

**CONTRACT DOCUMENTS**

**FOR**

**PROPOSED ROADWAY IMPROVEMENTS TO SOUTH MAIN STREET**

**November 27, 2019**

**TOWN OF NATICK, MASSACHUSETTS**

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**TOWN OF NATICK, MASSACHUSETTS  
PROPOSED ROADWAY IMPROVEMENTS TO SOUTH MAIN STREET**

**DIVISION 00000  
BID REQUIREMENTS, FORMS & CONDITIONS OF CONTRACT**

**SECTION 00010  
NOTICE TO BIDDERS**

Pursuant to the provisions of Chapter 30, Section 39M of the General Laws of the Commonwealth of Massachusetts (M.G.L. c. 30, §39M), the Town of Natick, the Awarding Authority, (hereinafter referred to as "Owner"), by the Natick Board of Selectmen of the Town of Natick, Massachusetts, invites sealed Bids for the General Contract from responsible and eligible bidders for "Proposed Improvements to South Main Street", in accordance with the Contract Documents prepared by Green International Affiliates, Inc., 239 Littleton Road, Suite 3, Westford, Massachusetts 01886. Sealed Bids shall be received for the General Contract until **December 18, 2019, at 11:00 A.M. local time**, at the Procurement Office, located at the Natick Public Works, 75 West Street Natick, MA 01760, at which time and place all bids will be publicly opened and read. If the Procurement Office is closed due to weather or other emergency, the deadline for receipt of bids shall be extended until 11:00 A.M. local time the next business day that the Procurement Office is open. Each and every Bid shall be submitted on the Bid Form furnished with the Bidding Documents and shall be addressed to the Board of Selectmen. Each and every Bid shall be sealed in an envelope which is clearly marked in the lower left hand corner "BID FOR ROADWAY IMPROVEMENTS TO SOUTH MAIN STREET."

No-Pre-Bid conference shall be held.

The location, general characteristics, and principal details of the Work are indicated in a set of drawings, entitled "**Proposed Roadway Improvements to South Main Street**", which will be available as described below.

The work to be done under any contract awarded pursuant to this Invitation for Bids consists of furnishing all necessary labor, tools, materials and equipment required for the construction of the proposed improvements to South Main Street.

The scope of work includes, but is not limited to, full depth pavement reclamation, pavement milling and resurfacing, box widening, installation of granite curb, installation of new HMA berm, construction of hot mix asphalt sidewalks and cement concrete wheelchair ramps with detectable warning panels, driveway construction, construction of drainage improvements, grading, implementation of erosion prevention and sediment control, construction of retaining walls, landscaping, installation of signs, placement of pavement markings, furnishing and installing rectangular rapid flashing beacons, furnishing and installing a LED stop signs and the implementation of safety controls and signing for construction operations and other incidental items included in the contract documents.

The Contractor shall supply all labor, materials and equipment necessary to complete the work shown on the Contract Drawings and hereinafter contained in the Specifications.

Bid Security: Cash, certified, treasurer's or cashier's check or bid bond in the sum of five (5) percent of the Total Bid is required.

Contract Documents may be examined and obtained at the Natick Department of Public Works located at 75 West Street, Natick, MA 01760, by emailing [bleblanc@natickma.org](mailto:bleblanc@natickma.org), between 8:00 AM and 4:00 PM local time Monday through Thursday and Friday 8:00AM to Noon local time, beginning on November 27, 2019

The requirements of MGL Chapter 81, Section 8B apply to this contract whereby each prospective Bidder proposing to bid must be pre-qualified in accordance with 720 CMR 5.00, "Prequalification of Contractors". Parties may obtain plans and specifications but may not obtain an Official Proposal Book without being listed in the official or waiver contractor lists issued by the MassDOT Prequalification Office. Forms must be obtained from MassDOT, Prequalification and Contract Office, Room 7551, 10 Park Plaza, Boston, MA 02116.

Complete instructions for filing Bids are included in the Instructions to Bidders. Every Bid shall be submitted in full accordance with those Instructions to Bidders. Bids shall be valid only when accompanied by all of the following: (1) a fully completed and properly executed "Bid Form for General Bid"; (2) Bid security in the amount of five percent (5%) of the amount bid, in a form as described in the Instructions to Bidders and made payable to the "Town of Natick Massachusetts."

Attention of the Bidder is called to the requirements for minimum prevailing wage rates to be paid under this Contract and the reporting associated thereto. Minimum prevailing wage rates are required as per M.G.L. c. 149, §§ 26 to 27D, inclusive. Minimum prevailing wage rates determined by the Commissioner are as contained in the Supplementary Conditions section of the Contract Documents.

Bids for this Contract are subject to the provisions of M.G.L. c. 30, §39M. The successful Bidder will be required to furnish a Payment and Performance Bond, with a surety company which is acceptable to Owner, each in the amount of one hundred percent (100%) full amount of the Contract.

Contract payment will be by the unit bid price method as indicated on the Bid Form. No Bidder may withdraw his Bid for a period of thirty (30) calendar days after the date designated above for the opening. The Owner reserves the right to reject any or all Bids or to accept any Bid deemed by it to be in the best interest of the Town of Natick, and to limit the extent of the work to keep within the limits of available funds.

Bidder's attention is directed to the Supplementary Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program requirements of this Contract. The requirements of these programs are explained in the Instructions to Bidders.

TOWN OF NATICK

Board of Selectmen

Michael J. Hickey Jr., Chairman  
Susan G. Salamoff, Vice Chairman  
Jonathan H. Freedman, Clerk  
Karen Adelman-Foster  
Richard P. Jennett Jr.

Town Administrator

Melissa A. Malone

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**SECTION 00200****1. RECEIPT OF BIDS AND COPIES OF BID DOCUMENTS:**

1.1 In accordance with Massachusetts General Laws, Chapter 30, Section 39M, and all other applicable laws, Bids will be received by the Board of Selectmen of the Town of Natick (hereinafter known as the OWNER) at the office of the Procurement Officer, located at the Natick Department of Public Works, 75 West Street, Natick, MA 01760, until **December 18, 2019, at 11:00 A.M. local time**, and then at said office be publicly opened and read aloud. The clock at the Natick Department of Public Works Office shall be considered official. No late Bids shall be accepted. No faxed Bids shall be accepted. If the Procurement Office is closed due to weather or other emergency, the deadline for receipt of bids shall be extended until 11:00 A.M. local time the next business day that the Procurement Office is open.

1.2 Each Bid shall be submitted in an opaque sealed envelope, addressed to the Board of Selectmen, and shall be delivered to the Natick Department of Public Works, 75 West Street, Natick, MA 01760. Each sealed envelope containing a Bid shall be plainly marked on the outside as "Bid for Roadway Improvements to South Main" and also shall bear the name of the Bidder, his address, his contact telephone number, and also his license number, if applicable. If forwarded by mail, the sealed envelope containing the Bid shall be enclosed in another envelope addressed to the Natick Department of Public Works, 75 West Street, Natick, MA. The Bid Security shall be attached to the signature page of the Bid.

1.3 Submission of a Bid shall be conclusive evidence that the Bidder has examined the Premises and the Bid Documents and is familiar with all the conditions of the proposed Contract. Upon finding any omissions or discrepancy in this Invitation for Bids, the Bidder shall notify the Procurement Officer immediately so that any necessary addenda may be issued. Failure of the Bidder to investigate completely the Premises and/or to be thoroughly familiar with the Bid Documents shall in no way relieve any such Bidder from any obligation with respect to the Bid.

1.4 Contract Documents may be examined and obtained at the Natick Department of Public Works located at 75 West Street, Natick, MA 01760, by emailing [bleblanc@natickma.org](mailto:bleblanc@natickma.org), between 8:00 AM and 4:00 PM local time Monday through Thursday and Friday 8:00AM to Noon local time, beginning on November 27, 2019.

1.5 Bidders shall be prequalified by MassDOT for the work to be performed under this Contract.

1.6 Complete sets of Bid Documents shall be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.

1.7 OWNER and ENGINEER, in making copies of Bid Documents available on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

**2. SCOPE OF WORK/LOCATION OF WORK:**

2.1 The Work to be done under this contract consists of furnishing all necessary labor, tools, materials, equipment and incidentals required for the construction of the proposed improvements to South Main Street.

2.2 The scope of work includes, but is not limited to, full depth pavement reclamation, pavement milling and resurfacing, box widening, installation of granite curb, installation of new HMA berm, construction of hot mix asphalt sidewalks and cement concrete wheelchair ramps with detectable warning panels, driveway construction, construction of drainage improvements, grading, implementation of erosion prevention and sediment control, construction of retaining walls, landscaping, installation of signs, placement of pavement markings, furnishing and installing rectangular rapid flashing beacons, furnishing and installing a LED stop signs and the implementation of safety controls and signing for construction operations and other incidental items included in the contract documents.

2.3 The Work includes the furnishing of all labor, materials, equipment and incidentals necessary for completing the work as shown on the Contract Drawings and as herein specified or reasonably implied.

**3. SCHEDULING:**

3.1 The Contract time will start on the date indicated on the Notice to Proceed and the Successful Bidder shall proceed on a continuous basis following Contract start date until all work is complete, unless directed differently by the OWNER. The work shall be completed by the milestones indicated in Section 19.

3.2 The Contractor shall provide a construction schedule for review and acceptance by the Town. The schedule shall indicate the dates of the major activities of the project and milestones and any assumptions. The schedule shall be provided within five (5) business days of receipt of the Notice to Proceed.

**4. FORM OF BID:**

4.1 All Bids shall be made on the blank Bid Form. In the event there is a discrepancy in the Bid between the prices written in words and figures, the prices written in words shall govern.

4.2 The form of Bid shall not be changed, and it shall be signed by the Bidder with his business address and place of residence.

4.3 A conditional or qualified Bid shall not be accepted.

**5. BID SECURITY:**

5.1 Each Bid shall be accompanied by a Bid Bond written by a surety company qualified to do business in Massachusetts, or by Cash, or a Certified Check, or Treasurer's or Cashier's Check issued by a responsible bank or trust company, as Bid Security, in the amount of five (5%) percent of the total Bid, inclusive of Alternate, made payable to the Town of Natick.

5.2 The Bid Security of Bidders, unless otherwise prescribed by law and except those of the three lowest responsible and eligible Bidders, shall be returned within ten (10) calendar days, after opening of Bids. The Bid Security of said three lowest Bidders shall be returned upon execution of the Contract.

5.3 In case the Successful Bidder shall fail or neglect to execute the Contract and furnish the satisfactory bonds within the time specified, the OWNER may determine that the Bidder has abandoned the Contract and thereupon the Bid Security accompanying the Bid shall be forfeited to the OWNER as liquidated damages for such failure or neglect, and to indemnify said OWNER for any loss which may be sustained by failure of the Bidder to execute the Contract and furnish the bonds as aforesaid, provided that, in case of death, disability, or other unforeseen circumstances affecting the Bidder, such Bid Security may be returned to him. After execution of the Contract and acceptance of the bonds by the OWNER, the Bid Security accompanying the Bid of the Successful Bidder will be returned.

**6. WITHDRAWAL OF BIDS:**

6.1 Once Bid is submitted and received by the OWNER for consideration and comparison with other Bids similarly submitted, the Bidder agrees that he may not and shall not withdraw said Bid within a period of thirty (30) calendar days.

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

1. At any time prior to the designated time for the opening of Bids.
2. Provided the Bid has not theretofore been accepted by the OWNER, at any time subsequent to the expiration of the period during which the Bidder has agreed not to withdraw his Bid.

6.3 Unless a Bid is withdrawn as provided above, each Bidder shall agree that it shall be deemed open for acceptance until the Contract has been executed by both parties thereto, or until the OWNER notifies a Bidder in writing that his Bid is rejected, or that the OWNER does not intend to accept it, or returns his Bid deposit. Notice of acceptance of a Bid shall not constitute rejection of any other Bid.

**7. EXPERIENCE OF BIDDER:**

7.1 No award will be made to any Bidder who cannot satisfy the OWNER that it has sufficient ability and experience in this class of work and sufficient capital and plant to enable it to prosecute and complete the work successfully within the time named. The OWNER'S decision of judgment on these matters shall be final, conclusive and binding. All bidders must be pre-qualified in accordance with 720 CMR 5.00, "Prequalification of Contractors".

**8. QUESTIONS REGARDING DRAWINGS AND DOCUMENTS:**

8.1 In general, no answer will be given to prospective Bidders in reply to an oral question if the question involves an interpretation of the intent or meaning of the Drawings or other Contract Documents, or the equality or use of products or methods other than those designated or described on the Drawings or in the Specifications. Any information given to Bidders other than by means of the Drawings and other Contract Documents, including Addenda, as described below, is given informally, for information and the convenience of the Bidder only and is not guaranteed. Each Bidder agrees that such information shall not be used as the basis of, nor shall the giving of any such information entitle the Bidder to assert, any claim or demand against the OWNER or the ENGINEER or account thereof.

8.2 To receive consideration, such questions shall be submitted in writing to the OWNER, with a copy to the ENGINEER, at least five (5) business before the established date for receipt of Bids. If the question involves the equality of use of products or methods, it shall be accompanied by Drawings, Specifications, or other data in sufficient detail to enable the ENGINEER to determine the equality or suitability of the product or method. In general, the ENGINEER will neither approve nor disapprove particular products prior to the opening of Bids. Such products will be considered when offered by the CONTRACTOR for incorporation into the Work.

8.3 The ENGINEER will set forth as Addenda, which shall become part of the Contract Documents, such questions received as above provided as in his sole judgment are appropriate or necessary and his decision regarding each. At least five (5) business days prior to the receipt of Bids, he will send a copy of these Addenda to those prospective Bidders known to have taken out sets of the Drawings and other Contract Documents.

8.4 Addenda will be distributed by email to all parties recorded by the Engineer as having received bidding documents. Each Bidder shall be responsible for determining that it has received all Addenda, which have been issued. If an Addendum notification is issued by email, ENGINEER will request a return email to verify receipt of the Addendum, however, failure by any Bidder or prospective Bidder to send a return email will not invalidate the delivery of the Addendum notification.

8.5 Each Bidder agrees to use the products and methods designated or described in the Specifications as amended by the Addenda.



8.6 It shall each Bidder's responsibility to confirm the existence of Addenda with the ENGINEER prior to submittal of Bid.

8.7 Each Bidder shall acknowledge receipt of the Addenda when submitting their Bid on the Form of Bid.

**9. INFORMATION NOT GUARANTEED:**

9.1 It is agreed and understood that no Bidder or CONTRACTOR shall use or be entitled to use, any of the information made available to him or obtained in any examination made by him in any manner as a basis of or ground for any claim or demand against the OWNER or the ENGINEER, arising from or by reason of any variance which may exist between the information made available and the actual subsurface or other conditions, natural phenomena, existing pipes, or other structures actually encountered during the construction work, except as may otherwise be expressly provided for in the Contract Documents.

9.2 All information given on the Drawings or in the other Contract Documents relating to subsurface and other conditions, natural phenomena, existing pipes, and other structures, is from the best sources at present available to the OWNER. All such information is furnished only for the information and convenience of Bidders and is not guaranteed.

9.3 It is further agreed and understood that OWNER does not warrant or guarantee that the subsurface or other conditions, natural phenomena, existing pipes, or other structures encountered during construction will be the same as those indicated on the Contract Drawings, or in the other Contract Documents.

**10. BIDDER RESPONSIBILITY:**

10.1 If a Bidder, after examining the site and Contract Documents, determines the presence of a discrepancy between the Contract Drawings and Contract Specifications, it is each Bidder's responsibility to notify the ENGINEER prior to the Bid opening. ENGINEER shall review and issue an Addendum if necessary. If a Bidder fails to notify ENGINEER of such discrepancy and is awarded the Contract, the CONTRACTOR shall not be entitled to a Contract price adjustment if OWNER or ENGINEER determines CONTRACTOR was aware of the discrepancy during the Bid period.

10.2 Each Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents. The failure or omission of any Bidder to do any of the foregoing shall in no way relieve any Bidder from any obligation in respect to his Bid.

10.3 The Contract Documents contain the provisions required for the construction of the project. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by each Bidder or relieve him from fulfilling any of the conditions of the Contract.

10.4 It is the CONTRACTOR'S responsibility to visit each known site in order to identify any limitations in access to each site. The OWNER will not be responsible for any claims for additional cost during construction that are related to access to each known site.

10.5 Each Bidder assumes all responsibility for the Bid arriving on time and at the designated location. The time of receipt of a Bid shall determine the acceptability of mailed Bids, regardless of postmark. It shall be the sole responsibility of the Bidder to assure that a Bid has arrived before the time for opening of Bids as specified in the Invitation for Bids and Instructions to Bidders. Bids received at the specified location and after the time specified will not be accepted.

## **11. COMPARISON OF BIDS:**

11.1 All Bids will be compared on the basis of the estimate of quantities of work to be done, per unit price and/or lump sum items, as tabulated in the Bid. Estimated quantities are approximate only, being given for the uniform comparison of Bids. The OWNER does not expressly agree, or by implication agree, that the actual amount of work will correspond therewith, and the right is expressly reserved, to increase or diminish the amount of any class or portion of the work, or to omit construction in certain locations, as may be deemed necessary by the OWNER to keep within the limits of available funds, as permitted by applicable law.

## **12. RIGHTS RESERVED BY OWNER:**

The Owner's rights shall include, but are not limited to the following:

12.1 The OWNER reserves the right to reject any or all Bids, to consider the Alternate, or to waive any informalities or minor defects, if deemed by it to be in the best interest of the Town of Natick.

12.2 The OWNER may make such investigations as it deems necessary to determine the ability of each Bidder to perform the work, and the Bidder shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any Bid if the evidence submitted by, or investigation of such Bidder fails to satisfy the OWNER that such Bidder is properly qualified to carry out the obligations of the Agreement and to complete the work contemplated therein.

12.3 The low Bidder shall supply the names and addresses of suppliers and subcontractors when requested to do so by the OWNER.

12.4 The Town may terminate the Contract upon written notice to the CONTRACTOR if a source of money to fund the Contract is not available during any year of the Contract term. In the alternative, the parties may agree in writing to amend the Contract to provide for a Contract price which represents the reduced appropriation for a contract year.

**13. AWARD OF CONTRACT:**

13.1 Pursuant to M.G.L. c. 30, §39M, award of the Contract will be made to the lowest responsible and eligible Bidder. The term “lowest responsible and eligible bidder” shall mean the bidder: (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who shall certify, that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (3) who shall certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; (4) who, where the provisions of section 8B of chapter 29 apply, shall have been determined to be qualified thereunder, and (5) who obtains within ten (10) calendar days of the notification of contract award the security by bond required under section 29 of chapter 149; provided that for the purposes of this section the term “security by bond” shall mean the bond of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority; provided further that if there is more than one (1) surety company, the surety companies shall be jointly and severally liable. The party to whom the CONTRACT is awarded will be required to execute the Contract, obtain Payment and Performance Bonds, Insurance Certificates and Certification Form, and a Certificate of Vote of authorization of signature on Documents, within ten (10) calendar days from receipt of Notice of Award. The Notice of Award shall be accompanied by the necessary Agreement and Bid Forms. In case of failure of a Bidder to execute the Contract and provide the above mentioned Bonds, Certificates, etc., the OWNER may at its option, consider the Bidder in default, in which case the Bid security accompanying the Bid shall become property of the OWNER.

**14. PAYMENT AND PERFORMANCE BONDS:**

14.1 A Performance Bond and a Payment Bond, each in the amount of one hundred percent (100%) of the Contract price, with a corporate surety approved by the OWNER, will be required for the faithful performance of the Contract.

14.2 Attorneys-in-fact who sign Bid Bonds or Payment Bond and Performance Bond, shall file with each Bond, a certified and effective dated copy of their Power of Attorney.

**15. CONTRACTOR INSURANCE:**

15.1 The Successful Bidder shall provide Commercial General Liability Insurance, Automotive Liability Insurance, Worker's Compensation and Employer's Liability Insurance, including other coverages such as indicated in the General Conditions and as amended in the Supplementary Conditions.

15.2 Each certificate and policy of insurance required by the Contract shall contain a cancellation provision as indicated below with no variations.

“Should any of the above described policies be cancelled or materially amended before the expiration date thereof, the issuing insurer will mail within thirty (30) days prior written notice to the certificate holder named to the left”.

15.3 The Successful Bidder shall provide an endorsement or endorsements which indicate that the Town of Natick is named as an additional insured on the required policies of Commercial General Liability Insurance, Automobile Liability Insurance, and Excess Liability Insurance, Umbrella Form and maintain throughout the term of the Contract and any extension or renewal thereof.

15.4 The Successful Bidder shall provide separate Owner’s Protective Liability Insurance, with the OWNER and ENGINEER only as insured. A rider clause to the Contractor’s Liability Insurance shall not be acceptable.

#### **16. INDEMNIFICATION:**

16.1 The Successful Bidder shall assume the indemnification responsibilities set forth in the Contract which is included in the Bid Documents and is incorporated herein by reference.

#### **17. CONTRACT SIGNING AND NOTICE TO PROCEED:**

17.1 The Notice to Proceed shall be issued within thirty (30) calendar days of the effective date of the Contract by the OWNER. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the OWNER and the Successful Bidder. If the Notice to Proceed has not been issued within the thirty (30) day period, or within the period mutually agreed upon, the Successful Bidder may terminate the Contract without further liability on the part of either party.

#### **18. TIME OF STARTING:**

18.1 The work shall start on the date to be placed on the Notice to Proceed, and proceed on a continuous basis until complete, unless directed differently by OWNER.

#### **19. TIME OF COMPLETION AND LIQUIDATED DAMAGES:**

19.1 The date for commencing Contract time will be the day to be indicated on the Notice to Proceed.

19.2 The Successful Bidder agrees to meet the following milestones for the project:

- 1) On or before **four hundred sixty-nine (469) consecutive calendar days** after the start date to be indicated on the Notice to Proceed
  - a. Completion and acceptance of all work for the project.

19.3 The Successful Bidder agrees to pay as liquidated damages, the sum of **one thousand eight hundred (\$1,800.00)** per day for each calendar day beyond the dates set forth in section 19.2 for which all work is not completed, as defined in section 19.6,

and agrees that this sum is not contingent upon any financial losses incurred by the OWNER due to the delay and is not to be considered as a penalty, but an agreed upon sum to be deducted from CONTRACTOR'S payment.

19.4 It is the intention of the Contract to require the CONTRACTOR to commence work and to continue working on a continuous basis until complete.

19.5 CONTRACTOR to schedule the work in a way that will minimize impacts to traffic and abutters and be performed on a continual basis until all work is complete in accordance with the plans.

19.6 The work shall be considered complete when the final cleanup and punchlist items are complete and approved by the Engineer.

## **20. LAWS AND REGULATIONS:**

20.1 Each Bidder's attention is directed to the fact that all applicable Local, State and Federal laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the Contract, the same as though herein written in full.

20.2 Notwithstanding the foregoing, the Contract is subject to the applicable provisions of, but not limited to, M.G.L..c. 30, §39M, which is incorporated herein by reference.

20.3 Notwithstanding the foregoing, the Contract is also subject to the dig-safe requirements of M.G.L. c. 82, § 40 and the applicable portions of 527 CMR 13, relating to Blasting.

## **21. CONTRACT DRAWINGS:**

21.1 The construction project is as shown on the Contract Drawings prepared by the Engineer.

## **22. UNBALANCED BIDS:**

22.1 A Bidder shall not submit unbalanced prices for any of the Bid items on the Bid. All prices shall be reasonable for the Work entailed. The OWNER reserves the right to reject, to the extent permitted by law, any Bid which contains unbalanced prices, considering such a Bid as non-responsive to the Instructions to Bidders, and to consider same as reason for rejecting a Bid.

22.2 Certain Bid items may have set minimum and/or maximum prices to provide uniformity in the comparison of Bids established by OWNER and indicated on the Bid form. Bids submitted not in compliance with these established amounts, may be rejected for non-compliance with the Instructions to Bidders.

**23. SAFETY AND HEALTH REGULATIONS:**

23.1 This project is subject to the Safety and Health Regulations of the U.S. Department of Labor set forth in Title 29 CFR Part 1926 and to all subsequent amendments, and to the Massachusetts Department of Labor and Workforce Development, Division of Industrial Safety "Rules and Regulations for the Prevention of Accidents in Construction Operations" (Chapter 454 CMR 10.00 et seq.). CONTRACTORS shall be familiar with the requirements of these regulations.

23.2 Each Bidder shall certify that it is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work; that all employees to be employed at the worksite shall have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that he shall comply fully with all laws and regulations applicable to awards made subject to section 44A.

**24. SALES TAX EXEMPTION:**

24.1 The OWNER will provide a Massachusetts Sales Tax Blanket Exemption Certificate Number applicable to all materials to be furnished under this Contract.

24.2 Except as noted above, the Successful Bidder and Subcontractors shall pay all taxes levied by law on materials, labor or services furnished by them. Payments of such levies and sales taxes will be held to be included in Contract amounts.

**25. PERMITS AND LICENSES:**

25.1 The following permits have been obtained for this project and the Successful Bidder shall adhere to all requirements set forth in these permits and all costs associated with adhering to these permits shall be considered incidental to the work under this Contract.

- Order of Conditions (refer to Appendix A)
- MWRA Waterworks 8(m) Permit (refer to Appendix B)

25.2 All other permits for work within the project limits shall be obtained and paid for by the Successful Bidder.

**26. MINIMUM PREVAILING WAGE RATES:**

26.1 Minimum Prevailing Wage Rates as determined by the Commissioner of the Department of Labor and Workforce Development under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27D, as amended, (the Prevailing Wage Act) apply to this project. It is the responsibility of the CONTRACTOR, before Bid opening, to request if necessary, any additional information on Minimum Prevailing Wage Rates for those tradespeople who are not covered by the following schedule of wage rates, but who may be employed for the proposed work under

this Contract.

26.2 Minimum Prevailing wage rates to be used for this Contract are contained in the Bid Documents in Appendix D.

26.3 Regulations for the Prevailing Wage Act state that payment of compensation to workmen for work performed on public work on a lump sum basis, piece work system, or a price certain for the completion of a certain amount of work, or the production of a certain result shall be deemed a violation of the Act regardless of the average hourly earning resulting therefrom. This shall result in the disqualification of any Contractor employing these methods.

26.4 The CONTRACTOR shall submit weekly payrolls to the OWNER during the progress of this Contract for each day work is performed.

## **27. WARRANTIES:**

27.1 The Successful Bidder, if selected as the CONTRACTOR, shall furnish all supplies, equipment, and labor necessary for the performance of the services and/or delivery of equipment required by this Contract and warrants that it has in its employ, and throughout the term of this Contract or any extension or renewal thereof, shall continue to have a sufficient number of persons experienced in performing services required by this Contract, such that the CONTRACTOR'S obligations under this Contract shall be carried out in a prompt, safe and professional manner.

27.2 The Successful Bidder, if selected as the CONTRACTOR, shall further warrant that it shall perform services under this Contract with the highest degree of professionalism and care. Any equipment delivered, unless otherwise agreed by the parties, shall be of generally merchantable quality and shall be fit for the purpose sought by the OWNER.

27.3 The Successful Bidder, if selected as the CONTRACTOR, shall warrant to the OWNER that the work to be performed under the Contract shall be free from defects in material and workmanship for twelve (12) months after acceptance of the work by the OWNER. If any defects in material or workmanship regarding the work occur or are revealed within said twelve (12) month period, the CONTRACTOR shall have the option of repairing or replacing the defective component(s) involved in the work. If part of the work is accepted in accordance with that subsection of the Contract titled Partial Acceptance, the warranty for that part of the work shall be for a period of one (1) year from the date fixed for such acceptance.

## **28. NONDISCRIMINATION IN EMPLOYMENT:**

28.1 Contracts for work under this Bid shall obligate the CONTRACTOR and subcontractors not to discriminate in employment practices.

28.2 Contracts for work under this project shall obligate the CONTRACTOR and Subcontractors not to discriminate in employment practices, and shall maintain not less than five percent (5%) ratio of minority employees man hours to total man hours.

28.3 In connection with the performance of work under this Contract, the CONTRACTOR shall not discriminate against any employees or applicant for employment because of race, color, religious creed, national origin, age, sex, gender identity, sexual orientation (which shall not include persons whose sexual orientation involves minor children as the sex object), genetic information, ancestry, children, marital status, veteran status or membership in the armed services, the receiving of public assistance, and handicap. The aforesaid provision shall include, but not be limited to the following: advertising; recruitment; hiring; rates of pay or other forms of compensation; terms, conditions or privileges of employment; employment upgrading; transfer; demotion; layoff; and termination. The CONTRACTOR shall post hereafter in conspicuous places, available for employees and applicants for employment notices to be provided by the applicable agent of the Commonwealth of Massachusetts setting forth the provisions of the Fair Employment Practices Law of the Commonwealth. The CONTRACTOR shall also undertake in good faith, affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age, sex, gender identity, sexual orientation (which shall not include persons whose sexual orientation involves minor children as the sex object), genetic information, ancestry, children, marital status, veteran status or membership in the armed services, the receiving of public assistance, and handicap and to eliminate and remedy any effects of such discrimination in the past.

28.4 The Successful Bidder shall submit a Contractor's Certification Form and a Subcontractor's Certification Form concerning their employment practices and policies in order to maintain their eligibility to receive the Award of the Contract. These forms shall be submitted with the signed Contract Documents.

## **29. SUBSTITUTE OR "OR-EQUAL" ITEMS**

29.1 The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement; all considerations shall comply with M.G.L. c. 30, §39M(b).

**END OF SECTION**



**SECTION 00300****BID PROPOSAL**

To the Town of Natick, Massachusetts, herein called the "Owner", for:

**Town of Natick, Massachusetts**  
**“Proposed Roadway Improvements to South Main Street”**

The undersigned, as Bidder, declares that all persons or parties interested in this Bid as principals are named herein; that this Bid is bona fide, fair, and made without collusion or fraud with any person (As used in this section, the word "person" shall mean any natural person, business, joint ventures, partnership, corporation, union, committee, club, or other organization, entity or group of individuals.); that he has carefully examined the location of the proposed Work and has, read the Contract Documents; that he shall agree to contract with the Town of Natick, in the form of a Contract to be deposited with the Owner, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish the materials and labor, specified in the Contract, in the manner and time therein prescribed, and according to the requirements of the OWNER, as therein set forth; and that he shall take in full payment therefor, the amounts resulting from the unit and/or lump sum prices which he bids in the following tabulation, when multiplied by the quantities of Work actually accomplished.

The estimated quantities shown in the following tabulation are approximate and are given to provide a uniform basis for comparison of Bids. The OWNER does not expressly or by implication agree that the actual quantities of Work to be done shall correspond thereto.

Bidder hereby agrees to commence Work under this Contract on or before the date to be indicated on the Notice to Proceed and will be completed in operating condition as soon as practicable, but no later than **Four Hundred ninety-five (495) consecutive calendar days** thereafter, unless an extension of time is granted. Bidder further agrees to meet all milestone dates specified in the Information for Bidders Section of this Contract or pay as liquidated damages, the sum of one thousand eight hundred (\$1,800.00) for each consecutive calendar day thereafter that all the work, is not completed, as provided in the Information for Bidders Section of this Contract, and agrees that this sum is not contingent upon any financial losses incurred by the Owner due to the delay, and not to be considered as a penalty, but an agreed upon sum to be deducted from Contractor's payment.

Bidder acknowledges receipt of Addenda:                   #1                   #2                   #3

For all Work presented in the Bid Documents, Bidder submits the following Bid:

Total Base Bid Price in Words                   \_\_\_\_\_

Total Base Bid Price in Numbers       \$\_\_\_\_\_.

Total Bid Price inclusive of Add Alternate No. 1 in Words \_\_\_\_\_

Total Bid Price inclusive of Add Alternate No. 1 in Numbers \$\_\_\_\_\_

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**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
101	0.25 A	CLEARING AND GRUBBING ____ Dollars and ____ cents (\$____)	\$____
102.1	750 FT	TREE TRIMMING ____ Dollars and ____ cents (\$____)	\$____
102.51	17 EA	INDIVIDUAL TREE PROTECTION ____ Dollars and ____ cents (\$____)	\$____
103	2 EA	TREE REMOVED - DIAMETER UNDER 24 INCHES ____ Dollars and ____ cents (\$____)	\$____
104	3 EA	TREE REMOVED - DIAMETER 24 INCHES AND OVER ____ Dollars and ____ cents (\$____)	\$____
105	4 EA	STUMP REMOVED ____ Dollars and ____ cents (\$____)	\$____
120	8550 CY	EARTH EXCAVATION ____ Dollars and ____ cents (\$____)	\$____
121	125 CY	CLASS A ROCK EXCAVATION ____ Dollars and ____ cents (\$____)	\$____
141.1	75 CY	TEST PIT FOR EXPLORATION ____ Dollars and ____ cents (\$____)	\$____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
144	200 CY	CLASS B ROCK EXCAVATION _____ Dollars and _____ cents (\$_____)	\$_____
146	50 EA	DRAINAGE STRUCTURE REMOVED _____ Dollars and _____ cents (\$_____)	\$_____
151	3600 CY	GRAVEL BORROW _____ Dollars and _____ cents (\$_____)	\$_____
156	390 TON	CRUSHED STONE _____ Dollars and _____ cents (\$_____)	\$_____
170	10400 SY	FINE GRADING AND COMPACTING - SUBGRADE AREA _____ Dollars and _____ cents (\$_____)	\$_____
201	39 EA	CATCH BASIN _____ Dollars and _____ cents (\$_____)	\$_____
201.7	5 EA	DOUBLE GRATE CATCH BASIN _____ Dollars and _____ cents (\$_____)	\$_____
202	22 EA	MANHOLE _____ Dollars and _____ cents (\$_____)	\$_____
202.5	11 EA	MANHOLE (5 FOOT DIAMETER) _____ Dollars and _____ cents (\$_____)	\$_____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
202.8	10 EA	MANHOLE WITH DEEP SUMP _____ Dollars and _____ cents (\$_____)	\$_____
204.	8 EA	GUTTER INLET _____ Dollars and _____ cents (\$_____)	\$_____
204.1	13 EA	DOUBLE GRATE GUTTER INLET _____ Dollars and _____ cents (\$_____)	\$_____
204.11	13 EA	GUTTER INLET - SPECIAL _____ Dollars and _____ cents (\$_____)	\$_____
220	31 EA	DRAINAGE STRUCTURE ADJUSTED _____ Dollars and _____ cents (\$_____)	\$_____
220.3	11 EA	DRAINAGE STRUCTURE CHANGE IN TYPE _____ Dollars and _____ cents (\$_____)	\$_____
220.5	6 EA	DRAINAGE STRUCTURE REMODELED _____ Dollars and _____ cents (\$_____)	\$_____
220.7	31 EA	SANITARY STRUCTURE ADJUSTED _____ Dollars and _____ cents (\$_____)	\$_____
220.8	4 EA	SANITARY STRUCTURE REMODELED _____ Dollars and _____ cents (\$_____)	\$_____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
221.2	3 EA	CURB COVER AND FRAME ____ Dollars and ____ cents (\$____)	\$____
222.3	132 EA	FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD ____ Dollars and ____ cents (\$____)	\$____
222.5	13 EA	4 INCH FRAME AND GRATE- HEAVY DUTY ____ Dollars and ____ cents (\$____)	\$____
223.2	49 EA	FRAME AND GRATE (OR COVER) REMOVED AND DISCARDED ____ Dollars and ____ cents (\$____)	\$____
224.12	44 EA	12 INCH HOOD ____ Dollars and ____ cents (\$____)	\$____
238.12	770 FT	12 INCH DUCTILE IRON PIPE ____ Dollars and ____ cents (\$____)	\$____
238.16	50 FT	16 INCH DUCTILE IRON PIPE ____ Dollars and ____ cents (\$____)	\$____
238.24	20 FT	24 INCH DUCTILE IRON PIPE ____ Dollars and ____ cents (\$____)	\$____
241.12	1075 FT	12 INCH REINFORCED CONCRETE PIPE ____ Dollars and ____ cents (\$____)	\$____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
241.18	850 FT	18 INCH REINFORCED CONCRETE PIPE _____ Dollars and _____ cents (\$_____)	\$_____
241.24	150 FT	24 INCH REINFORCED CONCRETE PIPE _____ Dollars and _____ cents (\$_____)	\$_____
241.3	10 FT	30 INCH REINFORCED CONCRETE PIPE _____ Dollars and _____ cents (\$_____)	\$_____
241.36	15 FT	36 INCH REINFORCED CONCRETE PIPE _____ Dollars and _____ cents (\$_____)	\$_____
243.12	200 FT	12 INCH REINFORCED CONCRETE PIPE CLASS IV _____ Dollars and _____ cents (\$_____)	\$_____
244.12	50 FT	12 INCH REINFORCED CONCRETE PIPE CLASS V _____ Dollars and _____ cents (\$_____)	\$_____
244.18	180 FT	18 INCH REINFORCED CONCRETE PIPE CLASS V _____ Dollars and _____ cents (\$_____)	\$_____
244.24	40 FT	24 INCH REINFORCED CONCRETE PIPE CLASS V _____ Dollars and _____ cents (\$_____)	\$_____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
250.06	30 FT	6 INCH POLYVINYL CHLORIDE SANITARY SEWER PIPE ____ Dollars and ____ cents (\$____)	\$____
268	2 EA	6 INCH SUBDRAIN CLEANOUT ____ Dollars and ____ cents (\$____)	\$____
269.06	340 FT	6 INCH SLOT-PERFORATED CORRUGATED PLASTIC PIPE (SUBDRAIN) ____ Dollars and ____ cents (\$____)	\$____
357	9 EA	GATE BOX ____ Dollars and ____ cents (\$____)	\$____
358	42 EA	GATE BOX ADJUSTED ____ Dollars and ____ cents (\$____)	\$____
381.01	12 EA	SERVICE BOX (MUNICIPAL STANDARD) ____ Dollars and ____ cents (\$____)	\$____
381.3	48 EA	SERVICE BOX ADJUSTED ____ Dollars and ____ cents (\$____)	\$____
403.1	325 TON	CRUSHED STONE FOR BLENDING ____ Dollars and ____ cents (\$____)	\$____
403.2	18750 SY	FULL DEPTH RECLAMATION WITH EMULSIFIED ASPHALT STABILIZATION ____ Dollars and ____ cents (\$____)	\$____



**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
415	2040 SY	PAVEMENT MICROMILLING _____ Dollars and _____ cents (\$_____)	\$_____
443	230 MGL	WATER FOR ROADWAY DUST CONTROL _____ Dollars and _____ cents (\$_____)	\$_____
452	4025 GAL	ASPHALT EMULSION FOR TACK COAT _____ Dollars and _____ cents (\$_____)	\$_____
453	1150 FT	HMA JOINT SEALANT _____ Dollars and _____ cents (\$_____)	\$_____
460	8750 TON	HOT MIX ASPHALT _____ Dollars and _____ cents (\$_____)	\$_____
470.2	450 FT	HOT MIX ASPHALT BERM, TYPE A – MODIFIED _____ Dollars and _____ cents (\$_____)	\$_____
472	190 TON	ASPHALT MIXTURES FOR TEMPORARY WORK _____ Dollars and _____ cents (\$_____)	\$_____
504	270 FT	GRANITE CURB TYPE VA4 - STRAIGHT _____ Dollars and _____ cents (\$_____)	\$_____
504.1	450 FT	GRANITE CURB TYPE VA4 – CURVED _____ Dollars and _____ cents (\$_____)	\$_____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
506	300 FT	GRANITE CURB TYPE VB - STRAIGHT _____ Dollars and _____ cents (\$_____)	\$_____
506.1	80 FT	GRANITE CURB TYPE VB – CURVED _____ Dollars and _____ cents (\$_____)	\$_____
509	1300 FT	GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS - STRAIGHT _____ Dollars and _____ cents (\$_____)	\$_____
509.1	180 FT	GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS - CURVED _____ Dollars and _____ cents (\$_____)	\$_____
510	90 FT	GRANITE EDGING TYPE SA _____ Dollars and _____ cents (\$_____)	\$_____
510.1	18 FT	GRANITE EDGING TYPE SA (RADIUS 10 FEET OR LESS) _____ Dollars and _____ cents (\$_____)	\$_____
514	9 EA	GRANITE CURB INLET – STRAIGHT _____ Dollars and _____ cents (\$_____)	\$_____
514.1	5 EA	GRANITE CURB INLET DOUBLE WIDE – STRAIGHT _____ Dollars and _____ cents (\$_____)	\$_____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
580	7020 FT	CURB REMOVED AND RESET ____ Dollars and ____ cents (\$____)	\$____
581	28 EA	CURB INLET REMOVED AND RESET ____ Dollars and ____ cents (\$____)	\$____
582	1 EA	CURB CORNER REMOVED AND RESET ____ Dollars and ____ cents (\$____)	\$____
594	2450 FT	CURB REMOVED AND DISCARDED ____ Dollars and ____ cents (\$____)	\$____
620.13	400 FT	GUARDRAIL, TL-3 (SINGLE FACED) ____ Dollars and ____ cents (\$____)	\$____
620.33	63 FT	GUARDRAIL - CURVED, TL-3 (SINGLE FACED) ____ Dollars and ____ cents (\$____)	\$____
627.1	4 EA	TRAILING ANCHORAGE ____ Dollars and ____ cents (\$____)	\$____
627.83	2 EA	GUARDRAIL TANGENT END TREATMENT, TL-3 ____ Dollars and ____ cents (\$____)	\$____
628.21	3 EA	TRANSITION TO NCHRP 350 GUARDRAIL ____ Dollars and ____ cents (\$____)	\$____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
630	1920 FT	HIGHWAY GUARD REMOVED AND RESET ____ Dollars and ____ cents (\$____)	\$____
630.2	435 FT	HIGHWAY GUARD REMOVED AND DISCARDED ____ Dollars and ____ cents (\$____)	\$____
634	10 EA	W BEAM GUARD PANEL ____ Dollars and ____ cents (\$____)	\$____
669	25 FT	FENCE REMOVED AND STACKED ____ Dollars and ____ cents (\$____)	\$____
670	570 FT	FENCE REMOVED AND RESET ____ Dollars and ____ cents (\$____)	\$____
685	80 CY	STONE MASONRY WALL IN CEMENT MORTAR ____ Dollars and ____ cents (\$____)	\$____
697.11	120 EA	INLET SEDIMENT FILTER BAG ____ Dollars and ____ cents (\$____)	\$____
698.4	2400 SY	GEOTEXTILE FABRIC FOR PERMANENT EROSION CONTROL ____ Dollars and ____ cents (\$____)	\$____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
701	100 SY	CEMENT CONCRETE SIDEWALK _____ Dollars and _____ cents (\$_____)	\$_____
701.2	320 SY	CEMENT CONCRETE WHEELCHAIR RAMP _____ Dollars and _____ cents (\$_____)	\$_____
702	550 TON	HOT MIX ASPHALT WALK SURFACE _____ Dollars and _____ cents (\$_____)	\$_____
703	375 TON	HOT MIX ASPHALT DRIVEWAY _____ Dollars and _____ cents (\$_____)	\$_____
703.9	525 SF	IMPRINTED CROSSWALK _____ Dollars and _____ cents (\$_____)	\$_____
704.2	10 SY	GRAVEL FOR DRIVEWAYS _____ Dollars and _____ cents (\$_____)	\$_____
705.1	1 SY	FLAGSTONE WALK REMOVED AND RESET _____ Dollars and _____ cents (\$_____)	\$_____
706.1	10 SY	BRICK WALK REMOVED AND RELAID _____ Dollars and _____ cents (\$_____)	\$_____
710.4	3 EA	BOUND - PLAIN GRANITE _____ Dollars and _____ cents (\$_____)	\$_____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
711	11 EA	BOUND REMOVED AND RESET ____ Dollars and ____ cents (\$____)	\$____
715	21 EA	RURAL MAIL BOX REMOVED AND RESET ____ Dollars and ____ cents (\$____)	\$____
751	525 CY	LOAM BORROW ____ Dollars and ____ cents (\$____)	\$____
756	1 LS	NPDES STORMWATER POLLUTION PREVENTION PLAN ____ Dollars and ____ cents (\$____)	\$____
765	4700 SY	SEEDING ____ Dollars and ____ cents (\$____)	\$____
767.122	2640 LF	FILTER TUBE ____ Dollars and ____ cents (\$____)	\$____
767.2	4700 SY	HAY MULCH ____ Dollars and ____ cents (\$____)	\$____
767.6	15 CY	AGED PINE BARK MULCH ____ Dollars and ____ cents (\$____)	\$____
769	2250 FT	PAVEMENT MILLING MULCH UNDER GUARD RAIL ____ Dollars and ____ cents (\$____)	\$____

**BID NUMBER:****BIDDER NAME:**

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures	Total in Figures (Unit Price Times Est. Quantity)
804.3	210 FT	3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC -(UL)  _____Dollars and _____cents (\$_____)	\$_____
811.31	6 EA	PULL BOX 12 X 12 INCHES - SD2.031  _____Dollars and _____cents (\$_____)	\$_____
815.11	2 EA	FLASHING BEACON SCHOOL ZONE SIGN (SOLAR)  _____Dollars and _____cents (\$_____)	\$_____
815.13	4 EA	LED ILLUMINATED SIGN AND POST (SOLAR)  _____Dollars and _____cents (\$_____)	\$_____
815.15	3 EA	RECTANGULAR RAPID FLASHING BEACON SYSTEM (AC)  _____Dollars and _____cents (\$_____)	\$_____
832	274 SF	WARNING-REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A)  _____Dollars and _____cents (\$_____)	\$_____
833.5	105 EA	DEMOUNTABLE REFLECTORIZED DELINEATOR - GUARD RAIL  _____Dollars and _____cents (\$_____)	\$_____
833.7	6 EA	DELINEATION FOR GUARD RAIL TERMINI  _____Dollars and _____cents (\$_____)	\$_____

**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
847.1	48 EA	SIGN SUP (N/GUIDE)+ RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL  _____Dollars and _____cents (\$_____)	\$_____
851.2	1 LS	TRAFFIC CONTROLS FOR CONSTRUCTION  _____Dollars and _____cents (\$_____)	\$_____
854.014	50000 FT	TEMPORARY PAVING MARKINGS - 4 INCH (PAINT)  _____Dollars and _____cents (\$_____)	\$_____
854.018	912 FT	TEMPORARY PAVING MARKINGS - 8 INCH (PAINT)  _____Dollars and _____cents (\$_____)	\$_____
854.112	7000 FT	TEMPORARY PAVING MARKINGS - 12 INCH (PAINT)  _____Dollars and _____cents (\$_____)	\$_____
860.104	12500 FT	4 INCH REFLECTORIZED WHITE LINE (PAINTED)  _____Dollars and _____cents (\$_____)	\$_____
860.108	75 FT	8 INCH REFLECTORIZED WHITE LINE (PAINTED)  _____Dollars and _____cents (\$_____)	\$_____



**BID NUMBER:****BIDDER NAME:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
860.112	3150 FT	12 INCH REFLECTORIZED WHITE LINE (PAINTED) ____ Dollars and ____ cents (\$_____)	\$_____
861.104	12150 FT	4 INCH REFLECTORIZED YELLOW LINE (PAINTED) ____ Dollars and ____ cents (\$_____)	\$_____
861.108	330 FT	8 INCH REFLECTORIZED YELLOW LINE (PAINTED) ____ Dollars and ____ cents (\$_____)	\$_____
864	35 SF	PAVEMENT ARROW REFLECTORIZED WHITE (PAINTED) ____ Dollars and ____ cents (\$_____)	\$_____
864.12	2300 SF	GREEN ROADWAY SHOULDER PAVEMENT MARKING ____ Dollars and ____ cents (\$_____)	\$_____
874	18 EA	STREET NAME SIGN ____ Dollars and ____ cents (\$_____)	\$_____
874.2	1 EA	TRAFFIC SIGN REMOVED AND RESET ____ Dollars and ____ cents (\$_____)	\$_____
874.4	78 EA	TRAFFIC SIGN REMOVED AND STACKED ____ Dollars and ____ cents (\$_____)	\$_____

**BID NUMBER:****BIDDER NAME:**

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<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
877.2	41 EA	SIGN POST REMOVED AND STACKED  _____Dollars and _____cents (\$_____)	\$_____
<b>TOTAL BASE BID</b>			
_____Dollars and  _____cents (\$_____)			<u>\$_____</u>

**ADD ALTERNATE NO. 1:**

<b>Item No.</b>	<b>Estimated Quantity</b>	<b>Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures</b>	<b>Total in Figures (Unit Price Times Est. Quantity)</b>
101	0.13 A	CLEARING AND GRUBBING _____ Dollars and _____ cents (\$_____)	\$_____
102.1	105 FT	TREE TRIMMING _____ Dollars and _____ cents (\$_____)	\$_____
105	29 EA	STUMP REMOVED _____ Dollars and _____ cents (\$_____)	\$_____
120	1050 CY	EARTH EXCAVATION _____ Dollars and _____ cents (\$_____)	\$_____
121	40 CY	CLASS A ROCK EXCAVATION _____ Dollars and _____ cents (\$_____)	\$_____
144	25 CY	CLASS B ROCK EXCAVATION _____ Dollars and _____ cents (\$_____)	\$_____
151	432 CY	GRAVEL BORROW _____ Dollars and _____ cents (\$_____)	\$_____
170	1300 SY	FINE GRADING AND COMPACTING – SUBGRADE AREA _____ Dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures	Total in Figures (Unit Price Times Est. Quantity)
509	270 FT	GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS – STRAIGHT _____ Dollars and _____ cents (\$_____)	\$_____
509.1	90 FT	GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS - CURVED _____ Dollars and _____ cents (\$_____)	\$_____
685	155 CY	STONE MASONRY WALL IN CEMENT MORTAR _____ Dollars and _____ cents (\$_____)	\$_____
698.4	2850 SY	GEOTEXTILE FABRIC FOR PERMANENT EROSION CONTROL _____ Dollars and _____ cents (\$_____)	\$_____
701.2	180 SY	CEMENT CONCRETE WHEELCHAIR RAMP _____ Dollars and _____ cents (\$_____)	\$_____
702	156 TON	HOT MIX ASPHALT WALK SURFACE _____ Dollars and _____ cents (\$_____)	\$_____
703	42 TON	HOT MIX ASPHALT DRIVEWAY _____ Dollars and _____ cents (\$_____)	\$_____
703.9	295 SF	IMPRINTED CROSSWALK _____ Dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum Price Bid in Both Words and Figures	Total in Figures (Unit Price Times Est. Quantity)
751	214 CY	LOAM BORROW ____ Dollars and ____ cents (\$____)	\$____
765	1050 SY	SEEDING ____ Dollars and ____ cents (\$____)	\$____
767.2	1050 SY	HAY MULCH ____ Dollars and ____ cents (\$____)	\$____
815.14	2 EA	RECTANGULAR RAPID FLASHING BEACON SYSTEM (SOLAR) ____ Dollars and ____ cents (\$____)	\$____
832	9 SF	WARNING – REGULATORY AND ROUTE MARKER – ALUMINUM PANEL (TYPE A) ____ Dollars and ____ cents (\$____)	\$____
847.1	1 EA	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL ____ Dollars and ____ cents (\$____)	\$____
860.112	1116 FT	12 INCH REFLECTOIZED WHITE LINE (PAINTED) ____ Dollars and ____ cents (\$____)	\$____

**TOTAL BID INCLUSIVE OF ADD ALTERNATE NO. 1:**

**TOTAL BID**

\_\_\_\_\_Dollars and

\_\_\_\_\_cents (\$\_\_\_\_\_) \$\_\_\_\_\_

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STATEMENT OF EXPERIENCE: The undersigned as Bidder declares that he has successfully accomplished similar work in the following places:

1. Description of Project (Include type of project, size, total value of Contract, date of completion, etc.)

Owner & Contact Person (Names, Addresses and Telephone Nos.)

