

**TOWN OF ARLINGTON  
MASSACHUSETTS**

**INVITATION TO BID**

**BID #18-15 BISHOP SCHOOL DRAINAGE  
IMPROVEMENTS**

Sealed bids for Bishop School Drainage Improvements Project for the Town of Arlington, Massachusetts, will be received at the Purchasing Department, 730 Massachusetts Avenue, Arlington, MA 02476 until **10:00 AM prevailing time, on April 12, 2018** at which time and place said bids will be publicly opened and read aloud.

All bids must be in a sealed envelope plainly marked:

**BID #18-15 BISHOP SCHOOL DRAINAGE IMPROVEMENTS**

***Bid Security in the form of a bid bond, cash, certified check, treasurer's or cashier's check payable to the Owner, is required in the amount of five percent of the bid, in accordance with Section 00200, INSTRUCTIONS TO BIDDERS.***

A pre-bid conference will be held on Tuesday April 3, 2018 at 2:30 PM at the Bishop School, 25 Columbia Road, Arlington, MA.

Contract Documents and plans will not be mailed.

Contract Documents and plans are available for down load and review on the Town Website:

**[www.arlingtonma.gov/purchasing](http://www.arlingtonma.gov/purchasing)**

The selected contractor shall furnish a performance bond and a payment bond in amount at least equal to fifty percent (50%) of the contract price.

Minimum Wage Rates as determined by the Commissioner of the Division of Occupational Safety of the Executive Office of Labor and Workforce Development under the provisions of the Massachusetts General Laws Chapter 149, Section 26 to 27D, as amended, apply to this project.

All bids for this project are subject to applicable bidding laws of Massachusetts, including General Laws Chapter 30, Section 39M as amended.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 30 working days, Saturdays, Sundays and legal holidays excluded after the opening of bids.

The Owner reserves the right to waive any informalities or to reject any or all bids.

TOWN OF ARLINGTON

Adam W. Chapdelaine  
Town Manager

## **INSTRUCTIONS TO BIDDERS**

- I. COMPLEMENTARY DOCUMENT
  - A. INVITATION TO BID, including herewith, is complementary to this document and shall be reviewed by bidder for specific instruction which are not repeated herein.
  
2. STATUTES REGUALTING COMPETITIVE BIDDING
  - A. Bidding procedures and award of general contract and subcontracts shall be in accordance with the provisions of Chapter 30, Section 39M and Chapter 149, Section 44A through 44L inclusive, of the General Laws of the Commonwealth of Massachusetts, including all current amendments.
  - B. In the event of any discrepancy or inconsistency between the provisions of these Bid and Contract Documents and the above-mentioned statutes, the provisions of the above-mentioned statutes shall govern. In such event, the application of all remaining provisions not in conflict to any circumstance other than that in which the conflict occurs shall not be affected thereby.
  
3. BIDDER'S QUALIFICATIONS
  - A. DCPO Certification not required.
  - B. The Contractors' Update Statements are not public records and will not be open to public inspection.
  
4. INTERPRETATION OF DOCUMENTS: NOTIFICATION OF ERRORS
  - A. Interpretations of the provisions of the Bid and Contract Documents will be made by the designer upon written request of any general bidder or sub-bidder, provided that such request is received by the Designer at least seven (7) days prior to the date of the applicable bid opening, and that the Designer considers such interpretation to be of sufficient importance. Oral or telephone interpretations will not generally be made, and if made shall be strictly informal and not legally valid or binding.
  - B. Such written interpretations shall be in the form of Addenda to the Bid and Contract Documents.
  - C. Bidders are urged to communicate all errors and discrepancies found in the Bid and Contract Documents to the Designer. Telephone calls pointing out any such errors or discrepancies will be taken by the Designer, but only for the purpose of receiving the information in order that it may be properly processed, and not for interpretation or clarification.
  
5. EXAMINATION OF BIDDING AND CONTRACT DOCUMENTS
  - A. Each Bidder shall carefully examine the Bid and Contract Documents to obtain a thorough understanding of the work of his bid in addition to the work of related trades. In addition, each General Bidder shall personally visit the

site to thoroughly acquaint himself/herself with the conditions as they exist hereon.

- B. Failure of any Bidder to thoroughly examine the Bid and Contract Documents or to visit and examine the site shall in no way relieve him/her of any obligation with respect to his/her bid or of any responsibility assigned to him under the Contract.

6. PRE-BID CONFERENCE

- A. Pre-bid conference will be held at the location and time stipulated in the Invitation to Bid.

7. MODIFICATION AND WITHDRAWAL OF BIDS

- A. Modification of withdrawal of Bids will be permitted after the submission of such bids provided clearly written, readily understandable instructions for same are received by the Owner in writing prior to the time established for opening of such bids. No Bid may be withdrawn after that time, except as otherwise provided herein or by law.

8. ADDENDA

- A. Addenda may be required during the bidding period to modify, clarify or interpret the Bid and Contract Documents. It is intended, but not guaranteed, that such Addenda shall be mailed by the Owner to all persons or parties to whom Bid and Contract Documents have been issued (Bidders of Record). Failure to receive such Addenda shall in no way relieve any bidder from the execution of its provisions. All bidders are cautioned to verify the number of Addenda which have been issued and to secure any needed copies from the Designer before submitting a Bid.

9. FORM FOR BIDS

- A. The Owner will make available, to every person applying therefor, a Bid Form. Each bona fide Bidder will be furnished forms for his proposal upon request. Such forms will be made available at the Owner's office during the regular office hours throughout the bidding period. Bids must be submitted on the forms provided by Owner or of forms included in the bid documents of the Project Manual.
- B. All blank spaces provided on the bid forms shall be filled in with ink or typewriter. Where space is provided, sums shall be expressed in both words and figures. In case of a discrepancy between the two, the written words shall govern.
- C. No interlineations, additional, alterations or erasures shall be made on the forms.

10. ALTERNATES

- A. Not Applicable.

- B. General Bidders shall enter on the form for General Bid a single amount for each alternate, each amount to consist of the total of all the subbidders' amounts for the given alternate plus the amount of for work of the alternate to be performed by the General Contractor.
- C. If alternate(s) are accepted, they shall be accepted in the order listed. The low bidder will be determined on the basis of the sum of the Base Bid and the alternates accepted.

11. SUBMISSION OF BIDS

- A. The Bid Form shall be properly executed and enclosed with the required bid deposit in a sealed envelope plainly marked on the outside with the following information.

Bid For:

\_\_\_\_\_

SUBMITTED BY:

\_\_\_\_\_  
(Name of Bidder)

\_\_\_\_\_  
(Address of Bidder)

- B. If Bids are mailed; the above required envelope shall be enclosed in a second envelope identified with the above markings and mailed to the place of bid opening, as described in the Invitation to Bid. Mailed Bids must be received before the time scheduled for opening of Bids.

12. PERFORMANCE AND PAYMENT BONDS

- A. Labor and Materials Payment Bond required of the General Contractor shall be in the amount of 50% of the contract sum from a surety company qualified to do business under the laws of the Commonwealth of Massachusetts and approved by the Owner.

13. FOREIGN CORPORATIONS

- A. The attention of bidders is called to General Laws, Chapter 30, Section 39L, as amended by Acts of 1967, Chapter 3, under which the Owner may not enter into a contract with a foreign corporation as a subcontractor unless the foreign corporation has filed with the Owner a certificate by the State Secretary stating that the foreign corporation has complied with General Laws Chapter 181, Sections 3 and 5 and stating the date of such compliance.

14. AWARD OF CONTRACT

- A. The Contract will be awarded to the lowest responsible and eligible bidder except in the event of a substitution as provided by under Chapter 149, Sections 44E and 44F of the above-reference General Laws.

15. COMMENCEMENT AND COMPLETION OF WORK

- A. The successful bidder, upon completion of the Contract Agreement, shall commence the work of the Contract within seven (7) calendar days from receipt of written Notice to Proceed issued by the Owner within fourteen (14) calendar days after said execution of the Contract Agreement, and shall therefore diligently and continuously carry on the work in such manner as to substantially complete the work as noted herein.

16. LIQUIDATED DAMAGES

- A. The attention of bidders is particularly called to the requirements as to the conditions of employment to be observed, the minimum wage rates to be paid under the Contract and affirmative action to ensure equal employment opportunity.

**BID FORM**

For: #18-15 Bishop School Drainage Improvements

Proposal (BID) of \_\_\_\_\_  
(hereinafter called "Bidder") a corporation, organized and existing under the laws of the Commonwealth of Massachusetts.

\_\_\_\_\_ doing business as \_\_\_\_\_  
(corporation, proprietorship, partnership)

to the TOWN OF ARLINGTON hereinafter called "Owner".

Gentlemen:

A. The Bidder, in compliance with your invitation for bids for Bishop School Drainage Improvements, Arlington Massachusetts, having examined the plan and specifications with related documents and the site of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials and supplies, and to construct the project in accordance with the Contract Documents, within the time set forth therein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this proposal is a part.

Bidder hereby agrees to commence work under this Contract on or before a date to be specified in the written "Notice to Proceed" from the Owner, and to complete the work by August 15, 2018. The Bidder further agrees to pay as liquidated damages, the sum of \$100.00 for each consecutive calendar day thereafter that the works remains incomplete, as provided in the Instruction to Bidders, Modifications to General Conditions.

B. Bidder acknowledges receipt of the following addendum:

\_\_\_\_\_ Dated \_\_\_\_\_  
\_\_\_\_\_ Dated \_\_\_\_\_  
\_\_\_\_\_ Dated \_\_\_\_\_

C. Bidder agrees to perform all work described in the specifications and shown on the drawings, for the following lump sum price of:

1. Total Proposed Base Bid Contract Price:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

D. If the Bid is accepted by the Owner, the undersigned agrees to complete the entire work provided to be done under the contract within the time stipulated by the Owner.

E. The undersigned agrees that for extra work, if any, performed in accordance with the AGREEMENT, he will accept compensation as stipulated therein in full payment for such extra work.



- F. Bidder understands that the Owner reserves the right to reject any and all bids.
- G. The undersigned hereby agrees that he will not withdraw the Bid within thirty (30) consecutive calendar days after the actual date of the opening of Bids and that, if the Owner accepts this Bid, the undersigned will duly execute and acknowledge the required Contract Bonds within 10 days after notification that the AGREEMENT is ready for signature.
- H. Should the undersigned fail to fulfill any of his agreements as here in before set forth, the Owner shall have the right to retain as liquidated damages the amount of the Bid security, which shall become the Owner/s property. If a bid was furnished as bid security, it is agreed that the amount thereof shall be paid as liquidated damages to the Owner by the Surety.
- I. The Undersigned certifies under penalty of perjury that this Bid is in all respect bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the "person" shall men natural person, joint venture, partnership, corporation or other business or legal entity.
- J. The undersigned certifies that he is able to furnish labor that can work in harmony with all with all laws and regulations applicable to awards made subject forty-four A.
  - 1. Have been in business under the present name for \_\_\_\_\_years.
  - 2. Ever failed to complete any work awarded? \_\_\_\_\_(Yes), \_\_\_\_\_(No). If yes, explain: \_\_\_\_\_

K. The Bidder is required to state below all work he/she and his/her subcontractors (if subcontractors are to perform substantial portions of the work) has compete within the past 5 years of a similar character and value to that of the work included in the proposed Contract and to give references that will enable the Owners to judge the Bidder's experience, skill and business standing. The Bidder is required to list a minimum of 3 completed projects that are comparable in scope, complexity and value. For each project, include the name, location, type, date complete, construction value and owner contact.

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(add supplementary page if necessary)

L. The Bidder is required to state below all construction projects he/she currently has under contract. For each project, include the name, location, type, scheduled completion date, construction value and owner contact.

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M. The undersigned bidder hereby certifies that the tools and equipment required to meet the specified requirements of the Contract document, with special attention called to Section 02200 Earthwork, will be utilized in the performance of the work.

N. The undersigned further certifies under the penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth of Massachusetts under the provisions of section 29F, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation declared there under.

Date: \_\_\_\_\_

\_\_\_\_\_  
Name of General Bidder

By:

\_\_\_\_\_  
Name and Title of Person Signing Bond

\_\_\_\_\_  
Business Address

**FORM A**

**CERTIFICATE OF NON-COLLUSION**

The undersigned certifies under penalties of perjury that this bid is in all respects bona fide, fir and made without collusion or fraud with any other person. As used in this section the word 'person' shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

\_\_\_\_\_  
Authorized Name

\_\_\_\_\_  
Authorized Signature Date

\_\_\_\_\_  
Social Security Number or Federal Identification Number

\_\_\_\_\_  
Legal Name of Business Entity (Print or Type)

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State, Zip Code

Corporate Seal (If applicable)

**FORM B**

**CERTIFICATE OF FOREIGN CORPORATION**

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

\_\_\_\_\_

Jurisdiction

The undersigned further certifies that it complies with the requirements of M.G.L, c. 30, sec. 39L and with the requirements of M.G.L, c. 181 relative to the registration and operation of foreign corporations within the Commonwealth of Massachusetts.

\_\_\_\_\_  
Name of Person Signing the Bid or Proposal Date

\_\_\_\_\_  
Signature of Person Signing the Bid or Proposal Date

\_\_\_\_\_  
Name of Business (Print or Type)

Corporate Seal (If applicable)

**FORM C**

**BIDDER CERTIFICATION REGARDING PAYMENT OF PREVAILING WAGES**

The undersigned hereby certifies, under pains and penalties of perjury, that the foregoing bid is based upon the payment to laborers to be employed on the project of wages in an amount no less than the applicable wage rates established for the project by the Massachusetts Department of Labor and Industries. The undersigned bidder agrees to identify the awarding authority for, from, and against any loss, expense, damages, action, or claims, including any expense incurred in connection with any delay or stoppage of the project work, arising out of or as a result of (1) the failure of the said bid to be based upon the payment of the said applicable prevailing wage rates or (2) the failure of the bidder, if selected as the contractor, to pay laborers employed on the project the said applying prevailing wage rates.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name of Person Signing the Bid or Proposal

\_\_\_\_\_  
Signature of Person Signing the Bid or Proposal      Title

\_\_\_\_\_  
Name of Business (Print or Type)

Corporate Seal (If applicable)

**FORM D**

**CERTIFICATION OF PAYMENT OF STATE TAXES**

Legislation enacted by the Commonwealth of Massachusetts, effective, 1983, requires that attestation below be signed:

Pursuant top M.G.L c. 62C, sec. 49A, I certify under the penalties of perjury, that I, to my best knowledge and belief, have filed all state tax returns and paid all state taxes required by law.

**APPROVAL OF A CONTRACT OR ANY OTHER AGREEMENT WILL NOT BE GRANTED UNLESS THIS CERITIFCATION CLAUSE IS SIGNED BY AN AUTHORIZED CORPROATE OFFICER.**

**THE TAX PAYER IDENTIFICATION NUMBER WILL BE FURNISHED TO THE MASSACHUSETIS DPEARTMENT OF REVENUE TO DETERMINE IF TAX FILINGS AND/OR TAX PAYMENT OBLIGATIONS HAVE BEEN MET. PROVIDERS WHO FAIL TO CORRECT THIER NON-FILING AND/OR DELIQUENCY STATUS SHALL NOT HAVE A CONTRACT OR ANY OTHER AGREEMENT ISSUED, RENEWED OR EXTENDED**

\_\_\_\_\_  
(Signature of Individual) Title

\_\_\_\_\_  
Social Security Number or Federal Identification Number

\_\_\_\_\_  
Corporate Name

\_\_\_\_\_  
Name of Person Signing the Proposal (Print or Type) Date

\_\_\_\_\_  
Legal Name of Business Entity (Print or Type)

\_\_\_\_\_  
Business Address

Corporate Seal (If applicable)

To view and print Weekly Payroll & Statement of Compliance Forms, click on [www.mass.gov/dols/pw](http://www.mass.gov/dols/pw).

PLEASE NOTE: The attached Prevailing Wage Schedule is valid for 90 days. An Awarding Authority should re-request an up to date Prevailing Wage Schedule if it has NOT opened bids or selected a contractor within 90 days of the issuance date of the attached prevailing wage schedule.

\*For MULTI-YEAR projects bid on or after 8/8/08, Awarding Authorities must request an Annual Update to this Prevailing Wage Schedule each year for the duration of the project, no later than two weeks before the anniversary date of the execution of the general contract. Annual updates are not required for projects that last LESS THAN ONE YEAR.

\*For CM AT RISK projects (bid pursuant to GL c.149A), Awarding Authorities must request a Prevailing Wage Schedule NOT sooner than 90-days before the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work.

\*For MULTI-YEAR CM AT RISK projects, Awarding Authorities must request an Annual Update to this Prevailing Wage Schedule each year for the duration of the project, no later than two weeks before the anniversary date, which is the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to procure construction scopes of work.

Apprentice wages (expressed as dollar figures) and the required benefits are listed on the Prevailing Wage Schedule. For further details, please see opinion letter PW-2010-03-03.16.10 (dated March 18, 2010) at [www.mass.gov/dols/pw](http://www.mass.gov/dols/pw).

Request Prevailing Wage Rates online at: [www.mass.gov/dols/pw](http://www.mass.gov/dols/pw).

