Welch (617) 796-150015600
Water/Sewer/Drain: Gas: Electric: MWRA: Verizon: Comcast: RCN:	Bob Sullivan, Chris Casto, Livio Cence (617) 796-1640 National Grid, Ricky Pages (617) 634-2953 Eversource, Marc Lucas (617) 369-6426 Ralph Francesconi, (617) 305-5827 Manual Furtado (508) 884-2362 Joe Volpe (617) 828-6904

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)

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 therefore.

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 them 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)

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 therefore. 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.

All fine grading and compaction will be considered incidental to the associated bid items.

WORK SCHEDULE (Supplementing Subsection 8.02)

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 7:00 A.M. to 4:30 P.M. for **Weekend** (Saturday and Sunday) work (be advised that the City of Newton may restrict work on arterial streets between the hours of 7:00 A.M. and from 3:30 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 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.

SCHEDULE OF OPERATIONS (Supplementing Subsection 8.02)

The Contractor shall construct each phase in order as shown in the limits of work 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)

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 Section 850.

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. Contractor agrees to be fully responsible for any and 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) 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 therefore. 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.

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 compile 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 Designated Agent.

Calcium chloride for roadway dust control and/or water for roadway dust control shall be applied in accordance with Section 440 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.

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 there with 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 <u>52 Elliot Street in the Newton Highlands</u>. 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.

END OF SECTION

CITY OF NEWTON, MASSACHUSETTS

DEPARTMENT OF PUBLIC WORKS

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 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.

0.303DFC-A	Differential Fuel Costs for Asphalt	TN
0.303DFC-EXB	Differential Fuel Costs for Excavation and Backfill	CY
0.303DC-LA	Differential Cost for Liquid Asphalt for Asphalt	TN
220	Adjustment of Existing Structures (F&G/C)	EA
220.01	Adjustment of Existing Structures (F&G/C) (Binder)	EA
220.02	Adjustment of Existing Structures in Concrete Road (F&G/C)	EA
220.03	Manhole Riser	EA
220.2	Structure Rebuilt	VF
220.201	Structure Rebuilt (Binder)	VF
220.202	Structure Rebuilt in Concrete Road	VF
222.3	Frame and Grate (or Cover) Municipal Standard	EA
222.301	Frame and Grate (or Cover) Municipal Standard (Binder)	EA
222.302	Frame and Grate (or Cover) Municipal Standard in Concrete Road	EA
357	Gate Box	EA
357.01	Gate Box (Binder)	EA
357.02	Gate Box in Concrete Road	EA
358	Gate Box Adjusted	EA
358.01	Gate Box Adjusted (Binder)	EA
358.02	Gate Box Adjusted in Concrete Road	EA
358.03	6" Gate Box Riser	EA
399.01	Protector Ring 10 Inches	EA
399.02	Protector Ring 28 Inches or 31 Inches	EA
415.3	Pavement Micro Milling	SY
460.01	Hot Mix Asphalt Leveling Course	TN
460.3	Bonded Wearing Course	SY
466.01	Asphalt Rubber Stress Absorbing Membrane Interlayer	SY
472	Hot Mix Asphalt for Miscellaneous Work	TN
482.1	Crack Sealant	GAL
697.1	Silt Sack	EA
767.121	Sediment Control Barrier	FT
852.01	Temporary Traffic Control	LS
854.016	Temporary Pavement Markings – 4 Inch (Painted)	FT
854.1	Pavement Marking Removal	SF
856.12	Portable Changeable Message Sign	EA
864.04	Pavement Arrows and Legends (Thermoplastic)	SF

866.104	4" Reflectorized White Line (Thermoplastic)	FT
866.112	12" Reflectorized White Line (Thermoplastic)	FT
867.104	4" Reflectorized Yellow Line (Thermoplastic)	FT
999.01	Concrete Repairs With Mastic	LBS
999.02	Miscellaneous Work Allowance (Eng. Discretionary Fund)	ALLOW
999.03	Allowance for Payment of Traffic Control Officers	ALLOW
ITEM 0.303DFC-A	DIFFERENTIAL FUEL COSTS FOR ASPHALT	TON
	DIFFERENTIAL FUEL COSTS FOR	
ITEM 0.303DFC-E	XB EXCAVATION AND BACKFILL	CUBIC YARD

DESCRIPTION

The Contractor may elect <u>NOT</u> to bid the differential cost of fuels separately by inserting the term <u>N/A</u> (*i.e.* Not Applicable) in the entry line of Items 0.303DFC-A and 0.303DFC-EXB. This is a mandatory requirement to verify that the Contractor has formally waived their option to bid the differential cost of fuel(s) separately and has instead elected to factor the differential costs of fuel(s), into the separate respective bid price of Items.

Under this item the Contractor shall be paid for all the fuel(s) cost differentials consumed in the performance of the **Asphalt, Excavation, and Backfill components** of this contract.

The intent of this program is to maintain a reasonable and continuous parity with the regional fluctuations that may occur in the cost of petroleum based fuel products. It is important to note that due to the numerous types of; fuel, equipment, vehicles, programs, and efficiency factors related to each of these operational elements and therefore unique to the Contractor's own enterprises, that any fuel adjustments made under this item are intended only to defray and offset extraordinary market trends in petroleum based fuel products.

IMPORTANT NOTE: An adjustment to the cost of fuels may result in an increase of payment if the fuel market has trended upward, or it may otherwise result in a decrease of payment if the fuel market has trended downward.

METHOD OF ADMINISTRATION

In accordance with Chapter 303 Acts of 2008, the City of Newton shall use the most current 'new' pricing of Diesel and Gasoline fuel as they are indicated on the Mass Highway web site at the time of advertisement.

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

The **average** of these two values (Diesel & Gasoline) shall serve as the value basis for determining the **Base Price** of Fuel (BPF) at the time of the advertisement. Subsequently, during the course of the contract, the **Period Price** of Fuel (PPF) shall be determined in the same manner, but at the end of each calendar month, and if the **averaged** Period Price (PPF) has either increased or decreased by more than five percentage points (5%) relative to the **averaged** Base Price of Fuel (BPF), then the cost of fuel(s) for the applicable calendar month shall be paid for at the adjusted rate, otherwise the cost of fuel(s) for the applicable calendar month shall be paid for at the initial Base Price of Fuels.

When a cost adjustment is applied it shall be inclusive of the five (5%) variation.

Payments for fuel used for the **Asphalt, Excavation, and Backfill operation(s)** shall be calculated at the end of <u>each</u> <u>calendar month</u> and they shall be based upon the acceptable **quantity of material supplied, delivered, installed, and/or disposed** within that particular (applicable) calendar month in which the work was performed. (**Program Note: In the event a continuous operation spans several days but the delivery & discharge of the material is performed in two separate months, then two separate fuel payments shall be made).**

At the end of each calendar month the Contractor shall furnish the Engineer with an accurate measured and tabular accounting which clearly shows the <u>collective number of material verified and applied/removed during that</u> <u>particular (applicable) calendar month</u>.

The invoiced accounting shall bear the name of the Contractor and Vendor and shall **be surrendered to the DPW** Agent-In-Charge <u>immediately</u> upon the termination of operations at the end of each calendar month. The City will have no obligation to pay for any errant invoice slips which are forwarded after the re-surfacing operations for the month have ceased.

No <u>upward</u> fuel adjustment will be made for any delivery and/or application related activity which takes place beyond the completion date of the contract unless the Contractor's work has been delayed due to no fault of their own (i.e. Preparation work that must be performed by others before the Contractor can complete their own tasks in the contractually allotted time.) Any such delay must be brought to the attention of the DPW Agent-In-Charge in a timely manner at which time the Agent shall investigate, verify, and document the extenuating circumstances and inform the Contractor of their decision.

MEASUREMENT AND PAYMENT

Payment formula:

- **BPF** = The Base Price of Fuel on the bid release date (Averaged cost of Diesel & Gasoline in \$/Gallon).
- **PPF** = The Period Price of Fuel for the applicable calendar month (Averaged cost of Diesel & Gasoline in \$/Gallon).
- **G/QTY** = Gallons of fuel to supply, deliver, install, and/or dispose One (1) Unit of material (Gallons /Ton or Cubic Yard). These values are provided by MassDOT and are shown in the Item Sheet.
- **QTY** = Total quantity of material supplied, delivered, installed, and/or disposed of in the applicable calendar month. (Ton or Cubic Yard)

If a change in (PPF) does not exceed +/- 5% relative to the (BPF) then: No differential adjustment.

If a change in (PPF) <u>does</u> exceed +/- 5% relative to the (BPF) then: (PPF - BPF) x G/QTY x QTY = Differential Value for Current Pay Period (\$).

The differential value for cost of fuel(s) consumed for the **supply, delivery, installation, and/or disposal of one** (1) **unit of material**(s) shall be paid for under its corresponding items and shall be made in accordance with the applicable Period Price for Diesel & Gasoline fuels as posted for each calendar month in which the work was performed and as specified herein.

The Contractor shall be responsible for disbursing fuel cost adjustments to their subcontractors and/or to their vendors.

No payment shall be made for any fuel(s) consumed to remedy and/or to replace any deficient material supplied by the Contractor, subcontractors and/or their vendors.

ITEM 0.303DC-LA DIFFERENTIAL COST FOR LIQUID ASPHALT TON

DESCRIPTION

The Contractor may elect <u>NOT</u> to bid the differential cost of liquid asphalt separately by inserting the term <u>N/A</u> (*i.e.* Not Applicable) in the entry line of Item 0.303DC-LA-A. This is a mandatory requirement to verify that the Contractor has formally waived their option to bid the differential cost of liquid asphalt separately and has instead elected to factor the differential costs of liquid asphalt, into the separate respective bid price of Items.

Under this item a differential value shall be calculated and applied to the payment on a monthly basis. The differential value shall be based upon the amount of Liquid Asphalt contained in the total number of **tons of asphalt** supplied, delivered and installed in each respective calendar month.

This item is to provide a structured means, whereby the cost of the Liquid Asphalt contained in **asphalt** is evaluated each calendar month, and under certain market conditions this value is adjusted <u>either upward or downwards</u> to maintain a reasonable and continuous parity with the regional fluctuations that may occur in the price of this commodity.