Engineer & Contact Person

2. Description of Project (Include type of project, size, total value of Contract, date of completion, etc.)

Owner & Contact Person (Names, Addresses and Telephone Nos.)

Engineer & Contact Person

3. Description of Project (Include type of project, size, total value of Contract, date of completion, etc.)

Owner & Contact Person (Names, Addresses and Telephone Nos.)

Engineer & Contact Person

4. Description of Project (Include type of project, size, total value of Contract, date of completion, etc.)

Owner & Contact Person (Names, Addresses and Telephone Nos.)

Engineer & Contact Person



5. Description of Project (Include type of project, size, total value of Contract, date of completion, etc.)

Owner & Contact Person (Names, Addresses and Telephone Nos.)

Engineer & Contact Person

NOTE: Bidders may attach supplementary information, if necessary, to indicate the experience, organization and equipment available to undertake the Work in the event of an award of the Contract.

Each Bid shall be accompanied by a **Bid Deposit** in the form of a Bid Bond, or cash, or a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company, payable to the awarding authority. The amount of such Bid Deposit shall be five percent (5%) of the value of the Bid. No Bidder may withdraw his Bid for a period of thirty (30) calendar days after the date of Bid opening.

A **Performance Bond and a Payment Bond**, each in the amount of one hundred percent (100 %) of the Contract Price, with a corporate surety approved by the OWNER, shall be required for the faithful performance of the Contract.

**BIDDER:** The full name and residence of all persons and parties interested in this Bid as principals, is as follows:

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This Bid shall bear the written signature of the Bidder or his authorized agent. If the Bidder is a corporation or a partnership, the Bid shall be signed by a duly authorized officer of such corporation or by a partner, and the title of such officer shall be stated. The **Certificate as to Corporate Bidder Form** shall be completed following this page.

The undersigned Bidder hereby certifies he/she shall comply with the minority workforce percentage ratio and specific affirmative action steps contained in the applicable EEO/AA provisions of this Contract provisions. The Contractor receiving the award of the Contract shall be required to obtain from each of its subcontractors a copy of the certification by said subcontractor, regardless of tier, that it shall comply with the minority workforce ratio and specific affirmative action steps contained in these EEO/AA contract provisions and submit it to the contracting agency prior to the award of such subcontract.

The undersigned, as Bidder, hereby certifies that he is aware of the applicable requirements of the Williams Steiger Occupational Safety and Health Act of 1970 (O.S.H.A.), and all latest revisions thereto, and that this Bid is prepared on the basis of compliance with those requirements.

The undersigned, as Bidder, hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work. The undersigned, as Bidder, hereby certifies that all employees to be employed at the worksite shall have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration at the time the employees begin work. The undersigned, as Bidder, hereby certifies that if it is selected as Contractor, it shall furnish documentation of successful completion of said course with the first certified payroll report for each employee. The undersigned, as Bidder, hereby certifies

that he is currently in compliance with the provisions of Massachusetts General Laws, Chapter 151B, which governs nondiscrimination in employment.

The undersigned, as Bidder, hereby certifies that he shall maintain records in reasonable detail which accurately and fairly reflect the financial transactions and disposition of the Bidder, in accordance with M.G.L. Chapter 30, Section 39R.

THIS BID SUBMITTED ON 20\_\_\_\_\_

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

By

Signature

---

Printed Name

Printed Title

By

(Corporation Name)

(State of Incorporation)

(Corporate Seal)

Attest

(Secretary)

Business Address:

Telephone Number: (     )

E-mail Address:

Fax:

## CERTIFICATE OF NON-COLLUSION

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

Name of Bidder

Address of Bidder

By:

Signature

---

Printed Name

Printed Title

Date

## TAX COMPLIANCE CERTIFICATION

Pursuant to M.G.L. c.62C, Section 49A, the undersigned hereby certifies under penalty of perjury that the Bidder has complied with all laws of the Commonwealth of Massachusetts relating to the payment of taxes, to the reporting of employees and contractors, and to the withholding and remitting of child support.

Name of Bidder

Address of Bidder

By:

Signature

Printed Name

Printed Title

Date

## CONFLICT OF INTEREST CERTIFICATION

The Bidder named below hereby certifies that:

1. The Bidder has not given, offered, or agreed to give any gift, contribution, or, offer of employment as an inducement for, or in connection with, the award of a contract for these services.
2. No consultant to, or, subcontractor for the Bidder has given, offered, or agreed to give any gift, contribution, or, offer of employment to the Bidder, or, to any other person, corporation, or entity as an inducement for, or, in connection with, the award to the consultant or subcontractor of a contract by the Bidder.
3. No person, corporation, or, other entity, other than a bona fide full time employee of the Bidder has been retained or hired to solicit for or in any way assist the Bidder in obtaining the contract for services upon an agreement or understanding that such person, corporation, or entity be paid a fee or other compensation contingent upon the award of the contract to the Bidder.
4. The Massachusetts Conflict of Interest Law, Chapter 268A of the Massachusetts General Laws, applies to the Bidder with respect to the services outlined in the Project Manual.
5. Bidder, its officers, employees, agents, subcontractors and affiliated agencies, shall not participate in any activity which constitutes a violation of the Massachusetts Conflict of Interest Law or which creates an appearance of a violation of the Massachusetts Conflict of Interest Law.

Name of Bidder

Address of Bidder

By:

Signature

---

Printed Name

Printed Title

Date

## CERTIFICATE AS TO CORPORATE BIDDER

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_ of \_\_\_\_\_ the corporation named as Bidder in the Bid included herein; that \_\_\_\_\_, who signed said Bid on behalf of the Bidder was then \_\_\_\_\_ of said corporation; that I know his signature; that his signature thereon is genuine and that said Bid was duly signed, sealed and executed for and in behalf of said corporation by authority of its governing body.

(Corporate Seal)

Name of Bidder

Address of Bidder

Telephone Number

By:

Signature

---

Printed Name

Printed Title

Date

This Certificate shall be completed where Bidder is a Corporation and shall be so completed by its Clerk. In the event that the Clerk is the person signing the Bidder on behalf of the Corporation, this certificate shall be completed by another office of the Corporation.

## CERTIFICATE OF COMPLIANCE WITH M.G.L., C.151B

The Bidder hereby certifies that it is in compliance with and shall remain in compliance with Massachusetts General Laws (M.G.L.) Chapter 151B and shall not discriminate on any prohibited basis outlined herein.

Name of Bidder

Address of Bidder

Telephone Number

By:

Signature

---

Printed Name

Printed Title

Date



## CERTIFICATE OF NON-DEBARMENT

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine or any other applicable debarment provisions of any other chapter of the General Law or any rule or regulation promulgated thereunder.

(Company Name)

(Signature title)

Name of Bidder

Address of Bidder

\By:

Signature

---

Printed Name

Printed Title

Date

## CERTIFICATE OF FOREIGN CORPORATION

If the Bidder is a foreign corporation, by affixing his or her signature, the Bidder certifies that the corporation is qualified under provision of MGL C181, Section 4, or otherwise, to do business in the Commonwealth of Massachusetts.

Name of Bidder

Address of Bidder

By:

Signature

---

Printed Name

Printed Title

Date

If awarded the Contract, the Contractor shall provide with his agreement package, a certificate from the Secretary of the Commonwealth of Massachusetts that the corporation is qualified under provisions of MGL c181, Section 4, to do business in the Commonwealth.

**CONTRACT INSURANCE REQUIREMENTS**

The undersigned certifies that he/she is aware of the insurance requirements of this Contract and he/she is willing and able to furnish the required insurance as specified, and that this Bid is prepared on the basis of compliance with these requirements.

Name of Bidder

Address of Bidder

By:

Signature

---

Printed Name

Printed Title

Date

**OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION CERTIFICATION**

The undersigned agrees that if he is selected as the contractor, he shall comply with the provisions of M.G.L. Chapter 30, Section 39S.

The undersigned certifies, under penalties of perjury, that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; that all employees to be employed at the worksite shall have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that all employees to be employed in the work subject to this Bid have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration.

Name of Bidder

Address of Bidder

By:

Signature

---

Printed Name

Printed Title

Date

**SECTION 00400****BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

---

(Name of Contractor)

---

(Address of Contractor)

a \_\_\_\_\_, hereinafter called PRINCIPAL and (Corporation, Partnership, or Individual)

---

(Name of Surety)

---

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

Town of Natick, Massachusetts

(Name of Owner)

Town Hall, 13 East Central Street, Natick, MA 01760

(Address of Owner)

as OWNER in the total aggregate penal sum of

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

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

The Condition of the above obligation is such that, whereas the Principal has submitted to the Board of Selectmen, Town of Natick, Massachusetts a certain Bid, attached hereto and hereby made a part hereof and hereby incorporated by reference herein, to enter into a Contract in writing, for the Proposed Roadway Improvements to South Main Street project in Natick, Massachusetts.

NOW, THEREFORE,

(a) If said Bid shall be rejected, or

- (b) If said Bid shall be accepted and the Principal shall execute and deliver a Contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a Bond for his faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bond shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hand and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

ATTEST:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
(Principal Secretary)

(SEAL)(s)

By \_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Surety)

ATTEST:

_____	By _____
(Witness as to Surety)	Attorney-in-Fact Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

If Contractor is partnership, all partners should execute Bond.

IMPORTANT - Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of Massachusetts.

NOTICE OF AWARDDATED \_\_\_\_\_

To: BIDDER:  
ADDRESS:

---

OWNER has considered the Bid submitted by you for the above described Work in response to the Invitation for Bids dated \_\_\_\_\_ and Instructions to Bidders.

You are hereby notified that your Bid has been accepted in the amount of \$\_\_\_\_\_.

You shall comply with the following conditions precedent within ten (10) calendar days of the date of this Notice of Award, that is by \_\_\_\_\_.

1. You shall deliver to OWNER five (5) fully executed counterparts of the Agreement including all the Contract Documents. Each of the Contract Documents shall bear your signature on the cover page.
2. You shall deliver with the executed Agreement, the Contract Security (Bonds - including both a fully-executed Performance Bond and a fully-executed Payment Bond - and Certificates of Insurance) as specified in the Instructions to Bidders, General Conditions and Supplementary Conditions.

Failure to comply with these conditions within the time specified will entitle OWNER to consider your bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited.

Five (5) copies of each of the proposed Contract Documents accompany this Notice of Award.



Within ten (10) calendar days after you comply with those conditions, OWNER will return to you one (1) fully signed counterpart of the Agreement with the Contract Documents attached.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

By: \_\_\_\_\_

\_\_\_\_\_  
Signature of Owner's Representative

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by

\_\_\_\_\_  
this the \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_.

By \_\_\_\_\_  
(Authorized Signature)

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

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**SECTION 00500****CONTRACT AGREEMENT**

THIS AGREEMENT, hereinafter "Agreement" or "Contract," made this \_\_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_\_\_, by and between the Town of Natick, Massachusetts located at the Natick Town Hall 13 East Central Street, Natick, MA 01760 (hereinafter called OWNER), by its Board of Selectmen, and

\_\_\_\_\_ doing business as a (Corporation, Partnership or Individual) hereinafter called "CONTRACTOR."

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, OWNER and CONTRACTOR hereby agree as follows:

**ARTICLE 1. WORK**

1.1. CONTRACTOR shall commence the Work as specified or indicated in the Contract Documents as defined in Article 8 herein.

1.2. The scope of work includes, but is not limited to, full depth pavement reclamation, pavement milling and resurfacing, box widening, installation of granite curb, installation of new HMA berm, construction of hot mix asphalt sidewalks and cement concrete wheelchair ramps with detectable warning panels, driveway construction, construction of drainage improvements, grading, implementation of erosion prevention and sediment control, construction of retaining walls, landscaping, installation of signs, placement of pavement markings, furnishing and installing rectangular rapid flashing beacons, furnishing and installing a LED stop signs and the implementation of safety controls and signing for construction operations and other incidental items included in the contract documents.

1.3. CONTRACTOR shall furnish all materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the Project described herein.

**ARTICLE 2. ENGINEER**

2.1. The Project has been designed by Green International Affiliates, Inc., who is herein called ENGINEER, and who shall act as OWNER'S representative, who shall assume all duties and responsibilities, and who and shall have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

**ARTICLE 3. CONTRACT TIME**

3.1. CONTRACTOR shall commence work when authorization by the OWNER or ENGINEER with the provisions of the Notice to Proceed and Contract Documents is received. The work shall be completed on or before the following milestone dates:

- 1) On or before **four hundred ninety-five (495) consecutive calendar days** after the start date to be indicated on the Notice to Proceed
  - a. Completion and acceptance of all work for the project.

Therefore the date all work shall be completed is on or before \_\_\_\_\_, 20\_\_\_\_\_.

3.2. Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement. They also recognize the delays, expense and difficulties involved in proving in a legal proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER **one thousand eight hundred (\$1,800.00)** for each day that expires after each time limit specified in paragraph 3.1 of this section for completion and readiness for final payment.

#### ARTICLE 4. CONTRACT PRICE

4.1. In consideration for performance of the work as required by the Contract Documents, the OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contractor's Bid, as incorporated into the Contract Documents and as permitted by law.

#### ARTICLE 5. PAYMENT PROCEDURES

5.1. CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions, as modified, if applicable, by the Supplementary Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.2. Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER in accordance with MGL Chapter 30 Section 39G and as provided in Article 14 of the General Conditions, as modified, if applicable, by the Supplementary Conditions. Retainage with respect to any progress payments will be five percent (5%) or, if stipulated, the maximum allowed by Massachusetts General Laws. ENGINEER shall establish with the CONTRACTOR an acceptable format for submittal and for the processing of progress payments, prior to the first such request as will be submitted by the CONTRACTOR.

5.3. Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, as modified, if applicable, by the Supplementary Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.13.

## ARTICLE 6. TERMS

6.1. Terms used in this Agreement, which are defined in Article 1 of the General Conditions, as modified, if applicable, by the Supplementary Conditions, will have the meanings indicated in the General Conditions, as modified, if applicable, by the Supplementary Conditions.

## ARTICLE 7. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

7.1. CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

7.2. CONTRACTOR has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in the Supplementary Conditions as provided in paragraph 4.2 of the General Conditions, and accepts the determination set forth in paragraph SC-4.2 of the Supplementary Conditions of the extent of the technical data contained in such reports and drawings upon which CONTRACTOR is entitled to rely.

7.3. CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies (in addition to or to supplement those referred to in paragraph 7.2 above) which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.2 of the General Conditions, as modified, if applicable, by the Supplementary Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.

7.4. CONTRACTOR has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.3 of the General Conditions, as modified, if applicable, by the Supplementary Conditions.

7.5. CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.

7.6. CONTRACTOR has given ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

#### ARTICLE 8. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1 Invitation for Bids
- 8.2 Instructions to Bidders
- 8.3 Contractor's Bid
- 8.4 This Agreement ("Agreement")
- 8.5. Exhibits to this Agreement
- 8.6. General Conditions
- 8.7 Supplementary Conditions
- 8.8 Contractor's Performance and Payment Bonds, and insurance certificates
- 8.9. Notice of Award
- 8.10 Notice to Proceed
- 8.11 Specifications consisting, as listed in table of contents
- 8.12 Construction Drawings totaling 176 Sheets and dated 11/27/2019
- 8.13 Addenda numbers \_\_\_ to \_\_\_, inclusive.
- 8.14 Change Order

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.4 and 3.5 of the General Conditions.

ARTICLE 9. INDEMNIFICATION

To the fullest extent permitted by law, the CONTRACTOR shall indemnify, defend, and hold harmless the Town of Natick and all of its officers, employees, boards, commissions, committees, agents and representatives and the ENGINEER from and against all claims, causes of action, suits, costs, damages, and liability of any kind which arise out of the breach by the CONTRACTOR of its obligations under this Contract, or the act or omission of the CONTRACTOR, its Subcontractors, or their officers, employees, agents and representatives or anyone directly or indirectly employed by them, or anyone for whose acts or omissions they may be liable, regarding the work to be performed by the CONTRACTOR under the Contract, or which arise out of the violation of any Federal, Massachusetts or Town of Natick statute, by-law, rule, regulation, order or directive, or which relate to personal injury or property damage suffered by the CONTRACTOR or any of its officers or employees regarding the subject matter of the Contract.

ARTICLE 10: INSURANCE

10.1. The CONTRACTOR shall provide insurance that satisfies the categories and amounts specified in Article 5 of the General Conditions, as modified by Article 5 of the Supplementary Conditions.

10.2. Each certificate and policy of insurance required by this Agreement shall contain a cancellation provision as indicated below with no variations.

“Should any of the above described policies be canceled or materially amended before the expiration date thereof, the issuing insurer will mail within thirty (30) days written notice to the certificate holder named to the left”.

10.3. The Town of Natick and ENGINEER shall be named as an additional insured on each policy of insurance required by this agreement other than worker’s compensation.

ARTICLE 11: MISCELLANEOUS PROVISIONS

11.1. No assignment by CONTRACTOR of any rights under or interests in the Contract Documents will be binding on OWNER without the written consent of OWNER; and specifically but without limitation moneys that may become due and moneys that are due may not be assigned without such consent, and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the CONTRACTOR from any duty or responsibility under the Contract Documents.

11.2. This Agreement shall be binding upon the OWNER and CONTRACTOR, their respective heirs, executors, administrators, successors, or assigns and legal representative to the other party hereto, its partners, heirs, executors, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

11.3. If any provision of this Agreement shall be determined to be invalid or unenforceable by final judgment of a court of competent jurisdiction, the remaining provisions shall continue in effect to the extent permitted by law.

11.4. This Agreement may be amended only by a written instrument signed by the parties.

11.5. This Agreement shall be governed by and construed in accordance with the Massachusetts law, without regard to choice of law principles.

11.6. The CONTRACTOR shall provide to the satisfaction of the OWNER, adequate supervision of all work performed under this Agreement.

11.7. This Agreement shall be subject to the Commonwealth of Massachusetts Equal Employment Opportunity Anti-Discrimination and Affirmative Action EEO/AA Program. The goal for Affirmative Action is five percent (5%) Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) workforce. The goal for the MBE and WBE Policy is a minimum of five percent (5%). The CONTRACTOR shall take all affirmative steps necessary to achieve these goals, and shall provide required reports.

11.8. The CONTRACTOR shall comply with all provisions of law applicable to his work including without limitation statutes, by-laws rules, regulations, orders and directives. This Contract shall be considered to include in their entirety all terms respecting workers' compensation insurance and other terms required to be included in it by Chapter 152 of the Massachusetts General Laws, as amended, and any other laws, as though such terms were set forth in their entirety herein. The CONTRACTOR shall comply with all applicable provisions of law and regulation as specified by the Williams-Steiger Occupational Safety and Health Act of 1970, as amended.

11.9. The CONTRACTOR has entered into this Contract in reliance on his own examinations and estimates as to the amount and character of his work, and conditions which may be encountered in the performance thereof, and shall assume all risks and bear all losses pertaining thereto.

11.10. The CONTRACTOR shall compensate the Town of Natick for all damages to the Town property of any nature arising out of the CONTRACTOR'S work.

11.11. The Town of Natick may defer payment to the CONTRACTOR of such sums otherwise due him under this Contract for such period of time as the Director of Public Works may deem required by law or expedient for protection of the Town or others against his noncompliance with the provisions thereof; and the Town may reimburse itself, by deduction from the money so retained, for all expense and loss resulting to it from his noncompliance.

11.12. No payment by the Town of Natick to the CONTRACTOR shall be deemed to be a waiver of any right of the Town of Natick under this Contract or ratification by the Town of Natick any breach hereof by him.

11.13. The CONTRACTOR shall provide services under this Agreement as an independent CONTRACTOR with the town of Natick and the CONTRACTOR and its employees shall not be entitled to receive any benefits of employment with the Town of Natick, including without limitation salary, overtime, vacation pay, holiday pay, health insurance, life insurance, pension or deferred compensation.



11.14. If any assignment shall be made by the CONTRACTOR or by any guarantor of the CONTRACTOR for the benefit of creditors, or if a petition is filed by the CONTRACTOR or by any guarantor of the CONTRACTOR for adjudication as a bankrupt, or for reorganization or an arrangement under any provision of the Bankruptcy Act as then in force and effect, or if an involuntary petition under any of the provisions of the Bankruptcy Act is filed against the CONTRACTOR and such involuntary petition is not discharged within ninety (90) days thereafter, in any event the Town may terminate this Contract upon written notice to the CONTRACTOR.

11.15. The award of this Contract and the continued operation of this Contract are subject to appropriation by Natick Town Meeting of sufficient money to fund the Contract.

11.16. The Owner may terminate this Contract upon written notice to the CONTRACTOR if a source of money to fund the Contract is lost during any year of the Contract term. In the alternative, the parties may agree in writing to amend the Contract to provide for a Contract price which represents the reduced appropriation for a contract year.

11.17. In the event of termination, the CONTRACTOR shall be entitled to be paid for services rendered in accordance with this Contract prior to termination.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have executed or caused to be executed by their duly authorized officials this Agreement in five (5) copies under seal, each of which shall be deemed as an original on the date first above written. One Counterpart each has been delivered to OWNER, CONTRACTOR, ENGINEER, Town Counsel and Town Accountant.

OWNER:

Town of Natick, Massachusetts

By \_\_\_\_\_

The Natick Board of Selectmen

\_\_\_\_\_  
Michael J. Hickey, Jr., Chairman\_\_\_\_\_  
Susan G. Salamoff, Vice Chairman\_\_\_\_\_  
Jonathan H. Freedman, Clerk\_\_\_\_\_  
Karen Adelman-Foster\_\_\_\_\_  
Richard P. Jennett Jr.

Dated: \_\_\_\_\_

CONTRACTOR:\_\_\_\_\_  
Printed Name of CONTRACTOR

By: \_\_\_\_\_

\_\_\_\_\_  
Signature\_\_\_\_\_  
Printed Name\_\_\_\_\_  
Printed Title

Dated: \_\_\_\_\_

\_\_\_\_\_  
[ CORPORATE SEAL ]\_\_\_\_\_  
Attest

Owner Address for giving notices:

Board of Selectmen

Natick Town Hall

13 East Central Street

Natick, MA 01760

Contractor Address for giving notices:

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With copies to:   Karis L. North, Esq.  
                          Murphy, Hesse, Toomey and Lehane, LLP  
                          300 Crown Colony Drive, Suite 410   P.O. Box 9126  
                          Quincy, MA 02169-9126

## CERTIFICATE OF APPROPRIATION

In accordance with the requirements of M.G.L. Chapter 44, Section 31C, this is to certify that an appropriation in the amount of this CONTRACT is available therefor, and that the Natick Board of Selectmen is authorized to execute this CONTRACT and to approve all requisitions and execute change orders.

---

Arti P. Mehta  
Comptroller, Town of Natick

---

Date

APPROVED AS TO FORM ONLY (AND NOT AS TO SUBSTANCE):

---

Karis L. North , Esq.

---

Date

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**SECTION 00600****CONTRACT BONDS****PERFORMANCE BOND**

KNOW ALL PERSONS BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_ hereinafter called PRINCIPAL and (Corporation, Partnership, or Individual)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

Town of Natick, Massachusetts

\_\_\_\_\_  
(Name of Owner)

Natick Town Hall, 13 East Central Street, Natick, MA 01760

\_\_\_\_\_  
(Address of Owner)

hereinafter called Owner, in the total aggregate penal sum of \_\_\_\_\_

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

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, a copy of which is hereto attached and made a part hereof for Proposed Roadway Improvements to South Main Street.

Now, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety and during the one (1) year guarantee period, and if the Principal shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to Work to be performed thereunder or the Specifications accompanying same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

PROVIDED, FURTHER, that it is expressly agreed that the Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the Contract Price more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract as so amended. The term "Amendment", wherever used in this Bond, and whether referring to this Bond, the Contract or the Loan Documents shall include any alteration, addition, extension, or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the Owner and the Principal shall abridge the right of the other beneficiary hereunder, whose claim may be unsatisfied. The Owner is the only beneficiary hereunder.

WITNESS WHEREOF, this instrument is executed in five (5) counterparts, each of which shall be deemed an original, this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

ATTEST:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
(Principal Secretary)

(SEAL)(s)

By \_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

\_\_\_\_\_  
(Address)

(Surety)

ATTEST:

By \_\_\_\_\_  
(Witness as to Surety)

\_\_\_\_\_  
Attorney-in-Fact Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

\_\_\_\_\_  
(Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is partnership, all partners should execute Bond. IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located.

---

LABOR AND MATERIALS PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

---

(Name of Contractor)

---

(Address of Contractor)

a \_\_\_\_\_, hereinafter called PRINCIPAL and (Corporation, Partnership, or Individual)

---

(Name of Surety)

---

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

Town of Natick, Massachusetts

---

(Name of Owner)

Natick Town Hall, 13 East Central Street, Natick, MA 01760

---

(Address of Owner)

hereinafter called Owner, and unto all persons, firms, and corporations who or which may furnish labor, or who furnish materials to perform as described under the contract and to their successors and assigns in the total aggregate penal sum of \_\_\_\_\_

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

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner, dated the \_\_\_\_ day of \_\_\_\_\_ 20\_\_, a copy of which is hereto attached and made a part hereof for Proposed Roadway Improvements to South Main Street.



NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, and corporations furnishing materials for or performing labor in prosecution of the Work provided for in such Contract, and any authorized extensions or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such Work, and for all labor cost incurred in such Work including that by a Subcontractor, and to any mechanic or materialman lienholder whether it acquires its lien by operation of State or Federal law; then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, that beneficiaries or claimants hereunder shall be limited to the Subcontractors, and persons, firms, and corporations having a direct contract with the Principal or its Subcontractors.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the Work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice to the terms of this contract or to the Work or to the Specifications.

PROVIDED, FURTHER, that it is expressly agreed that the Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the Contract Price more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract as so amended. The term "Amendment", wherever used in this Bond, and whether referring to this Bond, the Contract or the Loan Documents shall include any alteration, addition, extension, or modification of any character whatsoever.

PROVIDED, FURTHER, that it is expressly agreed that this Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the Contract Price more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract as so amended.

The term "Amendment", wherever used in this Bond and whether referring to this Bond, the Contract or the Loan Documents shall include any alteration, addition, extension or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

WITNESS WHEREOF, this instrument is executed in five (5) counterparts, each of which shall be deemed an original, this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

ATTEST:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
(Principal Secretary)

(SEAL)(s)

By \_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

\_\_\_\_\_  
(Address)

(Surety)

ATTEST:

By \_\_\_\_\_  
(Witness as to Surety)

\_\_\_\_\_  
Attorney-in-Fact Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

\_\_\_\_\_  
(Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is partnership, all partners should execute Bond. IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located.

NOTICE TO PROCEED

Dated \_\_\_\_\_, 20\_\_.

To: \_\_\_\_\_  
(Contractor)\_\_\_\_\_  
(Address)  
\_\_\_\_\_

You are hereby notified to commence Work in accordance with the Agreement dated \_\_\_\_\_ 20\_\_, on or before \_\_\_\_\_, 20\_\_. You are to complete the Work within two hundred (200) consecutive calendar days from the Contract start on this form. The date of final Contract time is therefore \_\_\_\_\_, 20\_\_.

OWNER: Town of Natick,  
Massachusetts Board of Selectmen

By \_\_\_\_\_  
\_\_\_\_ (Authorized Signature)

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

ACCEPTANCE OF NOTICEReceipt of the above Notice to Proceed is hereby acknowledged by

\_\_\_\_\_  
this the \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_.

By \_\_\_\_\_  
(Authorized Signature)

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

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## SECTION 00800

SUPPLEMENTARY CONDITIONS**Part I - AMENDMENTS TO GENERAL CONDITIONS**

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC No. C-700, 2002 Edition)(the General Conditions) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

Paragraphs or subparagraphs as noted below are required by or are intended to be consistent with the requirements of Massachusetts statutes governing public construction contracts in the Commonwealth of Massachusetts (the "Commonwealth"). Any other provisions required by statute to be included herein shall be deemed to be so included. In addition, the Owner and Contractor recognize that other rights, duties and obligations with respect to public construction contracts are provided for by statute, notwithstanding the fact that they are not provided for in the Contract Documents. In case of conflict between the asterisked provisions and other provisions of the Contract Documents, the asterisked provisions shall govern. In case of conflict between the provisions of the Contract Documents and the provisions of any applicable statute, the statutory provisions shall govern. Where the term "Awarding Authority" appears in any asterisked provision, it shall mean the Owner.

**ARTICLE 1 – DEFINITIONS AND TERMINOLOGY**

## SC-1.01      Defined Terms

Delete the definition of 5. Bid in its entirety and insert in its place the following:

“Bid shall mean the price submission by the individual, partnership, corporation, or other entity setting forth the monetary amount of the total contract, together with any unit prices requested, on a form prescribed by the Owner, pursuant to M.G.L. c. 149, §§44A et seq..”

Delete the definition of 6. Bidder in its entirety and insert in its place the following:

“Bidder shall mean the individual, partnership, corporation, or other entity who submits a Bid pursuant to an Invitation for Bids by the Owner.”

Delete the definition of 7. Bidding Documents in its entirety and insert in its place the following:

“Bidding documents shall mean any and all documents issued by the Owner in requesting Bids pursuant to M.G.L. c.149, §§44A et seq., which shall include, but shall not be limited to, the Invitation for Bids, the Information for Bidders, Bid Bond (if any), Performance Bond, Payment Bond, Contract, General Conditions of the Contract, Supplementary General Conditions of the Contract, Supplier Diversity Office (SDO) Forms (if applicable), Minimum Prevailing Wage Rates (as applicable), and other additional information provided to potential Bidders by the Owner.”

Delete the definition of 8. Bidding Requirements in its entirety and insert in its place the following:

“Bidding requirements shall mean any and all requirements contained in any portion of the Bidding Documents issued by the Owner.”

Delete the definition of 9. Change Order in its entirety and insert in its place the following:

“Change Order shall mean a written order to the Contract signed to show the recommendation of the Project Manager, if any, the approval of the Engineer and the authorization of the Owner, executed with the same formality as the Contract, issued after the execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and Contract Time may be changed only by Change Order. A Change Order signed by the Contractor indicates the Contractor’s Contract therewith, including the adjustment in the Contract Sum or the Contract Time.

A Change Order request may originate with the Owner, the Engineer, if any, or the Contractor and shall be submitted to the Owner. The Change Order request shall be made in writing and in accordance with the provisions of the Contract and applicable procedures of the Owner. The term equitable adjustment, as used in this paragraph, shall include all adjustments to the Contract Price or to the Time to which the Contractor is entitled, pursuant to M.G.L. c.30, Sections 39N and 39O. Such equitable adjustment shall be made in accordance with the provisions of this Article.

A Change Order may be submitted for changes in the Contract work, including but not limited to, changes in:

- a. the plans and specifications
- b, in the method or manner or performance of the work;  
and/or

- c. in the schedule for performance of the work.”

In the definition of 11. Contract, insert the following sentence at the end:

“The word “Agreement” in the Bidding Requirements or Contract Documents shall mean the same as the word Contract.”

Delete the definition of 12. Contract Documents and insert in its place the following:

“Contract documents are those documents enumerated in the written Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, the General Conditions of the Contract, the Supplementary General Conditions of the Contract, other Conditions of the Contract, Drawings, Specifications, Addenda issued prior to the execution of the contract, other documents listed in the Agreement, and modifications issued after the execution of the Contract. A modification is a written amendment signed by both parties to the Agreement, a Change Order, a Work Change Directive, or a minor written change in the Work Ordered by the Engineer (Field Order).”

Delete the definition of 22. Hazardous Environmental Condition and insert in its place the following:

“Hazardous Environmental Condition is the presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, Radioactive Material or other material in such quantities or circumstances that may present a substantial or notable danger or harm to persons or property exposed thereto in connection with the Work.”

Delete the definition of 24. Laws and Regulations; Laws or Regulations and insert in its place the following:

“Laws and Regulations shall mean all Federal, Massachusetts and Town of Natick law applicable to his work including, without limitation, statutes, by-laws, rules, regulations, orders and directives, as amended, and including, without limitation, the Williams-Steiger Occupational Safety and Health Act, as amended, and related regulations, as amended, in effect throughout the term of the Contract and any extension or renewal thereof, with which the Contractor shall be required to comply. Without limitation, the Contractor shall comply with the provisions of Chapter 149, Section 26 to 27D of the Massachusetts General Laws, as amended, and the applicable minimum prevailing wage rates as determined by the Massachusetts Commissioner of Labor and Industries. The Contract shall be considered to include in their entirety all terms respecting workers’ compensation insurance and other terms required to be included in it by

Chapter 152 of the Massachusetts General Laws, as amended, and any other laws, as though such terms were set forth in their entirety herein.”

Delete the definition of 29. Owner and insert in its place the following:

“Owner, sometimes referred to as Town or Awarding Authority, is the Town of Natick, a body corporate and politic located in Natick, Middlesex County, Massachusetts. The Owner and its authorized representatives, as well as Engineer and Owner’s Project Manager, if any, shall at all times have access to and be permitted to observe and review all Work, materials, payrolls, records of personnel, conditions of employment, invoices for materials, and generally all records relating to the Work. No member, officer, agent, employee, representative or official of the Owner shall in any way, directly or indirectly, be personally liable, under any provisions of the Contract.”

In the definition of 36. Related Entity, insert “board, commission, committee or member thereof” between “employee” and “agent”.

Delete the definition of 45. Substantial Completion in its entirety and insert in its place the following definition:

"45. Substantial Completion shall mean either that the Work required by the Contract has been completed except for Work having a Contract Price of less than one (1) percent of the then adjusted total Contract Price, or substantially all of the work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the Work required by the Contract."

Delete the definition of 46. Successful Bidder in its entirety and insert in its place the following:

“Successful bidder shall mean the lowest responsible and eligible bidder, as defined in M.G.L. c. 149, §§44A et seq., on the basis of competitive bids publicly opened and read by the Awarding Authority forthwith upon expiration of the time for the filing thereof; provided, however, that the Awarding Authority may reject any and all bids, if it is in the public interest to do so.”

Add the following to the definition of 51. Work:

“All Work mentioned or indicated in the Contract Documents shall be performed by the Contractor as part of the Contract unless it is specifically indicated in the Contract Documents that such Work is to be done by others. Should the Drawings or the Specifications disagree in themselves



or with each other, the Contractor shall provide the better quality or greater quantity of Work unless otherwise directed by written addendum to the Contract. All indications or notations which apply to one of a number of similar situations, materials or processes shall be deemed to apply to all such situations, materials or processes wherever they appear in the Work, except where a contrary result is clearly indicated by the Contract Documents. Where codes, regulations, standards,

requirements and publications of public and private bodies are referred to in the Specifications, references shall be understood to be to the latest revision prior to the date of receiving bids, except where otherwise indicated. Where no explicit quality or standards for workmanship are established for Work, such Work is to be of good quality and consistent with the quality required by the Contract Documents. The Drawings are diagrammatic only, and are not intended to show the alignment, physical locations or configurations of such Work. The Owner and Engineer assume no liability arising out of jurisdictional issues raised or claims advanced by trade organizations or other interested parties based on the arrangement or manner of subdivision of the content of the Drawings and Specifications. The Contractor shall make all necessary arrangements to reconcile any such jurisdictional conflicts without delay, damage or cost to the Owner, unless otherwise agreed by the parties hereto.”

Delete the definition of 52. Work Change Directive in its entirety and insert in its place the following:

“Work Change Directive shall mean a written order prepared by the Engineer and signed off on by the Owner and Engineer, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Price or Contract Times, or both. The Owner may, by Work Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract, consisting of additions, deletions, or other revisions, the Contract Price and Contract Times being adjusted accordingly.”

Add the definition of "Complete and/or Completion" after paragraph 52, which is to read as follows:

"53. Complete and/or Completion - Whenever the word “Complete and/or Completion” is utilized in the Contract in reference to work completed when referring to the completion date of the contract and the assessment of liquidated damages, it shall be understood to mean that all work on the project is completed, the facilities are fully operational, the data required to closeout the project has been submitted and approved, and incidental items included in the closeout punch list have been completed to the Owner’s satisfaction”.

**ARTICLE 2 - PRELIMINARY MATTERS**

SC-2.01-B Delete paragraph 2.01-B of the General Conditions in its entirety.

SC-2.03-A Delete the last sentence of paragraph 2.03-A.

**ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

SC-3.01 The last clause in paragraph 3.01-B of the General Conditions shall read:

“shall be provided by the Contractor, at no additional cost to the Owner, whether or not specifically called for”.

SC-3.01-D Add a new section 3.01-D to the General Conditions as follows:

“In the event of any conflict among the Contract Documents, the Documents shall be construed according to the following priorities:

Highest Priority:	Amendments
Second Priority:	Contract
Third Priority:	Addenda--later date to take precedence
Fourth Priority:	Supplementary General Conditions
Fifth Priority:	General Conditions
Sixth Priority:	Division 1, General Requirements
Seventh Priority:	Technical Specifications
Eighth Priority:	Drawing, with larger scale drawings to take precedence.
Ninth Priority:	Invitation to Bid, Instruction to Bidders, The Contractor’s General Bid.

Notwithstanding the order of priority of documents set forth in Subparagraph 3.01-D, any matters contained in the Specifications which have been omitted from the Drawings or vice versa shall be construed as though contained in both. In the event of any duplication, conflict, or discrepancy between the Drawings and the Specifications or between other contract clauses, so far as the same pertains to the Drawings, the Specifications or any modifications to the Drawings or the Specifications, the matter shall be promptly brought to the attention of the Engineer, without whose instructions the Contractor shall not adjust the matter except at his own risk. Any instructions of the Engineer shall be given in writing.”

SC-3.02 Insert a new paragraph SC-3.02-A.3 in the General Conditions as follows:

“Paragraphs or subparagraphs herein are intended to be consistent with the requirements of Massachusetts statutes governing public building construction contracts in the Commonwealth. Any other provisions required by statute to be included herein shall be deemed to be so included. In addition, the Owner and Contractor recognize that other rights, duties and obligations with respect to public construction contracts are provided for by statute, notwithstanding the fact that they are not provided for in the Contract Documents.”

SC-3.03      Insert the following language at the beginning of the second sentence in paragraph 3.03-A.2 of the General Conditions:

“In the event that such a conflict, error, ambiguity or discrepancy actually exists which requires an amendment or supplement to the Contract Documents,”.

SC-3.04      Insert a new paragraph 3.04-C in the General Conditions as follows:

No officer, official, agent or employee of the Town of Natick shall have the power to amend, modify or alter the Contract or waive any of its provisions or to bind the Town of Natick by making any promise or representation not contained herein except by an amendment, in writing, executed by the Owner in the same manner as the Contract is executed. Neither party may rely on any conduct, statement, action, inaction or course of conduct of the employees, agents or officers of the other party as having changed, modified or amended the Contract. Neither party shall be construed as waiving any provision of the Contract unless the waiver is executed in writing as an amendment to the Contract. No waiver by either party of any default or breach shall constitute a waiver of any subsequent default or breach. Forbearance or indulgence in any form or manner by either party shall not be construed as waiver of any term or condition hereto nor shall it limit the legal or equitable remedies available to that party.

Information or services required of the Owner hereunder shall be furnished by the Owner with reasonable promptness and in accordance with M.G.L. c.30, §39P, as applicable, after receipt from the Contractor of a reasonably detailed written request for such information or services. Reference is made to General Laws Chapter 30, Section 39P, the provisions of which are incorporated herein.”

SC-3.05      In paragraph 3.05-A.2 of the General Conditions, in the third line, insert “prior” between “without” and “written” and in the fourth line, insert “prior” between “specific” and “written”.

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**ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS, REFERENCE POINTS**

- SC-4.01      Insert the following language at the end of the third sentence of paragraph 4.01-A of the General Conditions “, which easements are required under the circumstances”.
- SC-4.01-C    Add the following language to the last sentence in paragraph 4.01-C of the General Conditions:  
", at his own expense and without liability to the Owner"
- SC-4.01-B    Delete paragraph 4.01-B of the General Conditions in its entirety.
- SC-4.03      Delete paragraph 4.03 A, B and C of the General Conditions in their entirety and insert in its place the following language:

“(Statutory reference: M.G.L. c.30 §39N)

If, during the progress of the work, the Contractor or the Awarding Authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the Contract Documents, either the Contractor or the Awarding Authority may request an equitable adjustment in the contract price of the Contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a Contractor, or upon its own initiative, the Awarding Authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the Contract Documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and Contract Documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the methods required for the performance of the work which results in an increase or decrease in the cost of the work, the Awarding Authority shall make an equitable adjustment in the Contract price and the Contract shall be modified in writing accordingly.

If the Contractor claims that any acts or omissions of the Owner or the Engineer, including any instructions or orders, whether oral, written, by Drawings, or otherwise, involve extra cost or time, and the Contractor has not received a written acknowledgment by the Owner or Engineer that extra payment will be made or time extended on account thereof, the Contractor shall promptly so notify the Engineer in writing of such Claim and shall not proceed with the Work relating to such Claim until the

Contractor has received a further written order to proceed in accordance with this Agreement. No Claim by the Contractor on account of such acts, omissions, instructions or orders shall be valid unless the Contractor has so notified the Engineer in writing, before proceeding, and has received the further written order to proceed.

The Contractor shall have the burden of demonstrating the effect of the claimed delay on the Contract Time, and shall furnish the Engineer with such documentation relating thereto as the Engineer may reasonably require. Estimates of the extension of time shall be accompanied by a schedule showing how the Critical Path has been affected.”

SC-4.04 Insert the following sentence just prior to the last sentence of paragraph 4.04-A of the General Conditions:

“The locations of existing underground facilities shown on the Contract Drawings are approximate only, and are included to indicate that the underground facilities are present, and it shall be the Contractor’s responsibility to make arrangements with all utility companies for field locations. The Contractor shall also contact "Dig Safe" and other appropriate departments, agencies and companies to insure that all underground facilities are located prior to excavation, regardless of the fact that they may or may not be shown on the Contract Drawings”.

SC-4.04-B.2 Delete the final sentence of paragraph 4.04-B.2 of the General Conditions.

SC-4.06 Insert the following sentence after paragraph 4.06-A of the General Conditions:

“The following reports and drawings relating to a Hazardous Environmental Condition identified at the site have been utilized by the Engineer in the preparation of the Contract Documents.

- None”

SC-4.06-C Insert the following sentence at the end of paragraph 4.06-C of the General Conditions:

“Nothing in the Contract Documents shall limit the responsibility of the Contractor for any Hazardous Environmental Condition which is caused by the Contractor or by any of its officers, employees, boards, commissions, committees, agents or representatives.”

SC-4.06-D Insert the following sentences at the end of paragraph 4.06-D of the General Conditions:

“In that event Contractor and its officers, employees, agents and representatives shall have no authority to handle, transport, remove or dispose of any materials the presence of which at the site constitutes a Hazardous Environmental Condition. In any event Contractor shall be liable for its negligence or willful misconduct.”

SC-4.06-G Delete paragraph 4.06-G of the General Conditions.

## **ARTICLE 5 - BONDS AND INSURANCE**

SC-5.01 Delete paragraph 5.01-A of the General Conditions in its entirety and insert in its place the following:  
“As required by M.G.L. c. 149, §44E, or by these Supplementary Conditions, the Contractor shall furnish a Performance Bond, acceptable to the Town of Natick, as security for the faithful performance of its obligations under the Contract. Said Performance Bond shall be in the amount of one hundred percent (100%) of the Contract Price and shall be issued by a surety company qualified to do business under the laws of the Commonwealth of Massachusetts and approved by the Owner. Said Performance Bond shall obligate the Contractor, its surety, and their successors and assigns for all of the work required to be performed by the Contractor under the Contract. Said Performance Bond shall remain in effect no less than one (1) year after the expiration of the term of the Contract, or any extension or renewal thereof.

As also required by M.G.L. c. 149, §44E, or by these Supplementary Conditions, the Contractor shall furnish a Payment Bond, acceptable to the Town of Natick, as security for the faithful payment of its obligations under the Contract. Said Payment Bond shall be in the amount of one hundred percent (100%) of the Contract Price and shall be issued by a surety company qualified to do business under the laws of the Commonwealth of Massachusetts and approved by the Owner. Said Payment Bond shall obligate the Contractor, its surety, and their successors and assigns to pay for labor, materials and equipment furnished for use regarding the work to be performed by the Contractor under the Contract. Said Payment Bond shall remain in effect no less than one (1) year after the expiration of the term of the Contract, or any extension or renewal thereof.”

SC-5.04 Insert the following language at the end of paragraph 5.04-B.1 of the General Conditions:

“Notwithstanding any other provision of the Contract Documents, the Contractor shall provide to the Owner, with its proof of insurance coverage, endorsements or riders to the policies of Commercial General Liability Insurance, Automobile Liability Insurance, and Excess Liability Insurance, Umbrella Form, which indicate that the Town of Natick and Haley and Ward are named as an additional insured on each such policy.”

SC-5.04 Add the following language after paragraph 5.04.B-5 of the General Conditions:

“Each certificate and policy of insurance required by this Agreement shall contain a cancellation provision as indicated below with **no variations**.

The above policies will not be cancelled or materially amended before the expiration date thereof, until at least thirty (30) days prior written notice has been given to the certificate holders and the named insured and the Owner.”

SC-5.04 Add the following paragraphs at the end of paragraph 5.04-B.2 of the General Conditions:

"5.04-B-2.a “The Contractor shall provide and maintain throughout the term of the Contract and any extension or renewal thereof the following insurance with companies that are authorized and licensed in the Commonwealth of Massachusetts to issue policies for the coverages and limits so required. The Contractor shall also ensure that any and all Subcontractors and sub-subcontractors provide insurance in the following limits and that the Town of Natick is named as an additional insured and meet the following requirements.

A-1 Commercial General Liability including but not limited to:

1. Premises/Operations
2. Products/Completed Operations
3. Contractual
4. Independent Contractors
5. Broad Form Property Damage
6. Personal Injury
7. Medical Expense
8. Underground Explosion and Collapse Hazard (XCU)

A-2 Limits for Commercial General Liability at a minimum shall be:

1. General Liability  
General Aggregate \$2,000,000.

- 
- |    |                               |              |
|----|-------------------------------|--------------|
|    | Each Occurrence               | \$1,000,000. |
| 2. | Products/Completed Operations | \$2,000,000. |
| 3. | Personal Injury               | \$1,000,000. |
| 4. | Medical Expense               | \$ 5,000.    |
- B-1 Automotive Liability including but not limited to:
1. Scheduled Autos
  2. Hired Autos
  3. Non-Owned Autos
- B-2 Limit for Automotive Liability at a minimum shall be:
1. Combined Single Limit \$1,000,000.
- C-1 Worker's Compensation and Employer's Liability
- C-2 Limits for Worker's Compensation and Employer's Liability at a minimum shall be:
1. Worker's Compensation
 

	Statutory Amount
--	------------------
  2. Employer's Liability
 

Each Accident	\$500,000.
Disease - Policy Limit	\$500,000.
Disease - Each Employee	\$500,000.
- D-1 Provide Excess Umbrella for Liability Coverage. Use of Umbrella to meet other insurance limits will not be accepted. Limits for liability at a minimum shall be:
1. Each Occurrence \$10,000,000
  2. General Aggregate \$10,000,000
- Excess Liability Insurance, Umbrella Form shall be following form, providing coverage over commercial general liability insurance, automobile liability insurance, and employer's liability under workers' compensation insurance.
- E-1 Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the Contract and shall operate as an immediate termination thereof.
- F-1 Certificates evidencing such insurance in five (5) copies shall be furnished to the Town of Natick at the execution of the Contract. Such certificates shall not merely name the types of policies provided, but shall specifically refer to the Contract and shall state that such insurance is as required by the Contract. With the



certificates, the Contractor shall submit an insurance certification form from insurer/insurers, indicating that the coverages provided do in fact satisfy all the insurance requirements listed under ARTICLE 5 of the General Conditions, and the amendments thereto under the Supplementary Conditions. The insurance certification form is included in Part II of the Supplementary Conditions.

The Contractor shall also be required to provide to the Owner with its proof of insurance coverage endorsements or riders to the policies of commercial general liability insurance, automobile liability insurance, and excess umbrella liability insurance, umbrella form, which indicate that the Town of Natick is named as an additional insured on each such policy.

No insurance shall be obtained from an insurer which:

- a. is not licensed to sell insurance in the Commonwealth of Massachusetts;
- b. is not authorized to provide insurance as an excess or surplus lines insurer, and does not have a current Best's rating of A or better; or
- c. is a risk retention group lawfully providing insurance to its members in Massachusetts."