THIS IS A SYSTEM-GENERATED EMAIL. PLEASE DO NOT REPLY TO THIS EMAIL. TO CONTACT DLS REGARDING PREVAILING WAGE MATTERS, CALL 617-626-6953.

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APPROVAL/DENIAL COMMENTS

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

**Prevailing Wage Rates**

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

CHARLES D. BAKER  
Governor

ROSALIN ACOSTA  
Secretary

KARYN E. POLITO  
Lt. Governor

WILLIAM D MCKINNEY  
Director

**Awarding Authority:** Town of Arlington  
**Contract Number:** 18-15 **City/Town:** ARLINGTON  
**Description of Work:** Furnish all labor, materials, equipment and supervision necessary for Drainage Improvements at Bishop School  
**Job Location:** 25 Columbia Road

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



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Construction</b>						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2016	\$33.25	\$10.91	\$10.89	\$0.00	\$55.05
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2016	\$33.32	\$10.91	\$10.89	\$0.00	\$55.12
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2016	\$33.44	\$10.91	\$10.89	\$0.00	\$55.24
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2017	\$92.97	\$9.90	\$21.15	\$0.00	\$124.02
	08/01/2018	\$97.80	\$9.90	\$21.15	\$0.00	\$128.85
	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2017	\$38.25	\$7.70	\$14.75	\$0.00	\$60.70
	06/01/2018	\$39.20	\$7.70	\$14.75	\$0.00	\$61.65
	12/01/2018	\$40.15	\$7.70	\$14.75	\$0.00	\$62.60
	06/01/2019	\$41.15	\$7.70	\$14.75	\$0.00	\$63.60
	12/01/2019	\$42.15	\$7.70	\$14.75	\$0.00	\$64.60
	06/01/2020	\$43.14	\$7.70	\$14.75	\$0.00	\$65.59
	12/01/2020	\$44.12	\$7.70	\$14.75	\$0.00	\$66.57
	06/01/2021	\$45.14	\$7.70	\$14.75	\$0.00	\$67.59
	12/01/2021	\$46.15	\$7.70	\$14.75	\$0.00	\$68.60
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i>	12/01/2017	\$35.90	\$11.50	\$7.10	\$0.00	\$54.50
	06/01/2018	\$36.90	\$11.50	\$7.10	\$0.00	\$55.50
	12/01/2018	\$37.90	\$11.50	\$7.10	\$0.00	\$56.50
	06/01/2019	\$38.90	\$11.50	\$7.10	\$0.00	\$57.50
	12/01/2019	\$39.90	\$11.50	\$7.10	\$0.00	\$58.50
	06/01/2020	\$40.90	\$11.50	\$7.10	\$0.00	\$59.50
	12/01/2020	\$41.90	\$11.50	\$7.10	\$0.00	\$60.50
ASPHALT RAKER <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 1</i>	12/01/2017	\$38.25	\$7.70	\$14.75	\$0.00	\$60.70
	06/01/2018	\$39.20	\$7.70	\$14.75	\$0.00	\$61.65
	12/01/2018	\$40.15	\$7.70	\$14.75	\$0.00	\$62.60
	06/01/2019	\$41.15	\$7.70	\$14.75	\$0.00	\$63.60
	12/01/2019	\$42.15	\$7.70	\$14.75	\$0.00	\$64.60
	06/01/2020	\$43.14	\$7.70	\$14.75	\$0.00	\$65.59
	12/01/2020	\$44.12	\$7.70	\$14.75	\$0.00	\$66.57
	06/01/2021	\$45.14	\$7.70	\$14.75	\$0.00	\$67.59
	12/01/2021	\$46.15	\$7.70	\$14.75	\$0.00	\$68.60
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2017	\$42.92	\$6.97	\$16.21	\$0.00	\$66.10

**Apprentice - BOILERMAKER - Local 29**

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$27.90	\$6.97	\$10.54	\$0.00	\$45.41
2	65	\$27.90	\$6.97	\$10.54	\$0.00	\$45.41
3	70	\$30.04	\$6.97	\$11.35	\$0.00	\$48.36
4	75	\$32.19	\$6.97	\$12.16	\$0.00	\$51.32
5	80	\$34.34	\$6.97	\$12.97	\$0.00	\$54.28
6	85	\$36.48	\$6.97	\$13.78	\$0.00	\$57.23
7	90	\$38.63	\$6.97	\$14.59	\$0.00	\$60.19
8	95	\$40.77	\$6.97	\$15.40	\$0.00	\$63.14

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) <i>BRICKLAYERS LOCAL 3 (BOSTON)</i>	02/01/2018	\$52.06	\$10.75	\$20.03	\$0.00	\$82.84
	08/01/2018	\$53.41	\$10.75	\$20.16	\$0.00	\$84.32
	02/01/2019	\$54.05	\$10.75	\$20.16	\$0.00	\$84.96
	08/01/2019	\$55.40	\$10.75	\$20.30	\$0.00	\$86.45
	02/01/2020	\$56.04	\$10.75	\$20.30	\$0.00	\$87.09
	08/01/2020	\$57.39	\$10.75	\$20.45	\$0.00	\$88.59
	02/01/2021	\$58.03	\$10.75	\$20.45	\$0.00	\$89.23
	08/01/2021	\$59.43	\$10.75	\$20.61	\$0.00	\$90.79
	02/01/2022	\$60.02	\$10.75	\$20.61	\$0.00	\$91.38

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

**Effective Date - 02/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.03	\$10.75	\$20.03	\$0.00	\$56.81
2	60	\$31.24	\$10.75	\$20.03	\$0.00	\$62.02
3	70	\$36.44	\$10.75	\$20.03	\$0.00	\$67.22
4	80	\$41.65	\$10.75	\$20.03	\$0.00	\$72.43
5	90	\$46.85	\$10.75	\$20.03	\$0.00	\$77.63

**Effective Date - 08/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.71	\$10.75	\$20.16	\$0.00	\$57.62
2	60	\$32.05	\$10.75	\$20.16	\$0.00	\$62.96
3	70	\$37.39	\$10.75	\$20.16	\$0.00	\$68.30
4	80	\$42.73	\$10.75	\$20.16	\$0.00	\$73.64
5	90	\$48.07	\$10.75	\$20.16	\$0.00	\$78.98

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2017	\$38.60	\$7.70	\$14.95	\$0.00	\$61.25
	06/01/2018	\$39.55	\$7.70	\$14.95	\$0.00	\$62.20
	12/01/2018	\$40.50	\$7.70	\$14.95	\$0.00	\$63.15
	06/01/2019	\$41.50	\$7.70	\$14.95	\$0.00	\$64.15
	12/01/2019	\$42.50	\$7.70	\$14.95	\$0.00	\$65.15
	06/01/2020	\$43.49	\$7.70	\$14.95	\$0.00	\$66.14
	12/01/2020	\$44.47	\$7.70	\$14.95	\$0.00	\$67.12
	06/01/2021	\$45.49	\$7.70	\$14.95	\$0.00	\$68.14
	12/01/2021	\$46.50	\$7.70	\$14.95	\$0.00	\$69.15

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2017	\$37.45	\$7.70	\$14.95	\$0.00	\$60.10
	06/01/2018	\$38.40	\$7.70	\$14.95	\$0.00	\$61.05
	12/01/2018	\$39.35	\$7.70	\$14.95	\$0.00	\$62.00
	06/01/2019	\$40.35	\$7.70	\$14.95	\$0.00	\$63.00
	12/01/2019	\$41.35	\$7.70	\$14.95	\$0.00	\$64.00
	06/01/2020	\$42.34	\$7.70	\$14.95	\$0.00	\$64.99
	12/01/2020	\$43.32	\$7.70	\$14.95	\$0.00	\$65.97
	06/01/2021	\$44.34	\$7.70	\$14.95	\$0.00	\$66.99
	12/01/2021	\$45.35	\$7.70	\$14.95	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2017	\$37.45	\$7.70	\$14.95	\$0.00	\$60.10
	06/01/2018	\$38.40	\$7.70	\$14.95	\$0.00	\$61.05
	12/01/2018	\$39.35	\$7.70	\$14.95	\$0.00	\$62.00
	06/01/2019	\$40.35	\$7.70	\$14.95	\$0.00	\$63.00
	12/01/2019	\$41.35	\$7.70	\$14.95	\$0.00	\$64.00
	06/01/2020	\$42.34	\$7.70	\$14.95	\$0.00	\$64.99
	12/01/2020	\$43.32	\$7.70	\$14.95	\$0.00	\$65.97
	06/01/2021	\$44.34	\$7.70	\$14.95	\$0.00	\$66.99
	12/01/2021	\$45.35	\$7.70	\$14.95	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	03/01/2018	\$40.28	\$9.90	\$17.50	\$0.00	\$67.68
	09/01/2018	\$41.32	\$9.90	\$17.50	\$0.00	\$68.72
	03/01/2019	\$42.35	\$9.90	\$17.50	\$0.00	\$69.75

**Classification**

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

**Apprentice - CARPENTER - Zone 2 Eastern MA**

**Effective Date - 03/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.14	\$9.90	\$1.73	\$0.00	\$31.77
2	60	\$24.17	\$9.90	\$1.73	\$0.00	\$35.80
3	70	\$28.20	\$9.90	\$12.31	\$0.00	\$50.41
4	75	\$30.21	\$9.90	\$12.31	\$0.00	\$52.42
5	80	\$32.22	\$9.90	\$14.04	\$0.00	\$56.16
6	80	\$32.22	\$9.90	\$14.04	\$0.00	\$56.16
7	90	\$36.25	\$9.90	\$15.77	\$0.00	\$61.92
8	90	\$36.25	\$9.90	\$15.77	\$0.00	\$61.92

**Effective Date - 09/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.66	\$9.90	\$1.73	\$0.00	\$32.29
2	60	\$24.79	\$9.90	\$1.73	\$0.00	\$36.42
3	70	\$28.92	\$9.90	\$12.31	\$0.00	\$51.13
4	75	\$30.99	\$9.90	\$12.31	\$0.00	\$53.20
5	80	\$33.06	\$9.90	\$14.04	\$0.00	\$57.00
6	80	\$33.06	\$9.90	\$14.04	\$0.00	\$57.00
7	90	\$37.19	\$9.90	\$15.77	\$0.00	\$62.86
8	90	\$37.19	\$9.90	\$15.77	\$0.00	\$62.86

**Notes:**

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80  
 Step 1&2 \$29.76/ 3&4 \$35.45/ 5&6 \$52.14/ 7&8 \$57.89

**Apprentice to Journeyworker Ratio:1:5**

CARPENTER WOOD FRAME	10/01/2017	\$26.25	\$7.07	\$7.86	\$0.00	\$41.18
CARPENTERS -ZONE 2 (Wood Frame)	04/01/2018	\$26.67	\$7.07	\$7.86	\$0.00	\$41.60
	10/01/2018	\$27.09	\$7.07	\$7.86	\$0.00	\$42.02
	04/01/2019	\$27.52	\$7.07	\$7.86	\$0.00	\$42.45
	10/01/2019	\$27.95	\$7.07	\$7.86	\$0.00	\$42.88

As of 9/1/09 Carpentry work on wood-frame WEATHERIZATION projects shall be paid the WOOD FRAME CARPENTER rate.

**Classification**

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

**Apprentice - CARPENTER (Wood Frame) - Zone 2**

**Effective Date - 10/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$15.75	\$7.07	\$0.00	\$0.00	\$22.82
2	60	\$15.75	\$7.07	\$0.00	\$0.00	\$22.82
3	65	\$17.06	\$7.07	\$7.86	\$0.00	\$31.99
4	70	\$18.38	\$7.07	\$7.86	\$0.00	\$33.31
5	75	\$19.69	\$7.07	\$7.86	\$0.00	\$34.62
6	80	\$21.00	\$7.07	\$7.86	\$0.00	\$35.93
7	85	\$22.31	\$7.07	\$7.86	\$0.00	\$37.24
8	90	\$23.63	\$7.07	\$7.86	\$0.00	\$38.56

**Effective Date - 04/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$16.00	\$7.07	\$0.00	\$0.00	\$23.07
2	60	\$16.00	\$7.07	\$0.00	\$0.00	\$23.07
3	65	\$17.34	\$7.07	\$7.86	\$0.00	\$32.27
4	70	\$18.67	\$7.07	\$7.86	\$0.00	\$33.60
5	75	\$20.00	\$7.07	\$7.86	\$0.00	\$34.93
6	80	\$21.34	\$7.07	\$7.86	\$0.00	\$36.27
7	85	\$22.67	\$7.07	\$7.86	\$0.00	\$37.60
8	90	\$24.00	\$7.07	\$7.86	\$0.00	\$38.93

**Notes:**

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80  
 Step 1&2 \$18.88/ 3&4 \$26.26/ 5&6 \$33.31/ 7&8 \$35.93

**Apprentice to Journeyworker Ratio:1:5**

CARPENTER WOOD FRAME (All Other Work) CARPENTERS -ZONE 2 (Wood Frame)	06/01/2016	\$25.32	\$9.80	\$16.82	\$0.00	\$51.94
CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 (BOSTON)	01/01/2018	\$46.02	\$12.35	\$22.41	\$0.30	\$81.08
	07/01/2018	\$47.41	\$12.35	\$22.41	\$0.30	\$82.47
	01/01/2019	\$48.15	\$12.35	\$22.41	\$0.30	\$83.21
	07/01/2019	\$49.54	\$12.35	\$22.41	\$0.30	\$84.60
	01/01/2020	\$50.29	\$12.35	\$22.41	\$0.30	\$85.35

**Classification**

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

**Apprentice - CEMENT MASONRY/PLASTERING - Eastern Mass (Boston)**

**Effective Date - 01/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.01	\$12.35	\$15.41	\$0.00	\$50.77
2	60	\$27.61	\$12.35	\$17.41	\$0.30	\$57.67
3	65	\$29.91	\$12.35	\$18.41	\$0.30	\$60.97
4	70	\$32.21	\$12.35	\$19.41	\$0.30	\$64.27
5	75	\$34.52	\$12.35	\$20.41	\$0.30	\$67.58
6	80	\$36.82	\$12.35	\$21.41	\$0.30	\$70.88
7	90	\$41.42	\$12.35	\$22.41	\$0.30	\$76.48

**Effective Date - 07/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.71	\$12.35	\$15.41	\$0.00	\$51.47
2	60	\$28.45	\$12.35	\$17.41	\$0.30	\$58.51
3	65	\$30.82	\$12.35	\$18.41	\$0.30	\$61.88
4	70	\$33.19	\$12.35	\$19.41	\$0.30	\$65.25
5	75	\$35.56	\$12.35	\$20.41	\$0.30	\$68.62
6	80	\$37.93	\$12.35	\$21.41	\$0.30	\$71.99
7	90	\$42.67	\$12.35	\$22.41	\$0.30	\$77.73

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

**Apprentice to Journeyworker Ratio:1:3**

CHAIN SAW OPERATOR LABORERS - ZONE 1	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10

For apprentice rates see "Apprentice- LABORER"

CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES OPERATING ENGINEERS LOCAL 4	12/01/2017	\$47.63	\$10.50	\$15.50	\$0.00	\$73.63
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 4	12/01/2017	\$31.80	\$10.50	\$15.50	\$0.00	\$57.80
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE) PAINTERS LOCAL 35 - ZONE 2	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36
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**Classification**

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

**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.71	\$7.85	\$0.00	\$0.00	\$33.56
2	55	\$28.28	\$7.85	\$3.66	\$0.00	\$39.79
3	60	\$30.85	\$7.85	\$3.99	\$0.00	\$42.69
4	65	\$33.42	\$7.85	\$4.32	\$0.00	\$45.59
5	70	\$35.99	\$7.85	\$14.11	\$0.00	\$57.95
6	75	\$38.56	\$7.85	\$14.44	\$0.00	\$60.85
7	80	\$41.13	\$7.85	\$14.77	\$0.00	\$63.75
8	90	\$46.27	\$7.85	\$15.44	\$0.00	\$69.56

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

DEMO: ADZEMAN LABORERS - ZONE 1	12/01/2017	\$37.65	\$7.70	\$14.75	\$0.00	\$60.10
	06/01/2018	\$38.60	\$7.70	\$14.75	\$0.00	\$61.05
	12/01/2018	\$39.55	\$7.70	\$14.75	\$0.00	\$62.00
	06/01/2019	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	12/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 1	12/01/2017	\$38.65	\$7.70	\$14.75	\$0.00	\$61.10
	06/01/2018	\$39.60	\$7.70	\$14.75	\$0.00	\$62.05
	12/01/2018	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	06/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
	12/01/2019	\$42.55	\$7.70	\$14.75	\$0.00	\$65.00

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS LABORERS - ZONE 1	12/01/2017	\$38.40	\$7.70	\$14.75	\$0.00	\$60.85
	06/01/2018	\$39.35	\$7.70	\$14.75	\$0.00	\$61.80
	12/01/2018	\$40.30	\$7.70	\$14.75	\$0.00	\$62.75
	06/01/2019	\$41.30	\$7.70	\$14.75	\$0.00	\$63.75
	12/01/2019	\$42.30	\$7.70	\$14.75	\$0.00	\$64.75

For apprentice rates see "Apprentice- LABORER"