IMPORTANT NOTE: An adjustment to the cost of the Liquid Asphalt component may result in an <u>increase</u> of payment if the market has trended upward, or it may otherwise result in a <u>decrease</u> of payment if the market for Liquid Asphalt has trended downward. Further, these adjustments <u>do not</u> compensate the Contractor for the entire cost of the compound(s) consumed in the execution of this contract <u>but only</u> for the monthly differential value(s) which may occur with regard to the Liquid Asphalt component.

METHOD OF ADMINISTRATION

In accordance with Chapter 303 Acts of 2008 the City of Newton shall use the most current 'new' pricing for **Liquid Asphalt** as indicated on the Mass Highway web site at the time of advertisement.

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

The value at the time of advertisement shall serve as the Base Price of Liquid Asphalt (BPLA). Subsequently, and during the course of the contract, the Period Price of the Liquid Asphalt (PPLA) component shall be determined in the same manner and at the end of each respective calendar month, and if the Period Price (PPLA) has either increased or decreased by more than five percentage points (5%) relative to the Base Price (BPLA) index, then the differential cost of the Liquid Asphalt component shall be paid for at the adjusted rate, otherwise no adjustment shall be made.

The Contractor is advised to verify these value standards and citations prior to placing their bid.

The differential value for the Liquid Asphalt component shall be calculated at the end of each calendar month and it shall be based upon the number of acceptable **tons of asphalt** supplied, delivered and installed within that particular calendar month. This value shall be derived by applying a fixed factor to the tonnage of Liquid Asphalt that is contained in a single **ton of asphalt**. (Program Note: In the event a continuous delivery & application operation spans several days but is performed in two separate months, then two separate Liquid Asphalt calculations shall be made.)

When a cost differential is applied it shall be inclusive of the five (5%) variation.

Immediately upon delivery, and subsequently upon the final installation of material at day's end, the Contractor shall furnish the Engineer with an invoice that clearly indicates the amount of **asphalt** that was applied. The invoice shall clearly show the **tare weight, type of asphalt and the date of delivery & discharge** for each **application of asphalt** which is ultimately delivered and discharged. The plant issued tare/weight invoicing slips are to bear the name of the vendor and shall **be surrendered to the DPW Agent-In-Charge** <u>immediately</u> **upon the delivery of the material. The City will have no obligation to pay for any errant slips which are forwarded after the delivery vehicle has exited the project site**.

No <u>upward</u> Liquid Asphalt component adjustment will be made for any material which is applied beyond the completion date of the contract unless the Contractor's work has been delayed due to no fault of their own (i.e. Preparation work that must be performed by others before the Contractor can complete their own tasks in the contractually allotted time). Any such delay must be brought to the attention of the DPW Agent-In-Charge in a timely manner at which time the Agent shall investigate, verify, and document the extenuating circumstances and inform the Contractor of their decision.

MEASUREMENT AND PAYMENT

Payment formula:

BPLA = The Base Price Liquid Asphalt Cost Index on the bid release date (\$/Ton of Liquid Asphalt)

PPLA = The Period Price for One Ton of Liquid Asphalt for the applicable calendar month in which it was delivered (\$/Ton of Liquid Asphalt)

TA = Total tons of asphalt applied in the applicable calendar month (Tons)

The percentage of Tons of Liquid Asphalt in One (1) ton of asphalt shall be determined by the Contractor's formula submittal.

If a change in (PPLA) does not exceed +/- 5% relative to the (BPLA) then: No differential adjustment.

If a change in (PPLA) exceeds +/- 5% relative to the (BPLA) then:

(PPLA - BPLA) x TA x (percentage to be determined by the Contractor's formula submittal) x RAP Factor = Differential Value for Current Pay Period (\$).

Under this item the differential value for Liquid Asphalt contained in One (1) ton of asphalt used to complete the work under this contract shall be made in accordance with the Period Price index values for Liquid Asphalt posted for each calendar month in which the work was performed and relative to the Base Price as specified herein. Subsequently these values shall be factored in accordance with the above-noted formula.

The differential value for Liquid Asphalt shall be based upon <u>a fixed mean value</u> of a percentage to be determined by the Contractor's formula submittal per Ton of Liquid Asphalt contained in One (1) ton of asphalt, with said value differential being factored only on the quantity actually used, verified and/or accepted by the Engineer.

No adjustment shall be made for any material which is rejected or is deemed to be of an inferior quality. Nor shall any adjustment be made for Liquid Asphalt contained in any **asphalt** material(s) which are used to remedy any deficient work which was initially performed by the Contractor and/or vendor under this contract, and which is proven to be deficient and/or of inferior quality during and/or subsequent to discharge.

The Contractor shall be responsible for disbursing the Liquid Asphalt cost adjustments to their subcontractors and/or to their vendors.

	ADJUSTMENT OF EXISTING STRUCTURES	
ITEM 220	(FRAME AND GRATE OR COVER)	EACH
	ADJUSTMENT OF EXISTING STRUCTURES	
ITEM 220.01	(FRAME AND GRATE OR COVER) (BINDER)	EACH
ITEM 220.02	ADJUSTMENT OF EXISTING STRUCTURES IN CONCRETE R	OAD EACH
ITEM 220.03	MANHOLE RISER	EACH
ITEM 220.2	STRUCTURE REBUILT	VERTICAL FOOT
ITEM 220.201	STRUCTURE REBUILT (BINDER)	VERTICAL FOOT
ITEM 220.202	STRUCTURE REBUILT IN CONCRETE ROAD	VERTICAL FOOT

DESCRIPTION

The work described for these items shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Section 200, and the following:

Work under items 220, 220.01, and 220.02 shall include adjusting manhole and catch basin castings to the proposed finished grade when the adjustment to grade is six (6) inches or less.

Work under item 220.03 shall include furnishing and installing manhole risers.

Work under Items 220.2, 220.201, and 220.202 shall include removal of the casting and deteriorated masonry and vertical masonry rebuild for adjustment of structure to meet proposed finished grade.

Multiple adjustments that may be necessary as a result of the work sequence shall be considered part of the one-time measurement and payment and not cause for additional compensation.

Salvageable frames and grates or covers from existing structures to be removed shall be removed and reset to proposed structures as directed by the Engineer or, if not needed, they shall be removed and stacked. Non-salvageable frames and grates or covers from existing sanitary sewer and drainage structures to be removed shall become the property of the Contractor and shall be disposed of off the site. If frames and grates or covers from existing structures are non-salvageable due to no fault of the Contractor, a new frame and grate or cover shall be paid for under separate items.

MATERIALS

Brick to be used shall meet the requirements of MassDOT Materials Specification M4.05.2 (Clay Brick).

CONSTRUCTION METHOD

All rebuilt and remodeled structures shall be set to allow for 2 courses of mortared clay brick between the frame and the structure. The use of cement concrete brick will not be allowed.

For standard adjust, rebuilt, and remodeled items, all frames shall be set in a concrete collar conforming to Standard Detail E 202.9.0 prior to placement of top course. Collars shall be constructed of High Early Strength 4,000 PSI, 1-1/2", cement concrete masonry 610 cement concrete. Concrete collars shall be brought to a height that will allow placement of the full depth of the specified pavement-wearing surface or a minimum of 3.5" of hot mix asphalt above the collar. Concrete collars shall be tacked coated with RS-1 Asphaltic Emulsion prior to the placement of pavement. No additional compensation for concrete collars shall be allowed.

The dimensions of the concrete collars shall be as shown on MassDOT Construction Standard Drawing E 202.9.0. Concrete collars shall be incidental to the item of work to which they pertain.

Items that are label with "(Binder)" shall be used for casting locations where, as directed and approved by the Engineer, installing concrete collars are not advantageous. In such cases, binder collars can be used in place of concrete collars for respective locations and items.

All dirt and debris caused by the Contractor shall be cleaned by the Contractor at his own expense.

In all roadways, the castings shall be adjusted to the final grade and measured by each catch basin or manhole adjusted and approved by the Engineer. Damaged or obsolete castings shall be replaced with new castings as directed by the Engineer. Salvageable frames and grates or covers from existing structures to be removed shall be removed and reset to proposed structures as directed by the Engineer or, if not needed, they shall be removed and stacked. Non-salvageable frames and grates or covers from existing sanitary sewer and drainage structures to be removed shall become the property of the Contractor and shall be disposed of off the site. If frames and grates or covers from existing structures are non-salvageable due to no fault of the Contractor, a new frame and grate or cover shall be paid for under Item 222.3 frame and grate (or cover) municipal standard.

MEASUREMENT AND PAYMENT

Payment for Adjustment of Existing Structure (Frame and Grate or Cover), Adjustment of Existing Structure (Frame and Grate or Cover) (Binder), Adjustment of Existing Structure in Concrete Road (Frame and Grate or Cover), and Manhole Riser shall be at the Contract Unit price bid per Each completed in place and accepted by the Engineer. The prices states shall include all labor, tools, materials, pavement saw cuts, setting/resetting the existing frame and grate (or cover) to proper line and grade, concrete or binder collar, transporting/stacking/discarding the existing frame and grate (or cover) as necessary and all other necessary incidental expenses.

Payment for **Structure Rebuilt**, **Structure Rebuilt** (**Binder**), **and Structure Rebuilt in Concrete Road** shall be at the Contract Unit price bid per vertical foot, which price shall include all labor, tools, materials, pavement saw cuts, setting/resetting the existing frame and grate (or cover) to proper line and grade, concrete or binder collar, transporting/stacking/discarding the existing frame and grate (or cover) as necessary and all other necessary incidental expenses.

Payments shall not be made for castings that have not been correctly adjusted to the proper finished grade elevation satisfactory to the Engineer.

Multiple adjustments that may be necessary as a result of the work sequence shall be considered part of the one-time measurement and payment and not cause for additional compensation.

Use of steel plates to cover open structures shall be considered incidental to the work and not cause for additional compensation.