G-1 The Contractor shall make no claims against the Town of Natick or its officers for any injury to any officers or employees or for damage to its equipment arising out of work contemplated by the Contract."

SC-5.05 Delete paragraph 5.05 of the General Conditions in its entirety, and insert the following paragraphs in its place:

"5.05-A Contractor shall purchase and maintain a separate Owner's Protective Liability policy, issued to Owner at the expense of Contractor, with the Owner and Engineer only as named insured. This insurance shall provide coverage for not less than the following amounts:

- |    |                   |              |
|----|-------------------|--------------|
| 1. | General Aggregate | \$3,000,000. |
| 2. | Each Occurrence   | \$1,000,000. |

5.05-A.1. A rider on the Contractor's Liability Insurance will not be acceptable."

- 5.05.-A.2 The provisions of paragraph 5.04-B.2.aE-1 and 5.04B-2.aF-1 of the General Conditions are incorporated herein by reference.
- SC-5.06 Delete paragraph 5.06-A of the General Conditions in its entirety and insert the following paragraph in its place:
- "5.06-A. For projects that includes work within existing structures or buildings, the Contractor shall be required to provide Installation Floater coverage in the full amount of the work being performed, and for projects that include construction of a new structure or building, the Contractor shall provide Builder's All-Risk coverage in the full value of the structure and contents. This insurance shall:"
- SC-5.06-A.1 Add the following sentence to the end of paragraph 5.06-A.1 of the General Conditions, as follows:
- "The additional insured for this project shall be the Owner and Engineer."
- SC-5.06 Delete paragraphs 5.06-B, C, D, E of the General Conditions in their entirety.
- SC-5.07 Delete paragraphs 5.07-A and 5.07-B and 5.07-C of the General Conditions in their entirety, and insert the following paragraphs in their place:
- "5.07 The Contractor shall waive all rights against the Owner for all losses and damages caused by any perils covered by the policies of insurance provided in response to paragraph SC-5.06 of the Supplementary Conditions and any other property insurance applicable to the Work, and also waive such rights against the Subcontractors, Engineer, Engineer's consultant and all other parties named as insured in such policies for loss and damages so caused.
- 5.07.1 As required by paragraph 6.06-G of the General Conditions each subcontract between Contractor and a Subcontractor will contain similar waiver provisions by the Subcontractor in favor of Owner, Contractor, Engineer, Engineer's consultants and all other parties named as insureds.
- 5.07.2 All such policies provided in response to paragraph 5.06 of the General Conditions, as amended in SC-5.06 of the Supplementary Conditions shall contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights or recovery against the Owner, Engineer or Engineer's consultant."
- SC-5.08 Delete paragraph 5.08-A and 5.08-B of the General Conditions in their entirety.

SC-5.09 Delete paragraph 5.09 of the General Conditions in its entirety and insert the following paragraph in its place:

"5.09 If Owner has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by Contractor in accordance with paragraph 5.02 thru 5.06 on the General Conditions, as amended by SC-5.04 thru SC-5.06 of the Supplementary Conditions, on the basis of its not complying with the Contract Documents. Owner will notify Contractor in writing thereof within fourteen (14) days of the date of delivery of such certificates to Owner in accordance with paragraph 2.01-B. Contractor will provide such additional information in respect of insurance provided by him as Owner may reasonably request."

## **ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES**

SC-6.01-A and 6.01-B Delete paragraphs 6.01A and 6.01B of the General Conditions and insert in their place the following:

"The Contractor shall employ a competent superintendent, reasonably acceptable to the Owner, and necessary assistants who shall be in attendance at the Project site full time and at all times during the progress of the Work until the date of Substantial Completion, and for such additional time thereafter as the Engineer may determine to be necessary for the expeditious completion of the Work. The Contractor shall remove the superintendent if requested to do so in writing by the Owner or by the Engineer on behalf of the Owner, and shall promptly replace him with a competent person reasonably acceptable to the Owner, at no increase in the Contract Sum or Contract Time.

The Contractor shall not replace such superintendent without the prior written approval of the Engineer.

The Contractor shall retain a competent engineer or surveyor who shall establish sufficient lines and grades for the Work.

The Contractor shall coordinate and supervise the Work performed by Subcontractors to the end that the Work is carried out without conflict between trades and so that no trade, at any time, causes delay to the general progress of the Work. The Contractor and all Subcontractors shall at all times afford each trade, any separate contractor, or the Owner, every reasonable opportunity for the storage of materials.

The Contractor shall arrange for and attend job meetings with the Engineer and such other persons as the Engineer and the Owner may from time to time wish to have present. The Contractor shall be represented by

a principal, or project manager, as well as by the Contractor's own superintendent. An authorized representative of any Subcontractor or Sub-subcontractor shall attend such meetings if the representative's presence is requested by the Engineer. Such representatives shall be empowered to make binding commitments on all matters to be discussed at such meetings, including costs, payments, Change Orders, time schedules and manpower. Any notices required under the Contract may be served on such representatives.

The Contractor warrants that its financial condition is sound and that the Contractor shall be capable of obtaining any bonds required by the Contract Documents. The Contractor shall promptly advise the Owner of any occurrence, event, fact, or other matter that has had or will have a materially adverse effect upon the financial condition of the Contractor.

The Contractor hereby represents and warrants to the Owner that the Contractor is a business entity which is experienced and skilled in the construction of projects of the type described in the Contract Documents, is licensed to engage in the general construction business in the Commonwealth of Massachusetts, and is in compliance with all applicable governmental laws and regulations and all case law relative thereto.

Before starting the Work, and at frequent intervals during the progress thereof, the Contractor shall carefully study and compare the Contract Documents with each other and with the information furnished by the Owner, the Engineer and the Contractor and shall at once report to the Engineer any error, inconsistency or omission the Contractor may discover. Any necessary change shall be ordered as provided in the Contract Documents. If the Contractor proceeds with the Work without such notice to the Engineer, having discovered such errors, inconsistencies or omissions, or if by reasonable study of the Contract Documents the Contractor could have discovered such errors, inconsistencies or omissions the Contractor shall bear all costs arising therefrom.”

SC-6.02-B In paragraph 6.02-B of the General Conditions, in the seventh line, insert “prior” between “Owner’s” and “written”.

SC-6.05-A Delete paragraph 6.05-A of the General Conditions, in its entirety and insert in its place the following:

“Specifications for such contracts, and specifications for contracts awarded pursuant to the provisions of said sections forty-four A to forty-four L of said chapter one hundred and forty-nine, shall be written to provide for full competition for each item of material to be furnished under the contract; except, however, that said specifications may be otherwise written for sound reasons in the public interest stated in writing in the public records of the awarding authority or promptly given in writing by the awarding authority to anyone making a written request therefor, in either instance such writing to be prepared after reasonable investigation. Every such contract shall provide that an item equal to that named or described in the said specifications may be furnished; and an item shall be considered equal to the item so named or described if, in the opinion of the awarding authority: (1) it is at least equal in quality, durability, appearance, strength and design, (2) it will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased, and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the said specifications. For each item of material the specifications shall provide for either a minimum of three named brands of material or a description of material which can be met by a minimum of three manufacturers or producers, and for the equal of any one of said named or described materials.” Statutory reference M.G.L. c. 30, §39M(b)

SC-6.05-A.2.d.2) and 3) In paragraphs 6.05-A.2.d.2) and 3) of the General Conditions, delete the first word “will” and insert in its place the word “shall”.

SC-6.05-B In paragraph 6.05-B of the General Conditions, in the sixth line, insert “in advance, in writing,” between “approved” and “by”.

SC-6.05-F Add the following language to the end of paragraph 6.05-F of the General Conditions.

"Contractor shall submit to the Engineer for review, drawings to scale, showing the effect this substitute will have upon the adjoining materials, piping, equipment, etc., at no additional cost to the Owner."

SC-6.06-B Add the following to the end of paragraph 6.06-B of the General Conditions:  
“The Contractor shall be required to submit to the Owner a list of Subcontractors it intends to use at a certain date to be specified by the Owner. The Contractor shall not use any Subcontractor to which the Owner objects and to which the Owner provides written notice of such objection to the Contractor.”

SC-6.06-C.2 In paragraph 6.06-C.2 of the General Conditions, in the first line, delete the words “anything in the Contract Documents”.

SC 6.07-B Delete paragraph 6.07-B of the General Conditions in its entirety and insert in its place the following:

“To the fullest extent permitted by law, the Contractor shall indemnify, defend, and hold harmless the Town of Natick and the Engineer and all of their officers, employees, boards, commissions, committees, agents and representatives from and against all claims, causes of action, suits, costs, damages, and liability of any kind which arise out of the Contractor’s or subcontractors’ infringement of patent rights or copyrights incident to the use in the performance of the Work of, or resulting from the Contractor’s or subcontractors’ incorporation of, any invention, design, product or device not specified in the Contract Documents.

Neither the Town of Natick, nor the Engineer, nor any of their officers, employees, boards, committees, commissions, agents and representatives shall be under any personal obligation or shall incur any personal liability by reason of this Contract, the execution thereof or anything relating thereto which arises out of the Contractor’s or a subcontractor’s infringement of patent rights or copyrights incident to the use in the performance of the Work of, or resulting from the Contractor’s or a subcontractor’s incorporation of, any invention, design, product or device not specified in the Contract Documents.

Nothing herein shall modify the Contractor’s general indemnification obligations, as set forth in this Agreement.”

SC-6.08 Delete paragraph 6.08 of the General Conditions in its entirety and insert in its place the following:

“It is the specific responsibility of the Contractor to make, in proper and timely fashion, all necessary notifications to relevant federal, state, and local governing bodies and to obtain and comply with the provisions of all permits, inspections or applications required by the work specified, as well as to make all required submittals required under those auspices. The Contractor shall indemnify the Owner from, and pay for all claims resulting from, failure to adhere to these requirements. The Contractor shall promptly provide the Engineer and the Owner with reproductions of all permits, licenses and permissions.

The Owner has waived the building permit fee only for this Project. All other pertinent permit and inspectional service fees shall apply.

The Contractor shall pay the then current inspection fee to the Town of Natick for all inspections required by state and local codes, and required by the Town of Natick.

The Contractor shall pay all charges of utility companies for connections to the Work. The Contractor shall be aware of, observe and comply with all laws, ordinances, regulations, orders, permits, licenses, etc., and shall conduct his operations in compliance thereto, and shall indemnify the Owner and Engineer from any claim or liability arising from, or based upon a violation of same."

SC-6.09-A Delete paragraph 6.09-A of the General Conditions in its entirety and insert in its place the following:

"The Contractor shall comply with all provisions of Federal, Massachusetts and Town of Natick law applicable to his work including, without limitation, statutes, by-laws, rules, regulations, orders and directives, as amended, and including, without limitation, the Williams-Steiger Occupational Safety and Health Act, as amended, and related regulations, as amended, in effect throughout the term of this Contract and any extension or renewal thereof. Without limitation, the Contractor shall comply with the provisions of Chapter 149, Section 26 to 27D of the Massachusetts General Laws, as amended, and the applicable minimum prevailing wage rates as determined by the Massachusetts Commissioner of Labor and Industries. This Contract shall be considered to include in their entirety all terms respecting workers' compensation insurance and other terms required to be included in it by Chapter 152 of the Massachusetts General Laws, as amended, and any other laws, as though such terms were set forth in their entirety herein."

SC-6.10-A In the third and fourth lines of paragraph 6.10-A of the General Conditions delete the words "Place of the Project" and insert in their place the words "Commonwealth of Massachusetts".

SC-6.10 Add the following language at the end of paragraph 6.10-A of the General Conditions:

The Town is exempt from Commonwealth of Massachusetts sales tax. M.G.L. c.64, §6(h) exempts “sales of building materials and supplies to be used in the construction, reconstruction, alteration, remodeling or repair of (1) any building structure, public highway, bridge or other public works owned by or held in trust for the benefit of any governmental body or agency mentioned in paragraph (d) and used exclusively for public purposes; (2) any building or structure owned by or held in trust for the benefit of any corporation, foundation, organization or institution described in paragraph (e) and used exclusively in the conduct of its religious, scientific, charitable or educational purposes; and (3) any building, structure, residence, school or other facility included under any written contract dated on or after January 1, 1985 arising out of or related to the Massachusetts Port Authority residential and school soundproofing programs, notwithstanding whether such building, structure, residence, school or other facility is owned by or held in trust for the benefit of the Massachusetts Port Authority or is used exclusively for public purposes; provided, however, that such governmental body or agency or such corporation, foundation, organization or institution shall have first obtained a certificate from the Commissioner stating that it is entitled to such exemption and the vendor keeps a record of the sales price of each such separate sale, the name of the purchaser, the date of each such separate sale and the number of such certificate. In this paragraph the words "building materials and supplies" shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge or other such public work, as well as such materials and supplies physically incorporated therein. Said terms shall also include rental charges for construction vehicles, equipment and machinery rented specifically for use on the site of any such tax exempt project or while being used exclusively for the transportation of materials for any such tax exempt project.” M.G.L. c.64I, §7 exempts from use tax “Sales exempt from the taxes imposed under chapter sixty-four H; provided, however, that in the case of the purchase of any motor vehicle or trailer, as defined in section one of chapter ninety, or any boat or airplane, other than from a vendor who is regularly engaged in the business of making sales at retail of such motor vehicles, trailers, boats or airplanes, the receipts from which are exempt from the tax imposed under said chapter sixty-four H, the purchaser thereof, except when said purchaser is the spouse, mother, father, brother, sister or child of the seller, shall pay the tax imposed by this chapter”. The Contractor shall not pay, and the Town shall not reimburse or pay the Contractor or any other party, either directly or indirectly, for this or any other tax for which an exemption is provided under law. The Town will provide a state sales tax exemption number to the Contractor for use with response to this Project.”

SC-6.11 Delete paragraph 6.11-A of the General Conditions in its entirety and



insert in its place the following:

“The right of possession of the premises shall remain at all times in the Owner. The Contractor's right to entry and use thereof arises solely from the permission granted by the Owner under the Contract Documents. The Contractor shall confine the Contractor's apparatus, the storage of materials and the operations of the Contractor's workmen to limits indicated by Laws and Regulations, the Contract Documents, permits, and/or directions of the Engineer and shall not unreasonably encumber the premises with the Contractor's materials. The Owner shall not be liable to the Contractor, the Subcontractors, their employees or anyone else with respect to the conditions of the premises, except only for a condition caused directly and solely by the negligence of the Owner.

The Contractor shall at all times maintain a safe workplace, in full compliance with all federal, state, and local health and safety Laws and Regulations and shall indemnify and hold the Owner, the Engineer and the Construction Manager harmless from and against any and all liability, loss, damage or expense arising from Contractor's failure to do so.

The Contractor shall use only areas specifically assigned by the Owner for parking, storage of materials and construction operations and shall comply with all local municipal regulations regarding use of and parking on public ways.

The Contractor shall repair any and all streets, drives, curbs, sidewalks, and landscaping which are disturbed by construction operations and shall leave them in as good condition after completion of the Work as they were in before commencement of the Work.

The Contractor shall not place or maintain, or allow to be placed or maintained, on or about the Project site any advertising matter, sign, bill, poster, or billboard of any kind, except those required by law or the Contract Documents, without the prior written consent of the Owner.”

SC-6.12 Delete paragraph 6-12 of the General Conditions in its entirety and insert in its place the following:

“The Contractor shall maintain a record set of Contract Documents which shall record all deviations from the Drawings and Specifications and shall be updated in detail to reflect the actual progress of the Work. The Owner and the Engineer shall have free and complete access to such Contract Documents during the Work. Upon Substantial Completion, the Contractor shall furnish to the Owner through the Engineer one set of “as built” plans in such form as the Owner shall require. The Contractor shall also maintain a record set of the Specifications, Addenda, Change Orders and other Modifications in good order and marked and annotated currently to record changes made during the Work. Record documents in relation thereto shall be in compliance with M.G.L. Chapter 30, Section 39R.”

SC-6.13 Delete paragraphs 6.13-B and 6.13-C of the General Conditions in their entirety.

SC-6.19 In paragraph 6.19-A of the General Conditions insert at the beginning of the second sentence the words “Owner and”.

SC-6.20 Delete paragraph 6.20 of the General Conditions in its entirety and insert in its place the following:

“The Contractor shall compensate the Town of Natick for all damage to Town property of any nature arising out of the Contractor’s work. To the fullest extent permitted by law, the Contractor shall indemnify, defend, and hold harmless the Town of Natick and all of its officers, employees, boards, commissions, committees, agents and representatives from and against all claims, causes of action, suits, costs, damages, and liability of any kind which arise out of the breach by the Contractor or its subcontractor(s) of their obligations under this Contract, or the act or omission of the Contractor, its subcontractor(s), or their officers, employees, agents and representatives or anyone directly or indirectly employed by them, or anyone for whose acts or omissions they may be liable, regarding the work to be performed by the Contractor under the Contract, or which arise out of the violation of any Federal, Massachusetts or Town of Natick statute, by-law, rule, regulation, order or directive, or which relate to personal injury or property damage suffered by the Contractor or any of its officers or employees regarding the subject matter of the Contract.

Neither the Town of Natick, nor any of its officers, employees, boards, committees, commissions, agents and representatives shall be under any personal obligation or shall incur any personal liability by reason of this Contract, the execution thereof or anything relating thereto which arises out of the violation of any provision of this Contract, or the violation of any Federal, Massachusetts or Town of Natick Law or Regulation, or which relates to personal injury or property damage suffered by the

Contractor or its employees, regarding the subject matter of the Contract.”

SC-6.21 In paragraph 6.21-A of the General Conditions, delete the words “or unless such services are required to carry out contractor’s responsibilities for construction means, methods, techniques, sequences and procedures”

SC-6.22 Insert the following new paragraph 6.22 in the General Conditions:

“SC-6.22 *Miscellaneous*

6.22-A The Contractor shall give the Engineer timely notice of any additional Drawings, Specifications, or instructions required to define the Work in greater detail, or to permit the proper progress of the Work. The Contractor shall not proceed with any Work not clearly and consistently defined in the Contract Documents, but shall request additional drawings or instructions from the Engineer. If the Contractor proceeds with such Work without obtaining further Drawings, Specifications or instructions, the Contractor shall correct Work incorrectly done at the Contractor's own expense. The Contractor shall give continuous attention to the faithful prosecution of the Work and shall keep the same under its personal control. It shall be responsible for all the acts and omissions of its employees, subcontractors, and of all persons directly or indirectly employed by it in connection with the prosecution of this Work.

6.22-B The Contractor may submit Requests For Information to the Engineer to help facilitate the Contractor's performance of the Contract. Prior to submitting each Request for Information, the Contractor shall first carefully study and compare the Contract Documents, field conditions, Owner-provided information, Contractor prepared Coordination Drawings, and prior Project correspondence and documentation to determine that the information to be requested is not reasonably obtainable from such sources.

Each Request for Information shall be submitted to the Engineer, in writing, on such form and with such accompanying information as the Engineer may require for such purpose. Each Request for Information shall identify the specific sources which were reviewed by the Contractor in its efforts to determine the information requested, and a statement to the effect that the information being requested could not be determined from such sources.

The Contractor shall submit each Request for Information sufficiently in advance of the date by which such information is required in order to allow the Engineer sufficient time, in the Engineer's professional judgment, to permit adequate review and response and to permit

Contractor compliance with the latest Construction Schedule. The Contractor shall maintain a log at the Project site that sequentially numbers and lists each Request For Information. This log shall also contain the Drawing reference or Specification section to which the request pertains, the date of request, to whom the request was made, by whom the request was made, the nature of the request, and the Engineer's resolution thereof. This log shall be updated weekly by the Contractor and reviewed at each Project meeting, and the resolution of requests for information shall be made part of the minutes of such meetings.

The Contractor shall reimburse the Owner amounts charged to the Owner by the Engineer for responding to Contractor's Requests for Information where such information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, other Owner provided information, Contractor prepared Coordination Drawings, or project correspondence or documentation.

6.22-C The Contractor shall be responsible to the Owner for the acts and omissions of all entities or persons performing or supplying the Work regardless of tier.

6.22-D The Contractor shall furnish sufficient forces, plant and equipment as may be necessary to insure the progress of the Work in accordance with the Project Schedule. If, in the opinion of the Owner, the Contractor has fallen behind the Project Schedule, the Contractor shall submit its bid demonstrating the manner in which the desired rate of progress may be increased and shall take such steps, at the Contractor's own cost, as may be necessary to meet the Project Schedule. It shall be the responsibility of the Contractor to maintain its schedule so as not to delay the progress of the Work or the scheduled work of separate Contractors.

6.22-E The Contractor shall be solely responsible for properly laying out the Work, and for all lines, elevations and measurements for all of the Work. It shall verify the figures shown on the Drawings before laying out the work and will be responsible for any error or inaccuracies resulting from its failure to do so. In the event that the Contractor shall, while laying out the Work, become aware of (i) any conflicts among or between the Drawings, the Specifications or any Modification to the Drawings or the Specifications and the actual layout of the Work, or (ii) any conflicts or inconsistencies in the Drawings and Specification themselves, it shall promptly notify the Engineer, without whose instructions the Contractor shall not adjust the matter except at his own risk.

6.22-F If this Project requires the containment, abatement or removal of asbestos or material containing asbestos, lead or waste containing lead-based paint, the Contractor shall ensure that the person or entity

performing the asbestos or lead related services is licensed pursuant to applicable State laws and regulations.

6.22-G Chemical waste shall be stored in corrosion resistant containers, removed from the Project site, and disposed of not less frequently than every three weeks unless directed otherwise. Disposal of chemical waste shall be in accordance with requirements of the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP). Fueling and lubricating of vehicles and equipment shall be conducted in a manner that affords the maximum protection against spills and evaporation. Lubricants to be discarded or burned shall be disposed of in accordance with approved procedures meeting all applicable Federal, State and Local regulations. In the event of an oil or hazardous materials spill large enough to violate Federal, State or Local regulations, the Contractor shall notify the Engineer immediately. The Contractor shall be responsible for immediately cleaning up any oil or hazardous waste spills resulting from its operations. Any costs incurred in cleaning up any such spills shall be borne exclusively by the Contractor.

The Contractor shall be solely responsible for compliance with laws and regulations governing the handling, storage, use or disposal of hazardous materials or wastes used, stored, generated or disposed of in connection with construction of the Work and shall obtain all permits and approvals, give all required notices, and observe all applicable procedures prescribed by the EPA, DEP or other governmental authorities having jurisdiction with respect to such activities. At the Owner's request, the Contractor shall properly furnish the Owner with evidence satisfactory to the Owner demonstrating the Contractor's compliance with such procedures, the giving of such notices, and the issuance of such permits and approvals.

6.22-H The Contractor shall provide and maintain in good operating condition suitable and adequate fire protection equipment and services, and shall comply with all reasonable recommendations regarding fire protection made by the representatives of the fire insurance company carrying insurance on the Work or by the local fire chief or fire marshal. The area within the site limits shall be kept orderly and clean, and all combustible rubbish shall be promptly removed from the site.

6.22-I The Contractor shall at all times protect excavations, trenches, adjacent buildings and materials from rain water, ground water, backup or leakage of sewers, drains and other piping, and from water of any other origin, and shall remove promptly any accumulation of water. The Contractor shall provide and operate all pumps, piping and other equipment necessary to this end.

6.22-J The Contractor shall be responsible for all security measures

necessary and appropriate to protect the Work area until acceptance by the Owner to assure that the Work, and all materials and equipment stored at the Site, are fully and completely protected against loss or damage due to vandalism, theft, or malicious mischief. The Contractor shall not use guard dogs for this purpose unless authorized in advance in writing by the Owner. If the Owner approves the use of guard dogs, each dog shall at all times be accompanied by an adult handler.

6.22-K The Contractor shall be responsible for the adequate strength and safety of all scaffolding, staging, and hoisting equipment and for temporary shoring, bracing, and tying.

6.22-L The Contractor shall furnish on site all personal protective equipment as required, approved first aid supplies, the name of its first-aid attendant, and a posted list of emergency facilities.

6.22-M No unauthorized visitors shall be allowed on the work site without permission from the Contractor.

6.22-N The Contractor shall employ labor subject to contract terms and conditions in order to ensure harmonious labor relations on the site and prevent strikes or labor disputes. The Contractor, in the event of a labor dispute including strikes, shall take whatever action is required at no expense to the Owner to prevent the disruption of the work. The Contractor shall also not permit employment of any person who is not of good character and morals nor permit disorderly or indecent conduct on the job site. He shall not permit the consumption of alcoholic beverages or illegal drugs on the job site nor permit any employment or person under his supervision or control to be under the influence thereof.”

6.22-O (Statutory reference: M.G.L. c.149, §§30 and 34)

No laborer, worker, mechanic, foreman or inspector working within this Commonwealth in the employ of the Contractor, Subcontractor or other person doing or contracting to do the whole or part of the work contemplated by the Contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight (48) hours in any one week, or more than six (6) days in any one (1) week, except in cases of emergency.

6.22-P (Statutory reference: M.G.L. c.149,§25)

Every employee under this Contract shall lodge, board and trade where and with whom he elects, and neither the Contractor nor his agents or employees shall, either directly or indirectly, require as a condition of the employment of any person that the employee shall lodge, board or trade at a particular place or with a particular person.

6.22-Q (Statutory Reference: M.G.L. c.149,§34B)

The Contractor shall pay to any reserve police officer employed by him in any city or town the prevailing rate of wage paid to regular police officers in such city or town.”

6.22-R The Contractor is solely responsible for the proper and safe operation and maintenance of all utility systems within the construction limits, whether these are supplied by the Owner’s distribution system or otherwise, until the work is accepted by the Owner, and until the Owner has notified the Contractor that other arrangements have been made. The Contractor shall maintain and operate appurtenances within the construction area which serve the distribution system, subject to periodic inspection by the Owner’s operating personnel. Inspection by any representative or personnel of the Owner shall not relieve the Contractor of his responsibilities in connection with operation and maintenance of these facilities and equipment. The Contractor shall provide the Owner at least seventy-two (72) hours’ advance notice of the Contractor’s desire to extend, connect, disconnect, or turn on or off any steam, electric, water, or other service from the Owner’s supply systems. The actual operation shall be witnessed and approved by an authorized representative of the Owner. All plumbing, heating, and electrical work, including installation of equipment, and other work to be performed by the Contractor, shall be carried out without interference with the Owner’s normal operation. Where any work requires interruption of any service, the Contractor shall make advance arrangements with the Owner for dealing with and minimizing such interruption.

6.22-S The Contractor agrees to procure materials, equipment, labor and supplies from such sources and to perform all Work on the Project with labor, material suppliers and Subcontractors that will work harmoniously with the Owner’s employees, employees of other contractors employed by the Owner, and with other elements of labor involved in the construction of the Project or the operation of the building in which the Project is located, including, without limitation, any tenant improvement work contractors engaged by Owner or any tenants of Owner.”

6.22-T Weather Protection Devices – Pursuant to M.G.L. Chapter 149, Section 44G(D), the Contractor shall install weather protection devices and shall furnish adequate heat in the area so the work is protected during the months of November through March.

## **ARTICLE 7 – OTHER WORK AT THE SITE**

SC-7.01 and

- SC-7.02 and  
SC-7.03 Delete paragraphs 7.01, 7.02 and 7.03 of the General Conditions in their entirety except for the first sentence in paragraph 7.01(A).

## **ARTICLE 8 - OWNER'S RESPONSIBILITIES**

- SC-8.06 In paragraph 8.02-A of the General Conditions, in the second and third lines, delete the words “to whom Contractor makes no reasonable objection”.
- SC-8.06 Delete paragraph 8.06-A of the General Conditions in its entirety.
- SC-8.06 Delete paragraphs 8.10 and 8.11 of the General Conditions.
- SC-8.09 Add the following at the end of paragraph 8.09 of the General Conditions:
- “The Contractor shall provide services under any Contract with the Owner as an independent contractor with the Town of Natick and not as an employee of the Town of Natick. No employee, agent or representative of the Contractor shall be entitled to receive any benefits of employment with the Town of Natick, including without limitation salary, overtime, vacation pay, holiday pay, sick leave, health insurance, life insurance, pension or deferred compensation.”

## **ARTICLE 9 – ENGINEER’S STATUS DURING CONSTRUCTION**

- SC-9.01 Delete the first sentence of paragraph 9.01 of the General Conditions.
- SC-9.02 Add the words “and Owner” after the word “Engineer” in the third line of paragraph 9.02-A of the General Conditions. Substitute the word “deem” for “deems” in the same line. Delete the second and third sentences of said paragraph 9.02-A.
- SC-9.08-A Delete paragraph 9.08-A of the General Conditions.
- SC-9.09-A Insert the following language at the beginning of paragraph 9.09-A “To the extent permitted by law”

## **ARTICLE 10 -CHANGES IN THE WORK: CLAIMS**

- SC-10.01-A Delete Article 10 of the General Conditions in its entirety and insert in its place the following:
- “SC-10.01 Change Orders



A Change Order may be submitted for changes in the Contract work, including but not limited to, changes in:

- a. the plans and specifications
- b. in the method or manner or performance of the work; and/or
- c. in the schedule for performance of the work.

Whenever a Change Order is requested or ordered, and said Change Order will cause an adjustment in the Contractor's cost, the Contractor may request an equitable adjustment in writing in the Contract price.

The Owner and the Contractor shall attempt to negotiate an equitable adjustment in the Contract price before commencement of the pertinent work. In the absence of a Contract for an equitable adjustment and when so directed, the Contractor shall proceed with the Change Order work on a time and material basis, and the Contractor will provide the Owner with a written notice to that effect.

Contractor shall provide the Owner with all cost and pricing data used in computing the amount of the equitable adjustment, and the Contractor shall certify that the pricing data used was accurate, complete, and current. With respect to any sum of money due to be paid by the Contractor to the Owner under the Contract, an appropriate Change Order shall be issued deducting said sum of money from payments then due or thereafter due to the Contractor from the Owner. If such deductions from payments then due or thereafter due to the Contractor from the Owner are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

#### SC-10.02

#### COMPUTING EQUITABLE ADJUSTMENTS

Equitable adjustments in the Contract price shall be determined according to one of the following methods, or a combination thereof, as determined by the Owner:

- a. fixed price basis, provided that the fixed price shall be inclusive of items (1) through (5) (below) and shall be computed in accordance with those provisions;
- b. estimated lump sum basis, to be adjusted in accordance

with contract unit prices, or other agreed upon unit prices provided that the unit prices shall be inclusive of all costs related to such equitable adjustment;

- c. time and materials basis, on a not-to-exceed predetermined upset amount to be subsequently adjusted on the basis of actual costs based on the following items (1) through (5):
- (1) the cost at minimum prevailing rates for direct labor, material, supplies and use of equipment exclusive of hand tools;
  - (2) plus cost of Workers' Compensation Insurance, union fringe benefits, federal unemployment taxes, Federal Social Security, and Massachusetts Unemployment Compensation, or, as an alternative the Contractor may elect to use a flat twenty (20%) percent of the total labor rate in item (1);
  - (3) plus fifteen (15%) percent of item (1) for overhead, superintendence, and profit, which will be paid to the Contractor for work performed by the Contractors' own trade forces (for work performed by a Subcontractor, the Subcontractor will be entitled to a fifteen (15%) percent mark-up and the Contractor to a five (5%) percent mark-up; for work performed by a Sub-subcontractor, the Sub-subcontractor will be entitled to a fifteen (15%) percent mark-up, the Subcontractor to a five (5%) percent mark-up, and the Contractor to a five (5%) percent markup);
  - (4) if the net change is in addition to the contract price, it shall include the Contractor's overhead, superintendence, and profit. On any change which involves a net credit, no allowances for overhead, superintendence, and profit shall be figured;
  - (5) plus actual direct premium cost of payment and performance bonds required of the Contractor and its Subcontractors, provided there will be an appropriate credit for bond premiums in the case of a credit Change Order.
- d. If unit prices are stated in the Contract Documents or subsequently agreed upon, or if quantities originally contemplated are so changed in a proposed Change Order or Construction Change Directive that application of such

unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

#### SC-10.03 WORK PERFORMED UNDER PROTEST

The Contractor shall perform all work as directed by the Owner and if the Owner determines that certain work for which the Contractor has requested a Change Order does not represent a change in the Contract, or if the Contractor and Owner cannot agree to the amount of compensation for a Change Order, the Contractor shall perform said work under protest and shall follow the procedures described in the following subparagraphs a. and b.:

- a. If the Contractor claims compensation for a Change Order not approved by the Owner, the Contractor shall, on or before the first working day following commencement of any such work or sustaining of any such damage, submit to the Owner's representative a written statement of the nature of such work or damage sustained. The Contractor will not be entitled to compensation for any portion of its Change Order claim related to work performed prior to the Owner's receipt of the written statement referred to in the previous sentence.
- b. On or before the second (2nd) working day after the commencement of such work or sustaining of such damage, and daily thereafter, the Contractor shall file to the extent possible with the Engineer and the Owner itemized statements of the details and costs of such work performed or damage sustained; and unless such statements shall be made as so required, its claim for such compensation shall be forfeited and invalid and it shall not be entitled to payment on account of any such work or damage.
- c. The Owner shall have the right to reject Change Orders executed by the Contractor under a reservation of rights.

#### SC-10.04 COMPUTING TIME EXTENSIONS

Contract Time shall not be changed due to a delay in the Contractor's early completion date until all Contract Float is used and performance of the specified work necessarily extends beyond the Contract Time. An extension in Contract Time will not be approved unless the Contractor demonstrates through a detailed CPM schedule analysis that unforeseeable causes, beyond the control of and without the fault or negligence of both

the Contractor and the Subcontractors or Suppliers at any tier, led to performance or completion of all or part of the work beyond the corresponding Contract Time despite the Contractor's reasonable and diligent actions. If granted, an extension in Contract Time shall be the Contractor's sole and exclusive remedy for any delay, disruption, interference, hindrance, and associated costs, however caused.

SC-10.05      **STATUTORY PROVISIONS – DIFFERING SITE CONDITIONS;  
TIMELY DECISIONS**

The Contractor's attention is directed to M.G.L. c.30, Sections 39I, 39J, 39N, 39O, and 39P, the provisions of which apply to the Contract.

- a.      Differing Site Conditions, M.G.L. c.30,  
Section 39N.

If, during the progress of the work, the Contractor or the Owner discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the Contract Documents either the Contractor or the Owner may request an equitable adjustment in the Contract price applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions as discovered. Upon receipt of such a claim from a Contractor, or upon its own initiative, the Owner shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the Contract Documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and Contract Documents and are of such nature as to cause an increase or decrease in the cost of performance of the Work or a change in the construction methods required for the performance of the Work which results in an increase or decrease in the cost of the work, the Owner shall upon submission by the Contractor of a properly submitted change order request, make an equitable adjustment in the Contract price and the Contract shall be modified in writing accordingly.

- b.      Timely decision by the Owner. M.G.L.  
c.30, Section 39P.

Whenever the Contract requires the Owner or the Engineer to make a decision during construction of the Project on interpretation of the specifications, approval of equipment, material, or any other approval, or progress of the work, that decision shall be made promptly and, in the event, no later than thirty (30) days after receipt of a written submission for such decision by the Contractor, but if such decision requires extended investigation and study, the Owner or the Engineer shall, within thirty (30) days after the receipt of the submission, give the Contractor written notice of the reasons why the decision cannot be made within the thirty (30) day period and the date by which the decision will be made.”

SC-10.06      **CERTIFICATE OF APPROPRIATION**

(Statutory reference: M.G.L. c.44 §31C)

The contract shall not be deemed to have been made until the auditor or accountant or other officer of the city or town having similar duties has certified thereon that an appropriation in the amount of the contract is available therefor and that an officer or agent of the city, town, or Awarding Authority has been authorized to execute said contract and approve all requisitions and change orders. No order to the Contractor for a change in or addition to the work, whether in the form of a drawing, plan, detail or any other written instruction, unless it is an order which the Contractor is willing to perform without any increase in the contract price, shall be deemed to be given until the auditor or accountant, or other officer of the Awarding Authority having similar duties, has certified thereon that an appropriation in the amount of such order is available therefore; but such certificate shall not be construed as an admission by the Awarding Authority of its liability to pay for such work. The certificate of the auditor or accountant or other officer of the Awarding Authority having similar duties that an appropriation in the amount of the contract or in the amount of such order is available shall bar any defense by the Awarding Authority on the grounds of insufficient appropriation.”

**ARTICLE 11- COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

- SC-11.01-A      In paragraph 11.01-A of the General Conditions, in the last sentence, delete the word “and”, in the second last line, and insert at the end of the last sentence the following text “, and shall include no markup”.
- SC-11.01-A      In paragraph 11.01-A.1 of the General Conditions, in the last line, insert “in advance, in writing,” between the words “authorized” and “by”.

SC 11.01-A Add the following paragraph at the end of paragraph 11.01-A.2 of the General Conditions:

"11.01-A.2.a. Only those materials required as a result of such Work and reasonable freight charges for delivery of same are allowable. Only the equipment and machinery required as a result of such Work is allowable. Costs for equipment and machinery shall be based upon the current Nielson/Dataquest Rental Bluebook for Construction Equipment (the "Bluebook"). In determining the rental rate the following shall apply:

- a. For equipment already on the project - the monthly prorated rental rate by the hourly use shall be applicable;
- b. For equipment not on the project - the daily rate, the weekly rate, or monthly rate will prevail, whichever will prove to be most cost effective. Small tools and manual equipment are examples of costs not allowable under this item. These costs are considered to be included in the Contractor's Fee as detailed in paragraphs 11.6 of the General Conditions.

(1 month (normal use) = 176 hours) (See 11.01-A.5.c. for equipment and machinery actually rented)."

Amend paragraph 11.01-A.5.a. of the General Conditions by adding the following language at the end of the paragraph:

", provided that the Contractor shall substantiate that this reimbursement payment is customarily considered normal to his operations."

Delete paragraph 11.01-A.5.c. of the General Conditions in its entirety and insert the following language in its place:

"11.01-A.5.c. All construction equipment and machinery and the parts thereof actually rented from others in accordance with rental agreements approved in advance, in writing, by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work."

Amend the first sentence of paragraph 11.01-A.5.f. of the General Conditions by striking out the following words:

"(except losses and damages within the deductible amounts of property insurance established by Owner in accordance with paragraph 5.06.D)."

and by deleting in the ninth line the word “negligence” and inserting in its place the words “act or omission”.

Delete paragraph 11.01-A.5.h. of the General Conditions in its entirety.

SC-11.01-B In paragraph 11.01-B.4 of the General Conditions, in the first line, insert “or willful misconduct” between the words “negligence” and “of”.

SC-11.01-D In paragraph 11.01-D of the General Conditions, in the first paragraph, third line, delete the word “will” and insert in its place the word “shall”.

SC-11.01-D Add the following paragraphs after paragraph 11.01-D of the General Conditions:  
"11.01-D.1. Executed change orders shall be submitted to Owner in triplicate on the Change Order Form included in Part II of the Supplementary Conditions, and to the format of the Example Calculation Sheet also located in Part II of the Supplementary Conditions.

11.01-D.2. The Contractor shall include three (3) copies of invoices to substantiate all costs for materials and equipment directly associated with work involved in the change order.

11.01-D.3. The Contractor shall include three (3) copies of labor summary to include name, classification, wage and date for all personnel directly involved in the work associated with the change order."

## **ARTICLE 12 – CHANGE OF CONTRACT PRICE: CHANGE OF CONTRACT TIMES**

SC-12.01 In paragraph 12.01-A of the General Conditions, last line, delete “10.05” and insert in its place “10.03”.

SC-12.01 Delete paragraphs 12.01-C.2.a, through 12.01-C.2.c. of the General Conditions.

SC-12.01-C Paragraphs 12.01-C.2.d. through 12.01-C.2.f. of the General Conditions shall be renumbered 12.-1-C.2.a. through 12-1-C.2.c., respectively.

SC-12.01-C New paragraph 12.-1-C.2.a of the General Conditions (former paragraph 12.01-C-2.d.) shall read”

“No fee shall be paid on the basis of costs.”

SC-12.02 Delete paragraph 12.02-B of the General Conditions in its entirety and insert in its place the following:

“SC-12.02 TIME

12.02-B TIME IS OF THE ESSENCE

Time is of the essence in the performance of the Contract. By executing the Contract, the Contractor represents that the time for performance stated in the Contract documents is a reasonable period for completing the Work to be performed under the Contract.

The Contractor shall prosecute the work with the diligence necessary to ensure its completion within the required time. The Contractor shall provide sufficient labor, materials, and equipment, and shall promptly take such appropriate action to recover schedule as may be necessary. The Contractor shall carry on the work and adhere to the schedule during all disputes and disagreements with the Owner. No work shall be delayed or postponed pending resolution of any disputes and disagreements. The Contractor shall exercise reasonable precautions, efforts, and measures to avoid or mitigate situations which would cause delays.

If no specific date is identified in the Contract Documents for Final Completion of the Project or a particular phase of the Project, Final Completion of the Project or Project phase shall be achieved by the Contractor within thirty (30) calendar days after the date of Substantial Completion of the Project or Project phase.”

12.02-C At least ten (10) working days before the first Application for Payment, the Contractor shall submit to the Engineer a Progress Schedule showing for each class of work included in the Schedule of Values, the percentage completion to be obtained and the total dollar value of work to be completed as of the first of each month until Substantial Completion. All calculations shall be on the basis of work in place, but not including the value of materials delivered but not in place.

12.02-D The Progress Schedule shall be based on an orderly progression of the Work, allowing adequate time for each operation (including adequate time for submission and review of submittals), and leading to a reasonable certainty of Substantial Completion by the date established in the Contract. The Progress Schedule will be reviewed by the Engineer for compliance with the requirements of this Article and will be accepted by the Engineer or returned to the Contractor for revision and resubmittal. Unless specifically required by law, no payment under this Contract shall be due until the Progress Schedule has been approved by the Engineer. The Engineer's review of the Progress Schedule shall not impose any duty on the Engineer or the Owner with respect to the timing, planning, scheduling, or execution of the Work. In particular, if the Contractor



proposes a Progress Schedule indicating a date of Substantial Completion which is earlier than the Contract Time, the Contractor shall not be entitled to additional payment or compensation of any kind if, for any reason, the full Contract Time is required to achieve Substantial Completion of the Work.

12.02-E If in any Application for Payment the total value of the completed Work in place, as certified by the Engineer, is less than ninety (90%) percent of the total value of the Work in place estimated in the Progress Schedule, the Owner shall have the right, at the Owner's option and without cost to the Owner, to order the Contractor to take corrective measures necessary to expedite the progress of construction, including without limitations: (i) working additional shifts or overtime, (ii) supplying additional workers, equipment, and facilities, and (iii) other similar measures (hereinafter referred to as "Extraordinary Measures"). The Owner's right to require Extraordinary Measures is solely for the purpose of ensuring the Contractor's compliance with the construction schedule.

12.02-F If each of three successive applications for payment, as certified by the Engineer, indicate that the actual Work completed is less than ninety (90%) percent of the values estimated in the Progress Schedule to be completed by the respective dates, the Owner may at the Owner's option, treat the Contractor's delinquency as a default.

12.02-G If the Engineer has determined that the Contractor should be permitted to extend the time for completion, the calendar dates in the Progress Schedule shall be adjusted accordingly to retain their same relationship to the adjusted date of Substantial Completion, and the dollar value of Work to be completed as of the first of each month shall be adjusted prorata.

12.02-H If the Contractor fails to submit any Application for Payment in any month, the Engineer shall, for the purpose of this evaluation of progress, certify separately to the actual value of the Work in place completed as of the first of the month to the best of the Engineer's knowledge.

12.02-I The Owner and the Contractor shall comply with M.G.L. c.30, §39K, which provides:

Within fifteen (15) days (thirty (30) days in the case of the commonwealth, including local housing authorities) after receipt from the contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the

amount due for the preceding month, the awarding authority will make a periodic payment to the contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, upon certification by the contractor that he is the lawful owner and that the materials are free from all encumbrances, but less (1) a retention based on its estimate of the fair value of its claims against the contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and less (3) a retention not exceeding five per cent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty-five days after (a) the contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the awarding authority, less than one per cent of the original contract price, or (b) the contractor substantially completes the work and the awarding authority takes possession for occupancy, whichever occurs first, the awarding authority shall pay the contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, or based on the record of payments by the contractor to the subcontractors under this contract if such record of payment indicates that the contractor has not paid subcontractors as provided in section thirty-nine F. If the awarding authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate than charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the contractor; provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen days (twenty-four days in the case of the commonwealth) after receipt of such a periodic estimate from the contractor, at the place designated by the awarding authority if such a place is so designated. The contractor agrees to pay to each subcontractor a portion of any such interest paid in accordance with the amount due each subcontractor.

The awarding authority may make changes in any periodic estimate submitted by the contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the

commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the awarding authority may, within seven days after receipt, return to the contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty-nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

All periodic estimates shall be submitted to the awarding authority, or to its designee as set forth in writing to the contractor, and the date of receipt by the awarding authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed subtrade and each sub-subtrade listed in sub-bid form as required by specifications and a column listing the amount paid to each subcontractor and sub-subcontractor as of the date the periodic estimate is filed. The person making payment for the awarding authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

A certificate of the architect to the effect that the contractor has fully or substantially completed the work shall, subject to the provisions of section thirty-nine J, be conclusive for the purposes of this section.

Notwithstanding the provisions of this section, at any time after the value of the work remaining to be done is, in the estimation of the awarding authority, less than 1 per cent of the adjusted contract price, or the awarding authority has determined that the contractor has substantially completed the work and the awarding authority has taken possession for occupancy, the awarding authority may send to the general contractor by certified mail, return receipt requested, a complete and final list of all incomplete and unsatisfactory work items, including, for each item on the list, a good faith estimate of the fair and reasonable cost of completing such item. The general contractor shall then complete all such work items within 30 days of receipt of such list or before the contract completion date, whichever is later. If the general contractor fails to complete all incomplete and unsatisfactory work items within 45 days after receipt of such items furnished by the awarding authority or before the contract completion date, whichever is later, subsequent to an additional 14 days' written notice to the general contractor by certified mail, return receipt requested, the awarding authority may terminate the contract and complete the incomplete and unsatisfactory work items and charge the cost of same

to the general contractor and such termination shall be without prejudice to any other rights or remedies the awarding authority may have under the contract. The awarding authority shall note any such termination in the evaluation form to be filed by the awarding authority pursuant to the provisions of section 44D of chapter 149.

12.02-J Nothing herein shall limit the Owner's right to liquidated or other damages for delays by the Contractor or to any other remedy which the Owner may possess under other provisions of the Contract Documents or by law.

12.02-K Should the Contractor request additional time to complete the work, it shall document its reasons therefor and request an extension of time the alleged delay occurred. Failure to notify the Owner of any delay as provided in this Article shall preclude the Contractor from subsequently claiming any time extension or other relief due to said delay. Request for extensions of time shall be submitted as a Change Order request to the Owner.

The Contractor shall submit the amount of a claim to the Owner in writing as soon as practicable after the end of the suspension, delay, interruption, or failure to act and, in any event, not later than the date of final payment under the Contract and, except for costs due to a suspension order, the Owner shall not approve any costs in the claim incurred more than twenty (20) days before the Contractor notified the Owner in writing of the act or failure to act involved in the claim.

The Owner and the Contractor agree that they understand that this subparagraph places a burden on the Contractor to inform the Owner, as soon as practicable, whenever the Contractor considers that an action or inaction of the Owner or the Engineer could result or has resulted in a delay in the Project, thereby providing the Owner and the Engineer with the opportunity to take action to avoid or lessen the time extensions or damages that might be associated with such action or inaction.

The Contractor and the Surety on the Contractor's performance bond shall be jointly and severally liable for, and shall pay to the Owner the expenses for inspection of Work performed after the time stipulated in the Owner-Contractor Contract for Substantial Completion. Such inspection costs shall include fees paid to the Engineer and its consultants as extra services at the rate stipulated in the Owner-Engineer Contract, the costs of any other project representatives of the Owner at the current salary rate and any other direct expenses due to inspection. The Owner may retain from monies otherwise due the Contractor whatever sums accrue to the Owner pursuant to this provision. The Contractor shall not be liable for inspection costs for delay in performance as provided hereunder for any

period for which an extension of the Contract Time has been granted.

12.02-L No claim for extension of time shall be allowed on account of failure of the Engineer to furnish Drawings, Specifications or instructions until fifteen (15) days after receipt by the Engineer by registered or certified mail, or by hand delivery acknowledged by the Engineer, of written demand for such instructions, Drawings, or Samples, and not then unless such claim be reasonable.

No extension of time shall be granted because of seasonal or abnormal variations in temperature, humidity or precipitation, which conditions shall be wholly at the risk of the Contractor, whether occurring within the time originally scheduled for completion or within the period of any extension granted. There shall be no increase in the Contract Sum on account of any additional costs of operations or conditions resulting therefrom.

The Contractor hereby agrees that the Contractor shall have no claim for damages of any kind against the Owner or the Engineer on account of any delay in the commencement of the Work and/or any hindrance, delay or suspension of any portion of the Work, whether such delay is caused by the Owner, the Engineer, or otherwise, except as and to the extent expressly provided under M.G.L. c.30, §39O in the case of written orders by the Owner. The Contractor acknowledges that the Contractor's sole remedy for any such delay and/or suspension will be an extension of time as provided in this Article.

12.02-M (Statutory reference: M.G.L. c.30 §39O)

- a. The Awarding Authority may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the Awarding Authority; provided, however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the Awarding Authority to act within the time specified in this contract, the Awarding Authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the Contractor on such increase; and provided further, that the Awarding Authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.
- b. The Contractor shall submit the amount of a claim under

provision (a) to the Awarding Authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the Awarding Authority shall not approve any costs in the claim incurred more than twenty (20) days before the Contractor notified the Awarding Authority in writing of the act or failure to act involved in the claim.

In the event a suspension, delay, interruption or failure to act of the Awarding Authority increases the cost of performance to any Subcontractor, that Subcontractor shall have the same rights against the Contractor for payment for an increase in the cost of his performance as provisions a. and b. give the Contractor against the Awarding Authority, but nothing in provisions a. and b. shall in any way change, modify or alter any other rights which the Contractor or the Subcontractor may have against each other.