DEMO: CONCRETE CUTTER/SAWYER LABORERS - ZONE 1	12/01/2017	\$38.65	\$7.70	\$14.75	\$0.00	\$61.10
	06/01/2018	\$39.60	\$7.70	\$14.75	\$0.00	\$62.05
	12/01/2018	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	06/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
	12/01/2019	\$42.55	\$7.70	\$14.75	\$0.00	\$65.00

For apprentice rates see "Apprentice- LABORER"

DEMO: JACKHAMMER OPERATOR LABORERS - ZONE 1	12/01/2017	\$38.40	\$7.70	\$14.75	\$0.00	\$60.85
	06/01/2018	\$39.35	\$7.70	\$14.75	\$0.00	\$61.80
	12/01/2018	\$40.30	\$7.70	\$14.75	\$0.00	\$62.75
	06/01/2019	\$41.30	\$7.70	\$14.75	\$0.00	\$63.75
	12/01/2019	\$42.30	\$7.70	\$14.75	\$0.00	\$64.75



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.65	\$7.70	\$14.75	\$0.00	\$60.10
	06/01/2018	\$38.60	\$7.70	\$14.75	\$0.00	\$61.05
	12/01/2018	\$39.55	\$7.70	\$14.75	\$0.00	\$62.00
	06/01/2019	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	12/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2017	\$61.98	\$9.90	\$21.15	\$0.00	\$93.03
	08/01/2018	\$65.20	\$9.90	\$21.15	\$0.00	\$96.25
	08/01/2019	\$68.52	\$9.90	\$21.15	\$0.00	\$99.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2017	\$44.27	\$9.90	\$21.15	\$0.00	\$75.32
	08/01/2018	\$46.57	\$9.90	\$21.15	\$0.00	\$77.62
	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2017	\$66.41	\$9.90	\$21.15	\$0.00	\$97.46
	08/01/2018	\$69.86	\$9.90	\$21.15	\$0.00	\$100.91
	08/01/2019	\$73.41	\$9.90	\$21.15	\$0.00	\$104.46
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2017	\$92.97	\$9.90	\$21.15	\$0.00	\$124.02
	08/01/2018	\$97.80	\$9.90	\$21.15	\$0.00	\$128.85
	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) <i>ELECTRICIANS LOCAL 103</i>	03/01/2018	\$50.15	\$13.00	\$17.85	\$0.00	\$81.00
	09/01/2018	\$51.34	\$13.00	\$17.89	\$0.00	\$82.23
	03/01/2019	\$52.53	\$13.00	\$17.93	\$0.00	\$83.46
For apprentice rates see "Apprentice- ELECTRICIAN"						
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2018	\$50.15	\$13.00	\$17.85	\$0.00	\$81.00
	09/01/2018	\$51.34	\$13.00	\$17.89	\$0.00	\$82.23
	03/01/2019	\$52.53	\$13.00	\$17.93	\$0.00	\$83.46

**Classification**

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

**Apprentice - ELECTRICIAN - Local 103**

**Effective Date - 03/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$20.06	\$13.00	\$0.60	\$0.00	\$33.66
2	40	\$20.06	\$13.00	\$0.60	\$0.00	\$33.66
3	45	\$22.57	\$13.00	\$13.61	\$0.00	\$49.18
4	45	\$22.57	\$13.00	\$13.61	\$0.00	\$49.18
5	50	\$25.08	\$13.00	\$13.99	\$0.00	\$52.07
6	55	\$27.58	\$13.00	\$14.38	\$0.00	\$54.96
7	60	\$30.09	\$13.00	\$14.76	\$0.00	\$57.85
8	65	\$32.60	\$13.00	\$15.15	\$0.00	\$60.75
9	70	\$35.11	\$13.00	\$15.53	\$0.00	\$63.64
10	75	\$37.61	\$13.00	\$15.93	\$0.00	\$66.54

**Effective Date - 09/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$20.54	\$13.00	\$0.62	\$0.00	\$34.16
2	40	\$20.54	\$13.00	\$0.62	\$0.00	\$34.16
3	45	\$23.10	\$13.00	\$13.62	\$0.00	\$49.72
4	45	\$23.10	\$13.00	\$13.62	\$0.00	\$49.72
5	50	\$25.67	\$13.00	\$14.01	\$0.00	\$52.68
6	55	\$28.24	\$13.00	\$14.40	\$0.00	\$55.64
7	60	\$30.80	\$13.00	\$14.78	\$0.00	\$58.58
8	65	\$33.37	\$13.00	\$15.17	\$0.00	\$61.54
9	70	\$35.94	\$13.00	\$15.56	\$0.00	\$64.50
10	75	\$38.51	\$13.00	\$15.96	\$0.00	\$67.47

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

**Apprentice to Journeyworker Ratio:2:3\*\*\***

ELEVATOR CONSTRUCTOR ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2017	\$55.86	\$15.28	\$15.71	\$0.00	\$86.85
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**Apprentice - ELEVATOR CONSTRUCTOR - Local 4**

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.93	\$15.28	\$0.00	\$0.00	\$43.21
2	55	\$30.72	\$15.28	\$15.71	\$0.00	\$61.71
3	65	\$36.31	\$15.28	\$15.71	\$0.00	\$67.30
4	70	\$39.10	\$15.28	\$15.71	\$0.00	\$70.09
5	80	\$44.69	\$15.28	\$15.71	\$0.00	\$75.68

**Notes:**

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

**Apprentice to Journeyworker Ratio:1:1**

ELEVATOR CONSTRUCTOR HELPER <i>ELEVATOR CONSTRUCTORS LOCAL 4</i>	01/01/2017	\$39.10	\$15.28	\$15.71	\$0.00	\$70.09
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For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

FENCE & GUARD RAIL ERECTOR <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10

For apprentice rates see "Apprentice- LABORER"

FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2017	\$42.88	\$10.00	\$15.25	\$0.00	\$68.13
	05/01/2018	\$43.59	\$10.00	\$15.25	\$0.00	\$68.84

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2017	\$44.34	\$10.00	\$15.25	\$0.00	\$69.59
	05/01/2018	\$45.06	\$10.00	\$15.25	\$0.00	\$70.31

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2017	\$22.83	\$10.00	\$15.25	\$0.00	\$48.08
	05/01/2018	\$23.26	\$10.00	\$15.25	\$0.00	\$48.51

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 103</i>	03/01/2018	\$50.15	\$13.00	\$17.85	\$0.00	\$81.00
	09/01/2018	\$51.34	\$13.00	\$17.89	\$0.00	\$82.23
	03/01/2019	\$52.53	\$13.00	\$17.93	\$0.00	\$83.46

For apprentice rates see "Apprentice- ELECTRICIAN"

FIRE ALARM REPAIR / MAINTENANCE <i>LOCAL 103</i> / COMMISSIONING <i>ELECTRICIANS</i>	03/01/2018	\$37.61	\$13.00	\$15.93	\$0.00	\$66.54
	09/01/2018	\$38.51	\$13.00	\$15.96	\$0.00	\$67.47
	03/01/2019	\$39.40	\$13.00	\$15.98	\$0.00	\$68.38

For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"

FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$38.57	\$10.50	\$15.50	\$0.00	\$64.57
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FLAGGER & SIGNALER <i>LABORERS - ZONE 1</i>	12/01/2017	\$21.50	\$7.70	\$14.75	\$0.00	\$43.95
	06/01/2018	\$21.50	\$7.70	\$14.75	\$0.00	\$43.95
	12/01/2018	\$22.50	\$7.70	\$14.75	\$0.00	\$44.95
	06/01/2019	\$22.50	\$7.70	\$14.75	\$0.00	\$44.95
	12/01/2019	\$23.50	\$7.70	\$14.75	\$0.00	\$45.95
	06/01/2020	\$23.50	\$7.70	\$14.75	\$0.00	\$45.95
	12/01/2020	\$24.50	\$7.70	\$14.75	\$0.00	\$46.95
	06/01/2021	\$24.50	\$7.70	\$14.75	\$0.00	\$46.95
	12/01/2021	\$24.50	\$7.70	\$14.75	\$0.00	\$46.95

For apprentice rates see "Apprentice- LABORER"

FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>	03/01/2016	\$42.13	\$9.80	\$17.62	\$0.00	\$69.55
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**Apprentice - FLOORCOVERER - Local 2168 Zone 1**

**Effective Date - 03/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.07	\$9.80	\$1.79	\$0.00	\$32.66
2	55	\$23.17	\$9.80	\$1.79	\$0.00	\$34.76
3	60	\$25.28	\$9.80	\$12.25	\$0.00	\$47.33
4	65	\$27.38	\$9.80	\$12.25	\$0.00	\$49.43
5	70	\$29.49	\$9.80	\$14.04	\$0.00	\$53.33
6	75	\$31.60	\$9.80	\$14.04	\$0.00	\$55.44
7	80	\$33.70	\$9.80	\$15.83	\$0.00	\$59.33
8	85	\$35.81	\$9.80	\$15.83	\$0.00	\$61.44

**Notes:** Steps are 750 hrs.  
 % After 09/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)  
 Step 1&2 \$30.55/ 3&4 \$36.49/ 5&6 \$53.33/ 7&8 \$59.33

**Apprentice to Journeyworker Ratio:1:1**

FORK LIFT/CHERRY PICKER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GENERATOR/LIGHTING PLANT/HEATERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$31.80	\$10.50	\$15.50	\$0.00	\$57.80
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 35 (ZONE 2)</i>	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86
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**Classification**

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

**Apprentice - GLAZIER - Local 35 Zone 2**

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.46	\$7.85	\$0.00	\$0.00	\$28.31
2	55	\$22.50	\$7.85	\$3.66	\$0.00	\$34.01
3	60	\$24.55	\$7.85	\$3.99	\$0.00	\$36.39
4	65	\$26.59	\$7.85	\$4.32	\$0.00	\$38.76
5	70	\$28.64	\$7.85	\$14.11	\$0.00	\$50.60
6	75	\$30.68	\$7.85	\$14.44	\$0.00	\$52.97
7	80	\$32.73	\$7.85	\$14.77	\$0.00	\$55.35
8	90	\$36.82	\$7.85	\$15.44	\$0.00	\$60.11

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

HOISTING ENGINEER/CRANES/GRADALLS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
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**Apprentice - OPERATING ENGINEERS - Local 4**

**Effective Date - 12/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$25.65	\$10.50	\$0.00	\$0.00	\$36.15
2	60	\$27.98	\$10.50	\$15.50	\$0.00	\$53.98
3	65	\$30.31	\$10.50	\$15.50	\$0.00	\$56.31
4	70	\$32.64	\$10.50	\$15.50	\$0.00	\$58.64
5	75	\$34.97	\$10.50	\$15.50	\$0.00	\$60.97
6	80	\$37.30	\$10.50	\$15.50	\$0.00	\$63.30
7	85	\$39.64	\$10.50	\$15.50	\$0.00	\$65.64
8	90	\$41.97	\$10.50	\$15.50	\$0.00	\$67.97

**Notes:**

**Apprentice to Journeyworker Ratio:1:6**

HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2018	\$44.11	\$12.20	\$24.12	\$2.41	\$82.84
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For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 103</i>	03/01/2018	\$50.15	\$13.00	\$17.85	\$0.00	\$81.00
	09/01/2018	\$51.34	\$13.00	\$17.89	\$0.00	\$82.23
	03/01/2019	\$52.53	\$13.00	\$17.93	\$0.00	\$83.46

For apprentice rates see "Apprentice- ELECTRICIAN"

HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2018	\$44.11	\$12.20	\$24.12	\$2.41	\$82.84
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For apprentice rates see "Apprentice- SHEET METAL WORKER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC (TESTING AND BALANCING -WATER) <i>PIPEFITTERS LOCAL 537</i>	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PIPEFITTERS LOCAL 537</i>	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 1</i>	12/01/2017	\$38.25	\$7.70	\$14.75	\$0.00	\$60.70
	06/01/2018	\$39.20	\$7.70	\$14.75	\$0.00	\$61.65
	12/01/2018	\$40.15	\$7.70	\$14.75	\$0.00	\$62.60
	06/01/2019	\$41.15	\$7.70	\$14.75	\$0.00	\$63.60
	12/01/2019	\$42.15	\$7.70	\$14.75	\$0.00	\$64.60
	06/01/2020	\$43.14	\$7.70	\$14.75	\$0.00	\$65.59
	12/01/2020	\$44.12	\$7.70	\$14.75	\$0.00	\$66.57
	06/01/2021	\$45.14	\$7.70	\$14.75	\$0.00	\$67.59
	12/01/2021	\$46.15	\$7.70	\$14.75	\$0.00	\$68.60
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i>	09/01/2017	\$47.09	\$11.75	\$14.20	\$0.00	\$73.04
	09/01/2018	\$49.34	\$11.75	\$14.20	\$0.00	\$75.29
	09/01/2019	\$51.84	\$11.75	\$14.20	\$0.00	\$77.79

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

**Effective Date - 09/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.55	\$11.75	\$10.45	\$0.00	\$45.75
2	60	\$28.25	\$11.75	\$11.20	\$0.00	\$51.20
3	70	\$32.96	\$11.75	\$11.95	\$0.00	\$56.66
4	80	\$37.67	\$11.75	\$12.70	\$0.00	\$62.12

**Effective Date - 09/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.67	\$11.75	\$10.45	\$0.00	\$46.87
2	60	\$29.60	\$11.75	\$11.20	\$0.00	\$52.55
3	70	\$34.54	\$11.75	\$11.95	\$0.00	\$58.24
4	80	\$39.47	\$11.75	\$12.70	\$0.00	\$63.92

**Notes:**

Steps are 1 year

**Apprentice to Journeyworker Ratio:1:4**

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (BOSTON AREA)</i>	03/16/2017	\$44.65	\$7.80	\$20.85	\$0.00	\$73.30
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**Classification**

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

**Apprentice - IRONWORKER - Local 7 Boston**

**Effective Date - 03/16/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$26.79	\$7.80	\$20.85	\$0.00	\$55.44
2	70	\$31.26	\$7.80	\$20.85	\$0.00	\$59.91
3	75	\$33.49	\$7.80	\$20.85	\$0.00	\$62.14
4	80	\$35.72	\$7.80	\$20.85	\$0.00	\$64.37
5	85	\$37.95	\$7.80	\$20.85	\$0.00	\$66.60
6	90	\$40.19	\$7.80	\$20.85	\$0.00	\$68.84

**Notes:**

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

**Apprentice to Journeyworker Ratio:\*\***

JACKHAMMER & PAVING BREAKER OPERATOR LABORERS - ZONE 1	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10

For apprentice rates see "Apprentice- LABORER"

LABORER LABORERS - ZONE 1	12/01/2017	\$37.50	\$7.70	\$14.75	\$0.00	\$59.95
	06/01/2018	\$38.45	\$7.70	\$14.75	\$0.00	\$60.90
	12/01/2018	\$39.40	\$7.70	\$14.75	\$0.00	\$61.85
	06/01/2019	\$40.40	\$7.70	\$14.75	\$0.00	\$62.85
	12/01/2019	\$41.40	\$7.70	\$14.75	\$0.00	\$63.85
	06/01/2020	\$42.39	\$7.70	\$14.75	\$0.00	\$64.84
	12/01/2020	\$43.37	\$7.70	\$14.75	\$0.00	\$65.82
	06/01/2021	\$44.39	\$7.70	\$14.75	\$0.00	\$66.84
	12/01/2021	\$45.40	\$7.70	\$14.75	\$0.00	\$67.85

**Classification**

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

**Apprentice - LABORER - Zone 1**

**Effective Date - 12/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$22.50	\$7.70	\$14.75	\$0.00	\$44.95
2	70	\$26.25	\$7.70	\$14.75	\$0.00	\$48.70
3	80	\$30.00	\$7.70	\$14.75	\$0.00	\$52.45
4	90	\$33.75	\$7.70	\$14.75	\$0.00	\$56.20

**Effective Date - 06/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$23.07	\$7.70	\$14.75	\$0.00	\$45.52
2	70	\$26.92	\$7.70	\$14.75	\$0.00	\$49.37
3	80	\$30.76	\$7.70	\$14.75	\$0.00	\$53.21
4	90	\$34.61	\$7.70	\$14.75	\$0.00	\$57.06

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

LABORER: CARPENTER TENDER LABORERS - ZONE 1	12/01/2017	\$37.50	\$7.70	\$14.75	\$0.00	\$59.95
	06/01/2018	\$38.45	\$7.70	\$14.75	\$0.00	\$60.90
	12/01/2018	\$39.40	\$7.70	\$14.75	\$0.00	\$61.85
	06/01/2019	\$40.40	\$7.70	\$14.75	\$0.00	\$62.85
	12/01/2019	\$41.40	\$7.70	\$14.75	\$0.00	\$63.85
	06/01/2020	\$42.39	\$7.70	\$14.75	\$0.00	\$64.84
	12/01/2020	\$43.37	\$7.70	\$14.75	\$0.00	\$65.82
	06/01/2021	\$44.39	\$7.70	\$14.75	\$0.00	\$66.84
	12/01/2021	\$45.40	\$7.70	\$14.75	\$0.00	\$67.85