ITEM 222.3FRAME AND GRATE (OR COVER) MUNICIPAL STANDARDEACHITEM 222.301FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD (BINDER)EACHFRAME AND GRATE (OR COVER)ITEM 222.302MUNICIPAL STANDARD IN CONCRETE ROADEACH

DESCRIPTION

The work described for these items shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Section 200, and the following:

MATERIALS

Frames, grates and covers shall be of good quality, strong, tough, even grained cast iron smooth, free from scale, lumps, blisters, sand holes and defects of any kind which render them unfit for the service for which they are intended. Grates, covers, and frame seats shall be machined to a true surface. Castings shall be thoroughly cleaned and subject to hammer inspection.

Catch basin frames and grates shall be East Jordan Iron Works, per municipal standard, or approved equal.

Manhole covers shall have a diamond pattern; pick holes and the appropriate word "DRAIN" or "SEWER" cast in three (3) inch letters.

CONSTRUCTION METHOD

Casting frames shall be set in a full mortar bed with clay bricks (maximum height 8 inches). Use of cement concrete brick will not be allowed. Castings shall be set to line and grade and secured with a concrete collar that is overlaid with a minimum of two inches of Asphalt top course.

Items that are label with "(Binder)" shall be used for casting locations where, as directed and approved by the Engineer, installing concrete collars are not advantageous. In such cases, binder collars can be used in place of concrete collars for respective locations and items.

MEASUREMENT AND PAYMENT

Payments for these items shall be at the Contract Unit price bid for Each completed in place and accepted by the Engineer. The price stated shall include all labor, tools, material, pavement saw cuts, furnish new frame and grate (or cover) castings, setting/resetting the existing frame and grate (or cover) to proper line and grade, concrete or binder collar, and all other incidentals required to complete the work to satisfaction of the Engineer.

ITEM 357.	GATE BOX	EACH
ITEM 357.01	GATE BOX (BINDER)	EACH
ITEM 357.02	GATE BOX IN CONCRETE ROAD	EACH
ITEM 358.	GATE BOX ADJUSTED	EACH
ITEM 358.01	GATE BOX ADJUSTED (BINDER)	EACH
ITEM 358.02	GATE BOX ADJUSTED IN CONCRETE ROAD	EACH
ITEM 358.03	6 INCH GATE BOX RISER	EACH

DESCRIPTION

The work described for these items shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Section 301, and the following:

CONSTRUCTION METHOD

Valve boxes shall be installed vertically, centered over the operating nut, and the elevation of the top shall be adjusted to final grade. Boxes shall be continuously and adequately supported during backfilling to maintain vertical alignment. Bricks shall be placed at the base of the flange to properly support the box. Backfill around valve boxes and anywhere excavation is made in the street shall be compacted in 12-inch lifts.

Items that are label with "(Binder)" shall be used for casting locations where, as directed and approved by the Engineer, installing concrete collars are not advantageous. In such cases, binder collars can be used in place of concrete collars for respective locations and items.

MEASUREMENT AND PAYMENT

Work shall include adjusting box castings, regardless of size, to the proposed finished grade. Boxes located in street pavement shall have collars, which are included in the unit price.

Gate boxes damaged by the Contractor's operations will be replaced by the Contractor at his own expense.

Boxes found to be inoperable due to no fault of the Contractor shall be replaced under **Gate Box, Gate Box (Binder)**, or **Gate Box in Concrete Road** regardless of size, with new gate boxes in accordance with the City's standards. Installation of a new gate box will include the cost of the new utility casting plus any costs associated with setting it to the finish grade elevation as described in for **Gate Box Adjusted**. All payments made for furnishing a new casting and installing to the proper finish grade elevation will be made under **Gate Box, Gate Box Adjusted (Binder)**, or **Gate Box Adjusted in Concrete Road** for that particular structure. Where existing castings can be adjusted to finished grade without replacement of the casting, payment will be made under **Gate Box Adjusted, Gate Box Adjusted (Binder)**, **Gate Box Adjusted in Concrete Road**, or **6 Inch Gate Box Riser**.

Payment for **Gate Box, Gate Box (Binder), and Gate Box in Concrete Road** shall be at the Contract Unit Price. Each completed in place and accepted by the Engineer. The price stated shall include all labor, equipment, materials to furnish and install new gate boxes regardless of size, to remove and dispose of old boxes not fit for reuse, and all incidentals necessary to set it to the proper finish grade elevation and complete all work to the satisfaction of the Engineer.

Payment for **Gate Box Adjusted**, **Gate Box Adjusted** (**Binder**), **Gate Box Adjusted in Concrete Road**, and 6 Inch **Gate Box Riser** shall be at the Contract Unit Price per Each completed in place and accepted by the Engineer. The price stated shall include all labor, equipment, materials to adjust boxes regardless of size to proper finish grade elevation, and all incidentals necessary to complete the work to the satisfaction of the Engineer.

Payments shall not be made for castings that have not been correctly adjusted to the proper finished grade elevation satisfactory to the Engineer.

PROTECTOR RING 10 INCHES
PROTECTOR RING 28 INCHES OR 31 INCHES

EACH

EAC

DESCRIPTION

ITEM 399.01

ITEM 399.02

Under these Items the Contractor shall furnish and install a new 10 inch inside diameter gate-box type protector ring, 28 inch inside diameter, or 31 inch inside diameter manhole protector ring respectively at those locations, and only in such quantities, as the Engineer shall direct. The primary purpose of these rings is to prevent tire damage and/or vehicular 'slaloming' by providing a temporary ramping means for the purpose of transitioning vehicles over the manholes and water gate boxes which are primarily located in the wheel-path at manhole concentration points such as intersections.

The cold-planing contractor shall initially furnish and subsequently install the protector rings in those areas in which the work is being performed and such deployment shall be performed immediately and on a continuous basis in harmonic unison with the progression of the cold planing operation.

Only pre-approved protector rings which were delivered, as new material at the beginning of the project term, installed, and subsequently accounted for at the end of the operation, shall be paid for under these Items.

The Contractor shall work closely with the Engineer to determine which size protector ring will best meet the needs of the project site(s) before the balance of the order is filled. To that end the Contractor shall initially supply one ring of 10" inside diameter, 28" inside diameter, and 31" inside diameter, before the commencement of the contract, for the purpose of making a determination as to which ring size, or combination of ring sizes, will best meet the needs of the City of Newton under this program.

MATERIALS

The Protector Ring (a.k.a. gate-box/manhole safety ramps) shall be equal to Part No. MSR10, MSR26 or MSR31, whichever is applicable, as supplied by American Highway Products Ltd; http://www.ahp1.com/safetyramp1.php

Protector Rings shall be molded of flexible heavy-duty recycled rubber material and shall have the following characteristics:

- The rise from the bottom surface to the top shall be two (2") inches
- The weight of the ring shall be 29 lbs. For 10" I.D. rings, 62 lbs. for 28" I.D. rings, and 55 pounds for 31" I.D. rings
- The outside diameter of the rings shall be 29" for 10" I.D. rings and 48" for 28" & 31" I.D. rings
- Density: 0.6 oz. / c.i. ASTM C642
- Fabrication: Compression Molded Deposit
- Durometer Harness: 66A ASTM D2240
- Tensile Strength: 300 psi ASTM D412
- Elongation: 90% ASTM D412
- Brittleness: -40 Deg. Fahrenheit ASTM D746
- Coefficient of Thermal Expansion: ASTM C531

The Contractor is free to submit a catalog cut from competing 'manhole protector ring' suppliers for the purpose of gaining approval for their use; however the minimum characteristics listed here must be met or exceeded.

Each protector ring pre-approved by the Engineer, furnished as new material and are initially deployed, and which are ultimately accounted for (in-place) at the end of each separate cold-planing operation, or otherwise delivered directly to the City's designated stockpile location, shall be paid for under these applicable Items.

CONSTRUCTION METHOD

Protector rings which the Engineer has authorized to be purchased, and which have been either immediately deployed on-site or have otherwise been delivered to the City's stockpile location and neatly stacked in their designated location, shall be subsequently deemed as 'City Owned protector rings'.

Therefore any deployment of unused/'new' protector rings, retrieved from the stockpile and deployed by the Contractor shall be paid for under **Item 399.03 Retrieve & Deploy Protector Ring**. All protector rings shall be removed prior to paving.

MEASUREMENT AND PAYMENT

Payment for these items shall be at the Contract Unit Price per Each completed in place and accepted by the Engineer. The price stated shall include new, pre-approved and authorized protector ring for each new 10 inch inside diameter, 28 inch inside diameter, or 31 inch inside diameter protector ring respectively, pre-approved and authorized protector ring furnished by the Contractor as new material, initially deployed throughout the various work zones during the course of the cold-planing operation, and ultimately accounted for (in-place) at the end of the cold-planing operation, or otherwise have been stockpiled at the direction of the Engineer. The unit price shall include full compensation for all labor materials, tools and equipment to furnish, install, maintain, remove, haul, stockpile, and all incidentals necessary to complete the work under this Item, as directed by the Engineer, and as specified herein

ITEM 415.3 PAVEMENT MICRO MILLING SQUARE YARD

DESCRIPTION

The work described for these items shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Subsection 120.66, and the following:

This work shall consist of preparing a foundation for the placement of surfacing courses by the removal of a minimum of one and a half (1-1/2) inches to two (2) inches of bituminous material unless otherwise directed by the Engineer. The Contractor shall exercise care in the removal of pavement around manholes, catch basins, gates, etc.

The Contractor is advised that under certain conditions (i.e. bus traffic, emergency vehicle access, arterial roadways, etc.) vehicular traffic flow must be maintained, therefore the Contractor must be prepared to accommodate vehicular travel throughout the project zone for the entire duration of the project while these process' are underway as it shall not be impaired.

EQUIPMENT

The milling machine, and any other motorized vehicular equipment, shall be equipped with taillights, headlights, and necessary reflectors so that they can be operated in traffic with complete safety.

The cold-planing machine shall be adjustable as to crown and depth. The equipment shall be demonstrated to have been operated successfully on similar work completed prior to the award of this contract.

The equipment shall be capable of accurately and automatically establishing profile grade along each edge of the machine (within 1/8-inch more or less) by referencing from the existing pavement by means of a ski or matching shoe controlling cross slope at a given rate.