#### 12.02-N LIQUIDATED DAMAGES

If the Contractor shall fail to achieve Substantial Completion within the Contract Time, it shall be liable to pay the Owner the daily amount as stipulated in the Contract not as a penalty, but as fixed and agreed upon damages for breach of contract. The said amount is fixed and agreed upon because of the difficulty of ascertaining the Owner's actual damages. It is mutually understood that the said amount is a reasonable approximation or estimate thereof as of the date of the Contract. The said amount may be withheld from periodic or final payments due to the Contractor, in addition to retainage and other backcharges.”

SC-12.03 In paragraph 12.03-A of the General Conditions, in the eighth line, insert “acts or neglect by Engineer,” after “acts or neglect by Owner”.

SC-12.03 In paragraph 12.03-C of the General Conditions, in the fifth line, insert “and Engineer” between “Owner” and “and”.

#### **ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK:**

SC-13.03 Delete paragraph 13.03-B of the General Conditions in its entirety.

SC-13.07 In paragraph 13.07-B of the General Conditions, in the last line, delete “will” and insert in its place “shall”.

- SC-13.09 Add the following paragraph immediately after paragraph 13.09-D of the General Conditions:

"13.09-E In the event of an emergency caused by defective Work, if the Contractor fails to respond to notification within twelve (12) hours, the Owner may proceed with alleviating the condition, and at his option may impose a surcharge upon the Contractor or a decrease in the Contract Price to cover associated costs in relation thereto."

#### **ARTICLE 14 -PAYMENTS TO CONTRACTOR AND COMPLETION**

- SC-14.02 Delete paragraph 14.02 A, B and C of the General Conditions in their entirety and insert in its place the following:

"M.G.L. c.30, § 39K is incorporated herein by reference. See Part II of the SUPPLEMENTARY CONDITIONS, p. 00810-7."

- SC-14.03-A Add a new paragraph immediately after paragraph 14.03-A of the General Conditions:

"14.03-A.1. No materials or supplies for the Work shall be purchased by Contractor or Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. Contractor shall warrant that he has clear title to all materials and supplies used by him in the Work, free from all liens, claims or encumbrances."

- SC-14.04 Delete paragraphs 14.04-A through 14.04-D of the General Conditions in their entirety and insert in their place the following:

"14.04-A Substantial completion and payment in relation thereto shall be in compliance with M.G.L. Chapter 30, Section 39G for Utility Contracts, and M.G.L. Chapter 30, Section 39K for Building Associated Contracts, as included in Part II of the Supplementary Conditions.

14.04-A.1. For utility contracts, Owner, within twenty-one (21) days of receipt of certification from Contractor that the work has been Substantially Complete, shall present to Contractor a written declaration that work has been Substantially Complete, or an itemized list of incomplete or unsatisfactory work items.

14.04-A.1.a. Within sixty-five (65) days after the effective date of Substantial Completion and receipt of an Application for Payment, Owner shall submit to Contractor payment for the quantity and price of the work done with the following deductions:

- a. A retainer of one (1%) percent of the undisputed Substantial Completion payment amount.
- b. Less the estimated cost of completing all incomplete and unsatisfactory work items.
- c. An amount equal to sum of all demands for direct payment filed by subcontractors and not yet paid to subcontractors or deposited in a joint account."

SC-14.07-14.09 Delete paragraphs 14.07 through 14.09 of the General Conditions and insert in their place the following:

“(Statutory Reference – M.G.L. c.30, §39F:

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

Not later than the sixty-fifth (65th) day after each Subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract, less amounts retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the Subcontractor; and the Awarding Authority shall pay that amount to the Contractor. The Contractor shall forthwith pay to the Subcontractor the full amount received from the Awarding Authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the Contractor.

Each payment made by the Awarding Authority to the Contractor for the labor performed and the materials furnished by a Subcontractor shall be made to the Contractor for the account of that Subcontractor; and the Awarding Authority shall take reasonable steps to compel the Contractor to make each such payment to each such Subcontractor. If the Awarding Authority has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the Contractor or which is to be included in a payment to the Contractor for payment to the Subcontractor, the Awarding Authority shall act upon the demand as provided herein.

If, within seventy (70) days after the Subcontractor has substantially completed the subcontract work, the Subcontractor has not received from the Contractor the balance due under the subcontract including any



amount due for extra labor and materials furnished to the Contractor, less any amount retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the Subcontractor may demand direct payment of that balance from the Awarding Authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the Contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth (70th) day after the Subcontractor has substantially completed the subcontract work. Within ten (10) days after the Subcontractor has delivered or so mailed the demand to the Awarding Authority and delivered or so mailed a copy to the Contractor, the Contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract, including any amount due for extra labor and materials furnished to the Contractor and of the amount due for each claim made by the Contractor against the Subcontractor.

Within fifteen (15) days after receipt of the demand by the Awarding Authority, but in no event prior to the seventieth (70th) day after substantial completion of the subcontract work, the Awarding Authority shall make direct payment to the Subcontractor of the balance due under the subcontract, including any amount due for extra labor and materials furnished to the Contractor, less any amount (i) retained by the Awarding Authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the Contractor in the sworn reply; provided that the Awarding Authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by M.G.L. c 30, §39F. The Awarding Authority shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deductions from direct payments made.

The Awarding Authority shall forthwith deposit the amount deducted from a direct payment in an interest-bearing joint account in the names of the Contractor and the Subcontractor in a bank in Massachusetts selected by the Awarding Authority or agreed upon by the Contractor and the Subcontractor and shall notify the Contractor and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in a

Contract between the Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.

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

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

If the Subcontractor does not receive payment as provided herein or if the Contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the Subcontractor and the Subcontractor does not receive payment for same when due less the deductions provided for herein, the Subcontractor may demand direct payment by following the procedure provided for in M.G.L. c.30, §39F, and the Contractor may file a sworn reply as provided in that same Sub-subparagraph. A demand made after the first day of the month following that for which the Subcontractor performed or furnished the labor and materials for which the Subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the Contractor. Thereafter the Awarding Authority shall proceed as provided in M.G.L. c.30, §39F.

Any assignment by a Subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of M.G.L. c.149, §29 shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the Awarding Authority or which are on deposit pursuant to the provisions herein shall be subordinate to the rights of all Subcontractors who are entitled to be paid under this section and who have not been paid in full.

(3) "Subcontractor" as used in this section (i) for contracts awarded as provided in sections forty-four A to forty-four H, inclusive, of chapter one hundred forty-nine shall mean a person

who files a sub-bid and receives a subcontract as a result of that filed sub-bid or who is approved by the awarding authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor

A Contractor or a Subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited pursuant to M.G.L. c.30, §39F by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A Subcontractor shall enforce a claim for direct payment or a right to require a deposit by a petition in equity in the superior court against the Awarding Authority and the Contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. M.G.L. c.231, §§59 and 59B shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to §§59 and 59B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any Subcontractor with the petition of one or more Subcontractors of the same general contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated and that such consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit. No person except a Subcontractor filing a demand for direct payment for which no funds due the Contractor are available for direct payment shall have a right to file a petition in a court of equity against the Awarding Authority claiming a demand for direct payment is premature, and such Subcontractor must file the petition before the Awarding Authority has made a direct payment to the Subcontractor and has made a deposit of the disputed portion.

In any petition to collect any claim for which a Subcontractor has filed a demand for direct payment the court shall, upon motion of the Contractor, reduce by the amount of any deposit of a disputed amount by the Awarding Authority as provided herein any amount held under a trustee writ or pursuant to a restraining order or injunction.”

**ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION**

SC-15.01 Delete paragraph 15.01 A of the General Conditions in its entirety and insert in its place the following :

"15.01-A The Owner may order the Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as it may determine to be appropriate for the convenience of the Owner; provided however, that if there is a suspension, delay or interruption for fifteen (15) days or more or due to a failure of the Owner to act within the time specified in this Contract, the Owner shall make an adjustment in the Contract Price for any increase in the cost of performance of this Contract but shall not include any profit to the Contractor on such increase; and provided further, that the Owner shall not make any adjustment in the Contract Price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this Contract provides for an equitable adjustment of the Contract Price under any other Contract provisions.

The Contractor shall submit the amount of said claim to the Owner in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this Contract and, except for costs due to a suspension order, the Owner shall not approve any costs in the claim incurred more than twenty (20) days before the Contractor notified the Owner in writing of act or failure to act involved in the claim.

15.01-A-1. The above revisions contained in paragraph under SC-15.01 are in compliance with Massachusetts General Laws Chapter 30, Section 39O."

SC-15.02

Delete paragraph 15.02 A, B, C, D, E and F of the General Conditions in their entirety and insert in its place the follow provision:

“15.02-A If the Contractor persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if the Contractor fails to make prompt payment to Subcontractors or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction or disregards an instruction, order or decision of the Engineer, or otherwise is guilty of a substantial violation of any provision of the Contract, then the Contractor shall be in default, and the Owner may, without prejudice to any other right or remedy and upon written notice to the Contractor of such default, take possession of all materials, tools, appliances, equipment, construction equipment and machinery and vehicles, offices and other facilities on the Project site, and all materials intended for the Work, wherever stored, and, if such default is not cured within seven (7) days after such notice, may terminate the employment of the Contractor, accept assignment of any or all subcontracts, and finish the Work by whatever method the Owner may deem expedient. The Owner shall be entitled to collect from the Contractor all direct, indirect, and consequential damages suffered by the Owner on account of the Contractor's default, including without limitation additional services and expenses of the Engineer made necessary thereby. The Owner shall be entitled to hold all amounts due the Contractor at the date of termination until all of the Owner's damages have been established, and to apply such amounts to such damages.

If, after final completion of the Work, the Owner determines that the unpaid amount (if any) due to the Contractor for the portion of the Work performed by the Contractor in accordance with the Contract exceeds any costs and damages incurred by the Owner as the result of the Contractor's breach of this Contract, such excess shall be paid to the Contractor. If the costs and damages incurred by the Owner as the result of the Contractor's breach of this Contract exceeds the unpaid amount (if any) due to the Contractor for the portion of the Work performed by the Contractor, the Contractor shall promptly pay such excess upon written demand by the Owner. In the event of a termination of the Contract pursuant to this Article, the Owner and the Contractor shall forthwith return to the other all papers, materials and other properties of the other held by each for the purposes of execution of the Contract. In addition, each party will make reasonable efforts to assist the other party in an orderly termination of this Contract.”

15.02-B If the Contractor is determined by a court of competent jurisdiction to be bankrupt, or if any assignment shall be made by the Contractor or by any guarantor of the Contractor for the benefit of creditors, or if a petition is filed by the Contractor or by guarantor of the Contractor for adjudication as a bankrupt, or for reorganization or an arrangement under any provision of the Bankruptcy Act as then in force and effect, or in an involuntary petition under any of the provisions of the Bankruptcy Act is filed against the Contractor and such involuntary petition is not discharged within ninety (90) days thereafter, in any event the Owner may terminate this Contract upon written notice to the Contractor.”

SC-15.03 Delete paragraph 15.03 of the General Conditions in its entirety and insert in its place the following:

**“15.03 OWNER’S TERMINATION FOR CONVENIENCE**

The Owner may, at any time, terminate the Contract for the Owner’s convenience and without cause. Upon receipt of written notice from the Owner of such termination for the Owner’s convenience, the Contractor shall:

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and/or purchase orders.

In the event of such termination for the Owner’s convenience, the Contractor shall be compensated only for Work performed and expenses incurred in accordance with the Contract prior to termination, together with reasonable demobilization expenses (provided that there are appropriated Project funds available for such demobilization expenses). The Owner, however, shall not compensate the Contractor for lost profits, overhead expenses, termination expenses, or other such costs or expenses.”

**ARTICLE 16 - DISPUTE RESOLUTION**

SC-16.01 Delete paragraph 16.01 A, B and C of the General Conditions in their entirety and insert in its place the following:

“Any Claim arising out of or related to the Contract, except those waived as provided in herein, shall, after final decision by the Engineer or thirty (30) days after submission of the Claim to the Engineer, be subject to mediation as a condition precedent to the institution of legal or equitable proceedings by either party.

The Owner and Contractor shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be conducted under the auspices of the American Arbitration Association in accordance with the most current version of the Association’s Construction Industry Mediation Rules in effect at the time the request for mediation is filed. Request for mediation shall be filed in writing with the other party to this Contract and with the American Arbitration Association. All necessary parties may be brought into such mediation.

The parties shall bear equally the mediator’s fee and any filing fees required for the mediation. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Written Contracts reached in mediation shall be enforceable as written settlement Contracts in any court having jurisdiction thereof. In the event that any such claim, dispute or controversy is not resolved through the mediation process, either party is free to pursue any such claim, dispute or other matter in an appropriate court proceeding.

This paragraph 16.01 shall not prohibit the initiation of legal proceedings or equitable proceedings in circumstances where mediation will not be completed before the expiration of the applicable time within which to initiate legal proceedings or equitable proceedings. Under no circumstances shall either party call for mediation of any claim or dispute arising out of this Contract after such period of time as would normally bar the initiation of legal proceedings to litigate such a claim or dispute under the laws of the Commonwealth of Massachusetts.

This Paragraph 16.01 shall survive completion or termination of the Contract.”

**ARTICLE 17** Renumber Article 17 as Article 19, and renumber paragraphs 17.01 thru 17.06 as paragraphs 19.01 thru 19.06.

Insert new paragraphs 17.01 through 17.06 in the General Conditions:

“ARTICLE 17 - CONTRACTOR'S ACCOUNTING METHOD REQUIREMENTS

(Statutory reference: M.G.L. c.30, §39R)

SC\_17.01\*-SC-17.06\* Add new paragraphs 17.01 through 17.06, to the General Conditions as follows:

“17.01-A\* The words defined herein shall have the meaning stated below whenever they appear in this Article 17:

17.01-A.1 “Contractor” means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to §39M of c.30, §§44A-44H inclusive, of c.149, §11C of c.25, or §§44-58, inclusive, of c.7C, which is for an amount or estimated amount greater than one hundred thousand dollars.

17.01-A.2 “Contract” means any contract awarded or executed pursuant to §§44-58, inclusive of c.7C, and any contract awarded or executed pursuant to §11C of c.25A, §39M of c.30, or §§44A-44H, inclusive, of c.149, which is for an amount or estimated amount greater than one hundred thousand dollars.

17.01-A.3 “Records” means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts, tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.

17.01-A.4 “Independent Certified Public Accountant” means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his/her residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the Awarding Authority.

17.01-A.5 “Audit”, when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a CERTIFIED opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.

17.01-A.6 “Accountant's Report”, when used in regard to financial statements, means a document in which an independent certified public



accountant indicates the scope of the audit which s/he has made and sets forth his/her opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the Contractor.

17.01-A.7 "Management", when used herein, means the chief executive officers, partners, principals, or other person or persons primarily responsible for the financial and operational policies and practices of the Contractor.

17.01-A.8 Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

17.02-A Every Contract or contract awarded or executed pursuant to §§44-58, inclusive of c.7C, §11C of c.25A, and pursuant to §39M of c.30 or to §§44A-44H, inclusive, of c.149, shall provide that:

17.02-A.1 The Contractor shall make, and keep for at least six (6) years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the Contractor.

17.02-A.2 Until the expiration of six (6) years after final payment, the Awarding Authority, Office of Inspector General, and the Commissioner of Capital Asset Management and Maintenance shall have the right to examine any books, documents, papers or records of the Contractor or of his/her Subcontractors that directly pertain to, and involve transactions relating to, the Contractor or his/her Subcontractors.

17.02-A.3 If the Contract is a contract as defined herein, the Contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the Awarding Authority, including in his/her description the date of the change and reasons therefor, and shall accompany said description with a letter from the Contractor's independent certified public accountant approving or otherwise commenting on the changes.

17.02-A.4 If the Contract is a contract as defined herein, the Contractor has filed a statement of management on internal accounting controls as set

forth in Paragraph 17.03 below prior to the execution of the contract.

17.02-A.5 If the Contract is a contract as defined herein, the Contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in Paragraph 17.05 below.

17.03-A Every Contractor awarded a contract shall file with the Awarding Authority a statement of management as to whether the system of internal accounting controls of the Contractor and its subsidiaries reasonably assures that:

17.03-A.1 transactions are executed in accordance with management's general and specific authorization;

17.03-A.2 transactions are recorded as necessary:

(i) to permit preparation of financial statements in conformity with generally accepted accounting principles, and

(ii) to maintain accountability for assets;

17.03-A.3 access to assets is permitted only in accordance with management's general or specific authorization; and

17.03-A.4 the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

17.04-A Every Contractor awarded a contract shall also file with the Awarding Authority a statement prepared and signed by an independent certified public accountant, stating that he or she has examined the statement of management on internal accounting controls, and expressing an opinion as to

17.04-A.1 whether the representations of management in response to this paragraph and Paragraph 17.02 above are consistent with the result of management's evaluation of the system of internal accounting controls; and

17.04-A.2 whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial

statements.

17.05-A Every Contractor awarded a contract by the Commonwealth or by any political subdivision thereof shall annually file with the Commissioner of Division of Capital Asset Management during the term of the Contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statement shall be made available to the Owner upon request.

17.06-A Records and statements required to be made, kept or filed under the provisions of this Article 17 shall not be public records as defined in M.G.L. c.4, §7 and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of Subparagraph 17.02-A.2 and 17.05-A.”

**ARTICLE 18**      **INSERT A NEW ARTICLE 18 IN THE GENERAL CONDITIONS**  
**AS FOLLOWS:**

**“ARTICLE 18: NONDISCRIMINATION IN EMPLOYMENT**

18.01-A Contracts for work under this bid will obligate the Contractor and Subcontractors not to discriminate in employment practices.

18.02-A Contracts for work under this project will obligate the Contractor and Subcontractors to maintain not less than five (5%) percent ratio of minority employee man hours to total man hours.

18.03-A In connection with the performance of work under the Contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age, sex, gender identity, sexual orientation (which shall not include persons whose sexual orientation involves minor children as the sex object), genetic information, ancestry, children, marital status, veteran status or membership in the armed services, the receiving of public assistance, and handicap. The aforesaid provision shall include, but not be limited to the following: advertising; recruitment; hiring; rates of pay or other forms of compensation; terms, conditions or privileges of employment; employment upgrading; transfer; demotion; layoff; and termination. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Massachusetts Commission Against Discrimination or other applicable agency of the Commonwealth of Massachusetts setting forth the provisions of the Fair Employment Practices Law of the Commonwealth. The Contractor shall also undertake in good faith, affirmative action

measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age, sex, gender identity, sexual orientation (which shall not include persons whose sexual orientation involves minor children as the sex object; genetic information, ancestry, children, marital status, veteran status or membership in the armed services, the receiving of public assistance, and handicap, and to eliminate and remedy any effects of such discrimination in the past.

18.04-A Successful Bidder shall submit a Contractor's Certification Form and a Subcontractor's Certification Form concerning its employment practices and policies in order to maintain its eligibility to receive the award of the Contract. These forms shall be submitted with the signed Contract Documents."

## **ARTICLE 19 -MISCELLANEOUS**

SC-19.01-B Add the following new paragraph immediately after paragraph 19.01-A.2. of the General Conditions:

"19.01-B Both the address given in the Bid Form upon which this Agreement is founded, and Contractor's office at or near the site of the Work are hereby designated as places to either of which notices, letters, and other communications to Contractor shall be certified, mailed, or delivered, the delivering at the above named place, or depositing in a postpaid wrapper directed to the first-named place, in any post office box regularly maintained by the post office department, of any notice, letter or other communication to Contractor shall be deemed sufficient service thereof upon Contractor; and the date of said service shall be the date of such delivery or mailing.

The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by Contractor, and delivered to Owner and Engineer in accordance with this Article 19. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter or other communication upon Contractor personally."

SC-19.01-C Add the following new paragraph 19.01-C to the General Conditions:

Notices given to the Owner shall be given to the Town Administrator, Town of Natick, Natick Town Hall, 13 East Central Street, Natick, MA 01760, to the Director, Natick Department of Public Works, 75 West Street, Natick, MA 01760 and to the Engineer.

SC-19.05-A Delete paragraph 19.05-A (formerly 17.05-A) of the General Conditions and insert the following paragraph:

“A. This Contract shall be governed by and interpreted in accordance with the laws of the Commonwealth of Massachusetts, regardless of choice of law principles”.

Insert the following new paragraphs 19.07 through 19.15 in the General Conditions.

“19.07 WAGE RATES

19.07 -A The requirements and provisions of all applicable laws and any amendments thereof or additions thereto as to the employment of labor, and to the schedule of minimum prevailing wage rates established in compliance with laws, including without limitation M.G.L. c.149, §26-27G, shall be a part of these Contract Documents. Copies of Federal and/or State wage schedules are included at the end of Part I of these Supplementary Conditions. If, after the Notice to Proceed, it becomes necessary to employ any person in a trade or occupation not classified in the wage determinations, such person shall be paid at not less than such wages as shall be determined by the officials administering the laws mentioned above. Such approved minimum rate shall be retroactive to the time of the initial employment of such person on such trade or occupation. Contractor shall notify Owner of his intention to employ persons in trades or occupations not classified in sufficient time for Owner to obtain approved rates for such trades or occupations.

19.07-A.1. The schedules of wages referred to above are minimum rates only, and Owner will not consider any claims for additional compensation made by Contractor because of payment by Contractor of any wage rate in excess of the applicable rate contained in these Contract Documents. All disputes in regard to the payment of wages in excess of these specified in the schedules shall be adjusted by Contractor.

19.07-A.2 The said schedules of wages shall continue to be the minimum rates to be paid during the life of the Agreement and a legible copy of said schedules shall be kept posted in a conspicuous place at the site of the Work.

19.07-A.3 Federal and/or State schedule of minimum prevailing wage rates are included in Part I of these Supplementary Conditions. Where rates differ, the higher rates shall apply as a minimum for that trade.

19.07-A.4 The Contractor shall submit weekly payroll records to the Owner during the progress of the Contract, for each day work is performed and keep them on file for three (3) years.

19.07-A.5 The Contractor should obtain a schedule of minimum prevailing wage rates for every public building construction project from the Owner. It is the Owner's responsibility to ensure that a copy of the wage schedule is provided to all Contractors from whom estimates or bids are solicited for all projects. The Department of Labor and Workforce Development will not issue wage schedules directly to contractors or employees.

19.07-A.6 Once a wage schedule has been issued for a project by the Department of Labor and Workforce Development, it will remain in effect for the entire project. Appeals of wage determinations or classifications of employment may be made to the Department of Labor and Workforce Development Commissioner.

19.07-A.7 A wage schedule issued for a project may not be issued on any other project. If, by chance, the Owner fails to provide a wage schedule to use when figuring your bid, do not use one from another project. In this case, the Contractor should contact the Department of Labor and Workforce Development immediately and urge the Owner to contact the Department of Labor and Workforce Development to correct the oversight.

19.07-A.8 The failure of the Owner to provide a wage schedule does not excuse the Contractor from paying the minimum prevailing wage rate.

19.07-A.9 The Attorney General's Division of Fair Labor & Business Practices enforces the minimum prevailing wage law. All bids shall reflect minimum prevailing wage rates. CONTRACTORS may be required by an awarding authority to "demonstrate how they could complete the project and comply with Mass. Gen. Laws". The Division issued an "Advisory" discussing these and other points. For a copy, please contact the Attorney General's Office.

19.07-A.10 Minimum prevailing wages shall be paid to all employees on public building construction projects regardless of whether they are employed by the General Contractor, a filed sub-bidder or any sub-contractor. The minimum prevailing wage applies equally to unionized and non-unionized workers.

19.07-A.11 All employees who perform work on a public building construction project shall be paid hourly according to the wage schedule issued for the particular project.

19.07-A.12 The wage schedule issued for each project is in effect for the duration of that project. All wage increases listed on the schedule shall be paid on the specified dates.

19.07-A.13 Contractors are limited in the deductions that can be made from the hourly rate (represented as the “total rate” on the wage schedules). Only contributions to the following plans may be deducted:

- Health and Welfare
- Pension
- Supplementary Unemployment

All contributions shall be made to bona fide plans.

19.07-A.14 If the Contractor contributes to any, or all, of the above plans, it may deduct the hourly amount contributed from the “total rate”. If the Contractor does not contribute to any of the benefit plans listed above, then the hourly rate of pay will be the “total rate” from the wage schedule.

19.07-A.15 All other deductions, including but not limited to the following, may not be subtracted from the employee's hourly minimum prevailing wage rate:

- Vacation Time
- Sick Time
- Training Funds
- Charitable Contributions
- Workers Compensation
- Unemployment Insurance
- Uniforms

19.07-A.16 Overtime, which shall be paid to all employees who work more than forty (40) hours per week, shall be at least time-and-one-half the base rate (“total rate” less benefits, if any).

19.07-A.17 Any “separate check” given to any employee as the “benefit portion” of the minimum prevailing wage may not be treated differently than the check for “base wages”. All “separate checks” are considered wages and subject to state and federal taxes, unemployment insurance and worker's compensation requirements.

19.07-A.18 A reporting form is sent along with each wage schedule that may be used. Each report shall contain at least: the employee's name, address, occupational classification, hours worked and wages paid. Do not submit weekly payroll reports to the Department of Labor and Workforce Development.

19.07-A.19 After the Contractor completes its portion of the public building construction project, the Contractor shall submit a Statement of Compliance to the Department of Labor and Workforce Development. A Statement of Compliance form is also sent along with each wage schedule issued.

19.07-A.20 Apprentices shall be registered with the Division of Apprentice Training (DAT). All persons not registered with DAT shall be paid the “total rate” listed on the wage schedule. An apprentice sheet showing percentages based on the apprentice steps is included with all wage schedules.

19.07-A.21 Failure to pay the minimum prevailing wage subjects the Contractor to potential civil and criminal liability.

“SC-19.08-A If any provision of the Contract Documents is determined to be invalid or unenforceable by final judgment of a court of competent jurisdiction, the remaining provisions shall continue in effect to the extent permitted by law.

SC-19.09-A All provisions of law required to be inserted in the Contract Documents shall be and are inserted herein. If any such provision is not herein inserted or inserted in improper form, upon the application of either party, the Contract Documents shall be changed by the Owner, at no increase in contract sum or contract time, so as to strictly comply with the law and without prejudice to the rights of either party herein.

SC-19.10-A No forbearance or indulgence in any form or manner by the Owner shall be construed as a waiver or in any way limit the legal or equitable remedies available to the Owner. No waiver by the Owner of any default or breach shall constitute a waiver of any subsequent default or breach.

SC-19.11-A Attorney’s Fees. In the event that any legal or equitable action, suit, or claim, counter-claim, cross-claim, or third-party claim of any kind relating to the Contract is filed, pleaded or initiated by the Owner or Contractor against the other party to the Contract, which results in a judgment, award or order of any kind in favor of the Owner, the Contractor shall be responsible for all reasonable costs, expenses, attorney’s fees and expert witness fees incurred by the Owner in filing, prosecuting, maintaining, appealing or defending against such action, suit, or claim, counter-claim, cross-claim, or third-party claim.

SC-19.12-A Any cause of action which the Owner may have in connection with Work shall be deemed to accrue only when the Owner has obtained actual knowledge of the act of omission which gives rise to the



cause of action, not before.

SC-19.13-A No officer, member of a board, commission or committee, employee or agent of the Owner shall be personally or individually liable to the Contractor with respect to the Contract or the Work. Each subcontract shall include the foregoing limitation, which shall be effective if the Owner ever succeeds to the Contractor's rights and obligations under the subcontract.

SC-19.14-A The Contract may be amended only by written Contract of the parties.

SC-19.15-A The Contract may not be assigned by the Contractor without the prior written assent of the Owner."

Insert a new Article 20 in the General Conditions, as follows:

#### **ARTICLE 20: ADDITIONAL PROVISIONS**

20.01 Certification of Tax Compliance - By entering into an Contract with the Owner, the Contractor certifies under the penalties of perjury, pursuant to M.G.L. Chapter 62C, Section 49A(b), that it has complied with all laws of the Commonwealth of Massachusetts relating to taxes, to the reporting of employees and Contractors, and to the withholding and remitting of child support.

20.02 Conflict of Interest - The Contractor understands that the Massachusetts Conflict of Interest Law, Chapter 268A of the Massachusetts General Laws, applies to the Contractor with respect to the services required to be provided under the Contract. The Contractor and its officers, employees, agents, Subcontractors and affiliated agencies shall not participate in any activity which constitutes a violation of the Massachusetts Conflict of Interest Law or which creates an appearance of a violation of the Massachusetts Conflict of Interest Law.

20.03 Non-Collusion - By entering into the Contract with the Owner, the Contractor certifies under penalties of perjury that its bid has been made and submitted in good faith and without collusion or fraud with any person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

20.04 Independent Contractor Status - The Contractor shall provide

services under any Contract with the Owner as an independent contractor with the Town of Natick and not as an employee of the Town of Natick. No employee, agent or representative of the Contractor shall be entitled to receive any benefits of employment with the Town of Natick, including without limitation salary, overtime, vacation pay, holiday pay, sick leave, health insurance, life insurance, pension or deferred compensation.

20.05 Additional Statutory Incorporations - The provisions of M.G.L. Chapter 149, Sections 34 (Public contracts; stipulation as to hours and days of work; void contracts), 34A (Contracts for public works; workers' compensation insurance; breach of contract; enforcement and violation of statute ), and 34B (Contracts for public works; wages for reserve police officer) shall hereby be incorporated into this Contract by reference.

## **ARTICLE 21: MINIMUM PREVAILING WAGE RATES**

21.1 The following Minimum Prevailing Wage Rates (Heavy Construction) as determined by the Commissioner of the Department of Labor and Workforce Development under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27D, as amended, (the Prevailing Wage Act) apply to this project. It is the responsibility of the Contractor, before bid opening, to request if necessary, any additional information on Minimum Prevailing Wage Rates for those tradespeople whose not covered by the following schedule of wage rates, but who may be employed for the proposed work under this Contract.

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SUPPLEMENTARY CONDITIONSTABLE OF CONTENTSPART II

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SUPPLEMENTARY CONDITIONS**PART II - STATE AND LEGAL GOVERNMENT PROVISIONS**

State and Local Government provisions included herein, have been selected from those to which specific references have been made elsewhere in the Contract Documents. Each and every other provision of law or clause required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein and our provision contrary to such law or clause shall be deemed null and void. If through mistake or otherwise any such provision is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

State and Local Government provisions included herein, have been selected from those to which specific references have been made elsewhere in the Contract Documents. Each and every other provision of law or clause required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein and our provision contrary to such law or clause shall be deemed null and void. If through mistake or otherwise any such provision is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

1.0 State Government Provisions were current as of October 26, 2015.

1.1 Contractor and Owner agree that the following provisions of the Commonwealth of Massachusetts apply to the work to be performed under this Contract, and that these provisions supersede any conflicting provisions of said Contract.

1.1.1 CHAP. 30 M.G.L, SECTION 39F

Construction contracts; assignment and subrogation; Subcontractor defined; enforcement of claim for direct payment; deposit, reduction of disputed amounts

(1) Every contract awarded pursuant to sections forty four A to L, inclusive of chapter one hundred and forty nine, shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the General Contractor and each Subcontractor.

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

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

- (c) Each payment made by the Awarding Authority to the General Contractor pursuant to sub paragraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a Subcontractor shall be made to the General Contractor for the account of that Subcontractor; and the Awarding Authority shall take reasonable steps to compel the General Contractor to make each such payment to each such Subcontractor. If the Awarding Authority has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the General Contractor or which is to be included in a payment to the General Contractor for payment to the Subcontractor as provided in sub paragraphs (a) and (b), the Awarding Authority shall act upon the demand as provided in this section.
- (d) If, within seventy (70) days after the Subcontractor has Substantially Completed the subcontract work, the Subcontractor has not received from the General Contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor, less any amount retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the Subcontractor may demand direct payment of that balance from the Awarding Authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the General Contractor at the same time. The demand shall contain a detailed breakdown of the balanced due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after Substantial Completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the Subcontractor has substantially completed the subcontract work. Within ten (10) days after the Subcontractor has delivered or so mailed the demand to the Awarding Authority and delivered or so mailed a copy to the General Contractor, the General Contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor and of the amount due for each claim made by the General Contractor against the Subcontractor.
- (e) Within fifteen (15) days after receipt of the demand by the Awarding Authority, but in no event prior to the seventieth day after Substantial Completion of the subcontract work, the Awarding Authority shall make direct payment to the Subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor, less any amount (i) retained by the Awarding Authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the General Contractor in the sworn reply; provided, that the Awarding Authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The Awarding Authority shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this sub paragraph.
- (f) The Awarding Authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the General Contractor and the Subcontractor in a bank in Massachusetts selected by the Awarding Authority or agreed upon by the General Contractor and the Subcontractor and shall notify the General Contractor and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the General Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.
- (g) All direct payments and all deductions from demands for direct payments deposited in an interest bearing account or accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable

to the General Contractor at the time of receipt of a demand for direct payment from a Subcontractor and out of amounts which later become payable to the General Contractor and in the order of receipt of such demands from Subcontractors. All direct payments shall discharge the obligation of the Awarding Authority to the General Contractor to the extent of such payment.

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

(i) If the Subcontractor does not receive payment as provided in subparagraph (a) or if the General Contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the Subcontractor and the Subcontractor does not receive payment for same when due less the deductions provided for in subparagraph (a), the Subcontractor may demand direct payment by following the procedure in subparagraph (d) and the General Contractor may file a sworn reply as provided in that same subparagraph. A demand made after the first day of the month following that for which the Subcontractor performed or furnished the labor and materials for which the Subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the General Contractor. Thereafter the Awarding Authority shall proceed as provided in subparagraph (e), (f), (g) and (h).

(2) Any assignment by a Subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of section twenty nine of chapter one hundred forty nine shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the Awarding Authority or which are on deposit pursuant to subparagraph (f) of paragraph (1) shall be subordinate to the rights of all Subcontractors who are entitled to be paid under this section and who have not been paid in full.

(3) "Subcontractor" as used in this section (i) for contracts awarded as provided in sections forty four A to forty four H, inclusive, of chapter one hundred forty nine shall mean a person who files a sub bid and receives a subcontract as a result of that filed sub bid or who is approved by the Awarding Authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the General Contractor, (ii) for contracts awarded as provided in Paragraph (a) of section thirty nine M of chapter thirty shall mean a person approved by the Awarding Authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the General Contractor, and (iii) for contracts with the Commonwealth not awarded as provided in forty four A to forty four H, inclusive, of chapter one hundred forty nine shall also mean a person contracting with the General Contractor to supply materials used or employed in a public works project for a price in excess of five thousand dollars (\$5,000.00).

(4) A General Contractor or a Subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited as provided in subparagraph (f) of paragraph (1) by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A Subcontractor shall enforce a claim for direct payment or a right to require a deposit as provided in subparagraph (f) of paragraph (1) by a petition in equity in the superior court against the Awarding Authority and the General Contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. Sections fifty nine and fifty nine B of chapter two hundred thirty one<sup>2</sup> shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to sections fifty nine and fifty nine B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final

decree. The court shall not consolidate for trial the petition of any Subcontractor with the petition of one or more Subcontractors or the same General Contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same General Contract) is applicable to the petitions sought to be consolidated and that such consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit. No person except a Subcontractor filing a demand for direct payment for which no funds due the General Contractor are available for direct payment shall have a right to file a petition in court of equity against the Awarding Authority claiming a demand for direct payment is premature and such Subcontractor must file the petition before the Awarding Authority has made a direct payment to the Subcontractor and has made a deposit of the disputed portion as provided in part (iii) of subparagraph (e) and in subparagraph (f) of paragraph (1).

(5) In any petition to collect any claim for which a Subcontractor has filed a demand for direct payment the court shall, upon motion of the General Contractor, reduce by the amount of any deposit of a disputed amount by the Awarding Authority as provided in part (iii) of subparagraph (e) and in subparagraph (f) of paragraph (1) any amount held under a trustee writ or pursuant to a restraining order or injunction.

#### 1.1.2 CHAP. 30 M.G.L. SECTION 39G

Completion of public works; semi-final and final estimates; payments; extra work; disputed items  
Upon Substantial Completion of the work required by a contract with the Commonwealth, or any agency or political subdivision thereof, for the construction, reconstruction, alteration, remodeling, repair or improvement of public ways, including bridges and other highway structures, sewers and water mains, airports and other public works, the Contractor shall present in writing to the Awarding Authority its certification that the work has been Substantially Completed. Within twenty one (21) days thereafter, the Awarding Authority shall present to the Contractor either a written declaration that the work has been Substantially Completed or an itemized list of incomplete or unsatisfactory work items required by the contract sufficient to demonstrate that the work has not been Substantially Completed. The Awarding Authority may include with such list a notice setting forth a reasonable time, which shall not in any event be prior to the contract completion date, within which the Contractor must achieve Substantial Completion of the work. In the event that the Awarding Authority fails to respond, by presentation of a written declaration or itemized list as aforesaid, to the Contractor's certification within the twenty one day period, the Contractor's certification shall take effect as the Awarding Authority's declaration that the work has been Substantially Completed.

Within sixty-five (65) days after the effective date of a declaration of a substantial completion, the awarding authority shall prepare and forthwith send to the contractor for acceptance a substantial completion estimate for the quantity and price of the work done and all but one per cent retainage, if held by the awarding authority, on that work, including the quantity, price and all but one per cent retainage, if held by the awarding authority, for the undisputed part of each work item and extra work item in dispute but excluding the disputed part thereof, less the estimated cost of completing all incomplete and unsatisfactory work items and less the total periodic payments made to date for the work. The awarding authority also shall deduct from the substantial completion estimate an amount equal to the sum of all demands for direct payment filed by subcontractors and not yet paid to subcontractors or deposited in joint accounts pursuant to section thirty-nine F, but no contract subject to said section thirty-nine F shall contain any other provision authorizing the awarding authority to deduct any amount by virtue of claims asserted against the contract by subcontractors, material suppliers or others.

If the Awarding Authority fails to prepare and send to the Contractor any Substantial Completion estimate required by this section on or before the date herein above set forth, the Awarding Authority shall pay to

the Contractor interest on the amount which would have been due to the Contractor pursuant to such Substantial Completion estimate at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston from such date to the date on which the Awarding Authority sends that Substantial Completion estimate to the Contractor for acceptance or to the date of payment therefor, whichever occurs first. The Awarding Authority shall include the amount of such interest in the Substantial Completion Estimate.

Within fifteen (15) days after the effective date of the declaration of Substantial Completion, the Awarding Authority shall send to the Contractor by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory work items, and, unless delayed by causes beyond his control, the Contractor shall complete all such work items within forty five (45) days after the receipt of such list or before the then contract completion date, whichever is later. If the Contractor fails to complete such work within such time, the Awarding Authority may, subsequent to seven (7) days written notice to the Contractor by certified mail, return receipt requested, terminate the contract and complete the incomplete or unsatisfactory work items and charge the cost of same to the Contractor.

Within thirty (30) days after receipt by the awarding authority of a notice from the contractor stating that all of the work required by the contract has been completed, the awarding authority shall prepare and forthwith send to the contractor for acceptance a final estimate for the quantity and price of the work done and all retainage, if held by the awarding authority, on that work less all payments made to date, unless the awarding authority's inspection shows that work items required by the contract remain incomplete or unsatisfactory, or that documentation required by the contract has not been completed. If the awarding authority fails to prepare and send to the contractor the final estimate within thirty (30) days after receipt of notice of completion, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such final estimate at the rate hereinabove provided from the thirtieth day after such completion until the date on which the awarding authority sends the final estimate to the contractor for acceptance or the date of payment therefor, whichever occurs first, provided that the awarding authority's inspection shows that no work items required by the contract remain incomplete or unsatisfactory. Interest shall not be paid hereunder on amounts for which interest is required to be paid in connection with the substantial completion estimate as hereinabove provided. The awarding authority shall include the amount of the interest required to be paid hereunder in the final estimate.

The Awarding Authority shall pay the amount due pursuant to any periodic, Substantial Completion or final estimate within thirty five (35) days after receipt of written acceptance for such estimate from the Contractor and shall pay interest on the amount due pursuant to such estimate at the rate hereinabove provided from that thirty-fifth (35th) day to the date of payment. Within fifteen (15) days, thirty (30) days in the case of the Commonwealth, after receipt from the Contractor, at the place designated by the Awarding Authority, if such place is so designated, of a periodic estimate requesting payment of the amount due for the preceding periodic estimate period, the Awarding Authority shall make a periodic payment to the Contractor for the work performed during the preceding periodic estimate period and for the materials not incorporated in the work but delivered and suitably stored at the site, or at some location agreed upon in writing, to which the Contractor has title or to which a Subcontractor has title and has authorized the Contractor to transfer title to the Awarding Authority, upon certification by the Contractor that he is the lawful owner and that the materials are free from all encumbrances. The Awarding Authority shall include with each such payment interest on the amount due pursuant to such periodic estimate at the rate herein above provided from the due date. In the case of periodic payments, the contracting authority may deduct from its payment a retention based on its estimate of the fair value of its claims against the Contractor, a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of section thirty nine F, and a retention to secure satisfactory performance of the



contractual work not exceeding five per cent (5%) of the approved amount of any periodic payment, and the same right to retention shall apply to bonded Subcontractors entitled to direct payment under section thirty nine F of chapter thirty; provided, that a five per cent value of all items that are planted in the ground shall be deducted from the periodic payments until final acceptance.

No periodic, Substantial Completion or final estimate or acceptance or payment thereof shall bar a Contractor from reserving all rights to dispute the quantity and amount of, or the failure of the Awarding Authority to approve a quantity and amount of, all or part of any work item or extra work item.

Substantial Completion, for the purposes of this section, shall mean either that the work required by the Contract has been completed except for work having a contract price of less than one per cent (1%) of the then adjusted total contract price, or substantially all of the work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the work required by the Contract.

#### 1.1.3 CHAP. 30 MGL SECTION 39K

##### Public building construction contracts; payments

Every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the Commonwealth, or by any County, City, Town, District, Board, Commission or other public body, when the amount is more than five thousand dollars (\$5,000.00) in the case of the Commonwealth and more than two thousand dollars (\$2,000.00) in the case of any County, City, Town, District, Board, Commission or other public body, shall contain the following paragraph:— Within fifteen (15) days (thirty (30) days in the case of the Commonwealth, including local housing authorities) after receipt from the Contractor, at the place designated by the Awarding Authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the Awarding Authority will make a periodic payment to the Contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the Contractor has title or to which a Subcontractor has title and has authorized the Contractor to transfer title to the Awarding Authority, upon certification by the contractor that he is the lawful owner and that the materials are free from all encumbrances, but less (1) a retention based on its estimate of the fair value of its claims against the Contractor and less (2) a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of section thirty nine F, and less (3) a retention not exceeding five per cent (5%) of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty five (65) days after (a) the Contractor fully completes the work or Substantially Completes the work so that the value of the work remaining to be done is, in the estimate of the Awarding Authority, less than one per cent (1%) of the original Contract Price, or (b) the Contractor Substantially Completes the work and the Awarding Authority takes possession for occupancy, whichever occurs first, the Awarding Authority shall pay the Contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the Contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of section thirty nine F, or based on the record of payments by the Contractor to the Subcontractors under this contract if such record of payment indicates that the Contractor has not paid Subcontractors as provided in section thirty nine F. If the Awarding Authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three (3) percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the Contractor; provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen (15) days (twenty four (24) days in the case of the Commonwealth) after receipt of such a periodic estimate from

the Contractor, at the place designated by the Awarding Authority if such a place is so designated. The Contractor agrees to pay to each Subcontractor a portion of any such interest paid in accordance with the amount due each Subcontractor.

The Awarding Authority may make changes in any periodic estimate submitted by the Contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the Awarding Authority may, within seven (7) days after receipt, return to the Contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

All periodic estimates shall be submitted to the Awarding Authority, or to its designee as set forth in writing to the Contractor, and the date of receipt by the Awarding Authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed subtrade and each sub subtrade listed in sub bid form as required by Specifications and a column listing the amount paid to each Subcontractor and Sub-Subcontractor as of the date the periodic estimate is filed. The person making payment for the Awarding Authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

A certificate of the Architect to the effect that the Contractor has fully or Substantially Completed the work shall, subject to the provisions of section thirty nine J, be conclusive for the purposes of this section. Notwithstanding the provisions of this section, at any time after the value of the work remaining to be done is, in the estimation of the awarding authority, less than one per cent (1%) of the adjusted contract price, or the awarding authority has determined that the Contractor has substantially completed the work and the Awarding Authority has taken possession for occupancy, the Awarding Authority may send to the General Contractor by certified mail, return receipt requested, a complete and final list of all incomplete and unsatisfactory work items, including, for each item on the list, a good faith estimate of the fair and reasonable cost of completing such item. The General Contractor shall then complete all such work items within thirty (30) days of receipt of such list or before the contract completion date, whichever is later. If the General Contractor fails to complete all incomplete and unsatisfactory work items within forty-five (45) days after receipt of such items furnished by the Awarding Authority or before the contract completion date, whichever is later, subsequent to an additional fourteen (14) days' written notice to the General Contractor by certified mail, return receipt requested, the Awarding Authority may terminate the contract and complete the incomplete and unsatisfactory work items and charge the cost of same to the General Contractor and such termination shall be without prejudice to any other rights or remedies the Awarding Authority may have under the contract. The Awarding Authority shall note any such termination in the evaluation form to be filed by the Awarding Authority pursuant to the provisions of section forty-four D of chapter one hundred and forty-nine.

#### 1.1.4 CHAP. 30 MGL SECTION 39M

Contracts for construction and materials; manner of awarding

(a) Every contract for the construction, reconstruction, alteration, remodeling or repair of any public work, or for the purchase of any material, as hereinafter defined, by the commonwealth, or political subdivision thereof, or by any county, city, town, district, or housing authority, and estimated by the Awarding Authority to cost more than ten thousand dollars (\$10,000.00), and every contract for the

construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency, as defined by subsection one of section forty-four A of chapter one hundred and forty-nine, estimated to cost more than twenty-five thousand dollars (\$25,000.00) but not more than one hundred thousand dollars (\$100,000.00), shall be awarded to the lowest responsible and eligible bidder on the basis of competitive bids publicly opened and read by such Awarding Authority forthwith upon expiration of the time for the filing thereof; provided, however, that such Awarding Authority may reject any and all bids, if it is in the public interest to do so. Every bid for such contract shall be accompanied by a bid deposit in the form of a bid bond, or cash, or a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company, payable to the Awarding Authority. The amount of such bid deposit shall be five per cent (5%) of the value of the bid. Any person submitting a bid under this section shall, on such bid, certify as follows:

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

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(Name of person signing bid)

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(Company)

This paragraph shall not apply to the award of any contract subject to the provisions of sections forty-four A to forty-four J, inclusive, of chapter one hundred and forty-nine and every such contract shall continue to be awarded as provided therein. In cases of extreme emergency caused by enemy attack, sabotage or other such hostile actions or resulting from an imminent security threat explosion, fire, flood, earthquake, hurricane, tornado or other such catastrophe, an Awarding Authority may, without competitive bids and notwithstanding any general or specific law, award contracts otherwise subject to this paragraph to perform work and to purchase or rent materials and equipment, all as may be necessary for temporary repair and restoration to service of any and all public work in order to preserve the health and safety of persons or property; provided, that this exception shall not apply to any permanent reconstruction, alteration, remodeling or repair of any public work.

(b) Specifications for such contracts, and specifications for contracts awarded pursuant to the provisions of said sections forty-four A to forty-four L of said chapter one hundred and forty-nine, shall be written to provide for full competition for each item of material to be furnished under the contract; except, however, that said specifications may be otherwise written for sound reasons in the public interest stated in writing in the public records of the Awarding Authority or promptly given in writing by the Awarding Authority to anyone making a written request therefor, in either instance such writing to be prepared after reasonable investigation. Every such contract shall provide that an item equal to that named or described in the said specifications may be furnished; and an item shall be considered equal to the item so named or described if, in the opinion of the Awarding Authority: (1) it is at least equal in quality, durability, appearance, strength and design, (2) it will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased, and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the said specifications. For each item of material the specifications shall provide for either a minimum of three (3) named brands of material or a description of material which can be met by a minimum of three (3) manufacturers or producers, and for the equal of any one of said name or described materials.

(c) The term "lowest responsible and eligible bidder" shall mean the bidder: (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who shall certify, that he is able to furnish labor that can work in harmony with all other

elements of labor employed or to be employed in the work; (3) who shall certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; (4) who, where the provisions of section eight B of chapter twenty-nine apply, shall have been determined to be qualified thereunder; and (5) who obtains within ten (10) days of the notification of contract award the security by bond required under section twenty-nine of chapter one hundred and forty-nine; provided that for the purposes of this section the term "security by bond" shall mean the bond of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the Awarding Authority; provided further, that if there is more than 1 surety company, the surety companies shall be jointly and severally liable.

(d) The provisions of this section shall not apply (1) to the extent that they prevent the approval of such specifications by any contributing federal agency, (2) to materials purchased under specifications of the state department of highways at prices established by the said department pursuant to advertisement and bidding in connection with work to be performed under the provisions of chapter eighty-one or chapter ninety, (3) to any transaction between the commonwealth and any of its political subdivisions or between the commonwealth and any public service corporation, and (4) to any contract of not more than twenty-five thousand dollars (\$25,000.00) awarded by a governmental body, as defined by section two of chapter thirty B, in accordance with the provisions of section five of said chapter thirty B; and (5) to any contract solely for the purchase of material awarded by a governmental body, as defined by section two of chapter thirty B, in accordance with section five of said chapter thirty B.

(e) The word "material" as used in this section shall mean and include any article, assembly, system, or any component part thereof.

#### 1.1.5 CHAP. 30 MGL SECTION 39N

Construction contracts; equitable adjustment in contract price for differing subsurface or latent physical conditions

Every contract subject to section forty-four A of chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an Awarding Authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

If, during the progress of the work, the Contractor or the Awarding Authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the Contractor or the contracting authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a Contractor; or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the contracting authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly.