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER LABORERS - ZONE 1	12/01/2017	\$37.50	\$7.70	\$14.75	\$0.00	\$59.95
	06/01/2018	\$38.45	\$7.70	\$14.75	\$0.00	\$60.90
	12/01/2018	\$39.40	\$7.70	\$14.75	\$0.00	\$61.85
	06/01/2019	\$40.40	\$7.70	\$14.75	\$0.00	\$62.85
	12/01/2019	\$41.40	\$7.70	\$14.75	\$0.00	\$63.85
	06/01/2020	\$42.39	\$7.70	\$14.75	\$0.00	\$64.84
	12/01/2020	\$43.37	\$7.70	\$14.75	\$0.00	\$65.82
	06/01/2021	\$44.39	\$7.70	\$14.75	\$0.00	\$66.84
	12/01/2021	\$45.40	\$7.70	\$14.75	\$0.00	\$67.85

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER LABORERS - ZONE 1	12/01/2017	\$37.65	\$7.70	\$14.75	\$0.00	\$60.10
	06/01/2018	\$38.60	\$7.70	\$14.75	\$0.00	\$61.05
	12/01/2018	\$39.55	\$7.70	\$14.75	\$0.00	\$62.00
	06/01/2019	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	12/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00

For apprentice rates see "Apprentice- LABORER"



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MASON TENDER <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.50	\$7.70	\$14.75	\$0.00	\$59.95
	06/01/2018	\$38.45	\$7.70	\$14.75	\$0.00	\$60.90
	12/01/2018	\$39.40	\$7.70	\$14.75	\$0.00	\$61.85
	06/01/2019	\$40.40	\$7.70	\$14.75	\$0.00	\$62.85
	12/01/2019	\$41.40	\$7.70	\$14.75	\$0.00	\$63.85
	06/01/2020	\$42.39	\$7.70	\$14.75	\$0.00	\$64.84
	12/01/2020	\$43.37	\$7.70	\$14.75	\$0.00	\$65.82
	06/01/2021	\$44.39	\$7.70	\$14.75	\$0.00	\$66.84
	12/01/2021	\$45.40	\$7.70	\$14.75	\$0.00	\$67.85
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.50	\$7.70	\$14.75	\$0.00	\$59.95
	06/01/2018	\$38.45	\$7.70	\$14.75	\$0.00	\$60.90
	12/01/2018	\$39.40	\$7.70	\$14.75	\$0.00	\$61.85
	06/01/2019	\$40.40	\$7.70	\$14.75	\$0.00	\$62.85
	12/01/2019	\$41.40	\$7.70	\$14.75	\$0.00	\$63.85
	06/01/2020	\$42.39	\$7.70	\$14.75	\$0.00	\$64.84
	12/01/2020	\$43.37	\$7.70	\$14.75	\$0.00	\$65.82
	06/01/2021	\$44.39	\$7.70	\$14.75	\$0.00	\$66.84
	12/01/2021	\$45.40	\$7.70	\$14.75	\$0.00	\$67.85
This classification applies to all tree work associated with the removal of standing trees, and trimming and removal of branches and limbs when the work is not done for a utility company for the purpose of operation, maintenance or repair of utility company equipment. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	02/01/2018	\$39.82	\$10.75	\$18.34	\$0.00	\$68.91
	08/01/2018	\$40.90	\$10.75	\$18.47	\$0.00	\$70.12
	02/01/2019	\$41.41	\$10.75	\$18.47	\$0.00	\$70.63
	08/01/2019	\$42.49	\$10.75	\$18.61	\$0.00	\$71.85
	02/01/2020	\$43.00	\$10.75	\$18.61	\$0.00	\$72.36
	08/01/2020	\$44.08	\$10.75	\$18.76	\$0.00	\$73.59
	02/01/2021	\$44.59	\$10.75	\$18.76	\$0.00	\$74.10
	08/01/2021	\$45.71	\$10.75	\$18.92	\$0.00	\$75.38
	02/01/2022	\$46.18	\$10.75	\$18.92	\$0.00	\$75.85

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

**Effective Date - 02/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.91	\$10.75	\$18.34	\$0.00	\$49.00
2	60	\$23.89	\$10.75	\$18.34	\$0.00	\$52.98
3	70	\$27.87	\$10.75	\$18.34	\$0.00	\$56.96
4	80	\$31.86	\$10.75	\$18.34	\$0.00	\$60.95
5	90	\$35.84	\$10.75	\$18.34	\$0.00	\$64.93

**Effective Date - 08/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.45	\$10.75	\$18.47	\$0.00	\$49.67
2	60	\$24.54	\$10.75	\$18.47	\$0.00	\$53.76
3	70	\$28.63	\$10.75	\$18.47	\$0.00	\$57.85
4	80	\$32.72	\$10.75	\$18.47	\$0.00	\$61.94
5	90	\$36.81	\$10.75	\$18.47	\$0.00	\$66.03

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

MARBLE MASONS, TILELAYERS & TERRAZZO MECH <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	02/01/2018	\$52.10	\$10.75	\$20.03	\$0.00	\$82.88
	08/01/2018	\$53.45	\$10.75	\$20.16	\$0.00	\$84.36
	02/01/2019	\$54.07	\$10.75	\$20.16	\$0.00	\$84.98
	08/01/2019	\$55.42	\$10.75	\$20.30	\$0.00	\$86.47
	02/01/2020	\$56.05	\$10.75	\$20.30	\$0.00	\$87.10
	08/01/2020	\$57.40	\$10.75	\$20.45	\$0.00	\$88.60
	02/01/2021	\$58.04	\$10.75	\$20.45	\$0.00	\$89.24
	08/01/2021	\$59.44	\$10.75	\$20.61	\$0.00	\$90.80
	02/01/2022	\$60.01	\$10.75	\$20.61	\$0.00	\$91.37

**Classification**

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

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

**Effective Date - 02/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.05	\$10.75	\$20.03	\$0.00	\$56.83
2	60	\$31.26	\$10.75	\$20.03	\$0.00	\$62.04
3	70	\$36.47	\$10.75	\$20.03	\$0.00	\$67.25
4	80	\$41.68	\$10.75	\$20.03	\$0.00	\$72.46
5	90	\$46.89	\$10.75	\$20.03	\$0.00	\$77.67

**Effective Date - 08/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.73	\$10.75	\$20.16	\$0.00	\$57.64
2	60	\$32.07	\$10.75	\$20.16	\$0.00	\$62.98
3	70	\$37.42	\$10.75	\$20.16	\$0.00	\$68.33
4	80	\$42.76	\$10.75	\$20.16	\$0.00	\$73.67
5	90	\$48.11	\$10.75	\$20.16	\$0.00	\$79.02

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 1) <i>MILLWRIGHTS LOCAL 1121 - Zone 1</i>	10/01/2017	\$39.52	\$9.90	\$18.50	\$0.00	\$67.92
	04/01/2018	\$40.42	\$9.90	\$18.50	\$0.00	\$68.82
	10/01/2018	\$41.32	\$9.90	\$18.50	\$0.00	\$69.72
	04/01/2019	\$42.22	\$9.90	\$18.50	\$0.00	\$70.62

**Classification**

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

**Apprentice - MILLWRIGHT - Local 1121 Zone 1**

**Effective Date - 10/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$21.74	\$9.90	\$5.31	\$0.00	\$36.95
2	65	\$25.69	\$9.90	\$15.13	\$0.00	\$50.72
3	75	\$29.64	\$9.90	\$16.10	\$0.00	\$55.64
4	85	\$33.59	\$9.90	\$17.06	\$0.00	\$60.55

**Effective Date - 04/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$22.23	\$9.90	\$5.31	\$0.00	\$37.44
2	65	\$26.27	\$9.90	\$15.13	\$0.00	\$51.30
3	75	\$30.32	\$9.90	\$16.10	\$0.00	\$56.32
4	85	\$34.36	\$9.90	\$17.06	\$0.00	\$61.32

**Notes:**

Steps are 2,000 hours

**Apprentice to Journeyworker Ratio:1:5**

MORTAR MIXER LABORERS - ZONE 1	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10

For apprentice rates see "Apprentice- LABORER"

OILER (OTHER THAN TRUCK CRANES,GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2017	\$23.24	\$10.50	\$15.50	\$0.00	\$49.24
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2017	\$27.40	\$10.50	\$15.50	\$0.00	\$53.40
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OTHER POWER DRIVEN EQUIPMENT - CLASS II OPERATING ENGINEERS LOCAL 4	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 - ZONE 2	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36
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**Classification**

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

**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.71	\$7.85	\$0.00	\$0.00	\$33.56
2	55	\$28.28	\$7.85	\$3.66	\$0.00	\$39.79
3	60	\$30.85	\$7.85	\$3.99	\$0.00	\$42.69
4	65	\$33.42	\$7.85	\$4.32	\$0.00	\$45.59
5	70	\$35.99	\$7.85	\$14.11	\$0.00	\$57.95
6	75	\$38.56	\$7.85	\$14.44	\$0.00	\$60.85
7	80	\$41.13	\$7.85	\$14.77	\$0.00	\$63.75
8	90	\$46.27	\$7.85	\$15.44	\$0.00	\$69.56

**Notes:**  
Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

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PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2017	\$42.31	\$7.85	\$16.10	\$0.00	\$66.26
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\* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2

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

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.16	\$7.85	\$0.00	\$0.00	\$29.01
2	55	\$23.27	\$7.85	\$3.66	\$0.00	\$34.78
3	60	\$25.39	\$7.85	\$3.99	\$0.00	\$37.23
4	65	\$27.50	\$7.85	\$4.32	\$0.00	\$39.67
5	70	\$29.62	\$7.85	\$14.11	\$0.00	\$51.58
6	75	\$31.73	\$7.85	\$14.44	\$0.00	\$54.02
7	80	\$33.85	\$7.85	\$14.77	\$0.00	\$56.47
8	90	\$38.08	\$7.85	\$15.44	\$0.00	\$61.37

**Notes:**  
Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

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PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35 - ZONE 2	01/01/2017	\$40.37	\$7.85	\$16.10	\$0.00	\$64.32
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**Classification**

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

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

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.19	\$7.85	\$0.00	\$0.00	\$28.04
2	55	\$22.20	\$7.85	\$3.66	\$0.00	\$33.71
3	60	\$24.22	\$7.85	\$3.99	\$0.00	\$36.06
4	65	\$26.24	\$7.85	\$4.32	\$0.00	\$38.41
5	70	\$28.26	\$7.85	\$14.11	\$0.00	\$50.22
6	75	\$30.28	\$7.85	\$14.44	\$0.00	\$52.57
7	80	\$32.30	\$7.85	\$14.77	\$0.00	\$54.92
8	90	\$36.33	\$7.85	\$15.44	\$0.00	\$59.62

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (TRAFFIC MARKINGS)	12/01/2017	\$37.50	\$7.70	\$14.75	\$0.00	\$59.95
LABORERS - ZONE 1	06/01/2018	\$38.45	\$7.70	\$14.75	\$0.00	\$60.90
	12/01/2018	\$39.40	\$7.70	\$14.75	\$0.00	\$61.85
	06/01/2019	\$40.40	\$7.70	\$14.75	\$0.00	\$62.85
	12/01/2019	\$41.40	\$7.70	\$14.75	\$0.00	\$63.85
	06/01/2020	\$42.39	\$7.70	\$14.75	\$0.00	\$64.84
	12/01/2020	\$43.37	\$7.70	\$14.75	\$0.00	\$65.82
	06/01/2021	\$44.39	\$7.70	\$14.75	\$0.00	\$66.84
	12/01/2021	\$45.40	\$7.70	\$14.75	\$0.00	\$67.85

For Apprentice rates see "Apprentice- LABORER"

PAINTER / TAPER (BRUSH, NEW) *	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86
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\* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2

**Classification**

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

**Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW**

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.46	\$7.85	\$0.00	\$0.00	\$28.31
2	55	\$22.50	\$7.85	\$3.66	\$0.00	\$34.01
3	60	\$24.55	\$7.85	\$3.99	\$0.00	\$36.39
4	65	\$26.59	\$7.85	\$4.32	\$0.00	\$38.76
5	70	\$28.64	\$7.85	\$14.11	\$0.00	\$50.60
6	75	\$30.68	\$7.85	\$14.44	\$0.00	\$52.97
7	80	\$32.73	\$7.85	\$14.77	\$0.00	\$55.35
8	90	\$36.82	\$7.85	\$15.44	\$0.00	\$60.11

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER / TAPER (BRUSH, REPAINT) PAINTERS LOCAL 35 - ZONE 2	01/01/2017	\$38.97	\$7.85	\$16.10	\$0.00	\$62.92
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**Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT**

**Effective Date - 01/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.49	\$7.85	\$0.00	\$0.00	\$27.34
2	55	\$21.43	\$7.85	\$3.66	\$0.00	\$32.94
3	60	\$23.38	\$7.85	\$3.99	\$0.00	\$35.22
4	65	\$25.33	\$7.85	\$4.32	\$0.00	\$37.50
5	70	\$27.28	\$7.85	\$14.11	\$0.00	\$49.24
6	75	\$29.23	\$7.85	\$14.44	\$0.00	\$51.52
7	80	\$31.18	\$7.85	\$14.77	\$0.00	\$53.80
8	90	\$35.07	\$7.85	\$15.44	\$0.00	\$58.36

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2016	\$33.08	\$10.91	\$10.89	\$0.00	\$54.88
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PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2017	\$44.27	\$9.90	\$21.15	\$0.00	\$75.32
	08/01/2018	\$46.57	\$9.90	\$21.15	\$0.00	\$77.62
	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99

For apprentice rates see "Apprentice- PILE DRIVER"

PILE DRIVER PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2017	\$44.27	\$9.90	\$21.15	\$0.00	\$75.32
	08/01/2018	\$46.57	\$9.90	\$21.15	\$0.00	\$77.62
	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99

**Classification**

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

**Apprentice - PILE DRIVER - Local 56 Zone 1**

**Effective Date - 08/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.14	\$9.90	\$21.15	\$0.00	\$53.19
2	60	\$26.56	\$9.90	\$21.15	\$0.00	\$57.61
3	70	\$30.99	\$9.90	\$21.15	\$0.00	\$62.04
4	75	\$33.20	\$9.90	\$21.15	\$0.00	\$64.25
5	80	\$35.42	\$9.90	\$21.15	\$0.00	\$66.47
6	80	\$35.42	\$9.90	\$21.15	\$0.00	\$66.47
7	90	\$39.84	\$9.90	\$21.15	\$0.00	\$70.89
8	90	\$39.84	\$9.90	\$21.15	\$0.00	\$70.89

**Effective Date - 08/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.29	\$9.90	\$21.15	\$0.00	\$54.34
2	60	\$27.94	\$9.90	\$21.15	\$0.00	\$58.99
3	70	\$32.60	\$9.90	\$21.15	\$0.00	\$63.65
4	75	\$34.93	\$9.90	\$21.15	\$0.00	\$65.98
5	80	\$37.26	\$9.90	\$21.15	\$0.00	\$68.31
6	80	\$37.26	\$9.90	\$21.15	\$0.00	\$68.31
7	90	\$41.91	\$9.90	\$21.15	\$0.00	\$72.96
8	90	\$41.91	\$9.90	\$21.15	\$0.00	\$72.96

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

PIPEFITTER & STEAMFITTER PIPEFITTERS LOCAL 537	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
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**Apprentice - PIPEFITTER - Local 537**

**Effective Date - 03/01/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$20.48	\$9.70	\$7.50	\$0.00	\$37.68
2	45	\$23.04	\$9.70	\$18.14	\$0.00	\$50.88
3	60	\$30.71	\$9.70	\$18.14	\$0.00	\$58.55
4	70	\$35.83	\$9.70	\$18.14	\$0.00	\$63.67
5	80	\$40.95	\$9.70	\$18.14	\$0.00	\$68.79

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

**Apprentice to Journeyworker Ratio:\*\***



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIPELAYER LABORERS - ZONE 1	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PLUMBERS & GASFITTERS PLUMBERS & GASFITTERS LOCAL 12	03/01/2018	\$54.69	\$11.57	\$15.76	\$0.00	\$82.02
	09/01/2018	\$56.19	\$11.57	\$15.76	\$0.00	\$83.52
	03/01/2019	\$57.69	\$11.57	\$15.76	\$0.00	\$85.02
	09/01/2019	\$59.19	\$11.57	\$15.76	\$0.00	\$86.52
	03/01/2020	\$60.69	\$11.57	\$15.76	\$0.00	\$88.02
	09/01/2020	\$62.19	\$11.57	\$15.76	\$0.00	\$89.52
	03/01/2021	\$63.69	\$11.57	\$15.76	\$0.00	\$91.02

**Apprentice - PLUMBER/GASFITTER - Local 12**

**Effective Date - 03/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.14	\$11.57	\$5.72	\$0.00	\$36.43
2	40	\$21.88	\$11.57	\$6.49	\$0.00	\$39.94
3	55	\$30.08	\$11.57	\$8.81	\$0.00	\$50.46
4	65	\$35.55	\$11.57	\$10.36	\$0.00	\$57.48
5	75	\$41.02	\$11.57	\$11.90	\$0.00	\$64.49

**Effective Date - 09/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.67	\$11.57	\$5.72	\$0.00	\$36.96
2	40	\$22.48	\$11.57	\$6.49	\$0.00	\$40.54
3	55	\$30.90	\$11.57	\$8.82	\$0.00	\$51.29
4	65	\$36.52	\$11.57	\$10.36	\$0.00	\$58.45
5	75	\$42.14	\$11.57	\$11.90	\$0.00	\$65.61