The machine shall be capable of being operated at speeds from 18 to 40 feet per minute and designed so that the operator can, at all times, observe the operations without leaving his control area.

The equipment furnished by the Contractor shall be in good repair and shall be maintained so as to produce a clean cut into the pavement at all times.

The machine shall be equipped with an integral loading and reclaiming means to immediately remove material being cut from the surface of the roadway and discharge the cuttings into a truck, all in one operation. All planning machinery shall be equipped with dust control devices to prevent any dust produced in the cutting operation from escaping into the air, in compliance with EPA air quality standards. The equipment shall meet the standards set by the Air Quality Act for noise and pollution. This machine shall be equipped with a floating moldboard cutting device which is behind the mandrel and such moldboard must have an infinitely variable down pressure from 0-300 P.S.I.

Supplemental equipment of a smaller scale, capable of performing cold-planing functions around and about roadway structures, and/or other similar areas which are not commonly accessible to the primary cold-planing machinery, shall be utilized by the Contractor to 'detail' the work zone and to ultimately complete the cold-planing operation.

Cold-planers mounted on pneumatic tires will not be employed except for trimming and clean-up operations.

CONSTRUCTION METHOD

The cold planing machine shall be delivered to the project limits on a trailer. The machine shall be loaded on to the trailer to be transferred from work site to work site. The Contractor shall not "walk" the machine to the next site unless prior approval from the Engineer is granted.

No roadway cold planing 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 them the opportunity of moving his cold-planing process forward without interruption. Under this clause the Contractor shall work closely with the Engineer in order 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 a City of Newton Agent(s) or Officer. 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.

Once the cold-planing process has begun the Contractor is obliged to carry this effort forward without interruption, yet in accordance with all work hour restrictions unless otherwise directed by the Engineer

Cold-planing operations shall not be limited to just the primary roadway surface, but shall also extend into the adjacent intersections as well. The limit of this work shall be determined 'in the field' by the Engineer so as to best meet the existing conditions and to further provide for a smooth pavement transitioning.

No asphalt millings shall remain on-site at the end of each day. Material resulting from the operation shall become the property of the Contractor and disposed of at a Contractor-furnished disposal site. Existing catch basins shall be protected in place to not allow loose material to enter structures, at no additional cost to the City.

Milled surfaces shall be squared off and transitioned for the full width of the pavement at the end of each day. Adjustment of structures shall be made under the appropriate items of the contract with one adjustment payment allowed per structure under those respective items. Milling shall be varied to the extent practical in order to meet these grades with the proposed overlay.

Immediately upon completion of the cold planing (i.e. 'detailing') operation performed around and about manholes, catch basins, any other exposed roadway structures, and pavement edges and transitions **THE CONTRACTOR SHALL APPLY A BRIGHT RIBBON OF ORANGE FLUORESCENT PAINT** on the projecting face of the obstacle, such that oncoming traffic is made aware of the hazards presence. In the event the cold-planing operation has caused any casting to project more than one and a half (1 ½) inches above the milled surface of the roadway then the Contractor shall also minimally provide either a stabilized three foot (3) high traffic cone on the casting, in addition to the paint, until such time as other remedial measures can be taken, or a Manhole Protector Ring is retrieved, deployed and installed under its respective item. The Contractor shall maintain all protection of raised structures and transitions each and every day until the final paving course is placed. Any damage or claims resulting from raised structures or transitions shall be the full responsibility of the Contractor. Immediately after the roadway has been milled, the Contractor shall provide temporary asphalt transitions at all curb cut locations and at any driveway location measuring a depth to roadway greater than three (3) inches. Transition ramp slopes shall not exceed five percent (5%). This work shall be paid for under its respective item.

The work shall be scheduled such that overlay pavement is placed within <u>10 business days</u> 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.

MEASUREMENT AND PAYMENT

The quantity of pavement micro milling to be paid for under this Item shall be equal to the actual area cold planed, measured by the square yard regardless of depth up to four (4) inches or the number of vertical adjustments required, complete as indicated in the Contract Documents or as otherwise directed by the Engineer.

Payment for this item shall be at the Contract Unit Price bid per Square Yard completed in place and accepted by the Engineer. The price stated shall include all labor, materials, equipment, and incidentals necessary to cold plane pavement, transport millings, cleaning including mechanical sweeping of the entire road area to remove all remaining asphalt cuttings and debris, and prepare pavement surface to the satisfaction of the Engineer. Any additional handwork or jackhammering needed to remove bituminous or cement concrete from around structures shall be included under this Item with no additional compensation. No additional compensation shall be made for multiple passes.

ITEM 460.01HOT MIX ASPHALT LEVELING COURSETON

DESCRIPTION

The work described for these items shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Subsection 460, and the following:

CONSTRUCTION METHOD

The work under this item shall consist of placing a leveling course in areas of rutting prior to placing surface courses. The Contractor shall place a leveling course in areas as determined by the Engineer. Prior to placing the leveling course, the Contractor shall spread suitable tack coat emulsion meeting the material requirements of the Standard Specifications, to ensure a proper bond between the leveling course and existing pavement. The tack coat must be applied by a truck or trailer to ensure even spreading at the appropriate rate.

Tack coat will be used at the rate of .05 to .10 GAL/SY prior to placement of the leveling course, unless directed not to do so by the Engineer.

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).

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Price bid per Ton for the specified thickness of leveling course, complete in place and accepted by the Engineer. The price stated shall include all labor, equipment, materials, and incidentals, tack coat, furnish and installation of the leveling course as necessary to complete the work to the satisfaction of the Engineer. This price shall also include all necessary work to prepare the pavement surface, including street sweeping.

DESCRIPTION

The work described for these items shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Subsection 120.66, and the following:

The Bonded Wearing Course consists of a warm polymer modified asphalt emulsion bond coat followed immediately with an ultra-thin hot mix asphalt wearing course. The tack coat is spray applied immediately prior to the application of the wearing course to produce a durable wearing surface that can be opened to traffic. The finished surface treatment shall have a thickness of 5/8 inch to 3/4 inch.

The Contractor must furnish satisfactory evidence of his/her ability and experience to perform this work, and that he/she has sufficient capital and equipment to enable them to prosecute the work successfully and to complete it within the time named in the contract. The Contractor shall not sublet any portion of this contract, and will own all equipment used to complete such contract. As part of the bid, the Contractor must submit a list of five (5) similar and successfully completed jobs, whose relevance to the proposed job shall be deemed by the Owner. The following information shall be provided for the five (5) completed jobs:

Owner Address City, State, Zip Code Contact Name Contact Phone Number Contract Amount

Bidders are required to make a thorough investigation of conditions at the location of the proposed work. It is the obligation of the bidder to ascertain for themselves all the facts concerning conditions to be found at the location of the project, including all physical characteristics, on and below the surface of the ground, to consider fully these and all other matters which can, in any way, affect the work under this Contract. The City may disqualify any bidder who cannot show understanding of the existing conditions of the project.

MATERIALS

Mixture Requirements

The contractor shall formulate and submit a Job Mix Formula that satisfies the design general limits listed in the Mixture Requirements table below. The mix formula shall not fall outside the following gradation requirements.

Sieve Size	% Passing
3/4" (19 mm)	-
1/2" (12.5 mm)	100
3/8" (9.5 mm)	95 - 100
#4 (4.75 mm)	40 - 60
#8 (2.36 mm)	21-33
#16 (1.18 mm)	15-26
#30 (0.60 mm)	11 - 20
#50 (0.30 mm)	8-16
#100 (0.15 mm)	5 - 10
#200 (0.075 mm)	4-7
% PGB	4.9 - 5.4

*Note: All aggregate percentages are based on the total weight of the aggregate.

Asphalt Binder

The Contractor shall use the appropriated performance graded binder (PGAB), for the project's geographical location and design traffic level.

Coarse Aggregate

The coarse aggregates selected should be those typically used for high performance surfaces. Coarse aggregates, such as crushed gravel, limestone, dolomite, sandstone, granite, chert, trap rock, ore tailings, slag or other similar materials, or blends of two or more of the above may be acceptable. The single size coarse aggregate shall be nominal 1/4" meeting the requirements listed in the Coarse Aggregate Properties table below. When coarse aggregates for these mixes are from more than one source or of more than one type of material, they shall be proportioned and blended to provide a uniform mixture.

	Test Method	Value
LA Abrasion Value, % loss	AASHTO T96-94	30 max
Soundness, % loss Magnesium Sulfate or	AASHTO T104-94	18 max
Sodium Sulfate		12 max
Flat and Elongated Ratio, % @ 5:1	ASTM D-4791	10 max
% Crushed, single face	ASTM D-5821	95 min
% Crushed, two or more crushed faces	ASTM D-5821	85 min
Cleanliness (% passing 0.60 mm, (#30))	ASTM D-142	2 max
Resistance to stripping*	ASTM D-3625	80 min **

*Anti-Stripping agents may be required to provide resistance to stripping. ** If the awarding authority currently uses a higher value then that value shall apply.

Fine Aggregate

The fine aggregate shall be 100% crushed and have a minimum sand equivalent of 50, (AASHTO T 176-86).

Mineral Filler

Hydrated lime, fly ash, baghouse fines and cement are acceptable as mineral fillers.

Bond Coat

The Contractor shall use grade CRS-1P polymer modified asphalt emulsion meeting the requirements of AASHTO T208 except as modified in the below table. If latex is used, it is required that it be co-milled at the bulk emulsion facility, to ensure complete and balanced blending.

Property	Test Method	Minimum	Maximu
roperty			m
Elastic Recovery, 25°C	AASHTO	65	
	T301		
Residue by Distillation, %	AASHTO T59	63	
Penetration of Residue, 25°C, 100g, 5 sec	AASHTO T49	60	150

EQUIPMENT

Paver

The self-priming paver must be capable of spraying the bond coat, applying the hot asphalt overlay and smoothing the surface of the material in one pass, without equipment driving on or disrupting the bond coat, at a rate of 30-100 feet per minute. The self-priming paver must incorporate a receiving hopper, feed conveyor, insulated storage tank for emulsion, metered tack coat spray bar and a variable width, heated, ironing type screed.