#### 1.1.6 CHAP. 30 MGL SECTION 39O

Contracts for construction and materials; suspension, delay or interruption due to order of awarding authority; adjustment in contract price; written claim

Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the Awarding Authority increases the cost of performance to any Subcontractor, that Subcontractor shall have the same rights against the General Contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the General Contractor against the Awarding Authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the General Contractor or the Subcontractor may have against each other.

(a) The Awarding Authority may order the General Contractor in writing to suspend, delay or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the Awarding Authority; provided however, that if there is a suspension, delay or interruption for fifteen (15) days or more or due to a failure of the Awarding Authority to act within the time specified in this contract, the Awarding Authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the General Contractor on such increase; and provided further, that the Awarding Authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The General Contractor must submit the amount of a claim under provision (a) to the Awarding Authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the Awarding Authority shall not approve any costs in the claim incurred more than twenty (20) days before the General Contractor notified the Awarding Authority in writing of the act or failure to act involved in the claim.

#### 1.1.7 CHAP. 30 MGL SECTION 39P

Contracts for construction and materials; awarding authority's decisions on interpretation of specifications, etc.; time limit; notice

Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine which requires the Awarding Authority, or any official, its architect or engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any event, no later than thirty (30) days after the written submission for decision; but if such decision requires extended investigation and study, the Awarding Authority, the official, architect or engineer shall, within thirty (30) days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty (30) day period and the date by which the decision will be made.

#### 1.1.8(a) CHAP. 30 MGL SECTION 39R

Definitions; contract provisions; management and financial statements; enforcement

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

(1) "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A to forty-four H, inclusive of chapter one

hundred and forty-nine which is for an amount or estimated amount greater than one hundred thousand dollars (\$100,000.00).

(2) “Contract” means any contract awarded or executed pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A through forty-four H, inclusive of chapter one hundred and forty-nine, which is for amount or estimated amount greater than one hundred thousand dollars (\$100,000.00).

(3) “Records” means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts, tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.

(4) “Independent Certified Public Accountant” means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant’s independence shall not be confined to the relationships existing in connection with the filing of reports with the Awarding Authority.

(5) “Audit”, when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.

(6) “Accountant’s Report”, when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which he has made and sets forth his opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant’s report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the Contractor.

(7) “Management”, when used herein, means the chief executive officers, partners, principals or other persons or persons primarily responsible for the financial and operational policies and practices of the Contractor.

(8) Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

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

(1) The Contractor shall make, and keep for at least six (6) years after final payment, books, records, and accounts, which in reasonable detail accurately and fairly reflect the transactions and dispositions of the Contractor, and

(2) until the expiration of six (6) years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the Contractor or of his Subcontractors that directly pertain to, and involve transactions relating to, the Contractor or his Subcontractors, and

(3) if the agreement is a contract as defined herein, the Contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with

the Awarding Authority including in his description the date of the change and reasons therefor, and shall accompany said description with a letter from the Contractor's independent certified public accountant approving or otherwise commenting on the changes, and

(4) if the agreement is a contract as defined herein, the Contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and

(5) if the agreement is a contract as defined herein, the Contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

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

(1) transactions are executed in accordance with management's general and specific authorization;

(2) transactions are recorded as necessary

i. to permit preparation of financial statements in conformity with generally accepted accounting principles, and

ii. to maintain accountability for assets;

(3) access to assets is permitted only in accordance with management's general or specific authorization; and

(4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

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

(1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and

(2) whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

(d) Every Contractor awarded a contract by the commonwealth or by any political subdivision thereof shall annually file with the commissioner of capital asset management and maintenance during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the Awarding Authority upon request.

(e) The Office of Inspector General, the Commissioner of Capital Asset Management and Maintenance and any other Awarding Authority shall enforce the provisions of this section. The Commissioner of Capital Asset Management and Maintenance may after providing an opportunity for the Inspector General and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all Awarding Authorities. A Contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine.

(f) Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to public

inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b).

1.1.9 CHAP. 149 MGL SECTION 25

Lodging, board and trade of public employees; statute part of employment contract

Every employee in public works shall lodge, board and trade where and with whom he elects, and no person or his agents or employees under contract with the Commonwealth, a County, City or Town, or with a Department, Board, Commission or Officer acting therefor, for the doing of public work shall directly or indirectly require, as a condition of employment therein, that the employee shall lodge, board or trade at a particular place or with a particular person. This section shall be made a part of the Contract for such employment.

1.1.10 CHAP. 149 MGL SECTION 26

Public works; preference to veterans and citizens; wages

In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works by the commonwealth, or by a county, town, authority or district, or by persons contracting or subcontracting for such works, preference shall first be given to citizens of the commonwealth who have been residents of the commonwealth for at least six (6) months at the commencement of their employment who are veterans as defined in clause Forty-third of section 7 of chapter 4 and who are qualified to perform the work to which the employment relates and, within such preference, preference shall be given to service-disabled veterans; and secondly, to citizens of the commonwealth generally who have been residents of the commonwealth for at least six (6) months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provision to this effect. Each county, town or district in the construction of public works, or persons contracting or sub-contracting for such works, shall give preference to veterans and citizens who are residents of such county, town, authority or district and, within such preference, preference shall be given to service-disabled veterans. The rate per hour of the wages paid to said mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works shall not be less than the rate or rates of wages to be determined by the commissioner as hereinafter provided; provided, that the wages paid to laborers employed on said works shall not be less than those paid to laborers in the municipal service of the town or towns where said works are being constructed; provided, further, that where the same public work is to be constructed in two (2) or more towns, the wages paid to laborers shall not be less than those paid to laborers in the municipal service of the town paying the highest rate; provided, further, that if, in any of the towns where the works are to be constructed, a wage rate or wage rates have been established in certain trades and occupations by collective agreements or understandings in the private construction industry between organized labor and employers, the rate or rates to be paid on said works shall not be less than the rates so established; provided further, that in towns where no such rate or rates have been so established, the wages paid to mechanics, teamsters, chauffeurs and laborers on public works, shall not be less than the wages paid to the employees in the same trades and occupations by private employers engaged in the construction industry. This section shall also apply to regular employees of the commonwealth or of a county, town, authority or district, when such employees are employed in the construction, addition to or alteration of public buildings for which special appropriations of more than one thousand dollars (\$1,000.00) are provided. Payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans under collective bargaining agreements or understandings between organized labor and employers shall be included for the purpose of establishing minimum wage rates as herein provided.



Permanent and temporary laborers employed by the state department of highways and by the metropolitan district commission shall receive such salary or compensation as may be fixed under and in accordance with sections forty-five to fifty inclusive of chapter thirty.

1.1.11 CHAP. 149 MGL SECTION 34

Public contracts; stipulation as to hours and days of work; void contracts

Every contract, except for the purchase of material or supplies, involving the employment of laborers, workmen, mechanics, foremen or inspectors, to which the Commonwealth or any county or any town, subject to section thirty, is a party, shall contain a stipulation that no laborer, workman, mechanic, foreman or inspector working within the Commonwealth, in the employ of the Contractor, Subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight (8) hours in any one day or more than forty eight (48) hours in any one (1) week, or more than six (6) days in any one (1) week, except in cases of emergency, or, in case any town subject to section thirty one is a party to such a contract, more than eight (8) hours in any one day, except as aforesaid; provided, that in contracts entered into by the Department of Highways for the construction or reconstruction of highways there may be inserted in said stipulation a provision that said Department, or any Contractor or Subcontractor for said Department, may employ laborers, workmen, mechanics, foremen and inspectors for more than eight (8) hours in any one (1) day in such construction or reconstruction when, in the opinion of the Commissioner, public necessity so requires. Every such contract not containing the aforesaid stipulation shall be null and void.

1.1.12 CHAP. 149 MGL SECTION 34A

Contracts for public works; workers' compensation insurance; breach of contract; enforcement and violation of statute

Every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public building or other public works for the Commonwealth or any political subdivision thereof shall contain stipulations requiring that the Contractor shall, before commencing performance of such contract, provide by insurance for the payment of compensation and the furnishing of other benefits under chapter one hundred and fifty two to all persons to be employed under the contract, and that the Contractor shall continue such insurance in full force and effect during the term of the contract. No officer or agent contracting in behalf of the Commonwealth or any political subdivision thereof shall award such a contract until he has been furnished with sufficient proof of compliance with the aforesaid stipulations. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the contract and shall operate as an immediate termination thereof. No cancellation of such insurance, whether by the insurer or by the insured, shall be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the officer or agent who awarded the contract at least fifteen (15) days prior to the intended effective date thereof, which date shall be expressed in said notice. Notice of cancellation sent by the party proposing cancellation by registered mail, postage prepaid, with a return receipt of the addressee requested, shall be a sufficient notice. An affidavit of any officer, agent or employee of the insurer or of the insured, as the case may be, duly authorized for the purpose, that he has so sent such notice addressed as aforesaid shall be prima facie evidence of the sending thereof as aforesaid. This section shall apply to the legal representative, trustee in bankruptcy, receiver, assignee, trustee and the successor in interest of any such Contractor. The superior court shall have jurisdiction in equity to enforce this section.

Whoever violates any provision of this section shall be punished by a fine of not more than one hundred dollars (\$100.00) or by imprisonment for six (6) months, or both; and, in addition, any Contractor who

violates any provision of this section shall be prohibited from contracting, directly or indirectly, with the Commonwealth or any political subdivision thereof, for the construction, alteration, demolition, maintenance or repair of, or addition to, any public works or public building for a period of two years from the date of conviction of said violation.

1.1.13 CHAP. 149 MGL SECTION 34B

Contracts for public works; wages for reserve police officer

Every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public works for the Commonwealth or any political subdivision thereof shall contain stipulations requiring that the Contractor shall pay to any reserve police officer employed by him in any City or Town the prevailing rate of wage paid to regular police officers in such City or Town.

1.1.14 CHAP.149 MGL SECTION 44A

Section forty-four A. (1) The words defined in this section shall have the meaning set forth below whenever they appear in sections forty-four A through forty-four H, inclusive, of this chapter unless indicated otherwise or unless the context in which they are used clearly requires a different meaning.

“Commissioner”, means the commissioner of the division of capital asset management and maintenance or his designee.

“Public Agency” means a department, agency, board, commission, authority, or other instrumentality of the commonwealth or political subdivision of the commonwealth, or two or more subdivisions thereof but not including the Massachusetts Bay Transportation Authority;

“Responsible” means demonstrably possessing the skill, ability and integrity necessary to faithfully perform the work called for by a particular contract, based upon a determination of competent workmanship and financial soundness in accordance with the provisions of section forty-four D of this chapter;

“Eligible” means able to meet all requirements for bidders or offerors set forth in sections forty-four A through forty-four H of this chapter and not debarred from bidding under section forty-four C of this chapter or any other applicable law, and who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work.

“Modular Building”, a pre-designed building or units of a pre-designed building assembled and equipped with internal plumbing, electrical or similar systems prior to movement to the site where such units are attached to each other and such building is affixed to a foundation and connected to external utilities; or any portable structure with walls, a floor, and a roof, designed or used for the shelter of persons or property, transportable in one or more sections and affixed to a foundation and connected to external utilities.

“Procurement”, buying, purchasing, or otherwise acquiring and installing a modular building, and all functions that pertain to the acquisition and installation of a modular building, including description of requirements, selection and solicitation of sources, preparation and award of contract, and all phases of contract administration.

“Proprietary environmental technology systems”, systems, in the Town of \_\_\_\_\_, including solid waste related equipment, supporting structures, and buildings, designed, manufactured,

and produced under exclusive individual right to sell such product, pertaining to solid waste related environmental protection or remediation. Such systems shall include, but not be limited to, sequential, turnkey, construction management, design/build procurement, and the phasing of such procurement, including approval of design and construction stages as separate or combined phases.

(2)(A) Every contract or procurement for the construction, reconstruction, installation, demolition, maintenance or repair of a building by a public agency estimated to cost less than ten thousand dollars (\$10,000.00), shall be obtained through the exercise of sound business practices; provided, however, that the public agency shall make and keep a record of each such procurement; and provided further, that the record shall, at a minimum, include the name and address of the person from whom the services were procured.

(B) Every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building estimated to cost not less than ten thousand dollars (\$10,000.00) but not more than twenty-five thousand dollars (\$25,000.00) shall be awarded to the responsible person offering to perform the contract at the lowest price. The public agency shall make public notification of the contract and shall seek written responses from persons who customarily perform such work. The public notification shall include a scope-of-work statement that defines the work to be performed and provides potential responders with sufficient information regarding the objectives and requirements of the public agency and the time period within which the work shall be completed. For the purposes of this paragraph, "public notification" shall include, but need not be limited to, posting at least two (2) weeks before the time specified in the notification for the receipt of responses, the contract and scope-of-work statement on the website of the public agency, on the COMPASS system or in the central register published pursuant to section 20A of chapter 9 and in a conspicuous place in or near the primary office of the public agency.

(C) Every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency estimated to cost not less than twenty-five thousand dollars (\$25,000.00) but not more than one hundred thousand dollars (\$100,000.00), except for a pumping station to be constructed as an integral part of a sewer construction or water construction project bid under the provisions of section thirty-nine M of chapter thirty, shall be awarded to the lowest responsible and eligible bidder on the basis of competitive bids publicly opened and read in accordance with the procedure set forth in said section thirty-nine M of said chapter thirty. The term "pumping station" as used in this section shall mean a building or other structure which houses solely pumps and appurtenant electrical and plumbing fixtures.

(D) Every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency estimated to cost more than one hundred thousand dollars (\$100,000.00), except for a pumping station to be constructed as an integral part of a sewer construction or water construction project bid under the provisions of section thirty-nine M of chapter thirty shall be awarded to the lowest responsible and eligible general bidder on the basis of competitive bids in accordance with the procedure set forth in section forty-four A to forty-four H, inclusive.

(E) When the general court has approved the use of an alternative mode of procurement of construction for a project pursuant to section seven E of chapter twenty-nine, the awarding authority responsible for procuring construction services for the project shall follow the policies and procedures of this section and

of section forty-four B to 44H, inclusive, to the extent compatible with the mode of construction procurement selected.

(F) Notwithstanding paragraph (E), a public agency may undertake the procurement of modular buildings, in accordance with section forty-four E. A public agency may procure site work for modular buildings, including but not limited to, construction of foundations, installations, and attachment to external utilities, or any portion of site work, either in combination with the procurement of modular buildings pursuant to section 44E or on the basis of competitive bids pursuant to the paragraph (E). Notwithstanding the paragraph (E), a public agency may procure energy management services in accordance with section eleven C of chapter twenty-five A and regulations promulgated thereunder.

(3) The award of every such contract in connection with which approval by an officer, board or agency of the federal government is required shall be made within thirty days, Saturdays, Sundays and legal holidays excluded, after such approval; and the award of every contract subject to this section in connection with which approval by an officer, board or agency of the federal government is not required shall be made within thirty days, Saturdays, Sundays and legal holidays excluded, after the opening of the bids therefor. If the bidder selected as the general contractor fails to perform his agreement to execute a contract in accordance with the terms of his bid and furnish a performance bond and also a labor and materials or payment bond as stated in his bid in accordance with section forty-four E, an award shall be made to the next lowest responsible and eligible bidder, subject to the provisions of sections forty-four A to forty-four H, inclusive, of this chapter. The thirty-day time limit shall not be applicable to a second or subsequent award made after expiration of the time limit with the consent of said next lowest responsible and eligible bidder, and made because the original award made within the time limit was invalid, or because the bidder failed to execute the contract or to provide a performance bond and labor and materials or payment bond.

(4) In cases of extreme emergency, the awarding authority may, with the prior approval of the commissioner, award a contract for that portion of the work necessary to preserve the health or safety of persons or property or to alleviate an imminent security threat on the basis of such competitive bids or proposals as it can obtain in time to care for the extreme emergency and without public opening of the bids or proposals. Where the nature of the emergency prevents the awarding authority from obtaining the prior approval of the commissioner, the awarding authority may contract for the necessary work without said prior approval; provided, however, that the approval of the commissioner shall still be sought at the earliest possible time; and provided, further, that if the commissioner at that time fails to approve the emergency determination the awarding authority shall promptly cease all work for which the emergency determination was denied. In such cases, the contractor shall be entitled to payment for the fair value of the labor and materials furnished prior to cessation of the work.

The commissioner shall maintain a record of all contracts awarded pursuant to this subsection, containing a description of the circumstances and the reasons for the commissioner's determination.

(5) (a) Notwithstanding the provisions of this section or any other general or special law to the contrary, a municipality may enter into a contract for proprietary environmental technology systems as defined in subsection (1) of this section without said contract being subject to the competitive bid process as set forth in sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven; this section and sections forty-four B to forty-four H, inclusive, of this chapter, and section thirty-nine M of chapter thirty; provided that the awarding authority meets the conditions set forth and receives the approvals required in paragraph (b) of this subsection.

(b) Prior to the issuance of any request for proposal with respect to the awarding of any contract pursuant to the provisions of paragraph (a) of this subsection, the awarding authority shall meet or obtain each of the following conditions or required approvals: (1) the municipality shall appoint qualified persons to conduct a thorough review of all available environmental technology, including both proprietary and non-proprietary environmental technology, and if the conclusion of this review is that a contract for proprietary environmental technology systems is in the public interest, such conclusion shall be supported by sound documented reasons in writing available for public inspection; (2) the city council, the board of selectmen, or the town meeting shall take a majority vote finding that it is in the public interest to enter into a contract for proprietary environmental technology systems, as defined in subsection (1) of this section, providing such vote is supported by the conclusion of the review conducted pursuant to condition (1); (3) both the attorney general and the commissioner of the department of environmental protection shall grant written approval; (4) said contract shall be subject to any limitation in the waiver of sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven, sections forty-four A to forty-four H of chapter one hundred and forty-nine, and section thirty-nine M of chapter thirty imposed by either the attorney general or the commissioner of the department of environmental protection as a condition for a grant of approval by said officers; and (5) every proprietary environmental technology systems contract shall be as compatible with sections thirty-eight A to thirty-eight O, inclusive, of chapter seven, sections forty-four A to forty-four H of chapter one hundred and forty-nine, and section thirty-nine M of chapter thirty as is feasible for the procurement of the proprietary environmental technology systems chosen.

(G) Every contract by a state agency or state assisted contract for design, construction, reconstruction, installation, demolition, maintenance or repair shall set forth the participation goals of minority and women workers to be employed on each such contract and the processes and procedures to ensure compliance with those workforce participation goals, including reporting and enforcement provisions.

#### 1.1.15 CHAP.149 MGL SECTION 44G(D)

(D) Every contract subject to section forty-four A shall include specifications for the installation of weather protection and shall require that the contractor shall install the same and that he shall furnish adequate heat in the area so protected during the months of November through March. Standards for such specifications shall be established by the commissioner or his designee.

#### INSURANCE CERTIFICATION FORM

This form is to be completed by an authorized representative of each insurance company providing coverages, to verify that contract insurance requirements are provided.

CONTRACT PARAGRAPH NUMBER	DESCRIPTION OF COVERAGE	COMPANY LETTER	POLICY NUMBER	LIMITS	LIMIT EXTENDED BY UMBRELLA
---------------------------------	----------------------------	-------------------	------------------	--------	----------------------------------

#### WORKMAN'S COMPENSATION

(Contractor as Insured)

SC 5.4	Workman's Compensation	#	\$
SC 5.4	Employer's Liability	#	
a.	Each Accident	\$	

- |    |         |               |    |
|----|---------|---------------|----|
| b. | Disease | Policy Limit  | \$ |
| c. | Disease | Each Employee | \$ |

**COMMERCIAL GENERAL LIABILITY**

(Contractor as Insured, Owner and Engineer as Additional Insured)

SC 5.4            General Liability            #

- |    |                   |    |
|----|-------------------|----|
| a. | General Aggregate | \$ |
| b. | Each Occurrence   | \$ |

- |    |                              |    |
|----|------------------------------|----|
| 1. | Premises/Operations          | \$ |
| 2. | Products/Completed Operation | \$ |
| 3. | Contractual                  | \$ |
| 4. | Independent Contractors      | \$ |
| 5. | Broad Form Property Damage   | \$ |
| 6. | Personal Injury              | \$ |
| 7. | Medical Expense              | \$ |
| 8. | XCU                          | \$ |

**AUTOMOTIVE LIABILITY**

(Contractor as Named Insured)

- |    |                       |    |    |
|----|-----------------------|----|----|
| a. | Combined Single Limit | #  | \$ |
|    |                       |    |    |
| 1. | Scheduled Autos       | \$ |    |
| 2. | Hired Autos           | \$ |    |
| 3. | Non Owned Autos       | \$ |    |

**INSURANCE CERTIFICATION FORM (Continued)**

CONTRACT PARAGRAPH NUMBER	DESCRIPTION OF COVERAGE	COMPANY LETTER	POLICY NUMBER	LIMITS	LIMIT EXTENDED BY UMBRELLA
---------------------------------	----------------------------	-------------------	------------------	--------	----------------------------------

**EXCESS UMBRELLA LIABILITY**

(Contractor as Named Insured, Owner and Engineer as Additional Insured)

- |    |                   |   |    |
|----|-------------------|---|----|
| a. | General Aggregate | # | \$ |
| b. | Each Occurrence   | # | \$ |

**INSTALLATION FLOATER**

(Contractor as Named Insured, Owner and Engineer as Additional Insured)

- |    |                      |   |    |
|----|----------------------|---|----|
| a. | General Aggregate    | # | \$ |
| b. | Each Occurrence      | # | \$ |
| c. | Installation Floater | # | \$ |

**BUILDER'S ALL RISK**

(Contractor as Named Insured, Owner and Engineer as Additional Insured)

a.	General Aggregate	#	\$
b.	Each Occurrence	#	\$
c.	All Risk	#	\$

**OWNER'S PROTECTIVE LIABILITY**

(Owner and Engineer as Named Insured)

a.	General Aggregate	#	\$
b.	Each Occurrence	#	\$

I hereby certify that the information contain herein is accurate to the best of knowledge.

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SIGNATURE

PRINTED NAME

DATE

---

PRINTED TITLE

COMPANY

NATICK, MASSACHUSETTS

BOARD OF SELECTMEN

**CHANGE ORDER FORM**

Original Contract Price	\$	.
Previous Change Orders #	\$	.
Present Contract Price	\$	.
This Change Order #    Increase/Decrease	\$	.
Total Adjusted Contract Price	\$	.

This Change Order changes the time of completion by        calendar Days.

The extended completion date is

This Change Order checked by  
Engineer

Date

This Change Order requested by

This Change Order prepared by

Engineer

The undersigned agree to the terms of the Change Order.

Contractor

Date

Owner

Date

Town Accountant

Date

Certification of Appropriation under M.G.L. c.44, §31C: Adequate funding in the amount sufficient to cover the total cost of this Change Order is available.

Certification Officer

Date

Change Order Form (continued)

Public Entity

Project Number

Change Order Number:

Contract Title:

Contract Number: \_\_\_\_\_

Owner's Name:

Owner's Address:

Contractor's Name:

Contractor's Address:

Description of Change

Reason for Change



## Example Calculation Sheet

## (1) Labor

Foreman	10 hrs @ \$45.00/hr.	\$ 450.00
Engineer	10 hrs @ 35.00/hr.	350.00
Operator	10 hrs @ 40.00/hr.	400.00
Laborers	24 hrs @ 28.00/hr.	672.00
		\$ 1,872.00

## (2) Direct Labor Cost (use the agreed upon Direct Labor Cost)

\*(30) % of \$1,872

\*(used for example purposes only) 561.60

## (3) Materials &amp; Freight

150 l.f. of 12" pipe @ \$15.00/l.f.	\$2,250.00
15 v.f. precast SMH	2,500.00
Freight (slip # Enclosed)	110.00
	4,860.00

## (4) Equipment

1 Backhoe 10 hrs @ \$140.00/hr.	\$1,400.00
1 Truck crane 10 hrs @ \$180.00/hr.	1,800.00
	3,200.00

Total items 1 through 4) \$ 10,493.60

## (5) 15% markup for Overhead, Profit

15% of \$10,493.60 \$ 1,574.04

(6) 5% markup for General Contractor  
(if Subcontractor is involved)

5% of \$10,493.60 524.68

## (7) Credits deductible

323.00

Total Cost \$ 12,269.32

Reminder: Provide support documentation as necessary i.e. vouchers, correspondence, calculations, Blue Book equipment rental rate printouts, photographs, reports, etc.

PART A SPECIAL CONDITION – TOWN OF NATICK’S

AFFIRMATIVE ACTION REQUIREMENTS FOR

CONSTRUCTION PROJECTS

PART A

TOWN OF NATICK’S EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION  
PROGRAM

FOR CONSTRUCTION PROJECTS

- I. For the purposes of this contract, "minority" refers to Asian-Americans, Blacks, Spanish Surnamed Americans, North American Indians, and Cape Verdeans. "Commission" refers to the Massachusetts Commission Against Discrimination. "Town" hereinafter refers to the Town of Natick .
  
- II. During the performance of this contract, the Contractor<sup>1</sup> and all of his/her Subcontractors (hereinafter collectively referred to as the contractors where a provision applies equally to the contractor and the Subcontractors), for himself/herself, his/her assignees, and successors in interest, agree as follows:
  1. In connection with the performance of work under this contract, the contractors shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age or sex. The aforesaid provision shall include, but not be limited to, the following: employment upgrading, demotion, or transfer; recruitment advertising; recruitment layoff; termination; rates of pay or other forms of compensation; conditions or privileges of employment; and selection of apprenticeship. The contractors shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Town setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (M.G.L. Chapter 151B).

2. In connection with the performance of work under this contract, the contractors shall undertake in good faith affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age or sex, and to eliminate and remedy any effects of such discrimination in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal opportunity in the areas of hiring, upgrading, demotion, or transfer, recruitment, layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal opportunity in employment for all persons, regardless of race, color, religious creed, national origin, age or sex. A purpose of this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future Town public construction projects.

<sup>1</sup> When the word "Contractor" is used, it refers to the General Contractor.

III. 1. As part of their obligation of remedial action under the foregoing section, the contractors shall maintain on this project a "not less than" 5% ratio of minority employee man hours to total man hours in each job category including, but not limited to, bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers, and those "classes of work" enumerated in Section 44C of Chapter 149 of the Massachusetts General Laws.

2. In the hiring of minority journeymen, apprentices, trainees, and advanced trainees, the contractors shall rely on referrals from a multi-employer affirmative action program approved by the Town, traditional referral methods utilized by the construction industry, and referrals from agencies, not more than three in number at any one time, designated by the Town.

IV. 1. At the discretion of the Commission, there may be established for the life of this contract, a body to be known as the Liaison Committee. The Liaison Committee shall be composed of one representative each from the agency or agencies administering this project, hereinafter called the administering agency, the Commission and such other representatives as may be designated by the Commission in conjunction with the administering agency.

2. The contractor (or his agent), if any, designated by him as the on-site equal employment opportunity officer) shall recognize the Liaison Committee as an affirmative action body, and shall

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establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters relating to minority recruitment, referral, employment and training.

3. The contractors shall prepare projected manning tables on a quarterly basis. These shall be broken down into projections by week, of workers required in each trade. Copies shall be furnished one week in advance of the commencement of the period covered, and also when updated, to the Town.

4. Records of employment referral orders, prepared by the contractors, shall be available to the Town on request.

5. The contractors shall prepare weekly reports in a form approved by the Town of hours worked in each trade by each employee, identified as minority or non-minority. Copies of these shall be provided at the end of each week to the Town.

V. If the contractors shall use any Subcontractor on any work performed under this contract, he/she shall take affirmative action to negotiate with qualified minority Subcontractors. This affirmative action shall cover both pre-bid and post-bid periods, It shall include notification to the Office of Minority/Women Business Assistance (SOMWBA) within the Executive Office of Commerce and Development or its designee, while bids are in preparation, of all products, work of services for which the contractors intend to negotiate bids.

VI. In the employment of journeymen, apprentices, trainees and advanced trainees, the contractors shall give preference, first, to citizens of the Commonwealth who have served in the armed forces of the United States in time of war and have been honorably discharged there from or released from active duty herein, and who are qualified to perform the work to which the employment relates, and secondly, to citizens of the Commonwealth generally, and, if such cannot be obtained in sufficient numbers, then to citizens of the United States.

VII. A designee of the Town shall have the right of access to the construction site.

### VIII. Compliance with Requirements

The contractors shall comply with Chapter 151B as amended, of the Massachusetts General Laws, which is herein incorporated by reference and made a part of this contract.

### IX. Non-Discrimination

In connection with the performance of work under the Contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age, sex, gender identity, sexual orientation (which shall not include persons whose sexual orientation involves minor children as the sex object), genetic information, ancestry, children, marital status, veteran status or membership in the armed services, the receiving of public assistance, and handicap. The aforesaid provision shall include, but not be limited to the following: advertising; recruitment; hiring; rates of pay or other forms of compensation; terms, conditions or privileges of employment; employment upgrading; transfer; demotion; layoff; and termination. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Massachusetts Commission Against Discrimination or other applicable agency of the Commonwealth of Massachusetts setting forth the provisions of the Fair Employment Practices Law of the Commonwealth. The Contractor shall also undertake in good faith, affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age, sex, and to eliminate and remedy any effects of such discrimination in the past.

### X. Solicitations for Sub-Contracts, and for the Procurement of Material and Equipment

In all solicitation either by competitive bidding or negotiation made by the contractors either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential Subcontractor/supplier shall be notified in writing by the contractors of the contractors' obligation under this contract relative to non-discrimination and affirmative action.

#### XI. Bidders Certification Requirement

The following certification statement will be used in the bid document just above the bidder's signature in the form for general bid.

"The bidder certifies he/she shall comply with the minority manpower ratio and specific action steps contained in the Equal Employment Opportunity/Affirmative Action Program for Construction Projects, including the Contract Compliance Procedures. The contractor receiving the award of the contract shall be required to obtain from each of its Subcontractors and submit to the contracting or administering agency prior to the performance of any work under said contract, a certification by said Subcontractor, regardless of tier, that it will comply with the minority manpower ratio and specific action steps contained in the Equal Employment Opportunity/Affirmative Action Program for Construction Projects."

#### XII. Contractor's Certification

The contractors' certification form, INCLUDED IN Section 00300 "Bid Form for General Bid" and Section 00350 "Bid Form for Filed Sub-Bids", must be signed by all successful low bidder(s) prior to award by the contracting agency.

#### XIII. Compliance: Information, Reports and Sanctions

1. The contractors will provide all information and reports required by the administering agency or the Town on instructions issued by either of them and will permit access to its facilities and any books, records, accounts and other sources of information which may be determined by the Town to affect the employment of personnel. This provision shall apply only to information pertinent to the Town's supplementary affirmative action contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the contractors shall so certify to the

administering agency or the Town as appropriate and shall set forth what efforts have been made to obtain the information.

2. Whenever the administering agency, or the Town believes the contractors may not be operating in compliance with the terms of this Section, the Town directly, or through its designated agent, shall conduct an appropriate investigation, and may confer with the parties, to determine if such contractors are operating in compliance with the terms of this section. If the Town or its agent finds any of the contractors not in compliance, it shall make a preliminary report on non-compliance, and notify such contractor(s) in writing of such steps, as will in the judgment of the town of its agent, bring such contractor(s) into compliance. In the event that such contractor(s) fails or refuses to fully perform such steps, the Town shall make a final report of non-compliance, and recommend to the administering agency the imposition of one or more of the sanctions listed below. If however, the Town believes the contractor(s) have taken or are taking every possible measure to achieve compliance, it shall not make its final report of non-compliance. Within fourteen days of the receipt of the recommendations of the Town, the administering agency shall move to impose one or more of the following sanctions, as it may deem appropriate to attain full and effective enforcement:

- a. The recovery by the administering agency from the contractor of 1/100 of 1% of the contract award price or \$1,000, whichever sum is greater, in the nature of liquidated damages, or if a Subcontractor is in noncompliance, the recovery by the administering agency from the contractor, to be assessed by the contractor as a back charge against the Subcontractor, of 1/10 of 1% of the Subcontractor price, or \$400.00, whichever sum is greater, in the nature of liquidated damages, for each week that such party fails or refuses to comply;
- b. The suspension of any payment or part thereof due under the contract until such time as the contractor is able to demonstrate his compliance with the terms of the contract;
- c. The termination or cancellation of the contract, in whole or in part, unless the contractor is able to demonstrate within a specified time his compliance with the terms of the contract;
- d. The denial to the contractor of the right to participate in any future contracts awarded by the administering agency for a period of up to three years.

3. If at any time after the imposition of one or more of the above sanctions the contractor(s) is able to demonstrate that he is in compliance with this section, he may request the administering agency, in consultation with the Town, to suspend the sanctions conditionally, pending a final determination by the Town as to whether the contractor(s) is in compliance. Upon final determination of the Town, the administering agency, based on the recommendation of the Town, shall either lift the sanctions or reimpose them.

4. Sanctions enumerated under Section XIII-2 shall not be imposed by the administering agency except that an adjudicatory proceeding, as that term is used M.G.L. c.30A, has been conducted. No investigation by the Town of its agent shall be initiated without prior notice to the contractors.

#### XIV. Severability

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



APPENDIX A

FORMS

Contractor's Weekly Workforce Report

Municipal Quarterly Contract Compliance Report

Quarterly Projected Workforce Table

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**CONTRACTOR'S WEEKLY WORKFORCE REPORT**

Project Name:\_\_\_\_\_ Contract No.\_\_\_\_\_ Contract Dollar Value:\_\_\_\_\_

Name of General Contractor:\_\_\_\_\_ Minority Hiring Goal:\_\_\_\_\_

Name of Contractor Filing Report:\_\_\_\_\_ Date Work Began:\_\_\_\_\_

Week Ending:\_\_\_\_\_ Report No.\_\_\_\_\_ ☐ Check here if you are a non-filed contractor☐ Check here if this is a final report - Date Work Completed:\_\_\_\_\_

Job Category	# of Employees	Weekly Total Workhours	# of Minorities	Weekly Total of Minority Workhours	Weekly & Minority Workhours	Total Workhours To Date	Total Minority Workhours to Date	% of Minority Workhours to Date	Notes

Mail to: Mail to: Affirmative Action Office

Prepared by:\_\_\_\_\_

Title: \_\_\_\_\_

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

Complete side two if applicable

---

Municipality  
Reporting Period

## MUNICIPAL QUARTERLY CONTRACT COMPLIANCE REPORT

Reporting Agent, Title

Contract Number	Project Location	Project Dollar Value	Min. Hiring Goal %	Contractor General or Sub	Work- force Hours	Min. Hours	Min. %	Work force Hours	Min. Hours	Min. %	Remarks

---

QUARTERLY PROJECTED WORKFORCE TABLE

Name of Contractor:\_\_\_\_\_

Address:\_\_\_\_\_

Telephone:\_\_\_\_\_

Trades Utilized:\_\_\_\_\_

Estimate of Total Hours to Complete Work:\_\_\_\_\_

Total Contract Dollar Value:\_\_\_\_\_Name of Project:\_\_\_\_\_

Quarter: Begin:\_\_\_\_\_End:\_\_\_\_\_

Week Ending	Projected Total Hours by All Personnel	Projected Total of All Minority Hours	Trades Used This Week

Note: A revised table must be submitted if any changes on projections occur.

Prepared by:\_\_\_\_\_

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

**DIVISION 1**  
**GENERAL REQUIREMENTS**

**SECTION 01010**  
**SUMMARY OF WORK**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Work covered by the Contract, listing of Owner, Project location, Engineer, Designated Agent, Sequence requirements, the Contractor's use of the premises and Owner's occupancy requirements.

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

- A. The work to be done under this contract consists of furnishing all necessary labor, tools, materials and equipment required for the following: reconstruction of South Main Street, between the Sherborn/Natick Town Line and Cottage Street.

- B. The work includes, but is not limited to, excavation, full depth pavement reclamation, pavement milling and resurfacing, box widening, installation of granite curb, installation of new HMA berm, construction of hot mix asphalt sidewalks and cement concrete wheelchair ramps with detectable warning panels, driveway construction, construction of drainage improvements, grading, implementation of erosion prevention and sediment control, construction of retaining walls, landscaping, installation of signs, placement of pavement markings, furnishing and installing rectangular rapid flashing beacons, furnishing and installing a LED stop signs and the implementation of safety controls and signing for construction operations and other incidental items included in the contract documents. and other incidental items included in the contract documents.

Under Alternate 1 the Contractor shall install HMA sidewalk on the east side of South Main Street from West Street to Rockland Street. Other work includes, but is not limited to, excavation, cement concrete wheelchair ramps with detectable warning panels, driveway construction, retaining walls, landscaping, installation of signs, furnishing and installing rectangular rapid flashing beacons and other incidental items included in the contract documents.

- C. All work under this contract shall be done in conformance with the MassDOT Highway Division *Standard Specifications for Highways and Bridges* dated 1988, the *Supplemental Specifications* dated April 1, 2019, the October 2017 *Construction Standard Details*, the *2015 Overhead Signal Structure and Foundation Standard Drawings*; the MassDOT *Traffic Management Plans and Detail Drawings*, the latest *Manual on Uniform Traffic Control Devices (MUTCD)* with *Massachusetts Amendments* and the *Standard Municipal Traffic Code*; the 1990 standard drawings for signs and supports, the *1968 Standard Drawings for Traffic Signals and Highway Lighting*; the latest edition of *American Standard for Nursery Stock*; the Plans and these Special Provisions.

- D. References within the Standard Specifications to MassDOT, the Department, or the Engineer shall, for the purposes of this Contract, be construed to mean the Town of Natick or its designated representative.
- E. All work is more particularly indicated, shown or described in the Drawings, Specifications, and other Contract Documents.
- F. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown on or mentioned in both. In case of a conflict between Drawings and Specifications, the Specifications shall govern. In case of any discrepancy in Drawings to Specifications, the matter shall be immediately submitted by the Contractor to the Owner, without whose decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense.

#### 1.03 OWNER

- A. Town of Natick  
13 East Central Street  
Natick, MA 01760  
Telephone: (508) 647-6400  
Contact: Ms. Melissa Malone, Town Administrator

#### 1.04 PROJECT LOCATION

- A. South Main Street, from Sherborn/Natick Town Line to Cottage Street

#### 1.05 ENGINEER

- A. Green International Affiliates, Inc  
239 Littleton Road, Suite 3  
Westford, Massachusetts 01886  
Telephone: 978-923-0400  
Fax: 978-399-0033  
Contact: Mr. Erik C. Atkins, P.E., Transportation Design Group Leader

#### 1.06 TOWN'S DESIGNATED AGENT

- A. Mr. William McDowell, P.E., Town Engineer or
- B. John Digiacoimo, P.E., Assistant Town Engineer

#### 1.07 WORK SEQUENCE

- A. In order that Work may be conducted with minimum inconvenience to the public and, work under this Contract may be coordinated with other work which may be under construction or contemplated, and that work under the Contract may conform to conditions which it has been undertaken or conditions attached to a right-of-way or particular location for this work, the Engineer may determine the point or points and time or times when portions of work will commence or be carried on and may issue orders pertaining to the work sequence, relative to the rate of progress on several portions of the work.



**1.08 CONTRACTOR USE OF PREMISES**

- A. The Contractor's use of premises shall be within the limits shown on the Drawings and as defined in Section 00500 – Contract Agreement, for the performance of the Work.
- B. The Contractor shall assume full responsibility for security of all materials and equipment on the site, including those of his subcontractor's.
- C. If directed by the Owner, the Contractor shall move any stored items that interfere with operations of the Owner.
- D. The Contractor shall obtain and pay for use of additional storage or work areas, if needed to perform the Work.

**1.09 OWNER OCCUPANCY REQUIREMENTS**

Unless otherwise specifically approved, all roadways within the project area shall remain in full service at all times throughout the duration of the project unless otherwise approved by the Town. Also, access to properties shall be maintained.

**PART 2 PRODUCTS**  
**NOT USED**

**PART 3 EXECUTION**  
**NOT USED**

**END OF SECTION**

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**SECTION 01025****MEASUREMENT AND PAYMENT****PART 1 GENERAL****1.01 SCOPE**

- A. The purpose of this section is to define the basis of measurement and payment for the work under this Contract.
- B. Section 9.00 of the Commonwealth of Massachusetts Highway Department (MassDOT) Standard Specifications for Highways and Bridges 1988 and all Supplemental Specifications are hereby included in its entirety.

**1.02 PAYMENT ITEMS**

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

**1.03 BASIS OF MEASUREMENT AND PAYMENT**

- A. Method of Measurement and Basis of Payment for Work Items shall be as called for under the appropriate section of the MassDOT Standard Specifications, unless modified in Sections 02500, Special Provisions and 02550, Construction Specifications.

**END OF SECTION**

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**SECTION 01050****FIELD ENGINEERING****PART 1 GENERAL****1.01 SECTION INCLUDES**

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

**1.02 REQUIREMENTS**

- A. The Contractor shall be responsible for field survey, layout of the work and the establishment and maintenance or re-establishment of lines and grades for his use for the duration of the Contract.
- B. The Contractor shall establish, maintain and re-establish elevations, lines, levels, reference marks, batter boards, etc., required during the progress of the Work. The Contractor shall verify such marks by instrument to confirm accuracy.
- C. The Contractor shall locate and protect established survey control and reference points.
- D. The Contractor shall make, check, and be responsible for all measurements and dimensions necessary for the proper construction of the Work.
- E. The Engineer will be permitted to check the lines, elevations, reference marks, batter boards, etc., set by the Contractor. The Contractor shall correct any errors found in lines, elevations, reference marks, batter boards, etc.. Such a check shall not be construed as approval of the Contractor's work and shall not relieve or diminish the responsibility of the Contractor for the accurate construction and completion of the Work.
- F. Control datum for survey shall be a relative one (1) per street established by the Contractor.

**1.03 QUALITY ASSURANCE**

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

PART 2      PRODUCTS  
                 NOT USED

PART 3      EXECUTION  
                 NOT USED

**END OF SECTION**

**SECTION 01200****PROJECT MEETINGS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Administrative and procedural requirements for project meetings.

**1.02 PRECONSTRUCTION CONFERENCE**

- A. Mandatory Pre-construction conference will be held at a to be determined date, time and place.
- B. The pre-construction conference will be scheduled and administered within fourteen (14) calendar days after the dated "Notice to Proceed". The Contractor shall be provide a projected construction schedule and shall submit a schedule of proposed shop drawing transmittals and be prepared to discuss major personnel, major sub-contractors, critical work areas and construction facilities.

**1.03 PROGRESS MEETINGS**

- A. The Engineer will schedule and administer progress meetings and specially called meetings throughout the duration of the Work at period intervals.
- B. The time and location of such meetings shall be designated by the Engineer and shall be convenient for all parties involved.
- C. If needed, Engineer shall prepare agenda with copies for participants, shall preside at meetings, shall record minutes, and shall distribute copies.

**PART 2 PRODUCTS  
NOT USED****PART 3 EXECUTION  
NOT USED****END OF SECTION**

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## SECTION 01300

### SUBMITTALS

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

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

##### 1.02 PROGRESS SCHEDULE

- A. Within fourteen (14) calendar days after execution of the Contract Documents, the Contractor shall submit to the Engineer for review a construction progress schedule conforming to requirements specified. This schedule should show the proposed dates of commencement and completion of each of the various subdivisions and milestones of work required under this Contract and the anticipated monthly percentage of completion based on the total contract price. The Contractor shall be responsible for updating and/or revising this schedule whenever directed by the Engineer throughout the duration of the Contract.
- B. Special attention is directed to the requirement that the Contractor shall start the Work, as specified under this Contract, no later than thirty (30) calendar days after the execution of the Contract Documents, unless otherwise authorized by the Owner. The Contractor shall comply with all pre-construction requirements as specified. The Owner reserves the right to delay the commencement of the Work or any part thereof, if the specified requirements as determined by the Engineer have not been satisfied. The Owner further reserves the right to limit or, delay construction, or certain activities thereof, in certain areas of the Contract should the Owner deem it to be in the public's best interest and/or safety to do so.
- C. The Contractor shall contact the appropriate town authorities concerning any public or semi-public events that may occur during the construction period that may affect construction. The Contractor alone shall be responsible for arranging his construction sequence to conform to any restrictions these events may impose. No claims for extras will be allowed because of any delay, extra materials handling, extra excavation, etc. caused by the imposed restrictions. However, additional time may be granted for completion of the work to compensate for delays caused by said restrictions.

##### 1.03 SHOP DRAWINGS

- A. Submit four (4) copies of shop and working drawings of concrete reinforcement, structural details, piping layout, wiring, materials fabricated especially for the Contract, electric powered signs and materials and equipment for which such drawings are specifically requested.
- B. A maximum of two (2) submittals of each shop drawing will be reviewed by the Engineer. If more submittals are required due to the Contractor's neglect or failure to

- fulfill the requirements of the Contract plans and/or specifications, or to make corrections or modifications required by the Engineer in the review of the first two submittals, the Engineer will review the submittal and the Contractor will be responsible for the cost of the review, as determined by the Owner based on the Engineer's documentation of time and rates for additional services established in the Engineering Agreement between the Owner and the Engineer.
- C. If re-submittals on shop and working drawings are required, the Engineer will retain three (3) copies and three (3) copies will be returned to the Contractor. When re-submittals are returned to the Engineer, six copies of the complete submittal shall again be required.
- D. Such drawings shall show the principal dimensions, weight, structural and operating features, space required, clearances, type and/or brand of finish or shop coat, grease fittings, etc., depending on the subject of the drawing. When the dimensions are of particular importance, or when specified, the drawings shall be certified by the manufacturer or fabricator as correct for the Contract. The Contractor also shall certify on the submitted drawings or catalog cuts that the equipment or the assembly are accepted by him and in conformance with the Plans and Specifications.
- E. When so specified or if considered by the Engineer to be acceptable, manufacturer's specifications, catalog data, descriptive matter, illustrations, etc., may be submitted in place of shop and working drawings.
- F. The Contractor shall be responsible for the prompt and timely submittal of all shop and working drawings to eliminate delay to the Work due to the absence of such drawings. All shop and working drawings shall be submitted to the Engineer within thirty (30) calendar days prior to incorporation into the Work, unless otherwise permitted by the Engineer. Prior to the submittal of any shop drawings, the Contractor shall submit a schedule of proposed shop drawing transmittals. The schedule shall identify the subject matter of each transmittal, the corresponding specification section number and the proposed date of submission. Prior to and during the progress of the Work the schedule shall be revised and resubmitted as requested by the Engineer.
- G. No material or equipment shall be purchased or fabricated for the Contract until the required shop and working drawings have been submitted as hereinabove provided and reviewed for conformance to the Contract requirements. All such materials and equipment and the work involved in their installation or incorporation into the Work shall then be as shown in and represented by said drawings.
- H. Until the necessary review has been made, the Contractor shall not proceed with any portion of the Work (such as the construction of foundations) for which review is required.
- I. All shop and working drawings shall be submitted to the Engineer by and/or through the Contractor, who shall be responsible for obtaining shop and working drawings from his subcontractors and returning reviewed drawings to them. All shop and working drawings shall be prepared on standard size, 24 inch by 36 inch sheets, except those which are made by changing existing standard shop and working drawings. All

drawings shall be clearly marked with the names of the Owner, Contractor, and building, equipment, or structure to which the drawing applies, and shall be suitable numbered. Submitted shop drawings shall be accompanied by a multi-part letter of transmittal provided by the Engineer, and completed by the Contractor as directed by the Engineer.

- J. Only drawings which have been checked and corrected by the fabricator should be submitted to the Contractor by his subcontractors and vendors. Prior to submitting drawings to the Engineer, the Contractor shall check thoroughly all such drawings to satisfy himself that the subject matter thereof conforms to the Drawings and Specifications in all respects. All drawings which are correct shall be marked with the date, checker's name, and indication of the Contractor's approval, and then shall be submitted to the Engineer; other drawings shall be returned for correction.
- K. If a shop drawing shows any deviation from the Contract requirements, the Contractor shall make specific mention of the deviations in his letter of transmittal.
- L. The review of shop and working drawings by the Engineer will be general only, and nothing contained in this Section shall relieve, diminish or alter in any respect the responsibilities of the Contractor under the Contract Documents and in particular, the specific responsibility of the Contractor for details of design and dimensions necessary for proper fitting and construction of the work as required by the Contract and for achieving the result and performance as specified.
- M. Should the Contractor submit equipment that requires modifications to the structures, piping, electrical conduit, wires, appurtenances, or layouts etc., either existing or as detailed on the Drawings, he shall also submit details of the proposed modifications. If such equipment and modifications are accepted, the Contractor, at no additional cost to the Owner, shall do the work necessary to make such modifications.
- N. The Contractor shall furnish additional copies of shop drawings or catalog cuts when so requested.

## PART 2 PRODUCTS

NOT USED

## PART 3 EXECUTION

NOT USED

**END OF SECTION**

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**SECTION 01400****QUALITY CONTROL****PART 1 GENERAL****1.01 SECTION INCLUDES**

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

**1.02 QUALITY ASSURANCE/CONTROL OF INSTALLATION**

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

**1.03 FIELD SAMPLES**

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

**1.04 CERTIFIED WELDERS**

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

PART 2 PRODUCTS  
NOT USED

PART 3 EXECUTION  
NOT USED

**END OF SECTION**

**SECTION 01410****TESTING LABORATORY SERVICES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Qualification, duties and responsibilities of testing laboratories. Also, coordination and scheduling are responsibilities of the Contractor.
- B. Related Sections  
Section 01600 - Materials and Equipment

**1.02 PAYMENT PROCEDURES**

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

**1.03 REFERENCES**

- A. American Society for Testing and Materials (ASTM)
  - 1. E-329-90, Use in the Evaluation of Testing and Inspection Agencies as Used in Construction.
- B. MassDOT Highway Division Standard Specifications for Highways and Bridges dated 1988 as amended and supplemented

**1.04 REQUIREMENTS**

- A. Work included:
  - 1. Cooperate with the Owner's selected testing agency and all others responsible for testing and inspecting the Work.
  - 2. Provide other testing and inspecting as specified to be furnished by the Contractor in this Section and/or elsewhere in the Contract Documents.
  - 3. Where no testing requirements are described, but the Owner directs testing, the Contractor shall provide testing under the requirements of this Specification.