**Notes:**

\*\* 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr  
Step4 with lic\$61.00, Step5 with lic\$67.99

**Apprentice to Journeyworker Ratio:\*\***

PNEUMATIC CONTROLS (TEMP.) PIPEFITTERS LOCAL 537	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
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For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

<b>Classification</b>	<b>Effective Date</b>	<b>Base Wage</b>	<b>Health</b>	<b>Pension</b>	<b>Supplemental Unemployment</b>	<b>Total Rate</b>
PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER <i>LABORERS - ZONE 1</i>	12/01/2017	\$38.50	\$7.70	\$14.75	\$0.00	\$60.95
	06/01/2018	\$39.45	\$7.70	\$14.75	\$0.00	\$61.90
	12/01/2018	\$40.40	\$7.70	\$14.75	\$0.00	\$62.85
	06/01/2019	\$41.40	\$7.70	\$14.75	\$0.00	\$63.85
	12/01/2019	\$42.40	\$7.70	\$14.75	\$0.00	\$64.85
	06/01/2020	\$43.39	\$7.70	\$14.75	\$0.00	\$65.84
	12/01/2020	\$44.37	\$7.70	\$14.75	\$0.00	\$66.82
	06/01/2021	\$45.39	\$7.70	\$14.75	\$0.00	\$67.84
	12/01/2021	\$46.40	\$7.70	\$14.75	\$0.00	\$68.85
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$31.80	\$10.50	\$15.50	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY MIX CONCRETE DRIVERS after 4/30/10 (Drivers Hired After 4/30/2010) <i>TEAMSTERS LOCAL 25c</i>	07/01/2017	\$28.18	\$8.48	\$9.72	\$0.00	\$46.38
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 25c</i>	07/01/2017	\$29.48	\$8.48	\$9.72	\$0.00	\$47.68
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ROOFER (Inc.Roofing Waterproofing &Roofing Damproofg) ROOFERS LOCAL 33	02/01/2018	\$42.36	\$11.35	\$14.80	\$0.00	\$68.51
	08/01/2018	\$43.46	\$11.35	\$14.80	\$0.00	\$69.61
	02/01/2019	\$44.61	\$11.35	\$14.80	\$0.00	\$70.76

**Apprentice - ROOFER - Local 33**

**Effective Date - 02/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.18	\$11.35	\$3.44	\$0.00	\$35.97
2	60	\$25.42	\$11.35	\$14.80	\$0.00	\$51.57
3	65	\$27.53	\$11.35	\$14.80	\$0.00	\$53.68
4	75	\$31.77	\$11.35	\$14.80	\$0.00	\$57.92
5	85	\$36.01	\$11.35	\$14.80	\$0.00	\$62.16

**Effective Date - 08/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.73	\$11.35	\$3.44	\$0.00	\$36.52
2	60	\$26.08	\$11.35	\$14.80	\$0.00	\$52.23
3	65	\$28.25	\$11.35	\$14.80	\$0.00	\$54.40
4	75	\$32.60	\$11.35	\$14.80	\$0.00	\$58.75
5	85	\$36.94	\$11.35	\$14.80	\$0.00	\$63.09

**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 ROOFERS LOCAL 33	02/01/2018	\$42.61	\$11.35	\$14.80	\$0.00	\$68.76
	08/01/2018	\$43.71	\$11.35	\$14.80	\$0.00	\$69.86
	02/01/2019	\$44.86	\$11.35	\$14.80	\$0.00	\$71.01

For apprentice rates see "Apprentice- ROOFER"

SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 17 - A	02/01/2018	\$44.11	\$12.20	\$24.12	\$2.41	\$82.84
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**Classification**

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

**Apprentice - SHEET METAL WORKER - Local 17-A**

**Effective Date - 02/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.64	\$12.20	\$5.61	\$0.00	\$35.45
2	40	\$17.64	\$12.20	\$5.61	\$0.00	\$35.45
3	45	\$19.85	\$12.20	\$10.85	\$1.29	\$44.19
4	45	\$19.85	\$12.20	\$10.85	\$1.29	\$44.19
5	50	\$22.06	\$12.20	\$11.80	\$1.38	\$47.44
6	50	\$22.06	\$12.20	\$12.05	\$1.39	\$47.70
7	60	\$26.47	\$12.20	\$13.70	\$1.57	\$53.94
8	65	\$28.67	\$12.20	\$14.65	\$1.67	\$57.19
9	75	\$33.08	\$12.20	\$16.56	\$1.86	\$63.70
10	85	\$37.49	\$12.20	\$17.96	\$2.03	\$69.68

**Notes:**  
Steps are 6 mos.

**Apprentice to Journeyworker Ratio:1:4**

SIGN ERECTOR PAINTERS LOCAL 35 - ZONE 2	06/01/2013	\$25.81	\$7.07	\$7.05	\$0.00	\$39.93
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**Apprentice - SIGN ERECTOR - Local 35 Zone 2**

**Effective Date - 06/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.91	\$7.07	\$0.00	\$0.00	\$19.98
2	55	\$14.20	\$7.07	\$2.45	\$0.00	\$23.72
3	60	\$15.49	\$7.07	\$2.45	\$0.00	\$25.01
4	65	\$16.78	\$7.07	\$2.45	\$0.00	\$26.30
5	70	\$18.07	\$7.07	\$7.05	\$0.00	\$32.19
6	75	\$19.36	\$7.07	\$7.05	\$0.00	\$33.48
7	80	\$20.65	\$7.07	\$7.05	\$0.00	\$34.77
8	85	\$21.94	\$7.07	\$7.05	\$0.00	\$36.06
9	90	\$23.23	\$7.07	\$7.05	\$0.00	\$37.35

**Notes:**  
Steps are 4 mos.

**Apprentice to Journeyworker Ratio:1:1**

SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2016	\$33.54	\$10.91	\$10.89	\$0.00	\$55.34
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SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2016	\$33.83	\$10.91	\$10.89	\$0.00	\$55.63
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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>	03/01/2018	\$57.78	\$9.12	\$18.15	\$0.00	\$85.05
	10/01/2018	\$59.28	\$9.12	\$18.15	\$0.00	\$86.55
	01/01/2019	\$59.28	\$9.47	\$18.35	\$0.00	\$87.10
	03/01/2019	\$60.78	\$9.47	\$18.35	\$0.00	\$88.60
	10/01/2019	\$62.28	\$9.47	\$18.35	\$0.00	\$90.10
	03/01/2020	\$63.78	\$9.47	\$18.35	\$0.00	\$91.60
	10/01/2020	\$65.28	\$9.47	\$18.35	\$0.00	\$93.10
	03/01/2021	\$66.78	\$9.47	\$18.35	\$0.00	\$94.60

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

**Effective Date - 03/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$20.22	\$9.12	\$8.90	\$0.00	\$38.24
2	40	\$23.11	\$9.12	\$8.90	\$0.00	\$41.13
3	45	\$26.00	\$9.12	\$8.90	\$0.00	\$44.02
4	50	\$28.89	\$9.12	\$8.90	\$0.00	\$46.91
5	55	\$31.78	\$9.12	\$8.90	\$0.00	\$49.80
6	60	\$34.67	\$9.12	\$10.40	\$0.00	\$54.19
7	65	\$37.56	\$9.12	\$10.40	\$0.00	\$57.08
8	70	\$40.45	\$9.12	\$10.40	\$0.00	\$59.97
9	75	\$43.34	\$9.12	\$10.40	\$0.00	\$62.86
10	80	\$46.22	\$9.12	\$10.40	\$0.00	\$65.74

**Effective Date - 10/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$20.75	\$9.12	\$8.90	\$0.00	\$38.77
2	40	\$23.71	\$9.12	\$8.90	\$0.00	\$41.73
3	45	\$26.68	\$9.12	\$8.90	\$0.00	\$44.70
4	50	\$29.64	\$9.12	\$8.90	\$0.00	\$47.66
5	55	\$32.60	\$9.12	\$8.90	\$0.00	\$50.62
6	60	\$35.57	\$9.12	\$10.40	\$0.00	\$55.09
7	65	\$38.53	\$9.12	\$10.40	\$0.00	\$58.05
8	70	\$41.50	\$9.12	\$10.40	\$0.00	\$61.02
9	75	\$44.46	\$9.12	\$10.40	\$0.00	\$63.98
10	80	\$47.42	\$9.12	\$10.40	\$0.00	\$66.94

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

**Apprentice to Journeyworker Ratio:1:3**

STEAM BOILER OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2018	\$37.61	\$13.00	\$15.93	\$0.00	\$66.54
	09/01/2018	\$38.51	\$13.00	\$15.96	\$0.00	\$67.47
	03/01/2019	\$39.40	\$13.00	\$15.98	\$0.00	\$68.38

**Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103**

**Effective Date - 03/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$15.04	\$13.00	\$0.45	\$0.00	\$28.49
2	40	\$15.04	\$13.00	\$0.45	\$0.00	\$28.49
3	45	\$16.92	\$13.00	\$12.74	\$0.00	\$42.66
4	45	\$16.92	\$13.00	\$12.74	\$0.00	\$42.66
5	50	\$18.81	\$13.00	\$13.03	\$0.00	\$44.84
6	55	\$20.69	\$13.00	\$13.32	\$0.00	\$47.01
7	60	\$22.57	\$13.00	\$13.61	\$0.00	\$49.18
8	65	\$24.45	\$13.00	\$13.90	\$0.00	\$51.35
9	70	\$26.33	\$13.00	\$14.19	\$0.00	\$53.52
10	75	\$28.21	\$13.00	\$14.48	\$0.00	\$55.69

**Effective Date - 09/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$15.40	\$13.00	\$0.46	\$0.00	\$28.86
2	40	\$15.40	\$13.00	\$0.46	\$0.00	\$28.86
3	45	\$17.33	\$13.00	\$12.75	\$0.00	\$43.08
4	45	\$17.33	\$13.00	\$12.75	\$0.00	\$43.08
5	50	\$19.26	\$13.00	\$13.05	\$0.00	\$45.31
6	55	\$21.18	\$13.00	\$13.34	\$0.00	\$47.52
7	60	\$23.11	\$13.00	\$13.62	\$0.00	\$49.73
8	65	\$25.03	\$13.00	\$13.92	\$0.00	\$51.95
9	70	\$26.96	\$13.00	\$14.21	\$0.00	\$54.17
10	75	\$28.88	\$13.00	\$14.50	\$0.00	\$56.38

**Notes:**

**Apprentice to Journeyworker Ratio:1:1**

TERRAZZO FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	02/01/2018	\$51.00	\$10.75	\$20.03	\$0.00	\$81.78
	08/01/2018	\$52.35	\$10.75	\$20.16	\$0.00	\$83.26
	02/01/2019	\$52.99	\$10.75	\$20.16	\$0.00	\$83.90
	08/01/2019	\$54.34	\$10.75	\$20.30	\$0.00	\$85.39
	02/01/2020	\$54.98	\$10.75	\$20.30	\$0.00	\$86.03
	08/01/2020	\$56.33	\$10.75	\$20.45	\$0.00	\$87.53
	02/01/2021	\$56.97	\$10.75	\$20.45	\$0.00	\$88.17
	08/01/2021	\$58.37	\$10.75	\$20.61	\$0.00	\$89.73
	02/01/2022	\$58.96	\$10.75	\$20.61	\$0.00	\$90.32

**Classification**

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

**Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile**

**Effective Date - 02/01/2018**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.50	\$10.75	\$20.03	\$0.00	\$56.28
2	60	\$30.60	\$10.75	\$20.03	\$0.00	\$61.38
3	70	\$35.70	\$10.75	\$20.03	\$0.00	\$66.48
4	80	\$40.80	\$10.75	\$20.03	\$0.00	\$71.58
5	90	\$45.90	\$10.75	\$20.03	\$0.00	\$76.68

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2017	\$38.85	\$7.70	\$14.95	\$0.00	\$61.50
	06/01/2018	\$39.80	\$7.70	\$14.95	\$0.00	\$62.45
	12/01/2018	\$40.75	\$7.70	\$14.95	\$0.00	\$63.40
	06/01/2019	\$41.75	\$7.70	\$14.95	\$0.00	\$64.40
	12/01/2019	\$42.75	\$7.70	\$14.95	\$0.00	\$65.40
	06/01/2020	\$43.74	\$7.70	\$14.95	\$0.00	\$66.39
	12/01/2020	\$44.72	\$7.70	\$14.95	\$0.00	\$67.37
	06/01/2021	\$45.74	\$7.70	\$14.95	\$0.00	\$68.39
	12/01/2021	\$46.75	\$7.70	\$14.95	\$0.00	\$69.40

For apprentice rates see "Apprentice- LABORER"

TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2017	\$37.57	\$7.70	\$14.95	\$0.00	\$60.22
	06/01/2018	\$38.52	\$7.70	\$14.95	\$0.00	\$61.17
	12/01/2018	\$39.47	\$7.70	\$14.95	\$0.00	\$62.12
	06/01/2019	\$40.47	\$7.70	\$14.95	\$0.00	\$63.12
	12/01/2019	\$41.47	\$7.70	\$14.95	\$0.00	\$64.12
	06/01/2020	\$42.46	\$7.70	\$14.95	\$0.00	\$65.11
	12/01/2020	\$43.44	\$7.70	\$14.95	\$0.00	\$66.09
	06/01/2021	\$44.46	\$7.70	\$14.95	\$0.00	\$67.11
	12/01/2021	\$45.47	\$7.70	\$14.95	\$0.00	\$68.12

For apprentice rates see "Apprentice- LABORER"

TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2017	\$37.45	\$7.70	\$14.95	\$0.00	\$60.10
	06/01/2018	\$38.40	\$7.70	\$14.95	\$0.00	\$61.05
	12/01/2018	\$39.35	\$7.70	\$14.95	\$0.00	\$62.00
	06/01/2019	\$40.35	\$7.70	\$14.95	\$0.00	\$63.00
	12/01/2019	\$41.35	\$7.70	\$14.95	\$0.00	\$64.00
	06/01/2020	\$42.34	\$7.70	\$14.95	\$0.00	\$64.99
	12/01/2020	\$43.32	\$7.70	\$14.95	\$0.00	\$65.97
	06/01/2021	\$44.34	\$7.70	\$14.95	\$0.00	\$66.99
	12/01/2021	\$45.35	\$7.70	\$14.95	\$0.00	\$68.00

For apprentice rates see "Apprentice- LABORER"

TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2016	\$34.12	\$10.91	\$10.89	\$0.00	\$55.92
TUNNEL WORK - COMPRESSED AIR						
<i>LABORERS (COMPRESSED AIR)</i>	12/01/2017	\$49.73	\$7.70	\$15.35	\$0.00	\$72.78
	06/01/2018	\$50.68	\$7.70	\$15.35	\$0.00	\$73.73
	12/01/2018	\$51.63	\$7.70	\$15.35	\$0.00	\$74.68
	06/01/2019	\$52.63	\$7.70	\$15.35	\$0.00	\$75.68
	12/01/2019	\$53.63	\$7.70	\$15.35	\$0.00	\$76.68
	06/01/2020	\$54.62	\$7.70	\$15.35	\$0.00	\$77.67
	12/01/2020	\$55.60	\$7.70	\$15.35	\$0.00	\$78.65
	06/01/2021	\$56.62	\$7.70	\$15.35	\$0.00	\$79.67
	12/01/2021	\$57.63	\$7.70	\$15.35	\$0.00	\$80.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)						
<i>LABORERS (COMPRESSED AIR)</i>	12/01/2017	\$51.73	\$7.70	\$15.35	\$0.00	\$74.78
	06/01/2018	\$52.68	\$7.70	\$15.35	\$0.00	\$75.73
	12/01/2018	\$53.63	\$7.70	\$15.35	\$0.00	\$76.68
	06/01/2019	\$54.63	\$7.70	\$15.35	\$0.00	\$77.68
	12/01/2019	\$55.63	\$7.70	\$15.35	\$0.00	\$78.68
	06/01/2020	\$56.62	\$7.70	\$15.35	\$0.00	\$79.67
	12/01/2020	\$57.60	\$7.70	\$15.35	\$0.00	\$80.65
	06/01/2021	\$58.62	\$7.70	\$15.35	\$0.00	\$81.67
	12/01/2021	\$59.63	\$7.70	\$15.35	\$0.00	\$82.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR						
<i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2017	\$41.80	\$7.70	\$15.35	\$0.00	\$64.85
	06/01/2018	\$42.75	\$7.70	\$15.35	\$0.00	\$65.80
	12/01/2018	\$43.70	\$7.70	\$15.35	\$0.00	\$66.75
	06/01/2019	\$44.70	\$7.70	\$15.35	\$0.00	\$67.75
	12/01/2019	\$45.70	\$7.70	\$15.35	\$0.00	\$68.75
	06/01/2020	\$46.69	\$7.70	\$15.35	\$0.00	\$69.74
	12/01/2020	\$47.67	\$7.70	\$15.35	\$0.00	\$70.72
	06/01/2021	\$48.69	\$7.70	\$15.35	\$0.00	\$71.74
	12/01/2021	\$49.70	\$7.70	\$15.35	\$0.00	\$72.75
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE)						
<i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2017	\$43.80	\$7.70	\$15.35	\$0.00	\$66.85
	06/01/2018	\$44.75	\$7.70	\$15.35	\$0.00	\$67.80
	12/01/2018	\$45.70	\$7.70	\$15.35	\$0.00	\$68.75
	06/01/2019	\$46.70	\$7.70	\$15.35	\$0.00	\$69.75
	12/01/2019	\$47.70	\$7.70	\$15.35	\$0.00	\$70.75
	06/01/2020	\$48.69	\$7.70	\$15.35	\$0.00	\$71.74
	12/01/2020	\$49.67	\$7.70	\$15.35	\$0.00	\$72.72
	06/01/2021	\$50.69	\$7.70	\$15.35	\$0.00	\$73.74
	12/01/2021	\$51.70	\$7.70	\$15.35	\$0.00	\$74.75
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2016	\$33.54	\$10.91	\$10.89	\$0.00	\$55.34