The screed must have the ability to be crowned at the center both positively and negatively and have vertically adjustable extensions to accommodate the desired pavement profile.

Roller

Steel wheeled double drum rollers weighing at least 8 ton that are equipped with functioning water systems and scrappers to prevent the fresh mix from adhering to the roller drums shall be used to compact the material.

CONSTRUCTION METHOD

Surface Preparation

All surface preparations shall be completed by the contractor prior to applying the bonded wearing course.

Adjust or rebuild all roadway castings/utility structures. If required, the Contractor will coordinate the re-setting/adjustment of all privately owned utility structures.

All manhole covers, water boxes, gas boxes, catch basins and other such utility structures shall be covered with plastic or building felt. The Contractor shall note each structure for location and uncovering after paving. Temporary markings used on surfaces that will not be covered by the final product shall be done with an acceptable means such as chalk, crayon, water-based paint, or another means approved by the Engineer.

Remove all thermoplastic traffic markings, to be paid for under Item 854.002 Pavement Marking Removal.

Cut keyways at limits of work and additional locations as directed by the Engineer to a sufficient depth to create smooth transitions and good ride quality. All key cuts will be sealed on the same day as the paving is completed. To be paid for under Item 129. Pavement Milling.

Clean and flush fill all cracks and joints greater than 1/4" wide with crack sealant material as specified or instructed by the Engineer. Fill all surface irregularities greater than 1" deep with material approved by the Engineer.

The area to be surfaced shall be thoroughly cleaned of vegetation, loose aggregate and soil, and soil that is bound to the roadway surface through use of mechanical sweeping.

Remove all standing water. A damp surface is acceptable if favorable weather conditions are expected during paving operations.

The Contractor shall legally dispose of all asphalt/aggregate debris created in the adjustment of utility castings/structures, milling of keyways and removal of pavement markings.

Weather Limitations

The minimum pavement surface temperature for application of the bond coat and placement of the wearing course is 50° F.

Application

Apply the bond coat at a temperature of 120° - 170 F. Provide a uniform application across the entire width to be overlaid, at a rate of 0.15 - 0.25 gallons per square yard. Continuously monitor the rate of spray. Bond coat shall be sprayed at limits of work and at joints between passes to act as joint sealer.

No equipment shall come in contact with the bond coat before the hot mix asphalt concrete wearing course is applied.

Immediately after applying the bond coat, apply the hot mix asphalt overlay across the full width of the bond coat at a temperature of 280° - 335° F.

Compaction

Begin compaction immediately after the application of wearing course. Use a minimum of two (2) passes. The roller(s) will not be allowed to stop on the freshly placed wearing course. Use an adequate number of rollers to complete compaction before the pavement temperature falls below 185°F. Protect the wearing course from traffic until the rolling operation is complete and the material has cooled sufficiently to resist damage.

GUARANTEE

Any material or workmanship found to be defective for up to one (1) year from the date of acceptance by the Engineer shall be replaced by the Contractor at no cost to the City. Upon notification of defective material or workmanship, the Contractor shall immediately replace such defective areas.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Price bid per Square Yard for the specified thickness of bonded wearing course complete in place and accepted by the Engineer. The price stated shall include for which price shall be considered full compensation for all labor, equipment, materials, and incidentals, warm polymer modified asphalt emulsion bond coat (tack coat), asphalt sealer, tack and sand, and compaction, as necessary to complete the work to the satisfaction of the Engineer. This price shall also include all necessary work to prepare the pavement surface, including street sweeping, removal of vegetation and soil, water removal and removal/disposal of all existing pavement and aggregate that are required to complete the work.

ITEM 466.01ASPHALT RUBBER STRESS ABSORBING MEMBRANE INTERLAYER SY

DESCRIPTION

This specification covers requirements for materials, manufacture, and application of asphalt-rubber as a stress absorbing membrane interlayer (SAMI). This specification shall consist of an application of a combined reacted mixture of hot paving grade asphalt and ground rubber followed immediately with a cover material.

MATERIALS

Base Asphalt Binder:

The base asphalt binder shall have a PG (Performance Grade) of PG58-28. The supplier may substitute PG64-28 where needed to meet the requirements of ASTM D 6114 (type II). The intended PG must be used in the mix design and for the Asphalt-Rubber blending.

Asphalt-Rubber Binder:

The physical requirements for the Asphalt-Rubber binder shall conform to ASTM D 6114 type II specifications. The minimum percentage of ground rubber shall be 15% by weight of the total Asphalt-Rubber binder.

The reclaimed vulcanized rubber shall be produced primarily from the processing of automobile and truck tires. The rubber shall be produced by the ambient temperature grinding processes only.

The specific gravity of reclaimed vulcanized ground rubber shall be not less than 1.10 and not greater than 1.20.

Rubber for use in Asphalt-Rubber binder shall be free of loose fabric, wire and other contaminants. Up to 4 percent (by weight of rubber) calcium carbonate or talc may be added to prevent caking or sticking of the particles together. The ground rubber shall be sufficiently dry so as to be free flowing and not produce foaming when blended with the hot PG binder.

Aggregate:

The aggregate shall conform to the requirement of appropriate state or local specifications for crushed stone. Crushed gravel stone will not be permitted. Percentage of wear as determined by the Los Angeles Abrasion Test (AASHTO-T96) shall be a maximum of 35. The aggregate shall be pre-heated to a temperature between 200°F and 300°F, and be pre-coated with 0.4% to 0.8% (by weight of aggregate) of PG 58-28, PG 64-28 or PG 64-22 asphalt binder prior to application. Aggregate shall meet the following gradation as tested by AASHTO T27.

Siono Sino	% Passing – Nominal Size		
Sieve Size	3/8" (9.5 mm)	1/2" (12.5 mm)	
5/8" (15.8 mm)	100%	100%	
1/2" (12.5 mm)	100%	90-100%	
3/8" (9.5 mm)	85 - 100%	15 - 65%	
#4 (4.75 mm)	0-30%	0 - 8%	
#8 (2.36 mm)	0 - 5%	0 - 4%	
#200 (0.075 mm)	0 - 2%	0 - 2%	

NOTES:

• The 3/8" or 1/2" gradation requirements can be used for SAMI applications. The Flakiness Index shall be less than 30% (NFP 18-561 Test).

Mixing and Reaction Equipment:

The method and equipment for combining the ground rubber and PG asphalt binder shall be so designed and accessible that the Engineer can readily determine the percentage of each material being incorporated into the mixture. Equipment utilized in the production and proportioning of Asphalt-Rubber binder shall include the following as a minimum:

- An asphalt heating tank or heat exchanger with hot oil heat transfer to heat the PG asphalt binder to the necessary temperature before blending with the ground rubber. This unit shall be equipped with a thermostatic heat control device.
- A mechanical blender shall be utilized for proper proportioning and thorough mixing of the PG asphalt binder and ground rubber. This unit shall have a Coriolis type mass flow meter capable of measuring and recording the total quantity of asphalt binder in tons. The quantity of ground rubber shall be determined by weight utilizing either a hopper equipped with load cells or a feeder equipped with a belt scale. The total weight in tons and percentage of ground rubber based on total asphalt rubber binder shall be recorded. All data shall be reported to the awarding authority as outlined in Section 4.4, Reporting.
- A dedicated asphalt rubber reaction/storage tank equipped with a heating system to maintain the proper temperature of the binder and an internal mixing unit capable of maintaining a homogeneous mixture of asphalt and ground rubber.

Mixing:

The temperature of the asphalt binder shall be between 325°F and 400°F at the time of addition of the ground rubber. Ensure that there are no agglomerations of rubber particles in excess of two inches in the least dimension in the mixing chamber.

The Contractor shall document that the proportions are accurate and that the rubber has been uniformly incorporated into the mixture. Ensure that the crumb rubber and asphalt binder are thoroughly mixed. Rubber floating on the surface or agglomerations of rubber particles is evidence of insufficient mixing. Maintain the temperature of the asphalt-rubber binder immediately after mixing between 325°F and 375°F for a minimum of 45 minutes before use.

Testing and Certification:

The materials shall be sampled once per lot at the point of manufacture, tested and certified by an AASHTO resource (formally AMRL) accredited laboratory approved for asphalt rubber binder testing. The laboratory shall certify that the material meets the requirements of ASTM D 6114 type II specifications. A lot shall be defined as each batch produced, but not to exceed the volume of the manufacturer's dedicated asphalt rubber reaction/storage tank.

In addition to the ASTM D 6114 Type II specification, to ensure adequate blending residence time and superior binder quality, every lot shall be tested under:

Test (on the produced asphalt rubber binder)	Result	
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AASHTO T315 Original Binder 2mm DSR @ 82: G*/sin(d) >1.00 Kpa

All data shall be reported to the awarding authority as outlined in Section 4.4, Reporting.

Reporting:

Prior to starting the project, the contractor shall submit a Quality Control Plan from the Asphalt Rubber supplier meeting the requirements of AASHTO R-26 format.

The contractor shall submit a weekly manufacturer's report for each lot of asphalt rubber produced that includes the following as a minimum:

- Total quantity of asphalt binder in tons
- Tons and percentage of ground rubber based on total asphalt rubber binder
- ASTM D 6114 certified test results
- AASHTO T315 Original Binder 2mm DSR @ 82

EQUIPMENT

Distributor Truck:

On projects exceeding 35 tons of liquid asphalt rubber, at least two pressure-type bituminous distributor trucks in good condition will be required. The distributor shall be equipped with an internal heating device capable of heating the material evenly up to 425°F; an internal mixing unit capable of maintaining a proper mixture of asphalt cement and granulated rubber; have adequate pump capacity to maintain a high rate of circulation in the tank and to spray the asphalt-rubber at a viscosity of 1,500 to 5,000 centipoise; have adequate pressure devices and suitable manifolds to provide constant positive cut-off to prevent dripping from the nozzles. Distributor shall be equipped with an electronically controlled computerized compensation unit for controlling application rates at various width and speed changes. The application unit shall have electronic controls and a digital read out installed and operated from the inside of the cab of the distributor. The distribution bar on the distributor shall be fully circulating. Any distributor that produces a streaked or irregular distribution of the material shall be promptly repaired or removed from the project.