## 1.05 QUALITY ASSURANCE

- A. The testing laboratory will be qualified in accordance with the MassDOT Highway Division Standard Specifications for Highways and Bridges dated 1988 as amended and supplemented and will be qualified to the Owner's approval in accordance with ASTM E329-90.
- B. Regulatory requirements
  - 1. Testing, when required, will be in accordance with all pertinent codes, regulations, and as described in the MassDOT Highway Division Standard Specifications for Highways and Bridges dated 1988 as amended and supplemented with selected standards of the American Society for Testing and Materials.
  - 2. Regulatory Requirement Inspections and tests required by codes or ordinances, or by a plan approved authority, and which are made by a legally constituted authority, shall be the responsibility of and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.

## 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Comply with pertinent provisions of Section 01600 - Materials and Equipment.
- B. Promptly process and distribute, to the Engineer, required copies of test reports and instructions to assure necessary retesting and replacement of materials with the least possible delay in progress of the Work.

## 1.07 SCHEDULING

- A. Establishing schedule
  - 1. By advance discussion with the testing laboratory selected by the Owner, determine the time required for the laboratory to perform its tests and to issue each of its findings.
  - 2. Provide all required time within the construction schedule.
  - 3. Coordinate testing activity with the appropriate testing laboratory.
- B. Revising schedule
  - 1. When changes of construction schedule are necessary during construction, coordinate all such changes with the testing laboratory as required.
- C. Adherence to schedule
  - 1. When the testing laboratory is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra charges for testing attributable to the



delay may be back-charged to the Contractor and shall not be borne by the Owner.

PART 2 PRODUCTS  
NOT USED

PART 3 EXECUTION

3.01 FIELD QUALITY CONTROL

- A. Representatives of the testing laboratory shall have access to the Work at all times and at all locations where the Work is in progress. Provide facilities for such access to enable the laboratory to perform its functions properly.
- B. All specimens and samples for testing, unless otherwise provided in the Contract Documents, shall be taken by the testing personnel. All sampling equipment and personnel will be provided by the testing laboratory. All deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

**END OF SECTION**

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**SECTION 01510****TEMPORARY UTILITIES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Requirements for temporary utilities required during construction.

**1.02 GENERAL REQUIREMENTS**

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

**1.03 TEMPORARY SANITARY FACILITIES**

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

**PART 2 PRODUCTS  
NOT USED****PART 3 EXECUTION  
NOT USED****END OF SECTION**

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**SECTION 01560****TEMPORARY CONTROLS****PART 1 GENERAL****1.01 SECTION INCLUDES**

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

**1.02 CLEANING DURING CONSTRUCTION**

- A. Contractor shall perform clean-up operations during construction as herein specified.
1. Control accumulation of waste materials and rubbish; periodically dispose of off-site. Bear all costs, including fees resulting from disposal.
  2. Maintain project in accordance with all local, State and Federal Regulatory Requirements.
  3. Store volatile wastes in covered metal containers, and remove from premises.
  4. Prevent accumulation of wastes that create hazardous conditions.
  5. Provide adequate ventilation during use of volatile or noxious substances
- B. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
1. Do not burn or bury rubbish and waste materials on site.
  2. Do not dispose or volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
  3. Do not dispose of wastes into streams or waterways.
  4. Use only those materials which will not create hazards to health or property and which will not damage surfaces.
  5. Execute cleaning to ensure that the buildings, the sites, and adjacent properties are maintained free from accumulations of waste materials and rubbish and wind-blown debris, resulting from construction operations.
  6. Provide on-site containers for collection of waste materials, debris, and rubbish.

7. Remove waste materials, debris, and rubbish from the site periodically and dispose of at legal disposal areas off the construction site.
8. During its progress, the work and the adjacent areas affected thereby shall be kept cleaned up and all rubbish, surplus materials, and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.
9. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes, structures, work done under this contract, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, pipes, structures, and work, etc. shall, upon completion of the work, be left in a clean and neat condition.

#### 1.03 DUST CONTROL

- A. Provide adequate means for the purpose of preventing dust caused by construction operations throughout the period of the construction contract.
- B. This provision does not supersede any specific requirements for methods of construction or applicable general conditions or performance obligations of the Contractor.

#### 1.04 EROSION AND SEDIMENT CONTROL

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

#### 1.05 NOISE CONTROL

- A. Develop and maintain a noise-abatement program and enforce strict discipline over all personnel to keep noise to a minimum.

- B. Execute construction work by methods and by use of equipment which will reduce excess noise.
  - 1. Equip air compressors with Silencers, and power equipment with mufflers.
  - 2. Manage vehicular traffic and scheduling to reduce noise.

#### 1.06 POLLUTION CONTROL

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

#### 1.07 SURFACE WATER CONTROL

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

#### 1.08 BARRIERS AND ENCLOSURES

- A. Fences and Barricades
  - 1. Provide and maintain temporary fences, barriers, lights, guardrails, and barricades as indicated in the Contract Documents, or as necessary to secure the Work and adjacent property, and protect persons and property.
  - 2. Obtain necessary approvals and permits and provide temporary expedients as necessary to accommodate tasks requiring items mentioned herein.
- B. Protection of Trees
  - 1. The Contractor shall take care not to harm trees along the sides of roads or within the existing facility in which the construction work is to be done or trees on adjacent lands except as indicated on the drawings or with the written permission of the Owner and any other owner of the trees involved. Care shall be taken not to damage tree roots so as to harm the growth of trees to remain.

2. If, in the opinion of the Engineer, any trees damaged during construction can be repaired, the Contractor shall satisfactorily repair same at no further cost to the Owner.
3. If, in the opinion of the Engineer, any tree damaged during construction cannot be repaired and should be removed, the Contractor shall satisfactorily remove and replace, in kind, same at no further cost to the Owner.

PART 2 PRODUCTS  
NOT USED

PART 3 EXECUTION  
NOT USED

**END OF SECTION**



**SECTION 01570****TRAFFIC REGULATIONS****PART 1 GENERAL****1.01 SECTION INCLUDES**

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

**1.02 REFERENCES**

- A. Manual of Uniform Traffic Control Devices (MUTCD) with Massachusetts Amendments latest edition and the Standard Municipal Traffic Code latest edition, including published revisions.

**1.03 PERFORMANCE REQUIREMENTS**

- A. The Contractor shall prepare and submit to the Engineer a proposed work schedule which complies with the plans and specifications. No work shall start until the Engineer's approval of the schedule is received.
- B. The Contractor shall have the sole responsibility for the maintenance and protection of traffic.
- C. No construction will be permitted within three hundred (300) feet of a school, day care center, or day camp when children are either arriving or departing the facility. The actual hours involved will be obtained by the Contractor from the respective facility.
- D. An authorized representative of the Contractor shall be available on a twenty-four (24)-hour basis for the duration of the Contract for the purpose of correcting construction related impediments or hazards.

**1.04 SUBMIT TRAFFIC PLANS**

- A. In accordance with SECTION 01300 – SUBMITTALS, submit a traffic plan delineating requirements of this section, the Contract Drawings, and the Town of Natick.
- B. Traffic control plans shall detail all typical work zones and detours.

**1.05 SITE CONDITIONS**

- A. Replace at no cost to the Owner pavement markings, legends and lane arrows removed or damaged by the construction operation.
- B. Restore temporary detours to original condition.

- C. Replace traffic signal loops damaged during construction within seventy-two (72) hours.

#### 1.06 SCHEDULING

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

### PART 2 PRODUCTS

#### 2.1 TRAFFIC CONTROL DEVICES

- A. Devices shall be in accordance with the MUTCD.

### PART 3 EXECUTION

#### 3.1 INSTALLATION OF TRAFFIC CONTROL DEVICES

- A. Installations shall be in accordance with the MUTCD.

**END OF SECTION**

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## **SECTION 01600 MATERIALS AND EQUIPMENT**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

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

#### **1.02 DELIVERY**

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

#### **1.03 STORAGE AND PROTECTION**

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

#### **1.04 INSTALLATION STANDARDS**

- A. Comply with Specifications and referenced standards as minimum requirements.
- B. Components required to be supplied in quantity within a Specification Section shall be the same, and shall be interchangeable.

- C. Do not use materials and equipment removed from existing structures, except as specifically required, or allowed, by the Contract Documents.
- D. Perform work by persons qualified to produce workmanship of specified quality.
- E. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.
- F. When work is specified to comply with manufacturers' instructions, submit copies as specified in Section 01300 - Submittals, distribute copies to persons involved, and maintain one set in field office.
- G. Perform work in accordance with details of instructions and specified requirements.

PART 2 PRODUCTS  
NOT USED

PART 3 EXECUTION  
NOT USED

**END OF SECTION**

**SECTION 01800****MAINTENANCE****PART 1 GENERAL****1.01 SECTION INCLUDES**

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

**1.02 MAINTENANCE PERIOD**

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

**1.03 ABUSE OF WORK**

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

**1.04 EMERGENCY REPAIRS**

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

**PART 2 PRODUCTS**

NOT USED

PART 3 EXECUTION

NOT USED

**END OF SECTION**

**DIVISION 2**  
**ROADWAY WORK**

**SECTION 02500**  
**SPECIAL PROVISIONS**

**SCOPE OF WORK**

The work to be done under this contract consists of furnishing all necessary labor, tools, materials and equipment required for the reconstruction of South Main Street.

The work includes, but is not limited to, excavation, full depth pavement reclamation, pavement milling and resurfacing, box widening, installation of granite curb, removing and resetting granite curb, installation of new HMA berm, construction of hot mix asphalt sidewalks and cement concrete wheelchair ramps with detectable warning panels, driveway construction, construction of drainage improvements, grading, implementation of erosion prevention and sediment control, construction of retaining walls, landscaping, installation of signs, placement of pavement markings, furnishing and installing rectangular rapid flashing beacons, furnishing and installing a LED stop sign and the implementation of safety controls and signing for construction operations and other incidental items included in the contract documents.

All work under this Contract shall be done in conformance with the *Standard Specifications for Highways and Bridges* dated 1988, the *Supplemental Specifications* dated April 1, 2019, and the *Interim Supplemental Specifications* contained in this contract, the *2017 Construction Standard Details*, the *1990 Standard Drawings for Signs and Supports*; the *1996 Construction and Traffic Standard Details* (as relates to the Pavement Markings details only); *The 2015 Overhead Signal Structure and Foundation Standard Drawings*, the *2009 Manual on Uniform Traffic Control Devices (MUTCD)* with *Massachusetts Amendments* and the *Standard Municipal Traffic Code*; the *1968 Standard Drawings for Traffic Signals and Highway Lighting*; the latest edition of *American Standard for Nursery Stock*, the Plans and these Special Provisions.

**ARCHITECTURAL ACCESS BOARD TOLERANCES**

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

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

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

### **WEEKLY MEETINGS**

The Contractor is hereby notified that attendance at weekly meetings with representatives of various Town departments and the Engineer will be required for the duration of the project. The purpose of these meetings is to keep the Town informed of the progress of the project, allow for coordinating activities and minimizing delays to the Contractor's progress. The Contractor shall be prepared to provide the Town with information about their anticipated construction activities for the project at each such meeting.

### **ORDERING OF MATERIALS AND DRAWINGS**

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

1. He has ordered the shop drawings for the materials for which shop drawings are required for this contract;
2. He has ordered from a supplier or manufacturer, the catch basin frames, grates and other such castings and materials necessary to complete the project.

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

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

**SHOP DRAWING SUBMITTAL** (Supplementing Subsection 5.02 and other requirements of these special provisions)

The Contractor shall furnish a minimum of four (4) copies of all required shop drawings. Additional copies requested by the Owner shall be provided by the Contractor at no additional cost. The Owner will accept electronic submissions to expedite the review process.

The Contractor shall be responsible for the prompt submission of all shop and working drawings so that there will be no delay in the work. The normal review period is 14 days and the Contractor shall take the required review period into consideration when planning their work.

The Contractor's attention is directed to the fact that Approval of shop drawings by the Owner and/or the Engineer shall be general in nature and shall be based on general arrangement and conformance to the Contract Drawings and Specifications. Approval of shop drawings by the Owner and/or Engineer shall not be construed as a certification of



dimensions and clearances required for installation and/or operation or as an approval of materials, manufacturing tolerances and/or processes other than those specifically required by the Contract Documents.

It shall be the Contractor's responsibility to determine the suitability of the product for actual job requirements, and to carefully check shop drawings to ensure that the materials the Contractor proposes to furnish will fit properly into the work without conflicting with other elements of the work regardless of which is first installed.

Shop drawings and/or catalog cuts are required for, including but not limited to, all drainage items, precast concrete units, pipes, castings, hydrants, gate valves, traffic signal equipment, signs, supports, handrails, wall systems, NPDES Permit, Imprinted Crosswalk Systems and traffic control plans.

Approvals are also required for aggregates, bituminous materials, cement materials, structural soils, loam and other items as specified.

The Contractor shall submit shop drawings, catalog cuts and /or certification for items other than those listed above if requested by the Engineer.

#### **APPROVED EQUIVALENT**

For any materials named or described in these specifications, an approved equivalent to that named or described in the said specifications may be furnished. The Town reserves the right not to approve any substitute and require the named materials to be used.

#### **MATERIALS REMOVED AND STACKED** (Supplementing Subsections 580.64, 630.63)

Materials directed to be removed and stacked which are Town of Natick property, shall be removed, transported to and stacked at the Town gravel pit located at #17 Oak Street or other location designated by the Town. All materials shall be neatly stacked as directed by the Town highway and/or water/sewer superintendents. In addition, all materials stacked shall be signed for by said superintendents. When directed by the Engineer to remove and stack materials which are privately owned, said materials shall be removed, transported to, and stacked at a location approved by the owner on the property, from which the materials have been removed.

The contract prices for the various items shall include full compensation for the services noted above.

If the Town of Natick and the Engineer determines that any part of the stacked materials is unsuitable for re-use by the Town of Natick, or if other owners decide to abandon part or all of their materials, such materials shall become the property of the Contractor and he shall dispose of them away from the site at no additional cost to the Town or owner.

The contract prices for the various items shall include full compensation for the services noted above.

**STEEL PLATES IN CONSTRUCTION ZONES**

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

**PUBLIC SAFETY AND CONVENIENCE**

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

The Contractor shall furnish, install, maintain and move all warning devices, barricades, signs, bridging materials, special apparatus, and other safety measures for the protection of motorists, pedestrians and the Contractor's own personnel.

All costs in connection with these measures shall be included in the various payment items and no additional compensation will be made.

Detours shall not be allowed.

**PROTECTION OF UNDERGROUND FACILITIES**

The Contractor's attention is directed to the necessity of making his own investigation in order to assure that no damage to existing structures, drainage lines, traffic signal conduits, etc., will occur. The location and disposition of utilities shown or not shown on the plans shall be considered approximate. The Contractor shall notify the Town of Natick and Mass. DIG SAFE and procure a DIG SAFE number for each location prior to disturbing the existing ground in any way.

DIG SAFE Call Center 1-888-344-7233

The Contractor shall notify the Town and Dig Safe seventy-two (72) hours prior to start of construction.

**NOTICE TO OWNERS OF UTILITIES**

Written notice shall be given by the Contractor to all public service corporations or municipal and State officials owning or having charge of publicly or privately-owned utilities of his intention to commence operations affecting such utilities at least one week in advance of the commencement of such operations. The Contractor shall, at the same time, file a copy of such notice with the Engineer. Before commencing work on service connections, the Contractor shall contact the serving utility to ensure that proper construction procedures are followed.

The following are the names and addresses of some of the agencies which may be affected and must be notified. Completeness of this list is not guaranteed by the Town. The

Contractor shall assure that all affected agencies are notified. It will be the Contractor's responsibility to verify this contact information and to notify the Town of changes to this list.

Town of Natick  
75 West Street  
Natick, MA 01760

Mr. William McDowell  
Town Engineer  
(508) 647-6400 x2010

Natick Sewer & Water Department  
75 West Street  
Natick, MA 01760

Mr. Anthony Comeau  
Water/Sewer Supervisor  
(508) 647-6557

Natick Fire Department  
22 East Central Street  
Natick, MA 01760

Mr. Michael Lentini  
Chief  
(508) 647-9559

Natick Fire Alarm  
22 East Central Street  
Natick, MA 01760

Mr. Ken Mitchell  
Superintendent/Communications Division  
(508) 651-7349

Natick Police Department  
20 East Central Street  
Natick, MA 01760

Mr. James Hicks  
Chief of Police  
(508) 647-9511

Eversource Electric  
One NStar Way, NE380  
Westwood, MA 02090

Mr. John Daly  
(781) 441-8721

NStar Gas  
One NStar Way, NE380  
Westwood, MA 02090

Mr. Jim Davis  
(781) 441-8941

Verizon  
365 State Street  
Springfield, MA 01105

Mr. Paul Styspeck  
(413) 787-1845

MWRA (Water Division)  
2 Griffin Way  
Chelsea, MA 02150

Mr. Ralph Francesconi  
(617) 305-5827

MWRA (Sewer Division)  
2 Griffin Way  
Chelsea, MA 02150

Mr. Kevin McKenna  
(617) 305-5956

RCN  
173 Bedford Street  
Lexington, MA 02420

Ms. Margot Jones  
(781) 652-8951

AT&T / TCG, c/o Sienna Engineering  
50 Mall Road - Suite 203  
Burlington, MA 01803

Mr. David Edgar  
(781) 221-8400

Comcast  
241 West Central Street  
Natick, MA 01760

Greg Franks  
(617) 862-8437

MCI  
P.O. Box 600  
Charlton, MA 01507

Mr. Stephen Parretti  
(508) 248-1305

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

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

#### **PROTECTION OF UTILITIES AND PROPERTY**

The Contractor, in constructing or installing facilities alongside or near sanitary sewers, storm drains, water or gas pipes, electric or telephone conduits, poles, railroad, sidewalks, walls or other structures, shall, at his expense, sustain them securely in place, cooperating with the officers and agents of the various utility companies and municipal departments which control them, so that the services of these structures shall be maintained.

He shall also be responsible for the repair or replacement, at his own expense, of any damage to such structures caused by his acts or neglect, and shall leave them in the same condition as they existed prior to the commencement of work. In case of damage to utilities, the Contractor shall promptly notify the owner and shall, if requested by the Engineer, furnish laborers to work temporarily under the owner's direction in providing access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by the Town of Natick or by the utility company which suffers the loss. The cost of such repairs shall be borne by the Contractor, without compensation therefore.

If, as the work progresses, it is found that any of the utility structures are so placed as to render it impracticable, in the judgment of the Engineer, to do the work called for under

this Contract, the Contractor shall protect and maintain the services in such utilities and structures and the Town will, as soon thereafter as it reasonably can, cause the position of the utilities to be changed or take such other action as it deems suitable and proper.

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

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

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

#### **PROPERTY BOUNDS**

The Contractor shall exercise due care when working around all property boundary markers which are to remain. Should any damage to a boundary marker result from the actions of the Contractor, the boundary marker shall be accurately replaced and/or realigned by the Contractor as required by the Engineer. The Contractor shall employ a Land Surveyor registered in Massachusetts to perform this work. No further compensation will be due the Contractor for the materials and labor required to re-establish a boundary marker disturbed by the Contractor except as otherwise noted herein.

#### **DRAINAGE SYSTEM**

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

Drainage castings within the road or sidewalk shall be installed at base or binder course grade, as directed by the Engineer, and reset to proposed finish surface grade prior to placement of the pavement surface course. The cost of this work is included in the unit bid prices for the drainage castings.

All existing pipes to be abandoned shall be plugged with brick masonry not less than 8" in thickness in conformance with the MassDOT Standard Specifications, Section 201.62. The cost of masonry plugs is incidental to the drainage items.

No separate payment will be made for saw cutting required for installation of drainage pipe trenches and structures. All such costs shall be taken as included in the unit prices bid for the various pipe items regardless of the depth of the saw cutting.

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

Excavation that is made at locations where the proposed structure cannot be installed due to an obstruction shall be considered incidental to the contract and no compensation will be made for the excavation and backfilling.

### **DRAINAGE STRUCTURES**

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

When approved by the Engineer, the Contractor shall perform exploratory test pits to confirm existing pipe configurations and inverts prior to ordering precast drainage structures. The drainage schedule is provided as informational only for bidding purposes and the Contractor is responsible for obtaining the actual inverts. Contractor shall notify the Engineer immediately of all conflicts or information that differs from the Plans. The Town reserves the right to change drainage structure and pipe locations to avoid conflicts. This work shall be considered incidental to the various contract items and there shall not be any separate payment for performing this work. The Town is not responsible for the cost of precast structures that are ordered but cannot be installed due to site conditions that have not been confirmed by the Contractor in advance of ordering.

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

No separate payment will be made for the cost of connecting new pipes into existing structures, cleaning and necessary alterations of existing structures, but all such costs shall be taken as included in the unit prices bid for the various pipe items.

### **DEWATERING AND CONTROL OF WATER**

All dewatering and control of water required for the construction of the drainage, water, sewer and traffic items and all required permitting shall be the Contractor's responsibility and the cost shall be considered incidental to the unit bid price of those items and there shall not be any separate payment for providing dewatering, control of water and permitting.

### **ENVIRONMENTAL CONTROLS**

All construction equipment shall be fitted with suitable muffling devices so that the noise from construction operation shall be properly controlled. The Contractor shall control all dirt, dust, erosion and other related construction emissions from the project to the satisfaction of the Engineer. **The Natick Conservation Commission has issued an Order of Conditions for this project. The Order of Conditions can be found in the**

**Appendix and the Contractor shall adhere to all of the conditions set forth on the Order of Conditions.**

For this project the Massachusetts Department of Environmental Protection File Number is 233-0818. The Contract shall install and maintain up to three signs bearing the legend "MA DEP File Number: 233-0818" for the duration of the project at locations determined by the Engineer. Signs shall be in accordance with the latest MassDOT Construction Standards. All costs for the manufacture, erection, maintenance, moving, and removal of the signs shall be considered incidental to the work under this Contract.

**SAW CUTTING**

No separate compensation will be made for saw cutting bituminous or cement concrete surfaces. Saw cutting shall be required, as shown on the plans or as specified herein and shall be considered as included in the payment made for the various items of this contract, regardless of the depth of saw cutting required or the material.

**CONCURRENT WORK BY OTHERS WITHIN PROJECT LIMITS**

Concurrent work may be in progress in the project area by others, including but not limited to, the Town of Natick and various utility companies. The Contractor is required to coordinate his activities with all work by others within and adjacent to the project limits.

The Town of Natick will install new hydrants and service branches at the locations shown on the plans. The Contractor is required to coordinate and schedule his activities with this work and stake out the proposed hydrant locations in the field when requested by the Town. The cost for this stakeout shall be considered incidental to the work under this Contract.

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

**DISPOSAL OF SURPLUS MATERIALS**

Surplus materials obtained from any type of excavation and not needed for use on the project, as determined by the Engineer, shall become the property of the Contractor and shall be disposed of properly by the Contractor outside and away from the limits of the project at an approved site, subject to the regulations and requirements of local, state, and federal authorities having jurisdiction over the disposal of such materials, at no additional compensation. Payments for this work shall be included in the unit price under the applicable Item from which the material was obtained.

**SURVEY CONTROL**

Survey control data for project baselines shall be furnished to the Contractor. The Contractor, without additional compensation, shall maintain all such controls throughout the prosecution of the work and shall perform all required construction layout. Finished surfaces in all cases shall conform, as near as practical, in accordance with the grades and guidelines provided in the Contract Documents.

**PRE-CONSTRUCTION PHOTOGRAPHS**

The Contractor shall take photographs of the existing conditions and abutting features along the entire project length before beginning any construction activities. Two (2) CD's with the pictures shall be delivered to the Town. The cost is incidental to the Contract.

**EMERGENCY TELEPHONE**

The Contractor shall provide to the Owner an emergency telephone number at which the Contractor or their authorized representative(s) may be reached at all times

**WORK SCHEDULE**

Work on this project is restricted to an 8-hour period between the hours of 7:00 AM to 6:00 PM, five-days per week with the Prime Contractor and all Subcontractors working on the same shift. No work, including the setting up and taking down of work zone traffic control devices shall be done on existing roadway areas between the hours of 7:00-9:00 AM and 3:00-6:00 PM, unless otherwise approved by the Town. Work shall be permitted in areas outside and off the roadway during these periods. No Hot mix asphalt will be placed after November 15 unless approved in writing by the Engineer.

No work shall be done on this contract on Saturdays, Sundays, or Holidays. The Town reserves the right to restrict work on the days before and after a holiday.

Roadways must remain accessible throughout the construction for emergency apparatus, school, businesses, and residents. The Contractor shall prepare and submit to the Engineer a proposed work schedule and traffic plan which complies with the Contract Documents. The work schedule shall project the anticipated work for the next 2 weeks. No work shall start until the Engineer's approval of the schedule is received. This schedule will be updated weekly for the duration of the contract. The Contractor shall notify the Engineer fourteen (14) days before construction starts.

The Contractor's prosecution of the work shall comply with the following:

- No earth disturbing activities shall commence until all erosion controls are in place and approved and proper notification provided to the Natick Conservation Commission in accordance with the Order of Conditions.
- A minimum of one lane of traffic in each direction of travel must be maintained on all streets during non-work hours, except where otherwise approved by the Town.
- No detouring of traffic will be allowed.
- A sidewalk shall remain open on at least one side of the roadway at all times where a sidewalk exists on each side. The sidewalk on the opposite side of the street from the sidewalk under construction shall not be excavated until the first sidewalk has a paved surface.
- Reconstruction of intersections shall be undertaken so as to maintain all existing turning movements.
- Pedestrian and vehicle access to all abutting properties shall be maintained except for very short periods of time. When it is necessary to deny access to a property,



the owner shall be informed at least forty-eight (48) hours in advance. Access shall be restricted only with the approval of the Town.

- All utility work shall be done prior to the resurfacing, full depth reconstruction, reclamation and permanent roadway patching. The Contractor shall coordinate his work with the Town and the utility companies.
- Water valves and fire hydrants shall only be operated by the Town.
- Construction activities are restricted in the vicinity of the Johnson School. See Section 01570 Traffic Regulations.

### **MOBILIZATION & DEMOBILIZATION**

Mobilization and demobilization of personnel, equipment and materials to and from the work site are incidental to the Contract.

### **ENGINEER'S FIELD OFFICE AND EQUIPMENT**

A field office will not be required for the Engineer.

The Contractor shall provide a laptop computer for the exclusive use by the Engineer. The minimum requirements for the laptop are as follows:

- Spare battery
- Intel Core i7 Processor or equal
- 16 GB RAM
- 500 GB hard drive, 7200 RPM
- 17" screen
- Windows 10 operating system
- Optical mouse with scroll
- Unlimited wireless cellular internet data service for the life of the Contract with necessary hardware
- Applications:
  - a) Microsoft Office Standard 2016 with Microsoft Outlook with all security updates
  - b) AutoDesk Drawing TrueView, latest version
  - c) Adobe Acrobat Pro, latest version
  - d) Antivirus software with all current security updates maintained through the life of the contract.

The laptop computer will remain property of the Contractor and will be returned to the Contractor at the completion of the project.

Payment for the laptop computer, including unlimited wireless cellular internet data service, shall be considered incidental to the unit bid prices of the Contract and there shall not be any separate payment for providing the laptop.

### **AS-BUILT DRAWINGS**

The Contractor shall cooperate with the Owner and maintain at the site a set of drawings on which shall be recorded accurately, as the work progresses, the actual "as built" locations

and dimensions of all their work, indicating thereon all variations from the Contract Drawings. This record of "as built" conditions shall include the work of all subcontractors.

Prior to final acceptance of the work, all "as built" data shall be transferred by the Contractor to electronic drawings, AutoCAD Version 2018 or later. The record drawings will be completed by the Contractor and submitted to the Engineer and Town for review. The Contractor shall revise the drawings to correct all comments made by the Engineer and/or the Town. After approval by the Town, the Contractor shall provide the Town with two (2) hard copies, one mylar and one paper, along with one (1) copy in pdf format and three (3) CD's of the accepted as-built drawings in AutoCAD format.

#### **NOTICE TO CONTRACTORS – PRICE ADJUSTMENTS**

The Contractor shall apply monthly price adjustments for the relevant Contract Items in accordance with Document 0811, 0812 and 0814 contained in Appendix D. The following are the base prices in effect for this project:

Liquid Asphalt = \$535.00 per Ton	Diesel = \$2.376 per Gallon
Gasoline = \$2.036 per Gallon	Portland Cement = \$125.47 per Ton

#### **NOTICE TO CONTRACTORS – ADVERTISING**

The Contractor shall not be permitted to post signs or advertisements for his business within the Town. The Contractor shall not sell material, equipment or any other items within the project limits.

**SECTION 02550**  
**CONSTRUCTION SPECIFICATIONS**

**ITEMS**

These specifications are hereby made part of the Contract Documents and shall apply to all parts of the Contract. The identification of the Contract Item Number corresponds to those listed in the 1988 edition of the Standard Specifications for the Highways and Bridges of the Massachusetts Department of Public Works (Massachusetts Department of Transportation) including the Supplemental Specifications dated April 1, 2019. References to Sections and Subsections, under each contract item refers to those contained in the Standard Specifications. The Contractor must have the 1988 Standard Specifications, the Supplemental Specifications dated April 1, 2019, the Massachusetts Department of Transportation *2017 Construction Standard Details*, the 2009 Manual on Uniform Traffic Control Devices for Streets and Highways with Massachusetts Amendments, the latest Standard Drawings for Signs and Supports, the latest Standard Drawings for Traffic Signals and Highway Lightings. Any item not covered in these special provisions is covered in the 1988 Standard Specifications and Supplemental Specifications.

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

**ITEM 102.1****TREE TRIMMING****FOOT**

The work under this Item shall conform to the relevant provisions Section 8.08 and Section 101 of the Supplemental Specifications and the following:

The work shall include the trimming of low hanging tree limbs in areas adjacent to the proposed edge of pavement or back of sidewalk, which may conflict with construction operations or the safe passage of vehicles or pedestrians. Tree trimming shall be done only after verification of the proposed location of the back of sidewalk or edge of traveled way and upon direction by the Engineer. All cuts shall be clean and executed with an approved tool.

The Contractor shall retain the services of a Massachusetts Certified Arborist to oversee the tree trimming. The Arborist shall submit a copy of their current Massachusetts registration to the Engineer prior to construction. The cost of the services of the arborist is incidental to this item.

The method of disposal of all materials shall be the responsibility of the Contractor and shall be approved by the Engineer. All methods of disposal shall be accomplished in accordance with all applicable Federal, State, and local ordinances.

**ITEM 102.51****INDIVIDUAL TREE PROTECTION****EACH**

The work under this Item shall conform to the relevant provisions of Sections 101, 644 and 771 of the Standard Specifications and the following:

The purpose of this Item is to prevent damage to branches, stems and root systems of existing trees to remain and ensure their survival. Provisions under this Item include steps to minimize soil and

root disturbance and to construct protection measures for trees close to construction areas.

The Contractor shall be solely responsible for judging the full extent of the work requirements, including, but not necessarily limited to any equipment and materials necessary for providing tree protection or in carrying out the work in the project to avoid damaging existing trees to remain.

Incidental to the cost of this Item, the Contractor shall retain the services of a Massachusetts Certified Arborist, who shall make recommendations as to the specific appropriate treatment of trees within or near the work zone.

Prior to any construction activities, the Contractor and Arborist shall walk the site with the Engineer and Town Tree Warden to identify which trees will require protection and to coordinate tree protection strategies for this Item and Item 102.1. The Arborist shall make recommendations as to the appropriate methods to protect the trees. The Engineer will have the final decision as to which trees will require protection and which measures will be required.

The Contractor is responsible for protection of all existing trees and plants within and immediately adjacent to the construction area that are not designated to be removed for the length of the construction period.

#### Submittals

Incidental to this Item, the Contractor shall provide to the Engineer one (1) copy each of “Standards for Pruning Shade Trees” of the National Arborist Association, 174 Route 101, Bedford, New Hampshire, 03102, and American National Standards Institute (ANSI) Standard Z-133.1 and A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance, Part 1: Pruning. These references shall be kept by the Engineer at the field office for the length of the Contract.

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

#### Materials

Fence material and temporary fence posts shall be subject to the approval of the Engineer.

Fencing for tree protection shall be sufficiently sturdy to last the length of the contract, and shall be brightly colored and highly visible.

Staking for individual tree protection fencing shall be steel posts or 2 inch by 4 inch stock as directed and approved by the Engineer.

Wood chips shall conform to the provisions of Wood Chip Mulch under Materials Section M6.04.3. Trunk protection shall be 2x4 inch cladding, at least 8 feet in length, clad together with wire. Trunk protection shall include burlap.

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

### Construction Methods

To the extent possible, to avoid soil compaction within the root zone, construction activities including, but not limited to, vehicle movement, excavation, embankment, staging and storage of materials or equipment shall not occur underneath the canopy (drip line) of trees to remain. Where these activities will occur within 10 feet of the canopy of trees, the Contractor shall provide Roadside Tree Protection as specified herein.

For individual tree protection, the Contractor shall set posts and fencing at the limits of the tree canopy. Where construction activities closer to the trees are unavoidable, the Contractor shall tie branches out of the way and place wood chips to a depth of 6 inches on the ground to protect the root systems. The Contractor shall wrap the area of the trunk of the tree with burlap prior to armoring with 2x4 inch cladding. Cladding for tree trunks shall extend from the base of the tree to at least 8 feet from the base.

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

All fencing, trunk protection, branch protection, and wood chips shall be maintained throughout the duration of the contract. Protective fencing shall be repaired and wood chip mulch replaced as necessary during the duration of the contract at no additional cost.

### Cutting and Pruning

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

All cuts shall be clean and executed with an approved tool. Under no circumstances shall excavation in the tree protection area be made with mechanical equipment that might damage the existing root systems.

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

### Watering

Water each tree within the construction area where work is in progress twice per week until the surrounding soil of each tree is saturated for the duration of construction activities.

### Removal of Protection

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

### Tree Damage

The Contractor shall be held responsible for the health and survival of the existing trees in the immediate vicinity of the construction area. Damage that, in the Engineer's opinion, can be remedied by corrective measures shall be repaired immediately. Broken limbs shall be pruned according to industry standards. Wounds shall not be painted. Trees or shrubs that are damaged irreparably shall, at the Engineer's discretion, be replaced with new plants of comparable size and type. Cost of replacement trees shall be borne by the Contractor.

### Measurement and Payment

Where the plans show specific, individual trees to remain and where grading or other disturbance is shown within the drip line of these trees or where the Engineer determines that an individual tree must be protected, these trees shall be protected and paid for under ITEM 102.51, INDIVIDUAL TREE PROTECTION.

Item payment shall be scheduled throughout the length of the contract: 30 percent of the value shall be paid upon installation, 30 percent approximately halfway through the contract, and the remainder to be paid at the end of the contract after completion of construction operations that would disturb plants and after the protection materials have been removed and properly disposed of off-site by the Contractor.

Compensation for Roadside Tree Protection will be paid for at the Contract Unit Price per EACH under Item 102.51. This shall include full compensation for all labor, equipment, materials, and incidentals for the satisfactory completion of the work, including the services of a Massachusetts certified arborist, water and fertilizer, protective fencing and stakes, wood chips and the subsequent removal and satisfactory disposal of the protective materials upon completion of the contract.

### **ITEM 141.1**

### **TEST PIT FOR EXPLORATION**

### **CUBIC YARD**

The work to be done under this Item shall conform to the relevant provisions of Section 140 supplemented by the following:

Test pits shall be excavated where designated on the plans and/or as directed and approved by the Engineer in advance. The maximum pay limits for a test pit shall be no more than five (5)' x five (5)' to the depth approved by the Engineer, unless otherwise directed by the Engineer.

### Measurement and Payment

Test Pit for Exploration will be measured per cubic yard of test pits excavated and backfilled, as shown on the plans or as directed by the Engineer.

Test Pit for Exploration shall be paid at the Contract unit price bid per cubic yard, which price shall be full compensation for labor, materials, equipment, tools, saw-cutting, excavation, the taking and recording of measurements, proper backfilling and compacting, coordinating with

others and incidentals necessary to satisfactorily complete the work. Test pits made without the expressed prior approval of the Engineer shall not be compensated for.

If, in the opinion of the Engineer, the material removed is unsuitable for re-use as backfill, then gravel borrow shall be used and paid for under Item 151. Disposal of unsuitable material shall be considered incidental to this item.

Payment for temporary HMA patch shall be paid under Item 472.

The cost of saw cutting bituminous concrete pavement, regardless of depth, shall be considered incidental to this item.

**ITEM 146.**                      **DRAINAGE STRUCTURE REMOVED**                      **EACH**

The work to be done under this item shall conform to Section 140 of the Standard Specifications, including removing the accumulated dirt, refuse, and other debris, as directed by the Engineer, and as necessary for the Contractor to perform relevant items of work under this Contract, from designated drainage structures to be removed, including the gutter mouth of curb inlets, and properly disposing of the materials removed.

The Contractor shall carefully remove the castings from the structures. The Contractor shall transport and stack the castings at the Town gravel pit located at #17 Oak Street or other location designated by the Town. All materials shall be neatly stacked as directed by the Town highway and/or water/sewer superintendents. In addition, all materials stacked shall be signed for by said superintendents.

Castings damaged by the Contractor shall be replaced in kind by the Contractor at no cost to the Town.

Masonry plugs shall be used to plug the inlet and outlet drainage pipes of structures removed. Plugs shall be cement mortar and brick masonry. The depth of the plug shall be equal to the diameter of the pipe. The cost of constructing the masonry plugs shall be incidental to this item.

The Contractor shall completely remove the drainage structure and backfill the excavated area with gravel borrow, compacted in 12 inch lifts.

**Measurement and Payment**

This item shall be paid for at the contract unit price per Each, which price shall include full compensation for masonry plugs, removing all masonry and filling the cavity of structures to be removed, and other incidentals needed to complete this work.

**ITEM 151.****GRAVEL BORROW****CUBIC YARD**

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

Gravel borrow shall conform to Material Specifications M1.03.0 (Type b) in the roadway limits and M1.03.0 (Type b or c) within the limits of sidewalk.

Gravel borrow shall conform to Material Specifications M1.03.0 (Type b or c) for backfilling when approved by the Engineer.

**ITEM 156.****CRUSHED STONE****TON**

The work under this item shall conform to the relevant provisions of Section 150 of the Standard Specifications and the following:

Crushed stone for pipe bedding shall be  $\frac{3}{4}$  inch stone meeting the requirements of Materials Section M2.01.4.

**Measurement and Payment**

Crushed Stone will be measured per ton of crushed stone placed to the limits as shown on the plans or as directed by the Engineer. Placement of stone beyond the limits shown in the plans shall be considered as for the convenience of the Contractor and no additional payment shall be made unless approved by the Engineer prior to the placement of the stone. Measured quantity will be by the approved weight slips or the following formula, whichever quantity is less:

$[W \times (\text{depth of stone per plan}) - (\text{pipe area}/2)] \times \text{pipe length} \times 1.35 \text{ Ton/CY.}$   
 $W = \text{pipe diameter} + 3' \text{ or actual trench width if less than pipe diameter} + 3'$

Payment for this item shall be at the contract unit price per Ton which shall be full compensation for all materials, labor, tools and equipment necessary to furnish and install the crushed stone as required.



<b><u>ITEM 170.</u></b>	<b><u>FINE GRADING AND COMPACTING</u></b>	<b><u>SQUARE YARD</u></b>
	<b><u>– SUBGRADE AREA</u></b>	

Work under this Item shall conform to the relevant provisions of Section 170, supplemented and amended as follows:

The grading and compaction of Loam Borrow and its associated subgrade shall not be paid for under this item and is considered incidental to that work. The grading and compaction of Loam Borrow and its associated subgrade shall be included for payment under Item 751.

The grading and compaction of all embankment materials, including but not limited to Gravel Borrow, shall not be paid for under this item. The grading and compaction of embankment material shall be considered incidental to the respective pay item.

<b><u>ITEM 201.</u></b>	<b><u>CATCH BASIN</u></b>	<b><u>EACH</u></b>
<b><u>ITEM 201.2</u></b>	<b><u>DOUBLE-GRATE CATCH BASIN</u></b>	<b><u>EACH</u></b>
<b><u>ITEM 202.</u></b>	<b><u>MANHOLE</u></b>	<b><u>EACH</u></b>
<b><u>ITEM 202.5</u></b>	<b><u>MANHOLE (5 FT DIAMETER)</u></b>	<b><u>EACH</u></b>
<b><u>ITEM 202.6</u></b>	<b><u>DEEP SUMP MANHOLE</u></b>	<b><u>EACH</u></b>

The work under these Items shall conform to the relevant provisions of Section 201 of the Standard Specifications, the Construction Details and the following:

All excavation for the structures shall be included in the cost of these items. Units shall be precast concrete and shall conform to ASTM C478 and AASHTO M 199.

Catch basin, double-grate catch basin, and deep sump manhole structures shall be constructed with 4-foot sumps and include hoods. Acceptable hoods are Ground Water Rescue Inc. Eliminator, Best Management Practices Inc. Snout® or equal approved the DPW.

Drain manholes that are 5' in diameter shall be precast concrete conforming to the latest ASTM Specifications for precast reinforced concrete sections (ASTM C478). Concrete shall have a minimum compressive strength of 5,000 psi. Reinforcing steel shall conform to the latest ASTM A1064 Specifications. The manhole shall be capable of supporting an HS 20-44 live load.

The joints of the precast manhole sections shall be sealed with either a round rubber "O"-ring gasket or a flexible joint sealant. The "O"-ring shall conform to ASTM C443.

All structures within this section shall be constructed on a bedding of 12 inches of crushed stone. No additional payment beyond these limits will be allowed unless approved in advance by the Engineer.

All the catch basins and drain manhole structures are eccentric unless otherwise noted on the plans. The cone sections shall be replaced with flat tops sections as needed at no additional cost. Flat tops shall not be used unless approved by the Engineer.

All castings located within the pavement area shall not be set to finished grade until after the binder

course has been placed and shall be set to finished grade no more than 7 calendar days prior to final paving. The cost of adjusting castings prior to setting to the final grade is included in the cost of these items.

All frames shall be set in a concrete collar conforming to Construction Standard Details, Drawing No. E 202.9.0 prior to placement of the top course pavement. The cost of the concrete collar shall be included in the unit price bid for these items.

#### Measurement and Payment

Structures within this section will be measured by the unit each, regardless of required depth. There shall be no additional compensation for deep sumps or hoods.

Structures within this section will be paid for at the Contract unit price per each, which shall be full compensation for all excavation, backfill, concrete, reinforcing steel, forming, labor, materials, equipment and incidentals necessary to complete the work.

Crushed stone for bedding shall be paid for under Item 156.

The cost of the frames and grates or covers shall be paid under their respective items.

<b><u>ITEM 204.</u></b>	<b><u>GUTTER INLET</u></b>	<b><u>EACH</u></b>
<b><u>ITEM 204.1</u></b>	<b><u>DOUBLE GRATE GUTTER INLET</u></b>	<b><u>EACH</u></b>
<b><u>ITEM 204.11</u></b>	<b><u>GUTTER INLET - SPECIAL</u></b>	<b><u>EACH</u></b>

The work under these Items shall conform to the relevant provisions of Section 201 of the Standard Specifications, the Construction Details and the following:

All excavation for the structures shall be included in the cost of these items. Units shall be precast concrete.

Gutter inlets, double grate gutter inlets and special gutter inlets shall be constructed as shown on the plans.

All structures shall be constructed on a bedding of 12 inches of crushed stone. No additional payment beyond these limits will be allowed unless approved in advance by the Engineer.

All castings located within the pavement area shall not be set to finished grade until after the binder course has been placed and shall be set to finished grade no more than 7 calendar days prior to final paving. The cost of adjusting castings prior to setting to the final grade is included in the cost of these items.

All frames shall be set in a concrete collar conforming to Construction Standard Details, Drawing No. E 202.9.0 prior to placement of the top course pavement. The cost of the concrete collar shall be included in the unit price bid for these items.

Measurement and Payment

These items will be measured by the unit each, complete in place.

These items will be paid for at the Contract unit price per each, which shall be full compensation for all labor, materials, equipment and incidentals necessary to complete the work.

Crushed stone for bedding shall be paid for under Item 156.

The cost of the frames and grates or covers shall be paid under their respective items.

<b><u>ITEM 220.7</u></b>	<b><u>SANITARY STRUCTURE ADJUSTED</u></b>	<b><u>EACH</u></b>
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Work under these items shall conform to the relevant provisions of Section 220 of the Standard Specifications and the following:

All sanitary structures which are the property of the municipality shall be adjusted or remodeled to meet the proposed grade. When the change to line or grade is 6 inches or less the structure will be adjusted. When the change to line or grade or both line and grade is greater than 6 inches the structure will be remodeled. Existing castings shall be retained.

Work shall include adjusting or remodeling existing sanitary structures, including brick and mortar, concrete collar and frames to allow the frame to be set to proposed line and grade. All associated work shall conform to the Town of Natick Sewer Department requirements.

Measurement and Payment

These items will be measured per each, complete in place and approved.

These items will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

<b><u>ITEM 222.3</u></b>	<b><u>FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD</u></b>	<b><u>EACH</u></b>
<b><u>ITEM 222.5</u></b>	<b><u>4 INCH FRAME AND GRATE - HEAVY DUTY</u></b>	<b><u>EACH</u></b>

The work of these Items shall conform to the relevant provisions of Section 200 of the Standard Specifications and the Town of Natick standards.

Frames, grates, and covers shall be of good quality, strong, tough, even grained cast iron smooth, free from scale, lumps, blisters, sand holes and defects of any kind which render them unfit for the service for which they are intended. Grates, covers, and frame seats shall be machined to a true surface. Castings shall be thoroughly cleaned and subject to hammer inspection. Cast iron shall conform to ASTM A48, Class 30.

The surface of the cover shall have a diamond pattern with the words "DRAIN" cast thereon for drainage manholes, as manufactured by EJUSA 0MA226000002 (Frame) and EJUSA 0MA211000005 (Cover) or approved equal.

Frames, Grates and Covers shall be as specified by Town Standards and as shown on the plans. Shallow frames may be required to facilitate the construction of the drainage improvements. The height of frames may vary on the project and the Contractor shall determine the appropriate frame height for each location. No payment will be made for frames that are furnished but which cannot be used because they are not the correct height. Drain manhole castings shall be set flush with the finished grade in pavement areas.

Casting frames shall be 6 inches high, unless otherwise noted herein or on the plans, and set in a full mortar bed with clay bricks as noted on the plans to meet finished grade. Use of cement concrete brick will not be allowed. Castings shall be set to line and grade and secured with a concrete collar that is tack coated and overlaid with a minimum of two inches of Hot Mix Asphalt top course. Catch basin and gutter inlet castings shall be set 1-inch lower than finish grade in pavement areas. Drain manhole castings shall be set flush with the finished grade in pavement areas.

The work under these Items shall include furnishing and installing 4" frames at certain locations.

#### Measurement and Payment

Compensation for these items shall be at the Contract Unit price bid for Each, which price shall include all labor, tools, materials, transportation and necessary incidental expenses regardless of frame and grate (cover) dimension.

Single Frame with double grate shall be measured for payment as one unit consisting of a single frame and two grates. Payment for each shall include the cost of the single frame and both grates installed in place as one unit.

Each frame and grate and/or cover shall also be encased with a concrete collar as shown on the plans and in the MassDOT Construction Standards, Plate No. E 202.9.0 and shall be included in the cost of these Items.

#### **ITEM 223.4**

#### **CURB FRAME AND COVER**

#### **EACH**

Work under this Item shall conform to the relevant provisions of Section 220 of the Standard Specifications and the following:

Curb frame and cover assemblies (cover and frame) shall be model no. H36425007 as manufactured by EJCO or approved equal. Material shall be hot-rolled steel conforming to ASTM A36. The curb frame and cover shall be hot dip galvanized per ASTM 123. The cover shall have a stainless steel lock arm capable to hold the cover in a 90° position. The surface of the lid shall be ADA compliant.

Curb frame and cover assemblies (cover and frame) shall be installed at the locations where the

existing manhole frame and cover conflicts with the installation of the proposed curb and the frame and cover cannot be adjusted to avoid the conflict. The frame and cover shall only be installed at locations approved by the Engineer.

The face of the cover (side opposite the hinges) shall align with the face of the granite curb to provide a smooth transition between the granite curb and cover.

The frame shall be set in a full mortar bed with clay bricks as noted on the plans to meet finished grade. Use of cement concrete brick will not be allowed. Frames shall be set to line and grade and secured with a concrete collar that is tack coated and overlaid with a minimum of two and one-half inches of Hot Mix Asphalt top course. The concrete collar shall be as shown on MassDOT Construction Standard E 202.9.0 which cost shall be included in this item.

Work shall include adjusting or remodeling existing sanitary structures, including brick and mortar, concrete collar and frames to allow the frame to be set to proposed line and grade. All associated work shall conform to the Town of Natick Sewer Department requirements.

Measurement and Payment

Curb frame and cover will be measured per each with one unit measured as the frame with cover.

Curb frame cover will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

**ITEM 224.12**

**12 INCH HOOD**

**EACH**

The work of this Item shall conform to the relevant provisions of Section 200 of the Standard Specifications and the Town of Natick standards.

The Contractor shall install hoods on drainage structures as shown on the Plans. Hoods shall be the Eliminator as manufactured by Ground Water Rescue Inc. or approved equal.

Measurement and Payment

This item will be measured per each, complete in place and approved.