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WAGON DRILL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2017	\$37.75	\$7.70	\$14.75	\$0.00	\$60.20
	06/01/2018	\$38.70	\$7.70	\$14.75	\$0.00	\$61.15
	12/01/2018	\$39.65	\$7.70	\$14.75	\$0.00	\$62.10
	06/01/2019	\$40.65	\$7.70	\$14.75	\$0.00	\$63.10
	12/01/2019	\$41.65	\$7.70	\$14.75	\$0.00	\$64.10
	06/01/2020	\$42.64	\$7.70	\$14.75	\$0.00	\$65.09
	12/01/2020	\$43.62	\$7.70	\$14.75	\$0.00	\$66.07
	06/01/2021	\$44.64	\$7.70	\$14.75	\$0.00	\$67.09
	12/01/2021	\$45.65	\$7.70	\$14.75	\$0.00	\$68.10
For apprentice rates see "Apprentice- LABORER"						
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS &amp; GASFITTERS LOCAL 12</i>	03/01/2018	\$54.69	\$11.57	\$15.76	\$0.00	\$82.02
	09/01/2018	\$56.19	\$11.57	\$15.76	\$0.00	\$83.52
	03/01/2019	\$57.69	\$11.57	\$15.76	\$0.00	\$85.02
	09/01/2019	\$59.19	\$11.57	\$15.76	\$0.00	\$86.52
	03/01/2020	\$60.69	\$11.57	\$15.76	\$0.00	\$88.02
	09/01/2020	\$62.19	\$11.57	\$15.76	\$0.00	\$89.52
	03/01/2021	\$63.69	\$11.57	\$15.76	\$0.00	\$91.02
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
<b>Outside Electrical - East</b>						
CABLE TECHNICIAN (Power Zone) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$27.14	\$7.75	\$1.81	\$0.00	\$36.70
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$38.45	\$7.75	\$9.53	\$0.00	\$55.73
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$31.66	\$7.75	\$9.44	\$0.00	\$48.85
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$24.88	\$7.75	\$1.75	\$0.00	\$34.38
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$38.45	\$7.75	\$13.61	\$0.00	\$59.81
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$33.92	\$7.75	\$10.21	\$0.00	\$51.88
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$24.88	\$7.75	\$1.75	\$0.00	\$34.38
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$20.35	\$7.75	\$1.61	\$0.00	\$29.71
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$45.23	\$7.75	\$16.61	\$0.00	\$69.59

**Apprentice - LINEMAN (Outside Electrical) - East Local 104**

**Effective Date - 09/03/2017**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$27.14	\$7.75	\$3.31	\$0.00	\$38.20
2	65	\$29.40	\$7.75	\$3.38	\$0.00	\$40.53
3	70	\$31.66	\$7.75	\$3.45	\$0.00	\$42.86
4	75	\$33.92	\$7.75	\$5.02	\$0.00	\$46.69
5	80	\$36.18	\$7.75	\$5.09	\$0.00	\$49.02
6	85	\$38.45	\$7.75	\$5.15	\$0.00	\$51.35
7	90	\$40.71	\$7.75	\$7.22	\$0.00	\$55.68

**Notes:**

**Apprentice to Journeyworker Ratio:1:2**

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2016	\$28.98	\$4.25	\$3.12	\$0.00	\$36.35
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/31/2016	\$18.51	\$3.55	\$0.00	\$0.00	\$22.06
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is not on the ground. This classification does not apply to wholesale tree removal.						
TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/31/2016	\$16.32	\$3.55	\$0.00	\$0.00	\$19.87
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is on the ground. This classification does not apply to wholesale tree removal.						

**Additional Apprentice Information:**

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

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

All steps are six months (1000 hours.)

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

\*\* Multiple ratios are listed in the comment field.

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

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

**SECTION 02100  
SITE PREPARATION**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section.

**1.02 DESCRIPTION OF WORK**

- A. The scope of work consists of all materials, equipment, labor and services required for all Site Preparation work, including all items incidental thereto, as specified herein and as shown on the Drawings.
- B. Include the following:
1. Clearing within the limits of work by cutting, grubbing and removing, together with proper disposal of, all trees, shrubs, stumps, roots and other objectionable materials except as otherwise provided herein.
  2. Spoiled materials not suitable for fill shall be removed from the site and disposed of legally. No burning on the site shall be permitted.
  3. Selective clearing and pruning as necessary.
  4. Demolition and removal from site of items shown on the Drawings to be removed including concrete paving, curbs, fencing, construction elevator, patio blocks, landscape edging etc. as required.
  5. Included shall be removal and disposal of ramps, steps, walls, etc. above grade; concrete/stone foundations, footings and other structures below grade. Break up and completely remove from the site all other existing pavements, site improvements and structures so designated and remove other such existing items above and below not designated on the Drawings, but required for removal in order to perform all work.
  6. Remove and dispose of off site all utility lines and utility structures that directly interfere with the new work under this contract. Protect all lines which are to remain active. Reroute any utilities scheduled to remain which are in the way of any construction either temporarily or permanently.
  7. Remove and stockpile for reuse on the site items shown on the drawings to be removed and stockpiled including existing picnic tables and other site furnishings.
  8. Remove from the site other unsuitable materials as required which shall include the following:
    - a. Miscellaneous fill including sand, gravel, cinders, ash, glass, wood, metal and stone.

**1.03 RELATED WORK SPECIFIED ELSEWHERE**

- A. Carefully examine all of the Contract Documents for requirements which effect the work of this section.

- B. Other specifications sections which directly relate to the work of this section include, but are not limited to, the following:

1. Section 02200 - Earthwork
2. Section 02700 - Site Utilities

#### 1.04 CODES, STANDARDS, ORDINANCES AND PERMITS

- A. Perform all work in strict accordance with all rules, regulations, standards, codes, ordinances, or laws of local, State and Federal authorities having lawful jurisdiction, and be responsible for compliance therewith. Such authorities include but are not limited to the following:
1. Occupational Safety and Health Administration (OSHA)
  2. American Society of Testing Materials (ASTM)
  3. Department of Public Safety Standard Specifications (DPS)
  4. Department of Environmental Protection (DEP)
  5. National Fire Protection Association, Standard No. 30, Flammable and Combustible Liquids Code
- B. The Contractor shall give the proper authority all requisite notices and secure all permits, licenses, inspections and certificates relating to his work.

#### 1.05 SUBMITTALS

- A. Prior to commencement of any demolition or site preparation operations submit to the Engineer, for review, a schedule for demolition and the proposed methods to insure against possible damage to existing areas adjacent to where demolition operations will occur.
- B. Include a full description and plan for securing the site, safety devices and measures to be taken and time table for implementation.

#### 1.06 SURFACE/SUBSURFACE INFORMATION

- A. The Owner assumes no responsibility for the Contractor's failure to make his own site investigation.

#### 1.07 PROTECTION

- A. All rules and regulations governing the respective utilities shall be observed in executing all work under this Section. All work shall be executed in such a manner as to prevent any damage to existing buildings, streets, curbs, paving, service utility lines, structures and adjoining property. Monuments and bench marks shall be carefully maintained and, if disturbed or destroyed, replaced as directed.
- B. The Contractor shall assume full responsibility for damages caused by his or his Subcontractor's equipment and personnel to the existing buildings and grounds as well as adjoining private property.
- C. The work of this Section shall be performed in such a manner as to cause no interference with access by the Subcontractors or other Contractors to all portions of the site as is necessary for the normal conduct of their work.

#### 1.08 CLEAN UP

- A. Any soil, demolition debris or similar material which has been brought onto paved areas by hauling operations or otherwise shall be removed promptly, keeping these areas clean at all times.

## **PART 2 - PRODUCTS (Not Applicable)**

## **PART 3 - EXECUTION**

### **3.01 PREPARATION**

- A. Notify all corporations, companies, individuals or local authorities owning, or having jurisdiction over, utilities running to, through or across areas disturbed by demolition operations.
- B. Have all utility services not otherwise designated to be disconnected by the Contractor disconnected at service mains in accordance with requirements governing the utility involved unless otherwise shown on the plan or directed by the Engineer.

### **3.02 DEMOLITION**

- A. General:
  - 1. All existing features above and below grade within the contract limit lines shall be demolished as noted to prepare the site for all other work as specified in these Specifications, as shown on the Drawings and as ordered by the Engineer.
  - 2. All site features shown or ordered to be removed shall be completely removed or removed to the limits as shown or specified.
  - 3. All excavations resulting from the specified work shall be promptly backfilled and compacted. Any excavation within street lines shall be backfilled, compacted and paved all in accordance with the rules and regulations of the governing agency.
  - 4. The use of explosives, or burning of material or debris on the premises, will not be permitted.
  - 5. Remove and dispose of all unsuitable material off site as approved by the Engineer. The Town shall have right of first refusal for all materials. Any stockpiled material deemed surplus by the Engineer shall also be removed.

### **3.03 CLEARING AND GRUBBING**

- A. Clearing shall consist of the cutting and removal of all trees, logs, stumps, brush, roots and other objectionable material from within the Limit of Work Line unless otherwise shown on the plans or directed.
- B. Protection - Protect all areas to remain undeveloped outside the Limit of Work Line. Should these areas be damaged, the Contractor shall restore them to the satisfaction of the Engineer at no additional cost. This includes the repairing and replacement of all damaged conditions such as plant materials and similar items. This also includes areas to remain functional.
- C. Grubbing shall include the removal and disposal off site of all stumps and roots to a depth not less than eighteen (18) inches below subgrade.
- D. Fill all holes from removal of stumps and roots with gravel fill compacted to subgrade.

**3.04 DISPOSAL AND CLEAN UP****A. Demolished Material:**

1. All demolished material declared unsuitable by the Engineer shall become the property of the contractor and be legally disposed of, off the premises, until otherwise indicated or specified.
2. Keep all public ways clear of all spillage from trucks hauling material to and from the project site.

**B. Premises:**

1. The premises shall be left in a safe, clean and relatively orderly condition upon completion of work under this Section.

**C. Dust Control:**

1. Thoroughly wet down all work being demolished and all trucking ways as necessary to prevent spreading dust. Provide all water, hoses and connections required for dust control.

**END OF SECTION**

**SECTION 02200  
EARTHWORK****PART 1 - GENERAL****1.01 RELATED DOCUMENTS**

- A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section.

**1.02 DESCRIPTION OF WORK**

- A. The scope of work consists of all materials, equipment, labor and services required for all Earthwork work, including all items incidental thereto, as specified herein and as shown on the Drawings. The following work shall be included:
1. Spoiled material not suitable for fill shall be removed from the site and disposed of. No burning on the site shall be permitted.
  2. Stripping of all Loam: All loam shall be stripped to its entire depth wherever possible and stockpiled for reuse as directed by the Engineer. No loam shall be removed from the site without the approval of the Engineer.
  3. Excavating, filling, trenching and backfilling of all description required for the construction of walls, structures, utility structures, utilities, pavements, seeded areas and site improvements. Provide all additional fill materials as required and specified herein.
  4. Pumping and/or bailing necessary to maintain excavated spaces free from water from any source whatsoever.
  5. Provide graded materials, as specified, for fills, base courses and backfills as required.
  6. Protect all existing buildings, utilities, roads, pavements, lawns, planting and other improvements from damage due to construction. Install fencing and safety devices or controls as necessary.
  7. Dust control and clean up.

**1.03 RELATED WORK SPECIFIED ELSEWHERE**

- A. Carefully examine all of the Contract Documents for requirements which effect the work of this section.
- B. Other specifications sections which directly relate to the work of this section include, but are not limited to, the following:
1. Section 02100 - Site Preparation
  2. Section 02700 – Site Utilities

**1.04 REFERENCE STANDARDS**

- A. Definitions and Reference Standards:
1. ASTM: Specifications of the American Society for Testing and Materials.
  2. AASHTO: American Association of State Highway and Transportation Officials.

3. ACI: American Concrete Institute.
4. Building Code: Massachusetts State Building Code.
5. EPA: Environmental protection Agency.
6. DEP: Department of Environmental Protection.

#### 1.05 BENCH MARKS AND ENGINEERING

- A. Lines and grade work in accordance with Drawings and Specifications shall be laid out by a registered Civil Engineer or Surveyor employed by the Contractor. The Contractor shall establish permanent bench marks, to which access can easily be had during the progress of the work. The Contractor shall maintain all established bounds and bench marks and replace, as directed, any which may be disturbed or destroyed. The General Contractor shall pay all costs of the services of the Civil Engineer or Surveyor.
- B. The Contractor shall verify dimensions and elevations on the ground and report any discrepancies immediately to the Engineer. Any discrepancies not reported prior to construction shall not be the basis for claims for extra compensation.

#### 1.06 SUBSURFACE INFORMATION

- A. The Owner assumes no responsibility for the Contractor's failure to make his own site investigation and makes no representation regarding the character of the soil or subsurface conditions which may be encountered during the performance of the work.

#### 1.07 FINISHED GRADES

- A. The words "finished grades" as used herein mean the required final grade elevations indicated on the Drawings. Where not otherwise indicated, areas outside of buildings shall be given uniform slopes between points, for which finished grades are shown, or between such points and existing grade except that vertical curves or roundings shall be provided at abrupt changes in slope.

#### 1.08 GRADES AND ELEVATIONS

- A. The Drawings indicate, in general, the alignment and finished grade elevations for drainage with invert grades. The Engineer, however, may make such adjustments in grades and alignment as are found necessary in order to avoid interference and to adapt the piping to other special conditions encountered.

#### 1.09 PROTECTION

- A. All rules and regulations shall be observed in executing all work under this Section. All work shall be executed in such a manner as to prevent any damage to existing buildings, streets, curbs, paving, service utility lines, structures and adjoining property. Monuments and bench marks shall be carefully mainlined and, if disturbed or destroyed, replaced as directed.
- B. The Contractor shall furnish all facilities and materials necessary to prevent the earth at the bottom of excavation from becoming frozen or unsuitable to receive footings, foundations or other load bearing units.



- C. The Contractor, under this Section, shall provide at his own expense adequate pumping and drainage facades to keep the excavation sufficiently dry as not to affect adversely the quality or time of placement of concrete or other materials to be installed in the excavated areas.
- D. The Contractor shall assume full responsibility for damages caused by him or his Subcontractor's equipment and personnel to the existing buildings and grounds as well as adjoining private property.
- E. The work of this Section shall be performed in such a manner as to cause no interference with access by the Subcontractors or other Contractors to all portions of the site as is necessary for the normal conduct of their work.

## **PART 2 - PRODUCTS**

### **2.01 FILL MATERIAL**

- A. **Crushed Stone**: Crushed stone to be placed around leaching basins, leaching chambers, catch basins, water, sewer and storm drain pipes as shown on the Drawings and as specified shall be washed, graded free of organic materials one half (1/2) inch to one and one-half (1 1/2) inch size. Gradation shall conform to SSHB., Section M2.01.3 as follows:

<u>U.S. Standard Sieve Size</u>	<u>Percent by Weight</u> <u>Minimum</u>	<u>Passing</u> <u>Maximum</u>
1-1/2 inches	100%	-
1-1/4 inches	85%	100%
3/4 inch	10%	25%
1/2 inch	0%	8%

- B. **Graded Gravel**: Gravel base as called for on the Drawings under and/or around pavements, bases and miscellaneous site improvements backfill around pipes as specified shall consist of a well graded sand and gravel, free from deleterious matter, loam and clay, meeting the following gradation requirements conforming to SSHB., Section M1.03.1:

<u>U.S. Standard Sieve Size</u>	<u>Percent by Weight</u> <u>Minimum</u>	<u>Passing</u> <u>Maximum</u>
3 inches	100%	-
1-1/2 inches	70%	100%
3/4 inch	50%	85%
No. 4	30%	60%
No. 200	0%	12%
(Based on fraction passing No. 4)		

- C. **Structural Fill**: Structural Fill for support of building foundations and floor slabs shall be widely graded sand and gravel, free of clay, organic material, snow, ice, frozen soil or other deleterious materials,

and conforming to the following gradation requirements. Soil finer than the No.200 sieve shall be nonplastic.