Distributor equipment shall include a tachometer, pressure gauges, volume measuring devices, and a thermometer for reading temperature of tank contents. Controls for spray bar shall be located in cab of truck, for controlling width and rate of spray of product. It shall be so constructed that uniform applications may be made at the specified rate per square yard with a tolerance of plus or minus 0.05 gallon per square yard.

The distributor shall be equipped with a continuous mechanical means to ensure that all nozzles are clean at all times. If a continuous mechanical means is not present, then a "bootman" shall accompany the distributor and ride in a position so that all spray bar nozzles are in his full view and readily accessible for unplugging.

Hauling Equipment:

Tank trucks utilized for the transportation of asphalt rubber shall be equipped with a heating system to maintain the proper temperature of the binder and an internal mixing/agitation unit capable of maintaining a homogeneous mixture of asphalt and ground tire rubber while in transit.

Trucks for hauling cover material shall be rear discharge conveyor-fed or "live bottom" trucks and shall be equipped with a device to lock onto the hitch at the rear of the chip spreader to prevent aggregate spillage.

Sufficient hauling vehicles will be available to ensure continuous operation of the distributor and chip spreader.

Aggregate Spreader:

The aggregate spreader shall be hydrostatically driven and self-propelled. It must be equipped with a hydraulically controlled variable adjustable head that is capable of spreading stone in widths from 4.5 to 18 feet. The spreader shall be mounted on pneumatic tires, and shall apply the stone on the road surface in a manner that ensures that the tires do not contact the road surface until after the stone has been applied. The unit shall be equipped with an electronic radar type sensor used to measure ground speed and will automatically adjust the stone application rate depending on width of application and the speed of chip spreader. It shall have the ability to apply stone on any grade from 0 - 6%. The spreader shall be equipped with an integral hopper with a minimum capacity of 5 tons of stone which shall be filled by trucks in a manner which ensures that the truck tires never come in contact with asphalt treated road surfaces until the stone has been properly applied. To maintain constant stone application, a self-locking truck hitch will permit towing of aggregate trucks without stopping the chip spreader. It will be capable of maintaining positive engagement over irregular terrain.

Pneumatic-Tired Roller:

A minimum of two (2) self-propelled, multiple wheel, pneumatic-tired rollers shall be used, and at least one shall weigh a minimum of 12 tons, and shall have a total compacting width of at least 56 inches.

Self-Propelled Rotary Pick-up Sweepers:

A minimum of two (2) self-propelled rotary pick-up sweepers shall be used. They shall be designed, maintained, equipped, and operated so that the pavement surface can be swept clean. The rotary sweepers shall be equipped with adjustable down pressure on the sweeper heads and shall be capable of temporarily storing the picked up material from the surface of the pavement for disposal offsite.

CONSTRUCTION METHOD

Streets to be Treated:

The Contractor and the Engineer shall mutually determine the streets which shall receive asphalt-rubber surface treatment. Measurements of streets to be treated shall be made by the Contractor and the Engineer, and the Contractor shall prepare a cost estimate for each street prior to beginning work.

Staging Location

The awarding authority shall provide a staging area for equipment and materials to be used on the project. The Contractor and Engineer shall mutually review and agree that the location is of adequate size and condition to allow for safe and secure usage for the required operation(s).

The awarding authority shall provide a location for disposal of asphalt/aggregate debris created in the adjustment of utility castings/structures, milling of keyways, and any pre- or post- project sweeping.

Surface Preparation:

All surface preparations shall be completed by the awarding authority prior to applying the surface treatment unless otherwise noted or bid as separate items.

The awarding authority shall be responsible for removal of all thermoplastic traffic markings, cleaning and flush filling all cracks and joints greater than 1/4" wide. The awarding authority shall place a leveling course on planed, milled or existing surface, if required.

The contractor shall cover all manhole covers, water boxes, gas boxes, catch basins and other such utility structures with plastic or building felt. Reference each for location and uncovering after application.

The contractor shall thoroughly clean the surface by sweeping immediately prior to application of the asphalt-rubber. Prior to sweeping, the awarding authority shall have removed all vegetation and soil that is bound to the roadway surface.

Seasonal and Weather Limitations:

The asphalt-rubber shall not be applied when weather conditions are unfavorable to obtaining a uniform spread. Construction shall proceed only when the atmospheric temperature is at least 50°F and rising. No water shall be present on the road surface. SAM's shall not be applied after September 1 as a final surface.

Asphalt-Rubber Application:

The asphalt-rubber mixture shall be applied at a temperature of 325°F to 400°F at a rate of 0.50 to 0.65 gallons per square yard. Exact application rate to be determined by the aggregate gradation, traffic volume and pavement condition.

Longitudinal joints shall be reasonably true to line and parallel to centerline. Where any construction joint occurs, the edges shall be broomed back and blended so there are no gaps and the elevations are the same, and free from ridges and depressions. Longitudinal joints shall be overlapped from 4 to 6 inches.

During application, adequate provision shall be made to prevent marring and discoloration of adjacent pavements, structures, vehicles, foliage or personal property.

Aggregate Application:

The application of aggregate shall follow as close as possible behind the application of the hot asphalt-rubber which shall not be spread further in advance of the aggregate spread than can be immediately covered. Construction equipment or other vehicles shall not drive on the uncovered asphalt-rubber. The hot-precoated aggregate shall be spread uniformly by a self-propelled spreader at a rate of spread directed by the Agency, generally between 30 to 40 pounds per square yard. Any deficient areas shall be covered with additional material.

Rolling:

A minimum of two (2) pneumatic-tired rollers shall be used for aggregate embedment into the hot asphalt-rubber. Rolling shall commence immediately following spread of aggregate. There shall be at least three coverages by the pneumatic-tired roller to embed the aggregate particles firmly into the asphalt-rubber. Coverage shall be as many passes as are necessary to cover the entire width being spread with a pass being one movement of a roller in either direction.

Sweeping:

When the maximum amount of aggregate has been embedded into the asphalt-rubber and the pavement has cooled, all loose material shall be swept or otherwise removed by the contractor. Contractor shall supply two (2) sweepers for the day of application. This will be done at a time and in a manner, which will not displace any embedded aggregate or damage the asphalt-rubber. The material removed by sweeping shall be disposed of offsite.

Pre-sweeping or post-sweeping at a later date is the responsibility of the awarding authority unless bid as a separate bid item.

Traffic Control:

Unless otherwise specified, the roadway shall be kept open to traffic at all times, with traffic discontinued on the lane being surface treated. Controlled traffic may be permitted as soon as the final layer is applied and rolled. A recommended maximum speed of 20 mph, should be maintained for a period of two (2) hours.

Performance

The Contractor must furnish satisfactory evidence of his/her ability and experience to perform this work, and that they have sufficient capital and equipment to enable them to prosecute the work successfully and to complete it within the time named in the contract. The Contractor shall not sublet any portion of this contract, and will own all equipment used to complete such contract. As part of the bid, the Contractor must submit a list of five (5) similar and successfully completed jobs, whose relevance to the proposed job shall be deemed by the Owner. The following information shall be provided for the five (5) completed jobs:

Any material or workmanship found to be defective for up to one (1) year from the date of acceptance by the Engineer shall be replaced by the Contractor at no cost to the awarding authority. Upon notification of defective material or workmanship, the Contractor shall immediately replace such defective areas.

MEASUREMENT AND PAYMENT

Payment under this Item shall be at the Contract Unit Price per Square Yard completed in place and accepted by the Engineer. The price stated shall include all labor, materials, equipment, and incidentals necessary to prepare the roadway surface including sweeping and cleaning, furnish and application of the asphalt rubber stress absorbing membrane interlayer, aggregate, rolling and compaction, and any other incidental costs necessary to complete the work to the satisfaction of the Engineer.

TON

ITEM 472. HOT MIX ASPHALT FOR MISCELLANEOUS WORK

DESCRIPTION

The work described for this item shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Section 400, the Material Specification of for Item 472 noted herein 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

Payment for this item shall be at the Contract Unit Price per Ton completed in place and accepted by the Engineer. The price stated 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 included in this Item.

ITEM 482.1 CRACK SEALANT GALLON

DESCRIPTION

The work described for this item shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Section 460 and the following:

The work covered by this section of the specification consists of furnishing all plant, labor, equipment and materials necessary to perform all operations in connection with the cleaning and sealing of construction and random cracks in bituminous concrete pavements listed in these contract documents, including vegetation removal and sterilization of cracks, where necessary. Crack sealing shall be completed prior to the application of any other pavement treatments. The cracks to be sealed will be those located within the limits specified in the contract documents and as designated by the Engineer.

MATERIALS

Crack sealant shall be a modified asphalt-fiber compound designed specifically for improving the strength and performance of the parent asphalt sealant.

- The asphalt binder shall consist of a blend of neat asphalt binder, chemically modified crumb rubber (CMCR), and a polymer package, all of which meet the following specifications:
 - The binder will meet PG 64-28E requirements after modification including:
 - PG grade requirements of AASHTO M320
 - Requirements of AASHTO TP70/MP19
 - Modification, at a minimum, shall consist of 7% crumb rubber, and the maximum particle size for the recycled tire rubber shall be 80 mesh (#80 sieve)
 - The asphalt supplier shall provide testing for both the neat and modified asphalt binders
 - See below for typical modified test results for 64-28E with crumb rubber:

DSR ORIGINAL

• kPa >1.00 @ 64° C. Fail temp = $76+^{\circ}$ C

DSR RTFO • kPa >2.20 @ 64° C. Fail temp = 76+° C

MSCR • JNR (MSCR unit of measure): 3.2 E <0.5% @ 64° C • R3200 (Average % Recovery): >70%

DSR PAV • kPa <6000 @ 64° C

- BBR
- Stiffness <300 @ -18° C. M-Value >0.300 @ -18° C
- The fiber reinforcing materials shall be short-length polyester fibers having the following properties:

* At temperatures ranging from ambient to maximum finished product mix temperature

- ** Subject to Normal Variations
- Modifying Compound: The modified asphalt-fiber compound shall be mixed at a rate of 8% fiber weight to weight of asphalt cement. This compound having the same chemical base provides compatibility and exhibits excellent bond strengths. The fiber functions to re- distribute high stress and strain concentrations that are imposed on the sealant by thermal sources, traffic loading, etc.