This item will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

<b><u>ITEM 238.12</u></b>	<b><u>12 INCH DUCTILE IRON PIPE</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 238.16</u></b>	<b><u>16 INCH DUCTILE IRON PIPE</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 238.24</u></b>	<b><u>24 INCH DUCTILE IRON PIPE</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 241.12</u></b>	<b><u>12 INCH REINFORCED CONCRETE PIPE</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 241.18</u></b>	<b><u>18 INCH REINFORCED CONCRETE PIPE</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 241.24</u></b>	<b><u>24 INCH REINFORCED CONCRETE PIPE</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 241.30</u></b>	<b><u>30 INCH REINFORCED CONCRETE PIPE</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 241.36</u></b>	<b><u>36 INCH REINFORCED CONCRETE PIPE</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 250.06</u></b>	<b><u>6 INCH POLYVINYL CHLORIDE</u></b>	<b><u>FOOT</u></b>
	<b><u>SANITARY SEWER PIPE</u></b>	

The work under these Items shall conform to the relevant provisions of Section 230 and the following:

No extra payment shall be made for trench excavations exceeding five (5) feet in depth or as described in Section 140.23 under Item 142. Class B Trench Excavation. The cost of all trench excavation, regardless of depth, shall be included in the cost of these Items.

Unless otherwise directed, trenches shall be backfilled with approved granular materials and properly compacted to the minimum density of 90 percent of the maximum density as determined by ASTM D1557 (Modified Proctor). Any settlements or other defective work and material shall be promptly repaired or replaced at the Contractor's expense. Density testing shall be required as determined by the Engineer. The Engineer will identify the locations for testing to be paid for by the Contractor.

Polyvinyl Chloride pipe shall be Schedule 40 meeting the requirements of ASTM D 1785 and ASTM D 2466.

The work shall include the incidental adjustment of other utilities as required to install proposed pipe. All existing drainage pipe that is impacted by the installation of proposed pipe shall be removed to the extent required and disposed of by the Contractor as part of the work under these Items. Pipe may be abandoned in place, if approved by the Engineer. Abandoned pipes shall be plugged. Where new pipe connects into an existing manhole, inverts shall be rebuilt or modified, as needed, to match proposed conditions under these Items. Where new pipe connects to existing pipe, couplings or other connecting fittings shall be installed as directed by the Engineer. Costs for these materials and this work shall be considered incidental to the work under these items. Saddle connections noted in the plans shall be considered incidental to the work under these items.

#### Measurement and Payment

Payment under these Items shall be at the Contract Unit Prices bid per Foot, complete in place; including all trench excavation, regardless of depth; saw cutting regardless of depth, backfilling; shoring and bracing; compaction testing, the removal or abandonment of existing pipe, including plugs, rebuilding and modifying inverts, couplings, and the maintenance of flow and the protection from and cleaning of related construction debris from the affected portions of the existing drainage system.

Crushed stone for pipe bedding, shall be paid for under Item 156. Gravel Borrow for backfill, if required and authorized by the Engineer, shall be paid for under Item 151.

No payment for the removal of stones, headwalls, boulders, or any other item as described in Section 140.25 will be made under Item 144 Class B Rock Excavation. The removal and disposal of such items, where shown on the plans and/or as directed by the Engineer, shall be included for payment under these Items if encountered within the limits of excavation.

**ITEM 268.****6 INCH SUBDRAIN CLEANOUT****EACH**

Work under this Item shall conform to the relevant provisions of Section 260 and the following:

Subdrain cleanouts shall be constructed as detailed on the plans.

The word "DRAIN", "DRAIN C.O." or "C.O." shall be prominently cast in the top of all subdrain cleanout covers. The cover shall be cast iron suitable for H-20 Loading conforming to ASTM A-48, Class 30 furnished with one coat black asphaltum paint.

Each frame and cover shall be encased with a concrete collar with a minimum strength of 4000 psi. The Contractor shall provide a concrete mix design to the Engineer for approval. A minimum of four (4) inches of loam borrow and seeding shall be placed above the concrete collar. The loam borrow shall be graded to be flush with the cover.

Each cleanout shall be capped with a removable solid snap end cap.

**Measurement and Payment**

Subdrain cleanouts will be measured as each, complete in place.

Subdrain cleanouts shall be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

<b><u>ITEM 269.06</u></b>	<b><u>6 INCH SLOT-PERFORATED CORRUGATED PLASTIC PIPE (SUBDRAIN)</u></b>	<b><u>FOOT</u></b>
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Work under this item shall conform to the relevant provisions of Section 260 and the following:

No extra payment shall be made for trench excavations exceeding five (5) feet in depth or as described in Section 140.23 under Item 142 Class B Trench Excavation. The cost of all trench excavation, regardless of depth, shall be included in the cost of this item.

**Measurement and Payment**

6 Inch Slot-Perforated Corrugated Plastic Pipe (Subdrain) will be measured per foot, complete in place.

6 Inch Slot-Perforated Corrugated Plastic Pipe (Subdrain) shall be paid for at the Contract unit price per foot, which price shall include all excavation, pipe, filter fabric, crushed stone, labor, materials, equipment and incidental costs required to complete the work.

<b><u>ITEM 403.2</u></b>	<b><u>FULL DEPTH RECLAMATION WITH EMULSIFIED ASPHALT STABILIZATION</u></b>	<b><u>SQUARE YARD</u></b>
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The work under this item shall conform to the relevant provisions of Section 403 of the Supplemental Specifications and the following:

Existing pavement areas shown on the Plans within the project limits shall be reclaimed material for use as base and/or sub-base course on the project.

The work under this item shall consist of development and submittal of Full Depth Reclamation (FDR) job mix formula with an emulsified asphalt stabilization, pulverizing the existing pavement structure and a portion of the existing roadway base material into a homogenous mass, grading, windrowing, excavating, compacting, performing multiple passes to blend emulsified asphalt stabilizer, and grading and compacting this material to the lines, grades, and dimensions shown on the plans or established by the Engineer.

Calcium chloride for dust control is prohibited for the reclamation operation with the emulsified asphalt stabilizer specified. Dust control as needed shall be water for dust control and controlled for the reclamation operation.

The Contractor shall first use all on-site reclaimed material, which is suitable or has been supplemented with Crushed Stone for Blending to be made suitable, under roadways, sidewalks, driveways, or other locations for base and sub-base courses as indicated on the Drawings or as required by the Engineer. After on-site reclaimed material has been exhausted, the Contractor may use additional, suitable gravel borrow material brought in from off-site. The Contractor shall schedule his operations such that the re-use of reclaimed material be well coordinated with the generation of the material.



## MATERIALS

Full Depth Reclamation: All Reclaimed Pavement Borrow Material shall conform to the requirements of the latest Supplemental Specifications Subsection M1.09.0 of Division III Materials.

Emulsified Asphalt Stabilizer: The stabilizer shall be a emulsified asphalt, approved for full depth reclamation of asphalt pavements to provide adequate time of curing for full depth reclamation operation to grade and compact the sub-base and/or base course. Approved emulsions are: Grade MS-2, SS-1, SS-1h, CSS-1 or CSS-1h or approved equal.

Material Sampling and Testing: A minimum of twenty-one (21) days prior to the start of construction, the Contractor shall sample and test the pavement layers to be reclaimed. The samples shall be taken randomly for the various areas of the work and based on location and variations in existing pavement material layers to be reclaimed. Samples of pavement shall consist of 6-inch diameter cores of the existing pavement and 50 lbs. of the underlying materials as required for development of the FDR job mix formulas. The composite materials shall be tested by the Contractor for gradation and development of job mix formulas.

A minimum of 8 samples shall be taken at locations approved by the Engineer.

Developing and Testing for Full Depth Reclamation Job Mix Formula (JMF): The Contractor shall submit job mix formulas to the Engineer for review, comment and approval. The reclaimed sub-base material prior to stabilization shall be compacted to not less than 95 percent of the maximum dry density per the Standard Specifications for Highways and Bridges, Section 401.60 Gravel Sub-base.

JMF with Emulsified Asphalt: A minimum three-point curve based on either Marshall Stability (50 blow) or Tensile Strength with at least one point before and one point after the maximum Stability or Strength will be prepared using 50 blows per side specimen cured at 104F degree in a forced air oven for sixteen (16) to twenty four (24) hours. The recommended Asphalt Emulsion percentage in the specimens shall be evaluated at 1.5%, 2.5%, 3.5% or as needed to result in an acceptable curve. The Design shall be performed at 3% moisture content. All test data shall accompany the JMF and recommendations.

## EQUIPMENT

Reclaimer: The reclaiming equipment shall be a self-propelled machine, specially manufactured for stabilizing with emulsified asphalt injection and mixing unit to introduce the emulsified asphalt stabilizer into the pulverized material. The mixing unit shall contain a liquid distribution and mixing system which has been specifically manufactured for FDR with emulsion injection type work, capable of mixing the pulverized material with an evenly metered distribution of emulsified asphalt into a homogeneous mixture, to the depth and width required.

The reclaimer shall be capable of uniformly treating the reclaimed material in a single pass and shall have a full width spray bar consisting of a positive displacement pump interlocked to the

machine speed so that the amount of emulsion being added is automatically adjusted with changes in machine speed. The injection system shall be capable of incorporating the emulsified asphalt stabilizer at the specified rates in the JMF. Under no circumstances shall the bituminous material be spray applied on the road surface in front of the reclaimer, and incorporated into the FDR material with subsequent passes.

Motor Grader: The Motor Grader shall be of sufficient horsepower with hydraulic moldboard and cutting edge for roadway construction. The motor grader shall be able to grade profile and cross slope to lines and grades shown on plans. The Motor Grader shall be equipped with low gears, a ground speedometer to prevent excessive speed, and a crown gauge to provide constant slope reading. Grader moldboard shall have cutting edges in good condition with straight edge without excessive wear or uneven sections. Cutting edges shall provide a straight cross slope from centerline crown to shoulder. The Operator shall be experienced with this equipment and roadway grading in order to construct the proposed lines and grades.

Water Truck: A Water truck shall be available to moisten the surface to be graded to provide better smoothing and reshaping of the surface as needed. Water is not intended for use prior to preparation of surface to be stabilized with the emulsified asphalt.

Rollers: Rollers shall have a gross weight of not less than 15 tons. A minimum of two rollers shall be provided, a rubber tired roller and a smooth-drum roller. The steel drum roller shall compact the recycled material in vibratory mode utilizing high amplitude/low frequency settings as required to achieve specified density. After completion of a reclaiming pass, the road shall be compacted with rubber tire roller and shaped as shown on plans. A steel drum roller in vibratory mode shall compact all shaped sections. The Contractor shall submit the rolling plan for each pass and for the stabilized surface for review.

Compaction density, testing, and testing frequency of the reclaimed sub-base shall be the same as that for gravel sub-base in the Standard Specifications for Highways and Bridges, Section 401.60.

## CONSTRUCTION REQUIREMENTS

Weather Limitations: FDR with Injected Asphalt Emulsion Stabilization work shall not be performed when the atmospheric temperature is below 50°F or falling below, or when weather conditions are such and/or forecasted that proper pulverizing, spreading, mixing bituminous stabilizer and curing are unfavorable to proper construction procedure or compaction of the pulverized material cannot be accomplished.

Pulverizing and Emulsified Asphalt Stabilization: The reclaiming operation shall be scheduled and constructed with multiple passes of the reclaiming equipment as required for optimal blending/mixing, grading and compaction of the reclaimed pavement borrow material, for dust control (with stabilizing agent) and for opening to traffic. The full depth reclamation operation shall require multiple passes with the reclamation operation for mixing and adding the stabilizing agent.

After completion of the first pass, the road shall be shaped and compacted to meet density, lines and grades for base and/or sub-base course.

Where the existing pavement's cross slopes meet appropriate standards, then the cross slope of the finished reclaimed pavement section shall match existing. Where non-standard cross slopes is identified in the contract documents and identified by the Engineer and the Contractor, the Contractor and the Engineer shall confer with the Design Engineer as required for a method that brings the cross slopes of the reclaimed pavement section into conformance with lines and grades shown on plans and for a smooth pavement..

The stabilization will occur within three (3) working days of the initial reclamation operation. A final pass of the reclaimer shall be completed to add the required amount of emulsified asphalt to be mixed and blended into the top **4 inches** of the compacted reclaimed pavement borrow base and/or sub-base course material. The emulsified asphalt stabilizer shall be injected mixed and blended in the reclaimer mixing drum, at the rate specified in the JMF.

Grading and Compaction: The completed surface of the FDR with Asphalt Emulsion Stabilization shall be shaped and maintained in a timely manner to allow asphalt to cure. The final grades and compacting shall be per the lines, grades and typical cross-sections shown on the plans or established by the Engineer.

The maximum density will be determined on a Test Strip as follows:

A Test Strip of not more than three hundred (300) feet and one or two widths of the asphalt stabilizer/reclaimer shall be constructed as specified. Compaction will proceed using the required equipment (rubber tire and vibratory steel drum rollers). The Engineer and/or Contractor shall use a nuclear density gauge (soil-type) to determine the Maximum Density. Multiple roller passes and density readings will be performed until the density readings either reach a peak or begin to drop off. The peak reading will become the Maximum Density of the Full Depth Reclamation and the Reclaimed with Asphalt Emulsion Stabilization for QC and Acceptance purposes.

Special care shall be taken in monitoring the rolling pattern. The Test Strip data shall be used to

establish a rolling pattern that shall be used throughout the project.

**Note:** To aid compaction, the addition of water may be necessary. Water should be applied from a spray bar mounted on a water truck with an adjustable volume control. The initial pass may be watered to provide better consistency for grading and lubrication of vibratory compaction.

**Caution:** Excess use of water on the asphalt stabilized reclamation pass may result in flushing of the asphalt emulsion from the reclaimed mixture. The Contractor shall minimize water for reclaiming that can cause any flushing of the emulsified asphalt.

**Curing:** The grading and compacting of the stabilized surface shall be timely to provide for the curing of the emulsified asphalt stabilization. No new pavement shall be placed on the asphalt stabilized base until a minimum curing period as needed to establish JMF moisture content. Additional curing may be needed if weather conditions warrant as directed by the Engineer.

**Traffic Control:** Unless otherwise specified or as directed by the Engineer, the roadway shall be kept open to traffic at all times, with traffic discontinued on the lane being reclaimed. Controlled traffic may be permitted as soon as the base is stabilized and/or asphalt stabilization is cured adequately for opening to traffic while preventing tracking or pick up of asphalt emulsion.

**Structures:** All drainage and utility structures shall be lowered 6 inches below subgrade and plated in accordance with Subsection 403.62 of the Standard Specifications. Lowering and plating of structures shall be considered incidental to Item 403.2 Full Depth Reclamation with Asphalt Stabilization.

Because of pipe outlet elevations, some precast drainage structures cannot be lowered to this extent. For those drainage structures, the Contractor shall excavate around the precast units to avoid damaging the structures during reclaiming operations. Reclaimed base course shall be windrowed and compacted thoroughly around the structures. The cost of excavating windrowing and compacting around structures shall be considered incidental to Item 403.2 Full Depth Reclamation with Asphalt Stabilization.

#### Measurement and Payment

Item 403.2 will be measured for payment by the Square Yard, measured in place, to the limits specified on the Plans or as directed by the Engineer. No deductions will be made for surface structures.

Item 403.2 will be paid for as per Subsection 403.81 of Supplemental Specifications and as follows

No additional compensation will be made for lowering, plating and raising the proposed or existing structures to binder grades prior to final grade, but all costs in connection therewith shall be included in the contract unit price bid regardless of depth. Raising the existing structures from binder grades to final grade shall be paid for under Item 220. Raising the proposed structures from binder grades to final grade shall be consider incidental the respective structure item.

The stabilizer agent, Emulsified Asphalt, for the full depth reclamation will be considered incidental to Item 403.2.

Removal and disposal of unsuitable material, surplus reclaimed material, or any sub-base/subgrade material necessary to be removed shall be paid for at the contract unit price per cubic yard for Item 120. Earth Excavation.

Water for the dust control shall be paid for under Item 443.

If required to meet the gradation requirements, additional crushed aggregate material required to improve the material properties of reclaimed Pavement for Base and/or Sub-base Course will be paid for under Item 403.1.

The areas of box widening will not be included for measurement and payment under this item but will be paid for separately under items 120, 151 and 170.

**ITEM 415.****PAVEMENT MICROMILLING****SQUARE YARD**

The work under this Item shall conform to the relevant provisions within Section 450 of the Supplemental Specifications and the following:

The machine shall be capable of cutting to pre-determined grade or any depth up to 4" in one pass. The machine shall be adjustable as to crown and depth.

The Contractor shall provide a sufficient number of mechanical sweepers to ensure that the milled surface is free of millings and debris at the end of each days milling operations. Each sweeper shall be equipped with a water tank, spray assembly to control dust, a pick-up broom, a dual gutter broom and a dirt hopper. The sweepers shall be capable of removing millings and loose debris from the textured pavement.

No asphalt millings shall remain on-site at the end of each day. The Town may take ownership of asphalt millings resulting from pavement milling operations. Millings shall be delivered by the Contractor to the Town of Natick DPW Storage Facility located at #17 Oak Street or other site designated by the Town. Millings not wanted by the Town shall be disposed of by the Contractor at no additional cost to the Town.

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

Milling operations shall be scheduled to minimize the duration and placement of traffic on the milled surface. The Contractor shall ensure that milled surfaces are overlaid in a timely manner to avoid damage to the pavement structure. Any damage to the pavement structure resulting from extended exposure of the milled surface shall be repaired as required by the Engineer at the Contractor's expense. Milled surfaces shall be resurfaced within 7 days of milling.

The Contractor shall install all necessary temporary pavement markings prior to opening the roadway to traffic at the end of each day's operations. The Contractor shall make all necessary arrangements for this work so it is properly coordinated with construction activities.

#### Measurement and Payment

Pavement Milling will be measured per square yard of pavement milling performed, as shown on the plans and as directed by the Engineer.

Pavement Milling shall be paid at the contract unit price bid per square yard, regardless of depth, which price shall include full compensation for all labor, materials, equipment, and incidentals necessary to mill the pavement, transport millings, cleaning and preparing pavement surface to the satisfaction of the Engineer. Any additional hand work, saw cutting or jack-hammering needed to remove bituminous or cement concrete from around structures shall be included under this Item with no additional compensation.

#### **ITEM 460.**

#### **HOT MIX ASPHALT PAVEMENT**

#### **TON**

Work under this Item shall conform to the relevant provisions of the Standard Specifications, the Material Specification for Item 460 noted herein and the following:

Each course shall be constructed to the depth, typical section, or elevation required by the plans and shall be rolled, finished, and approved before the placement of the next course.

Hot Mix Asphalt for surface and intermediate courses shall be paid under Item 460.

Tack coat will be used at the rate of 0.05 GAL/SY between layers of new pavement and at a rate of 0.07 GAL/SY on milled surfaces. Tack coat shall applied by a tack wagon prior to placement of the next pavement course, unless waived by the Engineer. Tack and sand shall be applied to all joints immediately after paving or as directed by the Engineer.

#### Measurement and Payment

Payment under this Item shall be at the Contract Unit Price bid per Ton and include all necessary work to prepare the pavement surface, including street sweeping. Tonnage shall be determined by weight slips submitted to the Engineer.

Hot Poured Rubberized Asphalt Sealer shall be placed a paving joints including the center line and paid for under Item 464.5.

Tack coat will be paid for under Item 464.

**ITEM 464.5****HOT POURED RUBBERIZED ASPHALT SEALER****FOOT**

Work under this Item shall conform to the relevant provisions of Section 460 of the Standard Specifications and the following:

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

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

The joint shall be coated with a hot poured rubberized asphalt sealant meeting the requirements of M3.05.0. When using pavers in tandem, the use of the hot poured rubberized asphalt sealer may be omitted at the discretion of the Engineer, if the temperature of the mixture at the longitudinal joint does not fall below two hundred (200)°F (ninety-five (95)°C) prior to the placement of the adjacent mat. No re-heating of the joint shall be permitted.

The hot poured rubberized asphalt shall be applied to the joints from a double jacketed heating kettle with a positive drive gear pump that is connected to a suitable applicator. The nozzle of the applicator shall be set to deliver sufficient sealant to effectively bond and seal the transverse and longitudinal paving joint between two adjacent lanes of hot mix asphalt.

Longitudinal and transverse joints shall be made in a careful manner, well bonded and sealed, and true to line and grade. Where and as directed, transverse joints for all courses and longitudinal joints for the top course placed under this or previous contracts shall be cut back to expose the full depth of the course and, when the laying of the course is resumed, the exposed edge of the joint shall be treated as above.

In making joints along any adjoining edge such as curb, gutter or an adjoining pavement, and after the mixture is placed by the mechanical spreader, just enough of the hot material shall be placed by hand method to fill any space left open. These joints shall be properly "set-up" with the back of a rake at the proper height and level to receive the maximum compaction. The work of "setting-up" these joints shall be performed only by competent workmen. Where and as directed, the first width of any course shall be placed not less than one foot wider than the first width of top course, and successive widths of top and as any other courses shall be so placed that there will be at least a one-foot overlap between the joints in the top course and the other course.

The rolling of the successive widths of courses shall overlap and shall be performed so as to leave smooth, uniform joints and cross sections.

**Measurement and Payment**

Payment for this Item shall be at the Contract Unit Price bid per Foot.

**ITEM 470.2****HOT MIX ASPHALT BERM,  
TYPE A—MODIFIED****FOOT**

The work under this item shall conform to the relevant provisions of Section 470 of the Standard Specifications and the following:

Hot Mix Asphalt Berm, Type A—Modified, shall be constructed by means of an approved extrusion machine in conformance with the dimensions and at the locations shown on the plans.

Prior to placing the HMA berm, the surface shall be swept clean and RS-1 asphalt emulsion shall be applied to the surface.

**Measurement and Payment**

Hot Mix Asphalt Berm, Type A—Modified will be measured for payment by the foot, complete in place, along the front edge of the berm.

Hot Mix Asphalt Berm, Type A—Modified, will be paid for at the Contract unit price per foot, which price shall include all labor, materials, equipment, and incidental costs required to complete the work.

**ITEM 472.****ASPHALT MIXTURES FOR TEMPORARY WORK****TON**

Work under this Item shall conform to the relevant provisions of the Standard Specifications, the Material Specification for Item 460 noted herein and the following:

Work will include temporary trench repair (where not included under other items), miscellaneous patching, and other uses as directed by the Engineer. No additional compensation will be made for cutting existing pavement in order to provide a clean match line.

Asphalt Mixtures for Temporary Work shall also be used to provide temporary access and egress to those properties abutting the work area, when directed by the Engineer. It shall also be used for temporary restoration of pavement surface after the installation of drainage pipes and conduits, where hot mix asphalt is not included in the payment of other items of this contract and where such areas are specified by the Engineer. The Contractor is advised that this is material, which will be spread primarily by hand.

No payment will be made for roadway patching done outside the excavation pay limits shown on the plans. The subsequent removal of this material, shall also be included in this Item.

Asphalt Mixtures for Temporary Work shall be placed only as directed by the Engineer.



Measurement and Payment

Asphalt Mixtures for Temporary Work shall be measured per ton by weight slips submitted to the Engineer.

Asphalt Mixtures for Temporary Work will be paid for at the contract unit price per ton, which price shall include all labor, materials, equipment for surface preparation, placement, maintenance and removal, and incidental costs necessary to complete the work to the satisfaction of the Engineer. The Contractor shall be required to maintain areas of temporary pavement in reasonable repair, as determined by the Engineer, and not be compensated for additional materials, labor and incidentals required to do so.

<b><u>ITEM 504.</u></b>	<b><u>GRANITE CURB TYPE VA4 – STRAIGHT</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 504.1</u></b>	<b><u>GRANITE CURB TYPE VA4 – CURVED</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 506.</u></b>	<b><u>GRANITE CURB TYPE VB - STRAIGHT</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 506.1</u></b>	<b><u>GRANITE CURB TYPE VB - CURVED</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 509.</u></b>	<b><u>GRANITE TRANSITION CURB FOR</u></b>	<b><u>FOOT</u></b>
	<b><u>WHEELCHAIR RAMPS - STRAIGHT</u></b>	
<b><u>ITEM 509.1</u></b>	<b><u>GRANITE TRANSITION CURB FOR</u></b>	<b><u>FOOT</u></b>
	<b><u>WHEELCHAIR RAMPS - CURVED</u></b>	
<b><u>ITEM 514.</u></b>	<b><u>GRANITE CURB INLET – STRAIGHT</u></b>	<b><u>EACH</u></b>
<b><u>ITEM 514.1</u></b>	<b><u>GRANITE CURB INLET DOUBLE WIDE - STRAIGHT</u></b>	<b><u>EACH</u></b>

The work under these Items shall be done in accordance with Section 501 of the Standard Specifications and the following:

The Contractor shall not mix the types of curb together. Type VA-4 curb shall be used where 6 inch wide curb is present and Type VB curb shall be used where 5 inch wide curb is present.

New curb shall not be mixed randomly with existing curb. New curb shall be set together in a run without mixing in existing curb unless approved by the Engineer.

The Contractor shall saw cut the curb as necessary to create a notch for the proposed drainage when there is conflict or when directed by the Engineer. The cost of the saw cutting shall be considered incidental to the cost of the various curb items.

**ITEM 580.****CURB REMOVED AND RESET****FOOT**

The work under this Item shall be done in accordance with Section 580 of the Standard Specifications and the following:

The Contractor shall remove and reset granite curb as shown on the Plans. The Contractor may need to remove curb from one location and transport it to a new location for resetting. Transporting the curb from one location to another is included in the unit price of this item. The Contractor shall use all of the existing straight curb that is in good condition as determined by the Engineer. New curb shall not be mixed randomly with existing curb. Existing curb shall be reset together and new curb shall only be used where authorized by the Engineer.

Curb removed and reset will be measured per foot along the arris of the curb actually removed and reset.

Curb removed and reset will be at the Contract unit price per Foot, which price shall include all labor, materials, tools, equipment and incidental costs required to complete the work.

**ITEM 685.****STONE MASONRY WALL IN CEMENT MORTAR****CUBIC YARD**

The work under this Item shall conform to the relevant provisions of Sections 685 of the Standard Specifications and the following:

The work under this item shall include all excavation of earth and rock and providing support of excavation. No additional payment will be made for excavation.

Stone shall be mainly tan tone angular field stone with flat faces.

The Contractor shall submit to the Engineer, for review and approval, a written procedure detailing the sequence and methods how the Contractor proposes to construct the walls at each location. The submittal shall include locations and designs of any support of excavation required to perform the work. All submittals shall be prepared and stamped by a Professional Engineer registered in the state of Massachusetts.

Backfill material shall be Gravel Borrow Type B or C or as otherwise approved in writing by the Engineer. Compaction shall be in accordance with Section 150.

**Measurement and Payment**

Stone Masonry Wall in Cement Mortar will be measured by the number of cubic yards in the completed structure, including the stones, mortar (if required), concrete footing and the coping material complete in place and accepted. The quantity measured for payment shall not include the volume of excavation and shall not exceed the quantity that is shown on the table on STD E 302.2.0 or as directed by the Engineer.

The bid price for Stone Masonry Wall in Cement Mortar shall be the contract unit price per cubic

yard, which price shall include all labor, materials, tools, equipment, excavation, weep holes, concrete, support of excavation, design, protection of existing features to remain and incidental costs required to construct the Stone Masonry Wall in Cement Mortar completed and in place. No payment for excavation shall be made under Item 141 Class A Trench Excavation but instead all excavation shall be considered incidental to the work under Item 685 Stone Masonry Wall in Cement Mortar.

Payment for backfill shall be made under Item 151 Gravel Borrow.

**ITEM 697.11****INLET SEDIMENT FILTER BAG****EACH**

The work under this Item shall conform to the relevant provisions of Section 670 of the Standard Specifications and consist of the furnishing, installing, maintaining, and removing inlet sediment filter bags from all catch basins, drop inlets, and gutter inlets within the limit of work, or otherwise required.

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

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

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

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

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

Inlet sediment filter bag cleanings are classified as a solid waste by the Massachusetts Department of Environmental Protection (DEP) and may be disposed of at any landfill that is permitted by DEP to accept solid waste. Materials containing free-flowing liquids are prohibited from being accepted at landfills. The DEP encourages the beneficial reuse of this material whenever possible;

however, use not in accordance with DEP determination, or disposal or use as fill in an unapproved location is not acceptable.

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

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

Inlet sediment filter bags shall remain in place until the placement of the pavement overlay or top course and the graded areas have become permanently stabilized by vegetative growth. All materials used for the inlet sediment filter bags will become the property of the Contractor and shall be removed from the site.

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

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

#### Measurement and Payment

Inlet sediment filter bags will be measured for payment per each, complete in place.

Inlet sediment filter bags will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work. No separate payment will be made for removal and disposal of the sediment from the insert, testing, inspection and maintenance, but all costs in connection therewith shall be included in the Contract unit price bid.

<b><u>ITEM 698.4</u></b>	<b><u>GEOTEXTILE FABRIC FOR PERMANENT</u></b>	<b><u>SQUARE YARD</u></b>
	<b><u>EROSION CONTROL</u></b>	

The work under this Item shall conform to the relevant provisions of Section 767 as amended and the following:

Permanent erosion matting shall be used on slopes exceeding one (1) foot of vertical change per

three (3) feet of horizontal change, as shown on the plans and as directed by the Engineer. Permanent erosion matting shall provide sufficient thickness and void space to permit soil filling and/or retention to allow for the development of vegetation. The permanent erosion matting furnished shall conform to the requirements AASHTO M 288 for the intended application in accordance with Subsection M9.50.0, Table IV, "Type IV Geotextile Fabric" of the Standard Specifications and shall be one of those included on the MassDOT's Qualified Construction Materials List.

The ground surface shall be shaped to the lines and grades shown on the Plans and shall have a smooth surface free of depressions and eroded areas that would allow water to collect or flow under the matting. The surface shall be cleared of stones, sticks, and other objectionable material that would prevent the matting from maintaining close contact with the ground. Placement of topsoil, fertilizer, seed and mulch, when required, shall be completed prior to placement of the matting.

After the soil has been properly shaped, fertilized and seeded, the matting shall be placed vertically on slopes and in direct contact with the soil surface.

The permanent erosion matting shall have a minimum 6" overlap at all seams. Staples shall be placed at 12 inch intervals along all seams, and as directed by the Engineer. The Contractor shall not stretch or allow material to bridge over surface inconsistencies. Erosion matting and ground fasteners shall be installed as recommended by the manufacturer for the particular application.

Permanent erosion matting that is determined by the Engineer to be ripped, torn or otherwise defective shall be replaced by the Contractor at no additional cost to the Owner.

No vehicular traffic of any kind shall be permitted over the matting during or after placement. Any torn or damaged material shall be replaced at the Contractor's expense. The Contractor shall maintain the matted areas until vegetation is established and has been accepted by the Engineer.

#### Measurement and Payment

The unit price per square yard shall include furnishing, transporting, handling and placing and furnishing all labor, materials, tools, equipment and incidental items, including but not limited to all fabric and staples as shown in the contract plans or as directed by the Engineer. No additional payment will be made for ripped, torn or otherwise defective erosion matting as determined by the Engineer. Geotextile fabric placed outside the specified limits will not be measured and the Contractor may be required to remove and dispose of the excess material without cost to the Owner. Overlapped material will not be included in the measurement.

Permanent Erosion Matting will be paid for at the Contract Unit Price per square yard. Payment shall be full compensation for furnishing, transporting, handling, placing the material as shown on the plans and as directed by the Engineer.

**ITEM 701.**  
**ITEM 701.2****CEMENT CONCRETE SIDEWALK**  
**CEMENT CONCRETE WHEELCHAIR RAMP****SQUARE YARD**  
**SQUARE YARD**

The work under these Items shall conform to the relevant provisions of Section 700 and include installation of cement concrete sidewalks, walks, wheelchair ramps and driveway aprons.

All work shall conform to the latest edition of the MassDOT and ADA Standards.

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

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

Detectable warning panels shall be installed as shown on the Plans and as detailed in MassDOT Construction Standards details E 107.6.5, dated October 2017. The tile shall conform to Americans with Disabilities Act (ADA) requirements and color shall be maroon.

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

The Contractor is responsible for securing areas with curing concrete, and shall supply barricades or watchmen, as necessary to prevent defacement of concrete surfaces.

Payment under these Items shall include temporary removal of obstructions (such as fences) for the purposes of forming and pouring sidewalks or driveways that are not specifically paid for under another item.

**ITEM 703.9****IMPRINT CROSSWALK SYSTEM****SQUARE YARD**

This work shall consist of furnishing and installing a colored imprint crosswalk system in accordance with this specification, as detailed on the plans and as directed by the Engineer. The imprint crosswalk system shall be constructed to the lines and grades shown on the plans. Also included under this item are all materials, labor, sawcuts, milling and base preparation required to complete this item.

The imprint crosswalk system shall consist of a hot applied polymer modified synthetic asphalt compound incorporating graded sand and granite aggregates, reinforced with two types of fibers. The system shall be applied over the pavement substrates to create a functional and decorative mid-block textured pavement as shown on the Drawings.

All materials shall be produced under a quality system in accordance with ISO 9002 series, and designed to provide durability, load carrying capacity and architectural compatibility with the environment. All raw materials shall be carefully graded for consistency and quality.

The imprint crosswalk system shall be installed flush and level with the pavement surface.

Only installers authorized by the manufacturers of the imprint concrete system product may perform this work.

The following submittals are required for this item:

- a. Written proof the installer shall have completed a minimum of five (5) previous successful installations and a minimum of five (5) years' experience installing the product in Massachusetts. The written proof shall include reference names and telephone numbers.
- b. Proof of purchase of the materials as supplied by the manufacturer.
- c. Stamping pattern(s) and colors for approval prior to starting work.

The imprint crosswalk system material to be utilized in the decorative surfacing system shall conform to the following physical properties.

Grade	45
Average Temp. Range	5 - 113° F
Wheel Tracking @ 113° F	less than 1 mm/ hr
Density	2.12
Cone Flow Test	15%
maximum (5 hrs. @ 194° F)	
Plane Test	5% maximum
(5 hrs. @ 194° F)	
Indent @ 104° F	25 dmm maximum
Ash Content	90% maximum
Skid Resistance Value	55 - 70

The imprint crosswalk system shall be imprinted brick with the staggered pattern as shown on the plans with length of bricks perpendicular to crosswalk pavement markings on the interior and one running course with bricks parallel to the crosswalk pavement markings along both outside edges of brick work adjacent the crosswalk. Color shall be "oxide red". The color pigment shall be throughout the material.

The Contractor shall provide a 3 foot by 3 foot (3' x 3') sample area for review and approval by the Town of Natick and the Engineer.

The imprint crosswalk system shall be installed over new pavement. The pavement shall be firm, stable and free from defects such as cracks, settlement, visible seams, ruts and spalling. The pavement shall be in place 14 days prior to installing the imprint crosswalk system

The pavement shall be milled to the proper depth so the imprint crosswalk system will be flush with the pavement surface when completed. The depth of the milled area shall allow the depth of the imprint crosswalk system material to be maintained within a range of ¾ inch to 1-inch depth across the entire installation.

The pavement surface shall be dry and clean, free of all dirt, debris, salts and any chemical residues. Bituminous residue must be removed from new HMA pavement surfaces prior to

installation of the imprint crosswalk system. Removal of contaminants may be done by brooming, compressed air, pressure washing or if necessary, light-grit blasting. A wire brush may be used to remove loose or powdery materials.

The imprint crosswalk system shall be installed per the manufacturer's instructions. The Contractor shall have all special equipment required by the manufacturer for installation of the product.

All residue resulting from this work shall be removed and disposed of in a proper manner. The completed work area is to be left in a neat and clean condition.

Once the finished surface has cooled sufficiently, the application area may be opened to vehicular and/or pedestrian traffic.

The imprint crosswalk system shall be measured per square yard, complete in place. No deduction will be made for the area(s) occupied by manhole or gate covers.

Payment for the imprint crosswalk system shall be at the contract unit price per square yard of imprint crosswalk system complete and accepted in place, which price shall include all materials, equipment, tools and labor incidental thereto, and all saw cutting, milling, and disposal of surplus material.

There will be no direct payment for surface preparation; but the cost of this work shall be considered as included in the general cost of the work.

**ITEM 704.2****GRAVEL FOR DRIVEWAYS****SQUARE YARD**

The work under this item shall be performed in accordance with the relevant requirements of Section 150, Section 701 and the following:

The Contractor shall place peastone, gravel borrow, type c or other material approved by the Engineer at the locations shown on the plans. All peastone and gravel borrow shall match the existing driveway material.

The depth of Gravel for Driveways shall match the existing driveway depth (4 inches minimum) after compaction.



Peastone shall meet the following gradation requirements.

Sieve Size	Percent Passing by Weight
½ inch	100
3/8 inch	97
No. 4	10
No. 8	2

Gravel borrow, type c shall meet the requirements of M1.03.0

Gravel borrow, type c and peastone shall be placed and compacted in one lift.

Measurement and Payment

Gravel for Driveways shall be measured in place after compaction by the cubic yard. There will not be any additional percentage added for compaction.

Gravel for Driveways will be paid for at the Contract unit price per cubic yard, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

**ITEM 705.1**  
**ITEM 706.1**

**FLAGSTONE WALK REMOVED AND RESET**  
**BRICK WALK REMOVED AND RELAID**

**SQUARE YARD**  
**SQUARE YARD**

Work under these Items shall conform to the relevant provisions of Section 701 of the Standard Specifications and the following:

The Contractor shall remove and relay the existing brick or flagstone on a stone dust base at the locations shown on the plans. The Contractor shall exercise extreme care in the removal, storage and relaying of the bricks and flagstone to avoid breakage. Brick or flagstone damaged or determined by the Engineer as unsuitable for resetting, shall be replaced by the Contractor at no additional cost.

New brick and flagstone shall match existing brick size, texture, and color to the extent practicable. The Contractor shall submit proposed brick and flagstone samples to the Engineer for approval.

Stonedust setting bed shall be 4 inches in depth and meet the following sieve analysis:

<u>Sieve</u>	<u>Percent Finer Than</u>
No. 4	100
No. 8	96
No. 28	61
No. 48	49
No. 100	38
No. 200	23

#### Measurement and Payment

Brick Walk Removed and Relaid will be measured per square yard, complete in place.

Flagstone Walk Removed and Reset will be measured per square yard, complete in place.

Brick Walk Removed and Relaid and Flagstone Walk Removed and Reset shall be paid for at the Contract unit price per square yard, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

#### **ITEM 710.4**

#### **BOUND – PLAIN GRANITE**

#### **EACH**

Work under this Item shall conform to the relevant provisions of Sections 710 and M9.04.8 of the Standard Specifications, Town of Natick Construction Details and the following:

The bound shall be set with the top of the bound set flush with finished grade. Survey for setting the bound shall be performed by a professional land surveyor registered in Massachusetts.

#### Measurement and Payment

Granite Bound will be measured per each, complete and in place.

Granite Bound shall be paid for at the contract unit price per each, which price shall include all labor, materials, equipment and incidental costs to furnish and install the concrete bound as shown on the plans.

#### **ITEM 756.**

#### **NPDES STORMWATER POLLUTION PREVENTION PLAN**

#### **LUMP SUM**

Pursuant to the Federal Clean Water Act, effective March 10, 2003, construction activities which disturb one acre or more are required to apply to the U.S. Environmental Protection Agency (EPA) for coverage under the NPDES General Permit for Storm Water Discharges From Construction Activities (NPDES is the acronym for the National Pollutant Discharge Elimination System). On July 1, 2003 (68 FR 39087), EPA published the final NPDES construction general permit for construction activity. On August 4, 2003 (68 FR 45817), EPA reissued the General Permit for the Commonwealth of Massachusetts and included state specific requirements.

The NPDES General Permit requires the submission of a Notice of Intent (NOI) to the U.S. EPA prior to the start of construction (defined as any activity which disturbs land, including clearing and grubbing). There is a seven (7) day review period commencing from the date on which EPA enters the Notice into their database. The Contractor is advised that, based on the review of the NOI, EPA may require additional information, including but not limited to, the submission of the Storm Water Pollution Prevention Plan for review. Work may not commence on the project until final authorization has been granted by EPA. Any additional time required by EPA or the Massachusetts Department of Environmental Protection (DEP) for review of submittals will not constitute a basis for claim of delay.

In addition, if the project discharges to an Outstanding Resource Water, vernal pool, or is within a coastal ACEC as identified by the Massachusetts Department of Environmental Protection (DEP), a separate filing to DEP is required. Filing fees may be associated with a DEP filing and shall be paid by the Contractor.

Separate NOIs must be submitted by the owner, Town of Natick, and the operator, the Contractor. In cases where the municipality or other party has control over the plans and specifications or day-to-day site operations, said party must also submit a NOI. The Contractor is responsible to ensure that all required parties have submitted an NOI and shall provide proof of same to the Engineer. The General Permit also requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the afore-mentioned statutes and regulations. The Plan will include the General Permit conditions, MassDOT Highway Division Performance Standards and detailed descriptions of controls of erosion and sedimentation to be implemented during construction. It is the responsibility of the Contractor to complete the SWPPP to meet the requirements of the most recently issued CGP and, if applicable, the DEP requirements. The Contractor shall submit the Plan to the Engineer for approval at least four weeks prior to any site activities. It is the responsibility of the Contractor to be familiar with the General Permit conditions and the conditions of any state Wetlands Protection Act Order, Water Quality Certification, Corps of Engineers Section 404 Permit and other environmental permits applicable to this project and to include in the Stormwater Pollution Prevention Plan the methods and means necessary to comply with applicable conditions of said permits.

It is the responsibility of the Contractor to complete the SWPPP in accordance with the EPA Construction General Permit and DEP requirements, provide all information required, and obtain any and all certifications as required by the Construction General Permit. Any amendments to the SWPPP required by site conditions, schedule changes, revised work, construction methodologies, and the like are the responsibility of the Contractor. Amendments will require the approval of the Engineer prior to implementation.

Included in the General Permit conditions is the requirement for inspection of all erosion controls and site conditions on a weekly basis as well as after each incidence of rainfall exceeding 0.5 inches in twenty-four hours. The Contractor shall choose a qualified individual who will be on-site during construction to perform these inspections. The Engineer must approve the Contractor's inspector. In addition, if the Engineer determines at any time that the inspector's performance is inadequate, the Contractor shall provide an alternate inspector. Written weekly inspection forms,

storm event inspection forms, and Monthly Summary Reports must be completed and provided to the Engineer. Monthly Summary Reports must include a summary of construction activities undertaken during the reporting period, general site conditions, erosion control maintenance and corrective actions taken, the anticipated schedule of construction activities for the next reporting period, any SWPPP amendments, and representative photographs.

The Contractor is responsible for preparation of the SWPPP, all required certifications, inspections, forms, reports and any and all corrective actions necessary to comply with the provisions of the NPDES General Permit. In addition, the Contractor shall provide the Town with at least five (3) copies of all documents associated with the SWPPP including, but not limited to, the final approved SWPPP, required SWPPP amendments (including revisions/addenda pre, during and post-construction), certifications, NOIs, NOTs, Weekly Inspection forms, Storm Event Inspection forms, Monthly Summary reports (including photographs). These are to be distributed by Town Engineer, the Resident Engineer and the Engineer of Record. Additional copies are to be provided by the Contractor if requested by the Town.

Work associated with performance of inspections is not included under this Item. The Standard Specifications require adequate erosion control for the duration of the Contract. Inspection of these controls is considered incidental to the applicable items. This Item addresses acceptable completion of the SWPPP, any revisions/amendments required during construction, and preparation of monthly reports. In addition, additional erosion controls beyond those specified in bid items elsewhere in this contract which are selected by the Contractor to facilitate and/or address the Contractor's schedule, methods and prosecution of the work shall be considered incidental to this item.

The CGP requires the submission of a Notice of Termination (NOT) from all operators when final stabilization has been achieved. Approval of final stabilization by the Engineer and confirmation of submission of the NOT will be required prior to submission of the Resident Engineer's Final Estimate.

#### Measurement and Payment

Payment for all work detailed above, including Plan preparation, required revisions, revisions/addenda during construction, and monthly reports are included in the Lump Sum for this Item. Upon final acceptance of the SWPPP by the Town, a payment equal to fifty percent (50%) of the Contract Lump Sum price shall be paid. The remaining fifty percent (50%) of the Lump Sum shall be paid in ten percent (10%) increments distributed equally throughout the remaining period of the Contract, not including extensions of time.

**ITEM 751.**  
**ITEM 765.****LOAM BORROW**  
**SEEDING****CUBIC YARD**  
**SQUARE YARD**

The work under these Items shall conform to the relevant provisions of Section 751, 765, 767, 770 and as supplemented below. Work includes the placement of approved loam borrow, lime, fertilizer, and seed to restore all disturbed grassed areas as authorized by the Engineer.

Loam Borrow shall meet the requirements of Material Specification M1.07.0. Loam Borrow shall pass a 3/8" screen and shall be free of grass and other unsuitable materials. The placement of new loam borrow shall be as follows.

Loam borrow shall be placed to provide a minimum depth of four (4) inches after compaction.

Lime shall meet M6.01.0. Lime shall be applied at a rate of seventy-five (75) to one hundred (100) lbs. per one thousand (1,000) square feet prior to seeding.

Fertilizer shall meet M6.02.0 and the applicable provisions of State and Federal laws and be furnished in containers plainly marked with the chemical analysis of the product. Fertilizer for general planting shall be slow release and shall be commercial grade 10-10-10, or sufficient to meet the recommendations for soil amendment. At least forty (40) % of the nitrogen content shall be slow release, phosphorus shall be available phosphoric acid, and potassium shall be water-soluble potash.

All seeding shall be done by a firm having a minimum of five years of experience with seeding. Prior to beginning work, the Contractor shall furnish proof of qualifications to the Engineer for approval.

Seed shall conform to the requirements of M6.03.0 Long Term Seed Mixes for Lawns and Slopes-Lawn Areas:

<u>Grass Type</u>	<u>Proportion</u>	<u>Germination Minimum</u>	<u>Purity Minimum</u>
<u>Lawn Grass Areas</u>			
Creeping Red and/or			
Chewings Fescue	55%	85%	95%
Kentucky Blue	30%	85%	90%
Perennial Rye	5%	90%	98%
Redtop	5%	85%	92%
Dutch White Clover	5%	85%	96%

The hydroseed mixture shall be applied at a rate sufficient to promote lush rapid growth of grass. Fertilizer in the hydro-seed mixture shall be applied at the rate of thirty (30) lbs. per one thousand (1,000) square feet and seed in the hydro-seed mixture shall be applied at a rate of at least one hundred twenty (120) lbs. per acre or four 4 lbs. per one thousand (1,000) square feet.

The Contractor shall be responsible for watering the hydro seeded areas daily for a minimum of two weeks or until the grass has become established. The Town will provide water via a hydrant connection.

**Measurement and Payment**

Loam Borrow shall be paid at the contract unit price bid per cubic yard, which price shall be full compensation for preparing surfaces; furnishing, placing, raking, shaping, fine grading and compacting new loam borrow and subbase; and furnishing and applying lime. Fine Grading and Compacting is included in the cost of the Loam Borrow and no additional payment will be made under Item 170.

Seeding shall be paid at the contract unit price bid per square yard, which price shall be full compensation for preparing the loam surface, furnishing and applying hydroseed, inclusive of fertilizer, as well as the maintenance of hydroseeded areas as noted above.

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

**ITEM 767.121****SEDIMENT CONTROL BARRIER****FOOT**

The work under this item shall conform to the relevant provisions of Sections 751 and 767 of the Standard Specifications and Section 670 of the Standard Supplemental Specifications and shall include the furnishing and placement of a sediment control barrier. Sediment Control Barrier shall be installed prior to disturbing upslope soil.

The purpose of the sediment control barrier is to slow runoff velocity and filter suspended sediments from storm water flow. Sediment barrier may be used to contain stockpile sediments, to break slope length, and to slow or prevent upgradient water or water off road surfaces from flowing into a work zone. Contractor shall be responsible for ensuring that barriers fulfill the intent of adequately controlling siltation and runoff.

Twelve-inch diameter (after installation) compost filter tubes are intended to be the primary sedimentation control barrier. Other sediment control barrier shall not be used unless approved or directed by the Engineer.

For small areas of disturbance with minimal slope and slope length, the Engineer may approve the following sediment control methods;

- Straw tubes/wattles which shall be trenched
- Straw bales which shall be trenched

Additional barriers (adding depth or height) shall be used at specific locations of concentrated flow such as at gully points, steep slopes, or identified failure points in the sediment capture line.

Where specified or required by permits, silt fence shall be used in addition to compost filter tubes or straw bales and shall be incidental to the item.

### aterials and Construction

Prior to initial placement of barriers, the Contractor and the Engineer shall review locations specified on the plans to ensure that the placement will provide maximum effectiveness.

Barriers shall be staked, trenched and/or wedged as specified herein and shall be securely in contact with existing soil such that there is no flow beneath the barrier.

### Compost Filter Tube

Compost material inside the filter tube shall meet M1.06.0, except for the following: no manure or bio-solids shall be used; no kiln-dried wood or construction debris shall be allowed; material shall pass through a 2-inch sieve; and the C:N ratio shall be disregarded.

Outer tube fabric shall be a knitted mesh with 1/8 - 3/8" openings and made of 100% biodegradable materials (i.e., cotton, hemp or jute).

Compost filter tubes shall be a minimum of 12 inches in diameter installed. Tubes shall be placed, filled, and staked in place as required to ensure stability against water flows. All tubes shall be tamped, but not trenched, to ensure good contact with soil.

Where reinforcement is necessary, additional tubes shall be installed as shown on the plans.

### Straw Bales

Straw bales shall conform to the requirements of Section M6.04.3 of the Standard Specifications and the following:

Bales should be a minimum size of 12 x 16 x 36 inches and shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another.

The bales shall be trenched and backfilled. The trench shall be excavated the width of the bale and the length of the proposed barrier to a depth of 4 inches. After the bales are staked the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4 inches against the uphill side of the barrier.

### Straw Wattle

Straw wattle shall be a minimum of 12 inches in diameter. Straw filling shall conform to the requirements of Section M6.04.3, shall be encased in durable netting, and shall have a density of 3 lb/foot.

Straw wattle shall be trenched in 3 inches deep and staked according to the plans. The wattles shall be sufficiently secure on the upstream side to prevent water flowing underneath the wattle.

Silt Fence

Materials and Installation shall be per Section 670.40 of the Standard Supplemental Specifications and the following:

Silt fence shall be used when specified by Orders of Condition or other permitting.

When used with compost filter tubes, the tube shall be placed on a minimum of 8 inches of folded fabric on the upslope side of the fence. Fabric does not need to be trenched.