<u>U.S. Standard Sieve Size</u>	<u>Percent by Weight</u> <u>Minimum</u>	<u>Passing</u> <u>Maximum</u>
3 inches	100%	-
1-1/2 inches	50%	100%
No. 4	35%	90%
N0. 5	0%	45%
No. 200	0%	5%
(Based on fraction finer than 1/2 inch)		

- D. Material falling within the above Specifications, encountered during the excavation, shall be stored in segregated stockpiles for reuse as Compacted Structural Fill. All material shall be subject to approval by the Engineer.
- E. Graded Fill: Fill required under concrete paving, roads, parking and walks up to subgrade, shall consist of a well-graded sand and gravel borrow, free from deleterious matter, loam and clay meeting the following gradation requirements conforming to SSHB., Section M1.03.0; Type a:

<u>U.S. Standard Sieve Size</u>	<u>Percent by Weight</u> <u>Minimum</u>	<u>Passing</u> <u>Maximum</u>
6 inches	100%	-
1/2 inches	50%	85%
No. 4	40%	75%
N0. 50	8%	28%
No. 200	0%	8%

- G. Ordinary Fill: Well graded, natural inorganic soil approved by the Engineer and meeting the following requirements to be used for general filling to subgrades other than specified above, and conforming to the following gradation requirements. Soil finer than the No. 200 sieve shall be nonplastic.

<u>U.S. Standard Sieve Size</u>	<u>Percent by Weight</u> <u>Minimum</u>	<u>Passing</u> <u>Maximum</u>
6 inches	100%	-
3 inches	85%	100%
No. 200	1%	20%

Ordinary Backfill shall be compacted in maximum 12 inch loose lifts to at least 92% of maximum dry density as determined by ASTM D-1557 (Modified AASHTO Compaction).

1. It shall be free of organic or other weak or compressible materials, of frozen materials, trash or other deleterious materials and of stones larger than six (6) inches maximum dimension within two (2) feet of finished grade.
2. It shall be of such nature and character that it can be compacted to the specified densities in a reasonable length of time.

3. It shall be free of highly plastic clays, of all materials subject to decay, decomposition or dissolution and of cinders or other materials which will corrode piping or other metal.
4. It shall have a maximum dry density of not less than one hundred (100) pounds per cubic foot. Material from excavation on the site may be used as ordinary fill if it meets the above requirements. Excavated rock and boulders not to exceed two (2) cubic yards may be used only in fill areas under lawns, provided they are at a minimum of twenty-four (24) inches below subgrades, placed and compacted in layers with no voids and all interstices filled.

### **PART 3 - EXECUTION**

#### **3.01 STRIPPING LOAM**

- A. Stripping shall consist of the removal of all loam to the full depth encountered below the original ground surface, as herein specified or directed by the Engineer. Every effort shall be made to strip and stockpile all available loam on the site.
- B. All loam so removed shall be stockpiled on the site where directed by the Engineer. Loam shall be free of subsoil, stiff clay or hardpan and foreign material such as cinders, ashes, asphalt and wood. The suitability of stripped materials for use as loam shall be determined by the Engineer, and his decision shall be final. All loam shall remain the property of the Owner, and none shall be removed from the premises without the approval of the Engineer. Excess loam shall be removed.
- C. Stockpiled loam shall be kept separate from other excavated materials and shall be free of roots, stones larger than two (2) inches and other undesirable material that would interfere with planting.

#### **3.02 EXCAVATION**

- A. General:
  1. Excavate all materials to the elevations, dimensions and form as shown on the Drawings and as specified for the construction of building structures, utility structures, utilities, site improvements and other structures necessary for the completion of the utilities and site work. All unsuitable materials within the indicated and specified limits shall be excavated and removed at no additional cost to the Owner. Any quantities involving an extra or other adjustment of the Contract Price shall be subject to measurement verification and approval by the Engineer prior to the excavation and removal of such materials. Unsuitable materials shall include the following:
    - a. Pavements, utility structures, building foundations and other man made structures.
    - b. Peat, organic silt and other organic materials subject to decomposition, consolidation or decay.
    - c. Miscellaneous fill including sand, gravel, cinders, ash, glass, wood, metal and stone.
    - d. Ledge or boulders except as specified for fills herein.
  2. The Contractor shall obtain from the proper authorities locations of all utilities within the scope of this work so that there will be no damage done to such utilities. Neither the Owner nor the Engineer will be responsible for any such damage, and the Contractor shall restore any structure or utility so damaged without additional compensation. Written notifications to the appropriate utility agencies shall be made at least ten (10) days prior to the commencement of any work.

3. Excess Material: Suitable excavated material which is required for fill and backfill shall be separately stockpiled as directed by the Engineer. All surplus fill other than that required to complete the intent of the Contract shall become the property of the Contractor and shall be disposed of off the property by the General Contractor. All excavated materials which, in the opinion of the Engineer, are not suitable for fill or backfill shall be removed and disposed of off the property.
4. Any unsanitary conditions encountered, such as broken sewer mains or uncovered garbage, shall be corrected or removed entirely as directed by the Engineer.

C. Excavation for Site Improvements:

1. Excavate to the lines and grades shown on the Drawings and as specified to obtain the subgrades for the following items of work:
  - a. Bituminous concrete roads - to fifteen (15) inches below finished grades, and as per local requirements.
  - b. Concrete paving - to twelve (12) inches below underside of paving.
  - c. Seeded areas - to six (6) inches below finished grade
  - d. Stone dust paving – to six (6) inches below finished grade
  - e. Leaching Chambers – to twelve (12) inches below bottom elevation of chambers and an additional five feet horizontally from the perimeter of proposed chambers.
  - e. Unspecified improvements - to bottom elevation of item plus ample working space on all sides. (see details on plans for additional dimensional requirements)

D. Excavation for Utilities and Utility Structures:

1. Excavate to the lines and grades shown on the Drawings and as specified herein to obtain the subgrade for the following items of work:
  - a. Utility structures - to grades shown on the Drawings. Remove by excavating all unsuitable materials, including peat and organic soil, from under drainage structures and backfill with graded gravel fill compacted in place to subgrades.
  - b. Excavation for structures and other accessories shall have twelve (12) inch minimum clearance on all sides.
  - c. All utility lines - to twelve (12) inches below bottom of utility lines or structures.
  - d. Unless otherwise shown, provide separate trenches for each utility. Lay all piping in open trenches except where tunneling is required. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
  - e. Grade the bottom of trenches evenly to have a constant pitch in the direction of flow and to insure a uniform compacted thickness of selected material as called for.
2. Existing services and utilities encountered shall be immediately repaired, protected and maintained in use until relocation of same has been completed or be cut and capped where directed or be prepared for connections when so required.

E. Rock Excavation:

1. The excavated material will be classified as rock only when the following conditions prevail:

- a. When the material cannot be broken and removed by power excavating equipment, including rippers, and requires the use of drills or the use of explosives.
  - b. Rock or stones in original ledge.
  - c. Hard shale in original ledge.
  - d. Boulders in excess of one (1) cubic yard in trenches.
  - e. Boulders in excess of two (2) cubic yards in open excavation.
  - f. Anything other is "earth" insofar as removal of the material to be excavated is concerned; also removal of paving and paving foundations and existing stone retaining walls are not classified as rock removal.
2. Note: When, during the process of excavation, rock is encountered, such materials shall be uncovered and freed of loose material, and the Engineer shall be notified by the Contractor before proceeding further. The areas in question shall then be cross-sectioned as stipulated herein. The Contractor shall not proceed with excavation of material claimed as rock until the material has been classified by the Engineer. Failure on the part of the Contractor to uncover such materials or notify the Engineer or take cross-sections will forfeit the Contractor's right-of claim to any credits. The quantity of rock to be removed shall be based on the pay line limits as established herein. The quantity of rock to be removed shall be approved by the Engineer prior to blasting.
3. The Contractor shall employ and pay a qualified registered Civil Engineer or registered Land Surveyor acceptable to the Engineer to take cross-sections of rock before removal of same and to provide computations of cross-sections within the pay line limits. Complete current records of actual quantities of rock excavated, methods of excavation used and extent of labor and equipment involved shall be maintained, jointly, by the Contractor and the Engineer, shall be dated, signed by both and duplicate copies retained by the Engineer for record. Such records shall include plot plans showing at suitable scale, all elevations, locations and measurements of rock excavation and locations and measurement or computed volumes of boulders encountered. All labor and equipment necessary to make these plot plans and take these measurements shall be furnished by the Contractor, and no payment will be considered for rock which has been removed without obtaining the above required data.
4. If rock is encountered, the Contract Price shall be adjusted. The Price for rock removal shall include filling the void created by removal of the rock with suitable materials in accordance with paragraphs on Fill, Backed and Compaction at no added cost to the Owner. The Engineer reserves the right to adjust the proposed grades to conform to any rock conditions.

### 3.03 FILLS, BACKFILLS AND COMPACTION

#### A. Samples and Testing:

1. All fill material and its placement shall be subject to quality control testing. A qualified laboratory will be selected by the Owner to perform tests on materials. All costs of testing will be paid for by the Contractor. Test results and laboratory recommendations shall be available to the Engineer.
2. Provide samples of each fill material from the proposed source of supply including on-site sources. Allow sufficient time for testing and evaluation of results before material is needed. Submit samples from alternate source if required.
3. The Engineer will be sole and final judge of suitability of all material.

4. The laboratory will determine maximum dry density and optimum water content in accordance with ASTM D1557, Method D and the in-place density in accordance with ASTM D1556.
5. Tests of material as delivered may be made from time to time. Materials in question may not be used, pending test results. Tests of compacted materials will be made regularly. Remove rejected materials and replace with new, whether in stockpiles or in place.
6. Cooperate with laboratory in obtaining field samples of in-place materials after compaction. Furnish incidental field labor in connection with these tests.

B. Placing Fills and Compacting

1. Fill material shall be placed in horizontal layers not exceeding six (6) inches under paved surfaces and nine (9) inch layers in lawn areas. Each layer shall be compacted to the percentage of maximum dry density specified for the particular type of fill and at a water content equal to optimum water content plus or minus two (2) percent. The maximum dry density and optimum water content shall be as specified herein.
2. Areas to be filled or backfilled shall be free of construction debris, refuse, compressible or decayable materials and standing water. Do not place fill when fill materials or layers below it are frozen.
3. Notify the Engineer when excavation is ready for inspection. Filling and backfilling shall not be started until conditions have been approved by the Engineer.
4. Before backfilling against walls, the permanent structures must be completed and sufficiently aged to attain strength required to resist backfill pressures without damage. Temporary bracing will not be permitted except by written permission from the Engineer. When filling on both sides of a wall or pier, place fill simultaneously on each side. Correct any damage to the structure caused by backfilling operations at no cost to the Owner. Place no stones closer than eighteen (18) inches to wall surfaces.
5. In confined areas adjacent to footings and foundation walls and in utility trenches beneath floor slab, the fill shall be compacted with hand operated vibration tampers. The maximum lift thickness shall be four (4) inches. The degree of compaction attained shall be equivalent to that attained in the adjacent open areas where heavy rolling equipment is used.
6. After the subgrade under concrete slabs and paved areas has been shaped to line, grade and cross-sections, it shall be rolled with an approved power roller weighing not less than six (6) tons until thoroughly compacted. This operation shall include any reshaping, refilling or wetting required to obtain proper compaction. Any areas which subsequently settle shall be refilled to true subgrade and properly compacted.

C. Placing Graded Gravel Fills

1. Gravel fills, as specified herein above, shall be provided as follows:
  - a. As gravel base course under all pavements unless otherwise called for.
  - b. As gravel under and/or around footings curbs as shown on the Drawings or specified unless otherwise called for.

2. Place gravel in six (6) inch maximum layers; fill and compact each layer to ninety-five (95) percent maximum dry density.

D. Placing Graded Fills

1. Graded fill material as specified shall be placed under pavements and unites as specified.
2. Fills shall be placed in layers of a maximum six (6) inch compacted thickness up to subgrade. Compaction shall be to ninety-five (95) percent of maximum dry density as specified.

E. Placing Structural Fills

1. Structural fill shall be placed in layers not to exceed six (6) inches in thickness as measured before compaction. Each layer shall be compacted by a minimum of four (4) coverages with the equipment described below to at least ninety-five (95) percent of maximum dry density as determined by ASTM. Test D1557. Incidental compaction due to tram by construction equipment will not be credited toward the required minimum four (4) coverages.
2. Placement of structural fill should not be conducted when air temperatures are low enough to cause freezing of the moisture in the fill during or before placement, approximately 32 degrees F., or below. Fill materials should not be placed on snow, ice or uncompacted frozen soil. Structural fill should not be placed on frozen soil. No fill should be allowed to freeze prior to compaction. At the end of each day's operations, the last lift of fill, after compaction, should be rolled by a smooth-wheeled roller to eliminate ridges of uncompacted soil.

F. Placing Ordinary Fill:

1. Ordinary fill, as specified herein above, is required for fills and backfills in seeded areas and where crushed stone or gravel fills have not been specified or called for on the Drawings. Place ordinary fill in layers of a maximum nine (9) inches compacted thickness. Compaction shall be to ninety (90) percent of maximum dry density as specified.

G. Deficiency of Fill Materials:

1. Provide required additional fill materials as specified if a sufficient quantity of suitable materials is not available from the required excavation on the project site at no additional cost to the Owner. Where water content of the fill must be adjusted to meet this Specification, the fill shall be thoroughly disked to insure uniform distribution of any water added.

H. Fill and Backfill for Utilities:

1. Backfill trenches only after pipe has been inspected, tested and locations of pipes and appurtenances have been recorded. Each pipe section shall be laid on a twelve (12) inch minimum bed of crushed stone as specified herein above. Bed shall be shaped by means of hand shovels to give full and continuous support to the lower one-third (1/3) of each pipe. Backfill by hand around pipe, and for a depth of twelve (12) inches above pipe, use sand or crushed stone and tamp firmly in layers not exceeding six (6) inches in thickness. Take care not to disturb the pipe. Compact the remainder of the backfill thoroughly with a rammer of suitable weight or with an approved mechanical tamper to achieve compaction of ninety-five (95) percent as specified.
2. Trenches and utility structures shall be backfilled with greatest care; only the suitable materials taken from the excavation shall be used. Any additional fill materials required for backfilling to

subgrades shall be graded fill or ordinary fill as specified. Backfill shall be compacted to ninety-five (95) percent as specified. No mud, frozen earth or stone more than six (6) inches in greatest diameter or other objectionable material shall be used for refilling. Any selected material required for filling, in addition to earth from trench excavation, shall be furnished and placed by the Contractor.

3. Where rock is encountered in trenching, it shall be removed. Whenever soil that, in the opinion of the Engineer, is incapable of properly supporting the pipe is encountered at the indicated bottom of trenching, it shall be removed to the depths and lengths designated by the Engineer and backfilled and compacted to the indicated bottom grade, as hereinafter specified, with coarse sand, fine gravel or other suitable material.

- I. Pulverized Bituminous Concrete: Pulverized bituminous concrete pavement used as base course in lieu of graded gravel for bituminous concrete pavement shall meet the following criteria:

<u>U.S. Standard Sieve Size</u>	<u>Percent by Weight</u> <u>Minimum</u>	<u>Passing</u> <u>Maximum</u>
3 inches	100%	-
1-1/2 inches	70%	100%
3/4 inch	50%	85%
No. 4	30%	55%
No. 50	8%	24%
No. 200	0%	8%

1. Contamination: Should any unsuitable subbase/subgrade material become churned up or mixed with the reclaimed base course material at any time, the Contractor shall remove the contaminated mixture. The Contractor shall add new subbase material, if required, and reshape and recompact the subbase in accordance with these specifications. Base course material shall be added, compacted and bound as herein before specified, to match the surrounding surface.
2. Weather Limitations: Work on the base course shall not be permitted when temperatures are less than thirty-five (35) degrees Fahrenheit or when the subgrade is frozen or excessively wet. Any damage caused to the reclaimed bituminous concrete/ aggregate base course resulting from work performed during these adverse weather conditions shall be repaired by the Contractor at his own expense.
3. Processing: The operation shall overlap the adjacent pass for a distance of not less than six (6) inches. The work shall cover the entire surface of the pavement as shown on the plans with uniform overlapping of each preceding track or pass. The reclaiming operation shall be conducted so as not to permit the contamination of the bituminous concrete/ aggregate material with any shoulder debris, grass, leaves or dirt. If additional materials are required, they shall be placed over the entire area and uniformly blended with the pulverized base prior to grading and compacting.
4. Unsuitable Material: Any exposed cobbles or rocks greater than three (3) inches in diameter within the reconstituted area shall be "culled out" and removed from the site.
5. Grading and Compacting: The material shall be uniformly graded and compacted to establish a reclaimed bituminous concrete/aggregate base to the lines and grades shown on the plans, or as directed by the Engineer. The compacting and binding operation shall be continued until the



- voids in the aggregates have been reduced to provide a firm and uniform surface satisfactory to the Engineer.
6. Excess Material: If excess material exists after formation of the reclaimed bituminous concrete/ aggregate base course to the specified grades and cross-slope, the Contractor shall dispose of the excess material in a manner acceptable to the Engineer.
  7. Thickness: After grading, compaction and removal of excess material, the reclaimed bituminous concrete/ aggregate base shall have a minimum thickness of six (6) inches. The Contractor shall demonstrate to the Engineer that the thickness of the compacted base course, as determined at intervals of not more than 1,500 square yards, meets the dimensions specified.
  8. Tolerances: The final surface of the reclaimed bituminous concrete/aggregate base course shall be fine graded so that, after final compaction and just prior to placement of the pavement courses, the surface elevation shall not vary more than one-quarter (1/4) inch above or below the designed line and grade at any location unless approved by the Engineer. If, after approval, the base course becomes displaced or disturbed in any way for any reason, the Contractor shall repair the damage then regrade the base to the satisfaction of the Engineer. All repaired sections shall be recompacted until they meet the requirements of this specification.
  9. Density: The reclaimed bituminous concrete/aggregate base material shall be thoroughly compacted with a roller(s) to produce one hundred percent (100%) compaction and uniform base density when compared to the modified Proctor Test (AASHTO T-180) of the reclaimed base materials. Water shall be applied to ensure optimum moisture content during compaction and to aid in achieving maximum compaction.