EQUIPMENT

Equipment used in the performance of the work required by this section of the specification shall be subject to approval by the Owner, and maintained in a satisfactory working condition at all times.

Air Compressor

Air compressors shall be capable of furnishing not less than 100 cubic feet of air per minute at not less than 90 lbs. per square inch pressure at the nozzle. The compressor shall be equipped with traps that will maintain the compressed air free of oil and water.

Broom or Sweeper

Manually operated, gas powered air-broom or self-propelled sweeper designed especially for use in cleaning highway and airfield pavements shall be used to remove debris, dirt and dust from the cracks.

Melter

The unit used to melt or maintain the crack sealant compound at the recommended application temperature shall be the indirect fired type. It shall be equipped with a remote heat exchanger and hot oil circulation pump capable of maintaining a consistent temperature of the heat transfer oil. The heat transfer oil shall be circulated to all sides and the bottom of the vat containing the crack sealant compound making a continuous loop back to the heat exchanger and having a flash point of not less than 600°F. The melter shall be equipped with a satisfactory means of agitating the crack sealant at all times. This may be accomplished by continuous stirring with mechanically operated paddles and/or by a circulating gear pump attached to the melter. The melter must be equipped with a thermostatic control calibrated between 200°F and 550°F, and must be capable of pumping an 8% fiber content blend.

CONSTRUCTION METHOD

Preparation of Cracks

Debris and Vegetation Removal: All cracks shall be blown clean and sterilized by use of a propane air torch generating 2,000°F and 3,000 feet/second velocity to eliminate all vegetation, dirt, moisture and seeds. All debris removed from the cracks shall be removed

General: No crack sealant material shall be applied in wet cracks or where frost, snow or ice is present; or when the ambient temperature is below 25°F.

Preparation and Placement of Sealant

The asphalt-fiber compound shall be thoroughly mixed for a minimum of one hour before application can begin. To ensure a uniform fiber distribution in the sealant, and also to limit fluctuations in the application temperature of the blended material, the Contractor must have a full melter kettle of sealant mixed, heated to the proper application temperature, and ready for testing at the start of each work day. Once that batch of sealant is emptied from the melter kettle, crack sealing operations will cease for the remainder of the day. No new materials will be allowed to be added to the melter kettle during the workday under any circumstances. Minimum application temperature shall be 320°F.

Sealant shall be delivered to the pavement cracks through a high pressure hose line and applicator shoe. Diameter of the applicator shoe is not to exceed 3.5" inches. Once the pavement cracks are sealed, the width of the sealant on the pavement (overbanding) shall be no greater than 3" inches. When traffic requires immediate use of the roadway, a boiler slag aggregate shall be broadcast over the cracks to prevent the sealant from being picked up at no additional cost to the Owner.

Workmanship

All workmanship shall be of the highest quality, and any excess of spilled sealant shall be removed from the pavement by approved methods and discarded. Any workmanship determined to be below the high standards of the particular craft involved will not be accepted, and will be corrected and/or replaced as required by the Contractor.

Performance

It is the intention of the Owner not to award a contract for this work under this or any other proposal if the contractor cannot furnish satisfactory evidence that he has the ability and experience to perform this class of work, and that he has sufficient capital and equipment to enable them to prosecute the work successfully and to complete it within the time named in the contract. The Owner reserves the right to reject this or any other proposal, or to award the contract as is deemed to be in the best interest of said Owner.

Properly formulated and mixed asphalt fiber compound overbanding shall not be greater than three inches (3") in width.

The Contractor must submit the following with his bid proposal:

- A list of six (6) jobs which he has successfully completed with the polymer and crumb rubber modified asphalt compound with reinforcing fibers specified herein, giving the name and address of these projects so they can be investigated prior to the award of the contract.
- The trade name of the crack sealant the contractor intends to use.
- The manufacturer of the crack sealant the contractor intends to use.

The Owner will require the Contractor to successfully perform a 200' foot test strip in the field prior to commencing work under the contract.

Manufacturer's certificate of material compliance will be furnished to the Owner certifying conformance to the above material specifications, including the following:

Performance Grade of Unmodified Asphalt: PG 64-28S (standard)

- AASHTO M-320, Table 1
- 7% chemically-modified crumb rubber (CMCR)
 - Composed of 100% 80-mesh recycled tire rubber
- 3-4% specially formulated polymer package
- Performance Grade of Modified Asphalt: PG 64-28E (able to withstand "extremely heavy" traffic loads)
- AASHTO M-320, Table 1
 - o "E" Jnr 3.2 kPa @ 640C: <0.5%
 - o R3200 (Average % Recovery) @ 3.200 kPa: >70%
- 8% polyester reinforcing fibers

MEASUREMENT AND PAYMENT

Payment for this Item shall be at the Contract Unit Price per Gallon completed in place and accepted by the Engineer. Th price stated shall include all labor, materials, equipment for furnishing, transporting, handling and placing the material specified including vegetation removal, cleaning of cracks, crack sealing, and any incidentals necessary to complete the work to the satisfaction of the Engineer.

ITEM 697.1

SILT SACK

EACH

DESCRIPTION

The work described for this item shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Section 670, and as follows:

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.

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 the 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 top 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 for this item shall be at the Contract Unit Price bid per Each completed in place and accepted by the Engineer. The price stated 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 and all other incidentals required to complete the work to satisfaction of the Engineer.

ITEM 767.121 SEDIMENT CONTROL BARRIER

FOOT

DESCRIPTION

The work described for this item shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Sections 751 and 767, and the following:

This work shall include furnishing and installing a linear, compost-filled tube for filtering suspended sediments from storm water flow protecting open curb inlets. The work shall also include maintenance of the tubes and removal of the tube fabric.

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. Compost shall pass through a 3-inch sieve.

Tubes for compost filters shall be a minimum of 12 inches and a maximum of 18 inches in diameter, and shall be jute mesh or approved biodegradable material. Additional tubes shall be used as required by the Engineer.

A 1-foot wide by 2-inch deep wedge of compost spread along the uphill side of the filter tube shall be incidental to this item. Stakes for anchors, if required, shall be nominal 2×2 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.

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 washout, 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.

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 two (2) inches in depth on soil substrate.

MEASUREMENT AND PAYMENT

Sediment control barrier shall be measured in place by the foot of compost tube installed, approved, and maintained.

Payment for this item shall be at the Contract Unit Price per Foot completed in place and accepted by the Engineer. The price stated shall include all labor, materials, equipment and incidental costs required to complete the work, including but not limited to stakes and tube fabric, compost mulch wedge along top of tubes, removal and disposal of fabric and stakes, raking and seeding of compost and all other incidentals required to complete the work to satisfaction of the Engineer.

ITEM 852.01TEMPORARY TRAFFIC CONTROLLUMP SUM

DESCRIPTION

The work described for this item shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Section 850, as well as the Manual on Uniform Traffic Control Devices (MUTCD), as directed by the Engineer 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 specified.

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.

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 and 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 this clause the Contractor shall work closely with the Engineer in order 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 a City of Newton Agent(s) or Officer. 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 overall project during construction activities, complete-in-place, 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 for 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.

Temporary pavement markings shall be paid for separately under Item 854.016

ITEM 854.016 TEMPORARY PAVEMENT MARKINGS – 4 INCH (PAINTED) FOOT

DESCRIPTION

The work described for this item shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Sections 850 and M7.0, as well as the Manual on Uniform Traffic Control Devices (MUTCD), and the following:

The work under this item shall consist of furnishing materials and the application of reflectorized yellow centerlines in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

MATERIALS

Temporary Pavement Markings – 4 Inch (Painted) shall be water-borne paint.

CONSTRUCTION METHOD

The reflectivity of Temporary Pavement Markings -4 Inch (Painted) material shall be equal to or better than the minimum requirements for a period of 90 days.

The Contractor shall apply Temporary Pavement Markings for roadway centerlines directly after the installation of the final roadway application materials. Temporary Pavement Markings shall be applied in the exact location of the final striping.

MEASUREMENT AND PAYMENT

Payment for this item shall be at the Contract Unit Price per Foot completed in place and accepted by the Engineer. The price stated shall include all labor materials, tools and equipment, to prep the roadway (if necessary), install pavement markings in the correct location, and furnish all incidentals necessary to complete the work under this Item, as directed by the Engineer, and as specified herein.

ITEM 854.1PAVEMENT MARKING REMOVALSQUARE FOOT

DESCRIPTION

The work described for this item shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Section 850, and the following:

The work under this item consists of furnishing services to remove existing pavement markings in accordance with the specifications and the Massachusetts Department of Transportation Standard Specifications Section 850. This Item shall consist of obliterating pavement markings within the limits of the final roadway application materials.

CONSTRUCTION METHOD

Pavement marking removal methods shall not cause damage to the pavement or cause drastic change in texture, which could be construed as delineation at night, and shall be approved by the Engineer.

MEASUREMENT AND PAYMENT

Payment for this item shall be at the contract unit price per Square Foot completed in place and accepted by the Engineer. The price stated shall include all labor materials, tools and equipment, to remove pavement marking, and legally dispose of debris which includes sweeping and cleaning of pavement, and to furnish all incidentals necessary to complete the work under this Item, as directed by the Engineer, and as specified herein.

ITEM 856.12

DESCRIPTION

The work described for this item shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Section 850, as well as the Manual on Uniform Traffic Control Devices (MUTCD), and the following:

Under this item the Contractor shall furnish and deploy mobile MUTCD (Manual On Uniform Traffic Control Device) compliant solar and/or battery powered electronic message signboard(s) which shall be repositioned as necessary, at the direction of the Engineer, for the purpose of notifying the General Public of project related issues. However, no signboard units are to be deployed on the project unless pre-approved, authorized and/or ordered by the Engineer in advance of their use.

CONSTRUCTION METHOD

The mobile signboard(s) shall be mounted on a towable trailer and the entire assembly is to be factory assembled as a single unit.