### 3.05 UTILITY SERVICES LINES

- A. Electrical, telephone and cable TV services shall be as specified under other Sections. The excavating, trenching and backfilling for these utilities and other pertinent structures shall be done under this Section.
- B. Trenches for utility lines shall be excavated of all peat, silt and other materials which the Engineer deems not stable and backfilled as called for in paragraph 3.04, H to form a stable foundation for laying the utility lines.

### 3.06 SUBGRADE PREPARATION

- A. Bring all areas to required subgrade levels as specified and as determined from the Drawings.
- B. Maintain all subgrades for site improvements in sags- factory condition, protected against tram and properly drained, unto the surface improvement is placed. In areas to receive pavement or other surface materials, at top and bottom of embankments, along swales and elsewhere, place sufficient grade stakes to facilitate checking the subgrade levels. Correct all irregularities, compacting thoroughly any fill materials.
- C. Check all manhole covers, grates, valve boxes and similar structures for correct elevation and position and make, or have made, any necessary adjustments in such structures.
- D. All subgrades must be inspected and approved by the Engineer before paving, Foaming or other site improvements are made.

3.07    WARNING TAPE OVER BURIED ELECTRIC, CABLE TV, TELEPHONE

- A. Provide and install plastic warning tape over all buried, electric cable TV and telephone as specified.
- B. Warning tape shall be installed according to Manufacturer's recommendations and a minimum of twelve (12) inches below finished grades.

3.08    DUST CONTROL

- A. The Contractor shall employ all possible methods and/or materials to prevent the spread of dust. Chemical materials may not be used on subgrades of areas to be sodded.

3.09    CLEAN UP

- A. The Contractor shall remove all debris, construction equipment and scrap material from all areas within the limit of work prior to inspection for acceptance.

**END OF SECTION**

**SECTION 02700  
SITE UTILITIES**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section.

**1.02 DESCRIPTION OF WORK**

- A. The scope of work consists of all materials, equipment, labor and services required for all Site Utilities work, including all items incidental thereto, as specified herein and as shown on the Drawings.
- B. Without limiting the generality thereof, the work includes the following:
1. Storm drainage system including catch basins, manholes, area drains, subsurface drains, pipe, connections and all related work.
  2. Excavation and backfill for all utilities shall conform to Section 02200 - Earthwork.
  3. Pumping and/or bailing necessary to maintain excavated spaces free from water from any source whatsoever.
  4. Provide graded materials, as specified, for fills, base courses and backfills as required.
  5. Protect all existing buildings, utilities, roads, pavements, lawns planting and other improvements from damage due to construction.
  6. Dust control and clean up.

**1.03 RELATED WORK SPECIFIED ELSEWHERE**

- A. Carefully examine all of the Contract Documents for requirements which effect the work of this section.
- B. Other specifications sections which directly relate to the work of this section include, but are not limited to, the following:
1. Section 02100 - Site Preparation
  2. Section 02200 - Earthwork

**1.04 QUALITY ASSURANCE**

- A. Codes and Standards: Perform work strictly as required by rules, regulations, standards, codes, ordinances, and laws of local, state, and federal governments, and other authorities that have legal jurisdiction over the site. Materials and equipment shall be manufactured, installed and tested as specified by the appropriate utility agency and in latest editions of applicable publications, standards, rulings and determinations of:

1. Local and state building, electrical, fire and health department codes.
  2. Occupational Safety and Health Act (OSHA).
  3. Underwriters' Laboratories (UL).
- B. Material and equipment shall be listed by Underwriters' Laboratories (UL), and approved by ASME, ANSI and ASTM for intended service.
- C. Manufacturers: Firms regularly engaged in manufacture of system materials of types and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.
- D. Installer: A firm with at least 2 years of successful installation experience on systems required for this project.
- E. Most recent editions of applicable specifications and publications of the following organizations form part of Contract Documents:
1. American National Standards Institute (ANSI).
  2. American Society of Mechanical Engineers (ASME).
  3. American Society for Testing and Materials (ASTM).
  4. American Water Works Association (AWWA).
  5. Public Works Departments (Local Utilities).
  6. American Association of Highway and Transportation Officials (AASHTO)
- G. Work performed in connection with any Electric Services shall be done by the respective utility or by an approved contractor complying with the utilities standard operating and materials specifications.

#### 1.05 SUBMITTALS

- A. Shop Drawings and Samples:
1. Provide complete shop drawings and/or samples for all items called for in the Specifications or on the Drawings in accordance with the applicable requirements of Division 1.
- B. Shop drawings for the items listed below shall be submitted for approval. The Engineer, however, reserves the right to require submission of shop drawings on any other equipment not specifically listed herein. List of shop drawings or catalog cuts required:
1. Catch basin, manhole and area drain frames, grates and covers.
  2. Pipe of all kinds.
  3. Storm drainage structures.

#### 1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in manufacturer's original unopened and undamaged packages with labels and intact.
- B. Store materials in unopened packages in a manner to prevent damage from the environment and construction operations.

- C. Handle in accordance with manufacturer's instructions.

#### 1.07 BENCH MARKS AND ENGINEERING

- A. Lines and grade work in accordance with Drawings and Specifications shall be laid out by a registered Civil Engineer or Surveyor employed by the Contractor. The Contractor shall establish permanent bench marks, to which access can easily be had during the progress of the work. The Contractor shall maintain all established bounds and bench marks and replace, as directed, any which may be disturbed or destroyed. The General Contractor shall pay all costs of the services of the Civil Engineer or Surveyor.
- B. The Contractor shall verify dimensions and elevations on the ground and report any discrepancies immediately to the Engineer. Any discrepancies not reported prior to construction shall not be the basis for claims for extra compensation.

#### 1.08 SUBSURFACE INFORMATION

- A. The Owner assumes no responsibility for the Contractor's failure to make his own site investigation.

#### 1.09 PERMITS, FEES AND BACKCHARGES

- A. The Contractor shall give all notices, file all plans, secure and pay for all required permits, inspections, licenses and back charges necessary for, and incidental to, the accomplishment of all utility work when completed as defined in other paragraphs of the Specifications.

#### 1.10 INSPECTION

- A. The Contractor shall obtain all necessary approvals from authorities or companies having jurisdiction, deliver all certificates of inspection and test approvals to the Engineer.
- B. No work shall be covered before inspection and approval by the Engineer and all inspectors and authorities having jurisdiction.
- C. Replace all imperfect or condemned work with work conforming to the requirements of the Contract Documents and to the satisfaction of the Engineer without additional cost to the Owner.
- D. All fees will be paid for by the General Contractor.

#### 1.11 PROTECTION

- A. The Contractor shall remove by pumping, draining, bailing or otherwise any water which may accumulate or be found in the trenches and other excavations made under this Contract and shall form all pump wells, sumps, dams, flumes or other work necessary to keep the trenches and other excavations entirely clear of water while the sewers, drains, water lines and other utilities, buildings and structures and their foundations are being built. Newly constructed masonry shall be protected from injury resulting from dewatering work by such methods as may be approved by the Engineer. The Contractor shall at all times have upon the work sufficient pumping machinery satisfactory to the Engineer. Pump wells and underdrains shall be provided where needed to properly handle the ground water.

- B. The Contractor, under this Section, shall provide at his own expense adequate pumping and drainage facilities to keep the excavation sufficiently dry as not to affect adversely the quality or time of placement of concrete or other materials to be installed in the excavated areas.
- C. The Contractor shall furnish, install and maintain all drainage systems and pumping equipment necessary to keep the ground water level at an elevation low enough so that no structures to be built under this Contract shall move or float on account of uplift pressure until the final acceptance of the work. Water from the trenches and excavations shall be disposed of in such a manner as will not cause injury to the public health nor to public or private property nor to the work completed or in progress nor to the surface of highways nor cause any interference with the use of the same by the public.
- D. The work of this Section shall be performed in such a manner as to cause no interference with access by the Subcontractors or other Contractors to all portions of the site as is necessary for the normal conduct of their work.

#### 1.12 TEMPORARY POWER

- A. Provide adequate capacity for all temporary power from the utility company lines. Make all arrangements with the utility companies for temporary service and pay all expenses related thereto.
- B. The General Contractor will pay for the cost of energy consumed by all trades.
- C. All temporary electrical work shall be furnished and installed in conformity with the National Electrical Code, and in accordance with the requirements of local ordinances and shall be maintained in a workmanlike manner throughout the entire construction period, and shall be properly removed when no longer needed.

#### 1.13 UTILITY COMPANIES AND LOCAL UTILITY DEPARTMENTS

- A. The Contractor shall meet with the local utility department and utility company representatives with jurisdiction over this project to obtain and coordinate the details of the utility services and the installation of all work under this Contract with respect to all existing and proposed work by the local utility departments and utility companies so as to avoid interferences and delays.

#### 1.14 EXAMINATION OF SITE

- A. The Contractor shall examine the entire site for proposed work and determine all conditions that may affect work embraced in the bid.
- B. No consideration or allowance will be granted for failure to visit the site, or for any alleged misunderstandings of materials to be furnished, or work to be done; it being understood that tender of proposal carries with it, agreement to items and conditions referred to herein or indicated on the Contract Drawings.

#### 1.15 GUARANTEE

- A. All work under this Section of the Specifications shall be guaranteed free from defects in workmanship or materials for a period of one year from the date of final acceptance of the work and any such defective work developing during this period, shall be replaced by the Contractor promptly with no cost to the Owner.

### 1.16 GRADES AND ELEVATIONS

- A. The Drawings indicate, in general, the alignment and finished grade elevations and invert grades. The Engineer, however, may make such adjustments in grades and alignment as are found necessary in order to avoid interference and to adapt the piping to other special conditions encountered.

### 1.17 CODES AND ORDINANCES

- A. All work, materials and methods shall be performed in strict accordance with the Town of Arlington Standards and Specifications, Electrical and Plumbing Codes and State codes and regulations. The Town shall be notified and permission obtained prior to the performance of any work at the connection point to existing manholes or lines.

## **PART 2 - PRODUCTS**

### 2.01 STORM DRAINAGE PIPE AND APPURTENANCES

#### A. General:

1. All pipe shall be of the sizes and type as indicated on the Drawings.
2. Storm drainage pipes under pavement shall have a minimum crushing strength of two thousand (2,000) D where D is the inside of the pipe in feet. The three (3) edge bearing method shall be used for determination of crushing strength.
3. All pipe and other material shall be subject to inspection at the point of delivery at the site. The purpose of the field inspection shall be to cull and reject pipe and other material which, independent of the physical tests prescribed, fail to meet the Specifications.
4. The manufacturer shall supply, with each shipment of pipe, affidavits showing compliance with these Specifications. All shipments not accompanied by such affidavits may be rejected and returned to the manufacturer.

#### B. Storm Drainage Pipe:

1. Storm drainage pipe shall be of sizes indicated on the Drawings.

#### C. Subsurface Drain Pipe:

1. Subsurface drainage pipe shall be of sizes indicated on the Drawings and shall be solid wall and perforated polyvinyl chloride (PVC) SDR35 pipe with proper fittings as shown on the Drawings.
  - a. Polyvinyl Chloride Pipe: [15 in. diameter and smaller] ASTM D3033, Type PSP, SDR 35 or ASTM D3034, Type PSM, SDR 35. Provide matching PVC fittings and solvent cement joints complying with ASTM D2855 and ASTM D2564 solvent cement, or provide ASTM D3212 elastomeric joints with ASTM F477 gaskets.

- 1) Where required by local authorities, provide ASTM D2665, Schedule 80 PVC DWV pipe with matching fittings and ASTM D2664 solvent cement joints.

#### 2.04 UTILITY STRUCTURES

- A. Existing manhole frames, covers and catch basin grates may need to be reset with proposed finish grade, see plans for changes in grade.
- B. Contractor shall submit shop drawings for all utility structures and drain inlets to Engineer for approval.

#### 2.06 FILTER FABRIC

- A. Filter fabric shall be Mirafi 140 N or approved equivalent. (non woven)

#### 2.07 STORMWATER LEACHING CHAMBERS

- A. Stormwater Chambers shall be precast concrete and manufactured by E. F. Shea. Contractor to submit shop drawings for approval.

### **PART 3 - EXECUTION**

#### 3.01 GRADES AND ELEVATIONS

- A. The Drawings indicate, in general, the alignment and finished grade elevations and sewer, drain, water and underground electric invert grades. The Engineer, however, may make such adjustments in grades and alignments as are found necessary in order to avoid interference and to adapt the piping to other special conditions encountered. Grading between indicated final grades shall be smooth, even surfaces except as otherwise required.
- B. Excavate all trenches as called for in Section 02200.
- C. Bedding and backfill for pipes shall be as called for in Section 02200 and as shown on the Drawings.
- D. Pipe laying and installation of structures shall be in conformance with the manufacturer's instructions and as directed.

#### 3.02 STORM DRAINAGE

- A. General: This work shall include the furnishing and installation of a complete storm drainage system as shown on the Drawings and specified herein.
  1. Laying Pipe: The bedding surface for pipe shall provide a firm foundation carefully shaped true to line and grade. Bed for bells shall be hollowed out. Pipe shall be laid carefully with hubs up and ends fully and closely jointed. Care should be taken during installation to keep open ends of pipes clean and free from debris and silt. Plug open ends or dam with crushed stone.



2. Joints in storm drainage pipe fifteen (15) inches in diameter and less shall be bell and spigot type; the lower part of joint shall be formed by caulking into the bell a gasket of jute or oakum to insure a smooth and uniform invert.
  3. Provide and install a six (6) inch polyethylene pipe as shown on the Drawings.
  4. All pavement torn up on public right-of-way shall be replaced with base, binder and top courses of same type and depth of original pavement and as per local requirements.
  5. The Contractor shall keep all excavations free from water at all times. All labor and apparatus required to perform their work, including a well point system, shall be provided and operated by the Contractor at no additional cost.
  6. Drainage Structures – Furnish and Install drain inlets as shown on the Drawings and as specified herein.
  7. Unless otherwise shown or directed, set castings for catch basins, manholes and drain inlets at exact finished grade and slope.
- B. Flushing and Cleaning: Flush storm drainage system with water in sufficient volume to obtain free flow through each line. Remove all silt and trash from drainage structures and pipe lines just prior to final acceptance of the work.

#### 3.04 INTERFERENCE

- A. The Contractor shall be responsible for maintaining proper clearance between adjacent pipes and between pipes and equipment as installed under this Contract. If, for practical purposes of maintaining clearance for providing a more practical method of support, the Contractor proposes to route some of the more important piping in a manner other than indicated on the Engineer's Drawings, a sketch of the proposed new routing shall be submitted to the Engineer for approval.

#### 3.05 UTILITY SERVICE LINES

- A. Water, telephone, fire alarm and electrical services shall be as specified under other Sections. The excavating, trenching and backfilling for these utilities and other pertinent structures shall be done under Section 02200.
- B. Trenches for utility lines, including storm drainage and sanitary sewers shall be excavated of all peat, silt and other materials which the Engineer deems not stable and backfilled with clean fill, compacted to form a stable foundation for laying the utility lines.

#### 3.06 CLEANING

- A. At the conclusion of the work thoroughly clean all of the new pipelines by flushing with water or other means to remove all dirt, stones, pieces of wood or other material which may have entered during the construction period. If, after this cleaning, obstructions remain, they shall be removed.
- B. After the pipe lines are cleaned and if the groundwater level is above the pipe, or following a heavy rain, the Engineer will examine the pipe for leaks. If defective pipes or joints are discovered at this time, they shall be repaired or replaced by the Contractor.

**3.07 REPAIRS**

- A. Repair all roads, walks, curbs, lawns or other existing improvements removed or disturbed during this work. All repairs shall conform to these Specifications or the construction of the original material whichever is the greater quality.

**3.08 SUBGRADE PREPARATION**

- A. Bring all areas to required subgrade levels as specified and as determined from the Drawings.
- B. Maintain all subgrades for site improvements in satisfactory condition, protected against traffic and properly drained, until the surface improvement is placed. In areas to receive pavement or other surface materials, at top and bottom of embankments, along swales and elsewhere, place sufficient grade stakes to facilitate checking the subgrade levels. Correct all irregularities, compacting thoroughly any fill materials.
- C. Check all manhole covers, grates, valve boxes and similar structures for correct elevation and position and make, or have made, any necessary adjustments in such structures.
- D. All subgrades must be inspected and approved by the Engineer before paving, loaming or other site improvements are made.

**3.10 DUST CONTROL**

- A. The Contractor shall employ all possible methods and/or materials to prevent the spread of dust. Chemical materials may not be used on subgrades of areas to be sodded or planted.

**3.11 CLEAN UP**

- A. The Contractor shall remove all debris, construction equipment and scrap material from all areas within the limit of work prior to inspection for acceptance.

**END OF SECTION**