The signboard(s) shall be powered by a silent means only as no fuel-powered generators are to be used.

The display boards shall be approximately thirty (30") inches high by approximately 60 inches wide and equipped with three (3) light emitting diode (LED) screens, each of which shall be of the 'auto-dimming' type on a black background and having full matrix capability. The 'characters' (the height of the alpha-numeric) shall be no less than seven (7) inches tall but in all cases, whenever possible, the height of the 'character' shall be maximized (typically up to 24 inches in height). Display boards shall have the capability of providing scrolling and/or flashing messages.

The units shall be fully programmable by field personnel so that the messages can be changed on an immediate basis at the direction of the Engineer.

The trailer shall be entirely tamper-proof to prevent both the unauthorized access to the programming means of the display board as well as to prevent the unauthorized movement of the trailer itself. Further, the trailer shall be secured in such a manner so as to prevent theft or vandalism.

As directed by the Engineer the signboard units shall be deployed, repositioned, supplemented and/or discontinued as often as necessary, to meet the ever-changing messaging requirements of the project, and such orders shall occur with immediacy.

As directed by the Engineer the signboard messages shall be composed, changed and/or discontinued as often as necessary, in order to meet the ever-changing messaging requirements of the project and such changes to the composition of the message shall occur with immediacy.

Signboard units shall be placed in conspicuous locations so they, as well as the messages, are easily seen, but at no time shall the units interfere with pedestrian right-of-ways nor vehicular flow. To that end the Contractor must be prepared to coordinate the siting of the units with the Engineer.

Signboards are to be 'leveled' with the roadway surface. Blocking, jacking and/or chocking shall be done in a responsible manner to ensure that the trailer is fully stabilized.

The Contractor is responsible for ensuring that the unit is fully operational at all times, and any repairs, reprogramming, redeployments for solar siting purposes, battery and/or bulb replacements, wholly defective units, units which are rendered unserviceable, or the like, shall be addressed and corrected with immediacy. The intent of this order is to ensure that the continuity of messages are not disrupted and that they are clear and visible at all times within the zone in which the unit is sited.

No signboard units are to be deployed on the project unless pre-approved, authorized and/or ordered by the Engineer in advance of their use.

The Engineer reserves the right to limit the size of the trailer and/or display board to the above noted type should it be deemed in the best interests of the neighborhood's pedestrian and/or traffic flow to do so.

At no time shall any signboard deployed to the site be without a message. The intent of this order is to assure all parties that the board is fully operational while providing 'secondary' messaging during those periods when 'primary' messaging is not required. To that end, once the Engineer has declared that the unit is no longer required the Contractor shall immediately remove it from the site.

The locations of, as well as the actual messages displayed, on the two (2) electronic variable message sign boards shall be determined in the field, by the engineer, changes in which will be required as often as he / she deems necessary to properly inform the public as to critical project activities.

MEASUREMENT AND PAYMENT

The Contractor shall be paid per calendar day for each signboard unit approved, authorized and/or ordered by the Engineer. No payment shall be made for any calendar days after the Engineer has ordered that the service of the unit is no longer required.

Payment for this item shall be at the Contract Unit Price per Each signboard unit authorized and/or ordered by the Engineer. The express intent, under this item is to re-use the signboards, moving the signboards from project zone to project zone as the construction operations progress, without any further additional compensation under this item. Under this item signboards are to be furnished and placed which unit 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 864.04PAVEMENT ARROWS AND LEGENDS (THERMOPLASTIC)SQUARE FOOTITEM 866.1044 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)FOOTITEM 866.11212 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)FOOTITEM 867.1044 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)FOOT

DESCRIPTION

The work described for these items shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, including but not limited to, Sections 860 and M7.0, as well as the Manual on Uniform Traffic Control Devices (MUTCD), and the following:

The work under these items consists of furnishing materials and the application of reflectorized thermoplastic pavement markings including reflectorized crosswalks, stop lines, 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 <u>no later than 30 days</u> after the installation of the final roadway application materials.

MATERIALS

All materials under these items shall adhere to the appropriate items under Section 860 of the Standard Specifications, White Thermoplastic Reflectorized Pavement Markings – M7.01.03, and Yellow Thermoplastic Reflectorized Pavement Markings – M7.01.04

MEASUREMENT AND PAYMENT

The contractor shall not be paid for the gaps found in any dashed pavement applications.

Payment for **Pavement Arrows and Legends** (**Thermoplastic**) shall be at the Contract Unit Price per Square Foot for furnishing and applying Pavement Arrows and Legends (Thermoplastic) completed in place and accepted by the Engineer. The price stated shall include all labor, materials, tools and 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.

Payment for **4 Inch Reflectorized White Line (Thermoplastic)**, **12 Inch Reflectorized White Line (Thermoplastic)**, and **4 Inch Reflectorized Yellow Line (Thermoplastic)**shall be at the contract unit price per Foot for furnishing and applying 4" Reflectorized White lines, 12" Reflectorized White lines, and 4" Reflectorized Yellow lines completed in place and accepted by the Engineer. The price stated shall include all labor, materials, tools and 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 999.01REPAIRS TO CONCRETE WITH MASTICPOUNDS

DESCRIPTION

The work described for these items shall conform to the requirements and provisions of relevant Sections of the Massachusetts DOT Standard Specifications along with the latest Supplemental Specifications, and the following:

The work under this item consists of furnishing and installing a hot applied, pourable, aggregate filled, black color, polymer modified pavement repair mastic.

MATERIALS

Mastic One, or approved equal.

CONSTRUCTION METHOD

Only apply Mastic One to clean, sound, dry surfaces. Avoid highly distressed areas in need of reconstruction. All areas must be clean from dust and debris. All areas to be repaired shall be blown with clean, dry, oil free compressed air at 90 psi (620 kpa) minimum. If compressed air does not sufficiently remove all debris or dust coatings, additional cleaning procedures such as sweeping with a stiff or wire bristle broom, sandblasting or routing are recommended. (If sealant won't adhere, neither will Mastic One). PCCP shall be abrasive cleaned to achieve maximum adhesion performance.

The minimum pavement temperature for installation of Mastic One is $40^{\circ}F$ ($4^{\circ}C$). If the pavement temperature is less than $40^{\circ}F$ ($4^{\circ}C$), it can be warmed by heating with a heat lance. Asphalt concrete pavement should be heated so a slight bleeding effect occurs. This bleeding brings some of the asphalt binder from the pavement to the surface, which will enhance the adhesive bond between the Mastic One and road surface. However, caution should be taken to prevent overheating/oxidizing the asphalt brought to the surface as this could be detrimental to adhesion performance. Heating the pavement will also remove moisture assuring a dry surface. Mastic One should be applied within 10 minutes of warming the pavement area.

Mastic One that has been mixed and heated to installation temperature is poured from the melter and immediately applied to the prepared pavement area. Mastic One can be poured from the melter directly into the repair area, poured into an appropriate bucket such as the Crafco TechCrete Bucket (Part No. 32263) and then applied, or poured into the Crafco Material Handler (Part No. 57650) and then installed. For placing Mastic One in wide cracks, Crafco Shoebox Applicators (Part Nos. 32350-32353, 32255, 32250, 32252, or 32253) can be used.

Immediately following application to the pavement surface, Mastic One shall be leveled and smoothed to the desired level using a straight metal or rubber squeegee. If necessary for deep installations, to limit settling and to produce a level finished surface, Mastic One is applied in layers with a cooling and solidifying time period between applications. Minimum installed thickness is 3/8 in (1 cm).

The aggregate portion of Mastic One is selected to allow feathered edge type installations when required. The finished Mastic One installation should be applied smooth and level with the pavement surface.

When applied in the wheelpath, and other areas where improved skid resistance is desired, the top layer is covered with surfacing aggregate (Crafco Part No. 33374) or a surfacing aggregate specified in the project plan and approved by Crafco. Prior to applying the surfacing aggregate, quickly expose the surface to a flame to remove any surface bubbles and to heat the surface to adhere to the surfacing aggregate. Apply dry surfacing aggregate when the surface temperature is a minimum of 225°F (107°C) as measured with a non-contact infrared thermometer. When practical, the surfacing aggregate should be applied around the perimeter first and then applied to the center after the temperature falls in range

When surfacing aggregate must be applied at one time, the center surface of the Mastic One should be allowed to cool to a minimum of $225^{\circ}F$ (107°C) before application. The perimeter surface temperature will have cooled below the aggregate application temperature range and must be gently heated back to the recommended patch surface temperature range using a torch, before application of the surfacing aggregate.

- a. Surfacing aggregate shall be applied to completely cover the patch surface. The usage rate for the surfacing aggregate is approximately 2 pounds per square foot.
- b. If there is a need to cool the material rapidly, use ice or cool water to lower the temperature.
- c. Once Mastic One has cooled to the surrounding pavement surface temperature, final cleaning with a sweeper or vacuum is performed to remove any surplus aggregate prior to opening to traffic. Excess surfacing aggregate can be reused if kept clean, not contaminated and dry.

When installing over a distressed pavement surface, Mastic One should be applied at least 6 in (15 cm) beyond the distressed area onto sound pavement surfaces.

Traffic may be resumed over the mastic material when it has solidified sufficiently to support loads. Apply Crafco Detack to reduce surface tack and allow quicker opening of the area to traffic.

MEASUREMENT AND PAYMENT

Payment shall be made at the Contract Unit Price per pound as accepted and approved by the Engineer. The price so stated shall include all labor, materials, equipment, and incidentals necessary to prepare the roadway surface including sweeping and cleaning, furnish and application of the mastic material, detack, and any other incidental costs necessary to complete the work to the satisfaction of the Engineer.

ITEM 999.02 MISCELLANEOUS WORK ALLOWANCE ALLOWANCE

DESCRIPTION

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 999.03 ALLOWANCE FOR PAYMENT OF TRAFFIC CONTROL OFFICERS ALLOW

DESCRIPTION

The Contractor shall include in his bid an allowance for payment of Police traffic 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 themselves 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 999.03 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.

END OF SECTION

Bidders are responsible for downloading the specifications from the City's web site <u>www.newtonma.gov/bids</u>