When used with straw bales, an 8-inch deep and 4-inch wide trench or V-trench shall be dug on the upslope side of the fence line. One foot of fabric shall be placed in the bottom of the trench followed by backfilling with compacted earth or gravel. Stakes shall be driven 16 inches into the ground on the down slope side of the trench and shall be spaced such that the fence remains vertical and effective.

Width of fabric shall be sufficient to provide a 36-inch high barrier after fabric is folded or trenched. Sagging fabric will require additional staking or other anchoring.

Stakes

Stakes for anchoring Compost Filter Tubes, Straw Wattles, and Straw Bales shall be as shown on the plans and shall be a minimum of 1x1 inch diameter x 4 feet hardwood stakes.

When used with Silt Fence, stakes for Compost Filter Tubes shall be driven 12 inches into the ground, Stakes for Straw Bales shall be driven 16 inches into the ground.

Stakes of other material of equivalent strength may be used if approved by the Engineer.

Maintenance

Maintenance of Sediment Control Barriers shall be per Section 670.40 of the Standard Supplemental Specifications or per the Stormwater Pollution Prevention Plan (SWPPP).

The contractor shall inspect the sediment barrier after each rain event and as specified in relevant permits to ensure that they are working effectively and as intended. Contractor shall be responsible for ensuring that an effective barrier is in place for all phases of the contract.

Barriers that decompose naturally due to weatherization over time such that they no longer provide the function required shall be repaired or replaced as directed. If the resulting berm of compost within the fabric tube is sufficiently intact and continues to provide water and sediment control, barrier does not necessarily require replacement.



### Dismantling & Removing

Barriers shall be dismantled and/or removed when construction work is complete and when site conditions are sufficiently stable to prevent surface erosion and after receiving permission to do so from the Engineer.

For all instances, all nonbiodegradable material, including photo-biodegradable fabric, plastic netting, nylon twine, and silt fence, shall be removed and disposed off-site by the Contractor regardless of site context.

For naturalized areas, biodegradable, natural fabric and material may be left in place to decompose on-site. Compost filter tubes may be left as they are with stakes removed. Straw bales shall be broken down and spread evenly. All nylon or nonbiodegradable twine shall be removed along with silt fence. Wooden stakes may be left on site, placed neatly and discretely.

In urban, residential, and other locations where aesthetics is a concern, the following shall apply:

- Filter tube fabric shall be cut and removed, and compost shall be raked to blend evenly (similar to a soil amendment or mulch). Not more than a 2-inch depth shall be left on soil substrate.
- Straw bales shall be removed and disposed off-site by the Contractor. Areas of trenching shall be raked smooth and disturbed soils stabilized with a seed mix matching adjacent grasses (i.e., lawn or native grass mix).
- Silt fence, stakes, and other debris shall be removed and disposed off-site. Site shall look neat and clean upon completion.

### Measurement and Payment

Item 767.121 will be measured and paid for at the contract unit price per foot of sediment control barrier which price shall include all labor, equipment, materials, maintenance, dismantling, removal, restoration of soil, and all incidental costs required to complete the work.

Silt fence, when used in conjunction with compost filter tubes or straw bales, will be incidental to this item.

Additional barrier, such as double or triple stacking of compost filter tubes, shall be paid for per foot of tube installed.

Barriers that have been driven over or otherwise damaged by construction activities shall be repaired or replaced as directed by the Engineer at the Contractor's expense.

**ITEM 804.3****3 INCH ELECTRICAL CONDUIT  
TYPE NM - PLASTIC - (UL)****FOOT**

The work under this item shall conform to the relevant provisions of Section 801 of the Standard Specifications, and the following:

The conduit shall be installed to have a cover of no less than 3-feet and up to 5-feet to avoid existing utilities and other buried features. The Contractor shall perform a test pit where new conduit crosses existing utilities and as directed by the Engineer to verify existing utility depth.

All asphalt pavement shall conform to the relevant provisions of Section 400 of the Standard Specifications.

**Measurement and Payment**

3 Inch Electrical Conduit, Type NM – Plastic (UL) will be measured for payment by the foot. The unit contract price shall include the cost of excavating (regardless of depth), backfilling (regardless of depth), sand, installing the conduit, sawcutting, tack coat and all other work incidental to complete the work and accepted by the Engineer.

Hot mix asphalt will be paid for under the applicable asphalt items.

Test pits shall be paid for under item 141.1 Test Pits for Exploration.

**815.11****FLASHING BEACON SCHOOL ZONE SIGN (SOLAR)****EACH**

The work for installing Flashing Beacon School Zone Signs and removing the existing flashing school zone signs and bases shall conform to the relevant provisions of Section 824 and the following:

The Flashing School Zone Sign shall be installed with a Time Clock. The Time Clock shall be a windows-based program that is accessible via laptop or PC. The Time Clock shall be based on the calendar year with the ability to program during holidays and daylight savings time. The Time Clock shall have the option to choose from up to 8 different day types and 16 events per day.

The Flashing School Zone Sign shall consist of 12” Dual Amber Vertical Radar school beacons. A regulator school zone sign (S5-1) 24” x 48” shall be mounted between the two flashing beacons. These Dual 12” LED Amber Flashing Beacons shall be mounted to the front of the pole, with one flashing beacon mounted above the regulatory school zone (S5-1) sign and one flashing beacon mounted below the regulatory school zone (S5-1) sign. The bottom of the system shall be mounted 7’-0” above finished grade, per MUTCD.

The pole shall be standard aluminum, 16 feet, schedule 80, 4.5” OD, galvanized and powder coated with at least two coats of exterior grade powder coat paint suitable for a low speed traffic environment subject to high levels of salt. The color shall be black. All steel components, except for stainless steel and anchor plates, shall be galvanized, pre-treated, and shop painted except as noted. Hardware need not be painted after galvanizing except for the portions exposed to view

after installation, such as bolt heads, ends, nuts, and washers, which may be field painted. Touch-up and repairs shall be made using paint from the same batch run as used for the shop-applied coats and supplied by the shop applicator.

The battery unit shall be a 6volt 27ahr Nickel Metal Hydride (NiMH). The battery shall be sealed in a plastic film to provide moisture and corrosion resistance. The battery shall operate between the temperatures of -20°C and +60°C. The battery shall be internally fused as to provide over current protection.

The solar panel shall provide up to 26 watts peak total output mounted to an aluminum plate and bracket at an angle of 45°-60° to provide maximum output.

The wiring of the flashing beacons shall be completed by a licensed electrician holding “Certificate B” issued by the Board of State Examiners of Electricians. All wiring shall be considered included in the lump sum cost. The Contractor shall coordinate all work with the Natick Department of Public Works and Natick Public Schools. The Contractor is hereby notified that the flashing beacon school zone sign is to be installed when school is not in session and shall be operating for the school year.

All materials furnished, assembled, installed and used in the fabrication and erection of the Flashing Beacon School Zone Sign shall be new and installed per the contract documents and manufacturer’s instructions. Materials not specifically covered in these specifications shall be in accordance with the current, accepted standards of the National Electric Manufacturers Association (NEMA), the Underwriters Laboratories (UL), the National Electric Code (NEC) and the American Society for Testing and Materials (ASTM).

The Contractor shall orient the fixtures in such a manner as to optimize viewing and detection angles using the manufacturer’s recommendations for installation instructions.

The Contractor shall conduct approved stand-alone, system performance tests of the equipment installed. The tests shall, as a minimum, satisfactorily exercise all stand-alone functional requirements of the field equipment. Following successful completion of the system performance tests, a 90 calendar-day test shall be performed. The purpose of the operational test is to demonstrate reliability of the system equipment for a 90-day period. Final acceptance shall be based on the satisfactory completion of the 90-day test.

The Contractor shall provide training to the Natick Department of Public Works and Natick Police Department on the use and functionalities of the Flashing Beacon School Zone Sign. The training shall consist of hands-on training using installed system equipment.

The Contractor shall furnish three (3) sets of maintenance and operation manuals. The equipment manuals shall contain schematic diagrams, complete installation/operation procedures, maintenance/troubleshooting procedures, and a list of replacement parts including names of vendors.

Contractor shall coordinate with Natick Public Schools to determine when school vacations will take place. The Contractor shall remove the existing school zone flashing signs and install all new flashing school zone signs only during time periods when school is not in session.

The contractor shall avoid damaging existing equipment and materials while removing the existing flashing school zone signs and bases. Damage that occurs due to the action or inaction of the Contractor shall be repaired by the Contractor at no additional cost to the Town.

The removal of the existing flashing school zone signs shall include, but not necessarily be limited to: removing, transporting and stacking the existing flashing school zone signs and posts including the removal and disposal of their foundations and electrical system; and removing and disposing existing hand holes.

Unless otherwise indicated on the Plans, the removal and disposal of the foundation of an existing flashing school zone sign shall require the removal of the foundation, including all reinforcement, ground rods, and conduit/wiring within, to a minimum depth of twenty-four (24) inches below the finished grade surrounding the foundation, with the remaining portion of the foundation to remain buried in place. The resulting excavated areas shall be backfilled with suitable material, compacted, and finished in accordance with the applicable Section of the Standard Specifications so that the patched areas will match existing conditions to the satisfaction of the Engineer.

Old cable, and all unusable material, as determined by the Engineer, shall be disposed of by the Contractor.

#### Measurement and Payment

Flashing Beacon School Zone Signs will be measured for payment by the unit each, complete in place and fully operating.

Flashing Beacon School Zone Signs will be paid for at the Contract unit price per each; which price shall include all labor, materials including signage, equipment, wiring, service connection and incidental costs required to complete the work. The cost should also include disconnecting and removing the existing flashing school zone signs, posts, bases and foundations.

#### **ITEM 815.13**                      **LED ILLUMINATED SIGN AND POST (SOLAR)**                      **EACH**

The work consisting of furnishing and installing two daylight visible LED pedestrian crossing warning sign systems that are solar powered and two radar activated daylight visible LED stop sign systems that are solar powered with radar activation devices at the locations shown on the Plans. All solar powered LED Illuminated Signs and Posts shall conform to the relevant provisions of Section 828, the Standard Specifications, the 2009 MUTCD and the following:

The LED illuminated pedestrian crossing warning sign and stop sign systems shall be manufactured by Tapco Traffic and Parking Control Co, Inc., AvaiLED Technologies Corp., or approved equal.

Each LED illuminated sign system shall be installed on a standard traffic signal post with a minimum height of 11.5 feet. Signal posts and bases shall be aluminum shafts with cast aluminum

transformer bases. All signal posts shall be painted black. Signal base foundations shall not obstruct a sidewalk or crosswalk so that passage by physically-challenged persons is impaired.

Each LED illuminated sign system shall be a complete assembly, consisting of but not limited to, the pole, breakaway device, sign, sign mounting, solar time clock (Windows based software programmable), radar activation device, solar panel, battery, solar controller, wireless radio and electrical components (wiring, battery, solid-state circuit boards, etc.) The pole and breakaway device shall be per the manufacturer's recommendations.

The LED stop sign system shall be solar powered and activated by a radar device. The stop sign system shall consist of a daylight visible LED stop sign and shall conform to the 2009 MUTCD section 2A.07 on retro reflectivity and illumination.

The LED stop sign system shall be normally dark and initiate operation only upon radar activation over a set speed threshold and shall cease operation after a predetermined time limit. The speed threshold will be determined during construction. When activated, the stop sign system LED's shall flash in unison per MUTCD requirements. The LED stop sign system shall have radar-based vehicle speed detection to detect vehicle speeds and flash the LED warning sign to alert oncoming vehicles.

The speed radar detector shall be a one-piece programmable stationary directional true Doppler Radar and shall be programmed to monitor only the speed of vehicles coming towards the system. The operating band shall be the K-Band operating at a Frequency  $24.125 \text{ GHz} \pm 5 \text{ MHz}$  with a Power Output 5mW. The detector shall operate between 9 VDC to 18 VDC with Reverse battery protection. The detection range shall typically be 300 feet (90 meters) on level road mounted 5 feet off the ground. The detector shall have Serial Communication RS232 and RS485 data interfaces. The detector shall have an accuracy of  $\pm 0.1 \text{ MPH}$  (0.16 KPH) and a speed range of 10 MPH to 105 MPH (8 KPH to 168 KPH). The detector shall have US Approvals FCC Part 15 for license free operation.

The LED pedestrian crossing warning sign systems shall be solar powered and have the ability to be programmed to operate continuously (24/7) or on solar time clocks (Windows based software programmable), push-buttons and motion (vehicle) detectors.

Under the Base Bid, the proposed LED advanced pedestrian crossing warning sign system approximately 450 ft. east of Heavey Way shall be programmed to only flash when the RRFB at the South Main Street / Rockland Street intersection is activated by the pedestrian pushbutton.

Under the Add Alternate, the proposed LED advanced pedestrian crossing warning sign system approximately 450 ft. east of Heavey Way shall be programmed to only flash when the RRFB at the South Main Street / Bear Hill Road intersection is activated by the pedestrian pushbutton.

Under the Base Bid, the proposed LED advanced pedestrian crossing warning sign system approximately 300 ft. east of Bear Hill Road shall be programmed to only flash when the RRFB at the South Main Street / Rockland Street intersection is activated by the pedestrian pushbutton.

Under the Add Alternate, the proposed LED advanced pedestrian crossing warning sign system approximately 300 ft. east of Bear Hill Road shall be programmed to only flash when the RRFB at the South Main Street / Bear Hill Road intersection is activated by the pedestrian pushbutton.

All signs shall conform to MUTCD standards and sign 0.080-gauge aluminum. Stop signs shall be 30" x 30" R1-1. Crossing signs shall be 30" x 30" W11-2. The W11-2 signs shall be accompanied with "AHEAD" crossing plaques 24" x 12" W16-9P. The W11-2 and W16-9P signs shall consist of black opaque legends, symbols, and borders on fluorescent yellow/green high intensity prismatic (HIP) backgrounds conforming to ASTM D4956 Type IX or better.

The LED pedestrian crossing warning sign systems shall be normally dark and initiate operation only upon activation and shall cease operation after a predetermined time limit. When activated, the sign system LED's shall flash in unison per MUTCD requirements.

The LED signs shall be a LED enhanced fully self-contained unit. The LED stop signs shall have 8 red high-power light emitting diodes (LED) that provide maximum daytime brightness, with automatic dimming for reduced night brightness. The LED pedestrian crossing warning signs shall have 8 yellow high-power light emitting diodes (LED) that provide maximum daytime brightness, with automatic dimming for reduced night brightness. The LEDs shall be mounted in each of the corners along the border to enhance the shape and increase conspicuity. Anti-vandal fasteners shall be used for mounting components to the sign and mounting the sign to the fixture.

The 8 high power LEDs shall provide a maximum light intensity of up to 550,000mcd (millicandelas) with a daytime visibility of over 1 mile with a viewing angle of 15°. Each LED shall be sealed in 7/8" diameter, heat dissipating plastic enclosure to provide resistance to weather and vibration. Center LED shall be less than 1/4". All LED enclosures shall be mounted in a 1" hole and ultrasonically welded to the sign assembly to provide maximum strength and rigidity. All LEDs shall be wired in a parallel string to prevent total light failure in the event a single LED would fail and shall activate simultaneously as per MUTCD standards.

The control circuit shall have the capability of independently flashing up to two separate LED signs. The flashing light level shall be user programmable with the use of a Windows GUI (Graphical User Interface) Software programming device. The flashing output shall be 50 to 60 flashes per minute programmed for the duration of the flash time.

The battery unit shall be a 6volt 27ahr Nickel Metal Hydride (NiMH). The battery shall be sealed in a plastic film to provide moisture and corrosion resistance. The battery shall operate between the temperatures of -20°C and +60°C. The battery shall be internally fused as to provide over current protection.

The solar panel shall provide up to 26 watts peak total output mounted to an aluminum plate and bracket at an angle of 45°-60° to provide maximum output.

#### Warranty

The LED sign systems shall have a 3-year warranty from the manufacturer which shall begin at the time of acceptance by the Town.

Measurement and Payment

The LED Illuminated Sign and Post will be measured per each, furnished and installed.

The LED Illuminated Sign and Post shall be paid for at the contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

<b><u>ITEM 815.14</u></b>	<b><u>RECTANGULAR RAPID FLASHING BEACON SYSTEM (SOLAR)</u></b>	<b><u>EACH</u></b>
<b><u>ITEM 815.15</u></b>	<b><u>RECTANGULAR RAPID FLASHING BEACON SYSTEM (AC)</u></b>	<b><u>EACH</u></b>

The work under these items shall conform to the relevant provisions of Section 800 of the Standard Specifications and the following:

This work shall consist of furnishing and installing rectangular rapid flashing beacon (RRFB) assemblies at the locations indicated on the Plans. As shown on the Plans, three (3) assemblies shall be hardwired, and two (2) shall be solar powered. All assemblies shall be pedestrian activated. The hardwired RRFB shall include the service connection in accordance with Subsection 813.

Each RRFB system shall be a complete system for each crossing location including the complete assembly that consists of but is not limited to: both poles and foundations, signage for each pole and each direction, sign mounting onto each pole, 16 LED lights on 4 Light bars on each pole (4 Lights per bar) 4 bars per pole, down arrow signage for each pole and each direction, push buttons, pole kits and control cabinet with electrical components (wiring, solid-state circuit boards, etc).

The RRFB shall be manufactured by Tapco Traffic and Parking Control Co, Inc. and shall be a Rectangular Rapid Flashing Beacon LED Light Assembly with Large LED Arrays (RRFB-XL2™).

Each RRFB assembly shall consist of eight rapidly and alternately flashing rectangular yellow indications having LED array based pulsing light sources (four per direction), and shall be in conformance with all applicable MUTCD standards and guidelines, and shall exceed the minimum requirements specified in FHWA Memorandum IA-11, Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons.

Each RRFB shall be activated by an ADA compliant push button. The RRFB shall be normally dark and shall initiate operation only upon pedestrian actuation. The RRFB shall cease operation after a predetermined time limit (based on MUTCD procedures). When activated, the RRFB unit indications shall flash in a rapidly alternating “wigwag” flashing sequence (left light on, then right light on) and flash in a 2-4...1 pattern per FHWA requirements. Each of the RRFB’s indications shall have 70 to 80 periods of flashing per minute.

The activation length of the flashing lights shall be programmable 1 second to 24 hours in one second, minutes and hours. The system shall provide an actuation counter which can be downloaded at site to a PC using standard cables.

All signs shall conform to MUTCD standards and sign 0.080-gauge aluminum. Crossing signs shall be as shown on the Plans. All pedestrian crossing signs shall be 30" x 30" W11-2 accompanied with crossing plaques 24" x 12" W16-7P excluding the proposed RRFB at Regina Pratt Drive which shall be 36" x 36" S1-1 accompanied with crossing plaques 24" x 12" W16-7P, as shown on the Plans. The S1-1, W11-2 and W16-7P signs shall consist of black opaque legends, symbols, and borders on fluorescent yellow/green high intensity prismatic (HIP) backgrounds conforming to ASTM D4956 Type IX or better. Pedestrian pushbutton instruction 9"x12" R10-25 signs shall be furnished and mounted adjacent to or integral with each pedestrian pushbutton.

The RRFB shall be mounted on a 4.5" OD pedestal pole with breakaway base and bolt kits.

#### Light Bar

The Light Bar housing shall be constructed of durable, corrosion-resistant powder-coated aluminum with stainless steel fasteners. The enclosed components shall be modular in design whereby any component can be easily replaced using common hand tools, without having to remove the housing from the pole. All mounting hardware required for mounting the Light Bar housing shall be provided and universal to multiple poles

Each of the eight vehicle RRFB-XL2™ LED Modules (4 per pole, 2 per direction with one module mounted above and one below the W16-7P plaque) shall be approximately 7.00" wide x 2.8" high. A pedestrian LED indication, approximately 0.5" wide x 1.75" high, shall be side-mounted in the Light Bar housing to be directed at and visible to pedestrians in the crosswalk. Dimensions of the Light Bar when mounted are 23.56"W x 3.76"H x 1.37"D.

Each Light Head shall have 8 amber LEDs with a minimum output of 600,000 mCd.

#### APS Push Button

The APS Push Button shall be an 8-wire XAV2E-LED pushbutton station or approved equal. The APS Push Button shall be mounted at a height of 42 inches above the finish sidewalk grade and be capable of continuous operation within a temperature range of -30° to 165°F (-34° to 74°C).

The pedestrian pushbutton controls shall be raised from or flush with their housings and shall be a minimum of 2" in the smallest dimension. The force required to activate the controls shall be no greater than 3.5 Pound Force.

The APS Push Button shall be equipped with a speaker, a 10-watt RMS audio amplifier, a noise monitoring microphone for auto volume control, and LED lights. The audible tone shall include the standard auditory message "Yellow Lights Are Flashing" and shall have the option to be field programmable.



Hardwired RRFB

The control circuit shall have the capability of independently flashing up to two independent outputs, and shall be able to flash RRFB, beacons or LED signs. The LED light outputs and flash pattern shall be completely programmable.

The flashing output shall have 70 to 80 periods of flashing per minute with a 100 – millisecond duration on time. The output shall reach the output current as programmed for the duration of the pulse. The flashing output shall be programmable.

The control circuit shall be installed in a NEMA rated aluminum enclosure (12"x10"x15").

The hardwired RRFB shall require 110VAC. The input voltage ranges from 100 to 130 volts. The service connection shall be provided in accordance with Subsection 813. All conduit shall be measured and paid for under Item 804.3. All wire and other incidentals required to complete the service connection shall be included under this Item.

Solar Powered RRFB

The battery shall be a 12VDC Absorbed Glass Mat (AGM) sealed lead acid, maintenance-free battery. The Battery shall be rated at 105AH minimum and shall conform to Battery Council International (BCI) specifications. The Battery shall be replaceable independently of other components.

The Controller shall be housed in a NEMA rated aluminum enclosure, intended for indoor or outdoor use, primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose-directed water, and damage from ice formation. The Controller shall be capable of storing input count data in preset intervals, with downloadable capabilities using optional Windows-based PC software program and standard RS232 programming cable. The Controller shall be replaceable independently of other components.

The RRFB-XL2™ shall utilize spread spectrum wireless activation. The wireless transceiver radio shall be solar-powered, operating on a FCC-approved 900mhz frequency, hopping spread spectrum network with a normal operating range of 1000 feet. Radios shall provide wireless communication between the Assemblies to integrate the pushbutton activation of indications. To ensure all integral indications consistently flash in unison, the radio shall synchronize the controllers to activate the indications within 120msec of one other and remain synchronized throughout the duration of the flashing cycle.

The radio systems shall operate from 3.6 VDC to 15VDC. The radio shall be replaceable independently of other components.

The solar panel shall provide 85 watts at peak total output. The solar panel shall be affixed to an aluminum plate and bracket, adjustable at an angle of 45°- 60° to facilitate adjustment for maximum solar collection and optimal battery strength. The Solar Panel Assembly (panel, plate and bracket) shall be mounted on a side of pole mount bracket, to facilitate adjustment for maximum solar collection and optimal battery strength.

Warranty

Systems shall have a warranty of 3 years with the warranty period beginning on the date the RRFB's are accepted by the Town.

Measurement and Payment

RRFBs will be measured for payment by the unit each, complete in place and fully operating.

RRFBs will be paid for at the Contract unit price per each; which price shall include all labor, materials, equipment, service connection and incidental costs required to complete the work.

**ITEM 832.****WARNING-REGULATORY AND ROUTE  
MARKER – ALUM. PANEL (TYPE A)****FOOT**

The work to be done under this Item shall include all hardware, brackets, bolts, etc., necessary to attach regulatory signs with on another, also route marker assemblies on the same support as shown on the Plans.

Legends, borders, and backgrounds of new signs shall be fabricated from retro reflective sheeting conforming to either ASTM D4956 Type III or IV (high intensity) or ASTM D4956 Type VII or better (prismatic high-intensity), except that background sheeting for signs with white backgrounds shall conform to ASTM D4956 Type III or IV (high intensity).

Legends and borders should be applied to the sign using either the Direct Applied method (Type B legend) or the Silk Screen process (Type C legend). Use of the so-called "ElectroCut" process to fabricate signs is considered an acceptable alternative to this requirement.

Pedestrian and School Crossing Warning Signs shall consist of black opaque legends, symbols, and borders on fluorescent yellow/green high intensity prismatic (HIP) backgrounds conforming to ASTM D4956 Type IX or better.

Measurement and Payment

Warning-Regulatory and Route Marker – Alum Panel (Type A) will be measured per Square Foot, furnished and installed.

Warning-Regulatory and Route Marker – Alum Panel (Type A) shall be paid for at the contract unit price per Square Foot, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

Breakaway Sign post assembly with foundation, where required, shall be paid for under Item 847.1.

**ITEM 851.2****TRAFFIC CONTROLS FOR CONSTRUCTION****LUMP SUM**

Safety controls for construction operations shall be done in accordance with the relevant provisions of Section 850 of the Standard Specifications, the Manual on Uniform Traffic Control Devices (MUTCD), the approved Traffic Plan, and the following:

The Contractor shall furnish, install, position, reposition, maintain and remove detour signs, safety signs, portable changeable message signs, reflectorized drums, warning lights, reflectorized traffic cones, and barricades as required by the Traffic Management Plans and the MUTCD for this project. All safety devices shall conform to the requirements of the MUTCD.

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

All safety signing, temporary pavement markings, reflectorized and lighted drums, and all other safety controls used for construction operations shall conform to the NCHRP 350 and the MUTCD, Current Edition, for Street and Highways including all amendments.

**Measurement and Payment**

Traffic Controls for Construction shall be measured per lump sum.

Traffic Controls for Construction shall be paid at the Contract unit price per lump sum which price shall be full compensation for furnishing, installing, maintaining, removing, positioning, adjusting and re-positioning of all safety devices, including but not limited to, traffic cones, barrels, temporary barriers, portable changeable message signs and temporary construction signage as required to provide proper traffic and safety controls for the duration of the project. The lump sum payments will be made in equal amounts on each estimate based on the number of months estimated to complete the work.

<b><u>ITEM 854.014</u></b>	<b><u>TEMPORARY PAVING MARKINGS –</u></b>	<b><u>FOOT</u></b>
	<b><u>4 INCH (PAINT)</u></b>	
<b><u>ITEM 854.018</u></b>	<b><u>TEMPORARY PAVING MARKINGS –</u></b>	<b><u>FOOT</u></b>
	<b><u>8 INCH (PAINT)</u></b>	
<b><u>ITEM 854.112</u></b>	<b><u>TEMPORARY PAVING MARKINGS –</u></b>	<b><u>FOOT</u></b>
	<b><u>12 INCH (PAINT)</u></b>	

The work under these items shall conform to the relevant provisions of Section 850, the Standard Specifications and the following:

Measurement and Payment

Temporary Paving Markings shall be measured by the procedure outlined in Subsection 860.80.

The contract prices under these items shall constitute full payment for all material, labor, and equipment required or incidental to the satisfactory completion of the work as describe above. Payment for Temporary Paving Markings will include full compensation for furnishing, installing, maintaining and removing as specified in the markings and markers.

<b><u>ITEM 860.104</u></b>	<b><u>4 INCH REFLECTORIZED WHITE LINE (PAINTED)</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 860.108</u></b>	<b><u>8 INCH REFLECTORIZED WHITE LINE (PAINTED)</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 860.112</u></b>	<b><u>12 INCH REFLECTORIZED WHITE LINE (PAINTED)</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 861.104</u></b>	<b><u>4 INCH REFLECTORIZED YELLOW LINE (PAINTED)</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 861.108</u></b>	<b><u>8 INCH REFLECTORIZED YELLOW LINE (PAINTED)</u></b>	<b><u>FOOT</u></b>
<b><u>ITEM 864.</u></b>	<b><u>PAVEMENT ARROW REFLECTORIZED WHITE</u></b>	<b><u>SQUARE FOOT</u></b>
	<b><u>(PAINTED)</u></b>	

The work under these Items shall conform to the relevant provisions of Section 860 of the Standard Specifications and the following:

All crosswalks and stop lines shall be installed as shown and in the locations shown on the Plans. The 12" white cross walk lines parallel to the Imprinted Crosswalks shall be placed after the imprinted crosswalk is completed.

All edge lines and centerline markings shall be 4-inch wide (minimum).

All gore lines shall be 8-inch wide (minimum) with 4-inch double yellow center lines.

Measurement and Payment

Cross Walks, Stop Lines, 4 Inch White Lines, 4 Inch Yellow Lines and 8 Inch Yellow Lines shall be measured per foot, complete and in place.

Pavement arrows and legends shall be measured per square foot, complete and in place.

Cross Walks, Stop Lines, 4 Inch White Lines, 4 Inch Yellow Lines, and 8 Inch Yellow Lines shall be paid at the contract unit price bid per foot, which price shall include all material, labor and equipment, including machinery to provide pavement markings as shown on the Plans.

Payment for the 12" white cross walk lines parallel to the Imprinted Crosswalks shall be paid for under Item 860.112.

Pavement arrows and legends shall be paid at the contract unit price bid per square foot, which price shall include all material, labor and equipment, including machinery, to provide pavement markings as shown on the Plans.

**864.12****GREEN ROADWAY SHOULDER  
PAVEMENT MARKING****SQUARE FOOT**

The work for installing green roadway shoulder pavement markings shall conform to the relevant provisions of Section 860 and the following, at the locations specified in the Plans.

High-visibility green pavement markings for roadway shoulders shall be consist of methyl methacrylate (MMA) resins with hardwearing aggregate that provides a non-slip material for bicyclists.

Materials used to create the MMA Area Markings shall consist of pre-pigmented MMA resin, hardwearing aggregate and BPO catalyst.

**MMA Area Marking Resin**

MMA resins shall have the following properties:

- |               |              |            |
|---------------|--------------|------------|
| • Tensile     | >400 PSI     | ASTM D638  |
| • Elongation  | >180%        | ASTM D638  |
| • Flash Point | >50°F / 10°C | ASTN D1310 |

**Area Markings Aggregate**

Corundum shall be provided by the manufacturer and will have a hardness of 9 on the Mohs scale. Aggregate shall be a neutral, light color that will not affect the color of the finished product and will have a mesh sizing of 24. Corundum shall be used for all green pavement markings for bike lanes shown in the Plans.

Catalyst shall come in a powder form and be supplied in bulk at the maximum usage rate of 0.51 +/- 0.2 lbs. per mixed pail of resin and aggregate.

**Application Equipment**

Squeegees shall be designed for heavy duty usage and sourced locally.

Rollers shall be medium nap in texture and require a roller cage and handle.

Drill shall be high speed, high torque capable of supply enough power to thoroughly mix MMA Area Markings additives when paired with a paint mixing paddle.

**Application**

Aged surfaces containing reflective cracking should be repaired.

Clean the intended application area thoroughly. All loose particles, dirt, sand dust, etc. must be removed. The surface must be clean, dry, and free of all dust, oil, debris and any other material that might interfere with the bond between the product and the surface to be treated.

#### Mixing

Catalyst quantity shall be based on ambient and pavement temperature and must be mixed very thoroughly at specified rates and into materials listed in the materials mixing guide. Material shall mix to approximately 2.79 gallons and weigh approximately 52 lbs. if corundum is used or 47 lbs. if sand is used.

Pigmented MMA Resin	2	Gallons
Aggregate: Corundum/sand	25.0	Pounds
Catalyst < 70°F / 18°C	8	Fluid Ounces
Catalyst > 70°F / 18°C	4	Fluid Ounces

MMA Area Markings must be 100% cured, which will be a hardened solid state, before traffic is permitted. Curing typically takes 30-60 minutes.

#### Measurement and Payment

Green Roadway Shoulder Pavement Markings shall be measured per Square Foot, complete and in place.

Green Roadway Shoulder Pavement Markings shall be paid at the contract unit price bid per Square Foot, which shall include all material, labor and equipment, including machinery to provide pavement markings as shown on the Plans.

**ITEM 874.****STREET NAME SIGN****EACH**

The work under this Item shall conform to the relevant provisions of Section 828 of the Standard Specifications and the following:

Street Sign blanks shall be fabricated from Type "A" (sheet) aluminum 0.080 inches in thickness conforming to ASTM B209, Alloy 6061-T6 or Alloy 5052-H12. Letters shall be mixed-case (uppercase/lowercase) lettering with an initial uppercase height of 6 inches and a lowercase height of 4.5 inches. Legend font shall be Arial Black as shown on the Town of Natick Standard Street Sign Detail, with an inter-letter spacing *no less than 70%* of standard and *no greater than 100%* of standard. The signs shall be reflectorized by use of approved reflective sheeting for the sign background.

Street name sign sizes, background color, border, Town Seal and legend size and color shall be as noted on the Plans and shall conform to the Town of Natick standards.

The street name sign panels shall be mounted with their faces parallel to the streets they name in the location shown on the Plans. Street name signs shall be mounted not less than seven (7) feet above the top of the curb, either at the same height or with one immediately above the other.

**Measurement and Payment**

Street Name Sign will be measured per each, furnished and installed.

Street Name Sign shall be paid for at the contract unit price bid per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

Breakaway Sign post assembly with foundation, where required, shall be paid for under Item 847.1

**ITEM 874.2****TRAFFIC SIGN REMOVED AND RESET****EACH****ITEM 874.****TRAFFIC SIGN REMOVED AND STACKED****EACH****ITEM 877.2****SIGN POST REMOVED AND STACKED****EACH**

The work under these items shall conform to the relevant special provisions of Section 828 of the Standard Specifications and the following:

The Contractor shall remove and reset existing traffic signs at the locations shown on the Plans. The Contractor shall exercise care in the removal, storage and resetting of the signs. Signs damaged by the Contractor shall be replaced by the Contractor at no additional cost. Sign panels shall be cleaned before being reset. The Contractor shall furnish and install all necessary mounting fixtures (nuts, bolts and other miscellaneous items) required to complete the work.

All signs to be removed and stacked shall be removed from their existing locations, transported and delivered by the Contractor to the Town gravel pit located at #17 Oak Street or other location designated by the Town.

The Contractor shall backfill with compacted gravel all holes resulting from removal of existing

signs and their foundations and restore the area to match existing conditions of adjacent areas.

The existing signs shall not be removed without the prior approval of the Engineer.

If the Engineer determines that any of the signs are unsuitable for reuse, said signs shall become the property of the Contractor, and the Contractor shall dispose of them away from the site at no additional cost.

Measurement and Payment

Traffic Sign Removed and Reset will be measured per each, removed and reset.

Traffic Sign Removed and Stacked and Sign Post Removed and Stacked will be measured per each sign or post actually removed and stacked.

Traffic Sign Removed and Reset shall be paid for at the contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

Traffic Sign Removed and Stacked and Sign Post Removed and Stacked will be at the contract unit price per each, which price shall include all labor, materials, tools, equipment, transportation and incidental costs required to complete the work.

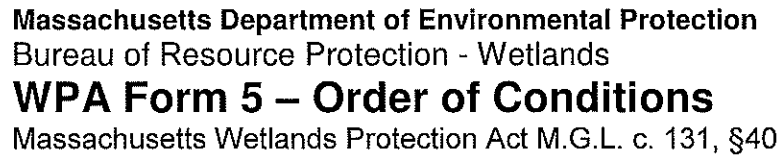
Breakaway Sign post assembly with foundation, where required, shall be paid for under Item 847.1.



# **APPENDIX A**

Order of Conditions





eDEP Transaction #  
Natick  
City/Town



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands  
**WPA Form 5 – Order of Conditions**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
233-818  
MassDEP File #

eDEP Transaction #  
Natick  
City/Town

**A. General Information (cont.)**

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):

Middlesex

a. County

b. Certificate Number (if registered land)

c. Book

d. Page

7. Dates: May 1, 2019 May 16, 2019 June 7, 2019  
a. Date Notice of Intent Filed b. Date Public Hearing Closed c. Date of Issuance

8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):

Natick South Main Street (Route 27)

a. Plan Title

Green International Affiliates, Inc.

Erik C. Atkins

b. Prepared By

c. Signed and Stamped by

April 2, 2019

Scale shown on each plan

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

**B. Findings**

1. Findings pursuant to the Massachusetts Wetlands Protection Act:

Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:

- a. ☒ Public Water Supply b. ☐ Land Containing Shellfish c. ☒ Prevention of Pollution  
d. ☒ Private Water Supply e. ☐ Fisheries f. ☒ Protection of Wildlife Habitat  
g. ☒ Groundwater Supply h. ☒ Storm Damage Prevention i. ☒ Flood Control

2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

**Approved** subject to:

- a. ☒ the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

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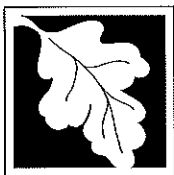
**B. Findings (cont.)**

Denied because:

- b. ☐ the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**
- c. ☐ the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**
3. ☒ Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a) 5  
a. linear feet

**Inland Resource Area Impacts:** Check all that apply below. (For Approvals Only)

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. <input type="checkbox"/> Bank	a. linear feet	b. linear feet	c. linear feet	d. linear feet
5. <input type="checkbox"/> Bordering Vegetated Wetland	a. square feet	b. square feet	c. square feet	d. square feet
6. <input type="checkbox"/> Land Under Waterbodies and Waterways	a. square feet e. c/y dredged	b. square feet f. c/y dredged	c. square feet	d. square feet
7. <input type="checkbox"/> Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	a. square feet	b. square feet		
Cubic Feet Flood Storage	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet
9. <input type="checkbox"/> Riverfront Area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	g. square feet	h. square feet	i. square feet	j. square feet



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

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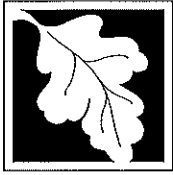
Natick

City/Town

**B. Findings (cont.)**

**Coastal Resource Area Impacts:** Check all that apply below. (For Approvals Only)

	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
10. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below			
11. <input type="checkbox"/> Land Under the Ocean	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
12. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below			
13. <input type="checkbox"/> Coastal Beaches	a. square feet	b. square feet	c. <sup>cu yd</sup> nourishment	d. <sup>cu yd</sup> nourishment
14. <input type="checkbox"/> Coastal Dunes	a. square feet	b. square feet	c. <sup>cu yd</sup> nourishment	d. <sup>cu yd</sup> nourishment
15. <input type="checkbox"/> Coastal Banks	a. linear feet	b. linear feet		
16. <input type="checkbox"/> Rocky Intertidal Shores	a. square feet	b. square feet		
17. <input type="checkbox"/> Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet
18. <input type="checkbox"/> Land Under Salt Ponds	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
19. <input type="checkbox"/> Land Containing Shellfish	a. square feet	b. square feet	c. square feet	d. square feet
20. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above			
	a. c/y dredged	b. c/y dredged		
21. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	a. square feet	b. square feet		
22. <input type="checkbox"/> Riverfront Area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	g. square feet	h. square feet	i. square feet	j. square feet



Massachusetts Department of Environmental Protection  
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**WPA Form 5 – Order of Conditions**

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**B. Findings (cont.)**

\* #23. If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.5.c (BVW) or B.17.c (Salt Marsh) above, please enter the additional amount here.

23. ☐ Restoration/Enhancement \*:

a. square feet of BVW

b. square feet of salt marsh

24. ☐ Stream Crossing(s):

a. number of new stream crossings

b. number of replacement stream crossings

**C. General Conditions Under Massachusetts Wetlands Protection Act**

The following conditions are only applicable to Approved projects.

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
  - a. The work is a maintenance dredging project as provided for in the Act; or
  - b. The time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
  - c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on 06-06-22 unless extended in writing by the Department.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.



**Massachusetts Department of Environmental Protection**  
**Bureau of Resource Protection - Wetlands**

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
233-818  
MassDEP File #

eDEP Transaction #  
Natick  
City/Town

**C. General Conditions Under Massachusetts Wetlands Protection Act**

8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.
9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]  
"File Number            233-818            "
11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.





Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
233-818  
MassDEP File #

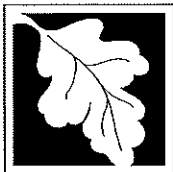
eDEP Transaction #  
Natick  
City/Town

**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.
19. The work associated with this Order (the "Project")
  - (1) ☒ is subject to the Massachusetts Stormwater Standards
  - (2) ☐ is NOT subject to the Massachusetts Stormwater Standards

**If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:**

- a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.
- b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:
  - i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
  - ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
  - iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;



**Massachusetts Department of Environmental Protection**  
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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;

v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following:

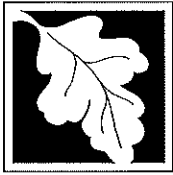
i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and

ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

- g) The responsible party shall:
  - 1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
  - 2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
  - 3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

**See special conditions**

- 20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.

# Natick Conservation Commission

## Special Conditions (1-31)

**SOUTH MAIN STREET,**

**From Sherborn T/L to 500 ft north of Heavy Way**

**DEP # 233-818**

1. The Commission reserves the right to impose additional conditions or require the submittal of additional information as necessary to protect the interests of the Massachusetts Wetlands Protection Act, M.G.L. c. 131, 40 ("Act") and the Town of Natick Wetland Bylaw.
2. Pursuant to General Condition No. 8, this Order of Conditions must be registered in the Registry of Deeds (Middlesex) within thirty (30) days of the date of this notice, and prior to the start of work. Notice of the registration must be filed with the Natick Building Department and Conservation Commission no later than thirty (30) days from the date of registration. Failure to comply with this condition shall be cause to revoke this Order of Conditions.
3. If any change is made or intended to be made in the plans, the applicant shall file a new Notice of Intent, or shall inquire in writing of the Commission whether the change necessitates a new filing.
4. The applicant shall submit to the Commission a written request for a Certificate of Compliance. The following documents shall accompany the request:

A letter and two sets of "as built" plans for the project, stamped and signed by a registered engineer, architect, or land surveyor. The letter shall certify that the completed work is in substantial compliance with the plans referred to in the Order of Conditions.

In any event, the applicant shall submit the above documentation within six months of completion of the work described in the Notice of Intent.

The Natick Conservation Commission and the Commission's agents shall have the right to enter and inspect the premises to evaluate compliance with this Order of Conditions, and may require the submittal of any data necessary for such evaluation.

5. The Natick Conservation Commission and the Commission's agents shall have the authority to inform the applicant or the applicant's representative of violations of the erosion and sediment control measures of this Order of Conditions. Upon such notification, the owners shall take immediate action to correct the violation.
6. Prior to any work on-site, the applicant shall inform the Commission in writing of the

names, addresses, and business and home telephone numbers of the project's supervisor(s) and alternate(s) who will be responsible for ensuring compliance with this Order of Conditions, and who will have the authority to (a) receive comments from the Commission, (b) direct the contractor to take measures of erosion and sedimentation control, and (c) order work to be stopped, if necessary.

7. The applicant shall notify the Commission in writing of any changes in Personnel so responsible, together with appropriate names, addresses, and phone numbers.
8. The applicant shall provide 48 hours' notice to the Commission prior to beginning activities on-site. All site mitigation measures must be in place prior to beginning construction activities.
9. Erosion and sediment control measures shall follow the specifications in the plans accompanying the Notice of Intent.
10. The specified compost sock shall be installed and shall be inspected and approved by the Commission and its agents prior to the initiation of any work. The siltation fences and hay bales shall be maintained in good working order until all adjacent disturbed areas are re-vegetated and stabilized. All erosion/sedimentation control structures shall be maintained in continuous functioning order. This shall include periodic clean out-of catch basins (where applicable) and replacement of filter fabric and hay bales.
11. A general policing of the entire wetland area must be performed in which all manufactured items and debris are to be removed from the wetland resource areas and buffer zone.
12. As soon as possible during construction, all disturbed areas shall be brought to final finished grade, and either loamed or seeded, or stabilized in another way approved by the Commission. Bare ground that cannot be permanently stabilized within thirty days shall be stabilized by temporary measures acceptable to the Commission.
13. Used petroleum products from the maintenance of construction equipment and construction debris shall be collected and disposed of off-site in a prompt and proper manner. On-site disposal of these materials is not allowed.
14. This order shall apply to any successor in control or successor in interest of the property described in the Notice of Intent and accompanying plans. These obligations shall be expressed in covenants in all deeds to succeeding owners of portions of the property.
15. Condition numbered **28-31** shall continue in force beyond the Certificate of Compliance, in perpetuity, and shall be referred to in all future deeds to this property.

16. The areas of construction shall remain in a stable condition at the close of each construction day. Erosion controls should be inspected at this time, and repaired, reinforced or replaced as necessary.
17. Materials and equipment shall be stored in a manner and location, which will minimize the compaction of soils and the concentration of runoff. Equipment fuel storage and refueling operations shall be situated in an upland area at a horizontal distance greater than 100 ft. from the boundaries of the resource areas. If a spill occurs, contaminated soils shall be removed according to guidelines established by the DEP Division of Hazardous Waste.
18. During the construction phase for this project an on-site supervisor, directing engineer or designated construction manager, shall have a copy of the permit and Notice of Intent at the site, familiarize him or herself with the documents and adhere to those conditions.
19. The siltation barriers shall serve as a work limit line for the project. No disturbance to adjacent wetland areas resulting from work on the project shall occur during or after construction.
20. An adequate stockpile of erosion control materials shall be on site at all times for emergency or routine replacement and shall include materials to repair silt fences, or any other devices planned for use during construction.
21. If de-watering is required, water shall be pumped into a filter bag or settling basin constructed of straw bales or silt fence which will be located in suitable areas outside of the wetland resource areas. The basin and all accumulated sediment will be removed following de-watering operations, and the area seeded and mulched.
22. Equipment shall be maintained to prevent leakage or discharge of pollutants. Any leakage of oil, hydraulic fluid, or other pollutant shall be cleaned up immediately upon discovery and the equipment shall be immediately removed from the site. The conservation commission shall be informed immediately in such an event.
23. If any unforeseen problem occurs during construction which affects any of the statutory interests of the Wetlands Protection Act, Chapter 131, Section 40 and/or the Natick Wetland Bylaw, upon discovery, the applicant shall notify the Commission, and an immediate meeting shall be held between the Commission, the applicant, the engineer, contractor, and other concerned parties to determine the corrective measures to be employed. The applicant shall then act to correct the problem using the corrective measures agreed upon.
24. Erosion control barriers shall be in the form of erosion control socks and composed of wood chips or compost- 18" high.
26. Plantings shall not be allowed to be planted in their mesh or wire baskets.
27. If heavy machinery is proposed to track within the drip line of any trees onsite,

fencing is required around that tree, following its drip line, to protect the tree against soil compaction. Fencing is required before site construction commences.

28. Associated approved plans and documents include:

Natick South Main Street (Route 27), Prepared by Green International Affiliates, Inc. Signed and Stamped by Erik C. Atkins, scale shown on each plan. Dated 4/2/2019

### **Special Conditions in Perpetuity**

The following conditions (29-31) are perpetual and do not expire with the issuance of a Complete Certificate of Compliance:

29. From and after the date of this Order of Conditions, there will be a reference to this Order on the deed for this property so as to apprise future owners that the following wetland restrictions will apply to this property in perpetuity.
30. No construction, lawn clippings, vegetative, or any other type of debris is allowed to be disposed of in wetland or any other protected state/local resource areas.
31. Any additional non permitted exterior work including future tree work (removal or trimming) on the property within 100 buffer zone to wetland as delineated on the approved plan will require prior review and approval through the Conservation Commission and its agent.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

233-818

MassDEP File #

eDEP Transaction #

Natick

City/Town

**D. Findings Under Municipal Wetlands Bylaw or Ordinance**

1. Is a municipal wetlands bylaw or ordinance applicable? ☒ Yes ☐ No
2. The Natick hereby finds (check one that applies):  
Conservation Commission
  - a. ☐ that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw, specifically:  

1. Municipal Ordinance or Bylaw	2. Citation
---------------------------------	-------------

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.
  - b. ☒ that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:  
Natick Wetlands Bylaw  

1. Municipal Ordinance or Bylaw	2. Citation
---------------------------------	-------------
3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.  
The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):  
  

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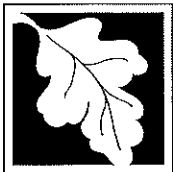
  

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Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
233-818  
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Natick  
City/Town

**E. Signatures**

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

Please indicate the number of members who will sign this form.

This Order must be signed by a majority of the Conservation Commission.

7-7-19  
1. Date of Issuance

6  
2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

*[Handwritten signatures of three Conservation Commission members]*

*[Handwritten signatures of two applicants]*

☐ by hand delivery on

☐ by certified mail, return receipt requested, on

Date

Date

**F. Appeals**

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.



Massachusetts Department of Environmental Protection  
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**WPA Form 5 – Order of Conditions**

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MassDEP File #

eDEP Transaction #  
Natick  
City/Town

**G. Recording Information**

Prior to commencement of work, this Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Conservation Commission

Please be advised that the Order of Conditions for the Project at:

Project Location

MassDEP File Number

Has been recorded at the Registry of Deeds of:

County

Book

Page

for:

Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

DEP File Number: \_\_\_\_\_

**Request for Departmental Action Fee  
Transmittal Form**

Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**A. Request Information**

1. Location of Project

a. Street Address \_\_\_\_\_

b. City/Town, Zip \_\_\_\_\_

c. Check number \_\_\_\_\_

d. Fee amount \_\_\_\_\_

2. Person or party making request (if appropriate, name the citizen group's representative):

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City/Town \_\_\_\_\_

State \_\_\_\_\_

Zip Code \_\_\_\_\_

Phone Number \_\_\_\_\_

Fax Number (if applicable) \_\_\_\_\_

3. Applicant (as shown on Determination of Applicability (Form 2), Order of Resource Area Delineation (Form 4B), Order of Conditions (Form 5), Restoration Order of Conditions (Form 5A), or Notice of Non-Significance (Form 6)):

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City/Town \_\_\_\_\_

State \_\_\_\_\_

Zip Code \_\_\_\_\_

Phone Number \_\_\_\_\_

Fax Number (if applicable) \_\_\_\_\_

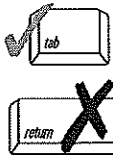
4. DEP File Number: \_\_\_\_\_

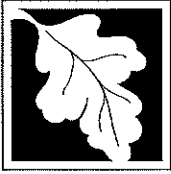
**B. Instructions**

1. When the Departmental action request is for (check one):

- ☐ Superseding Order of Conditions – Fee: \$120.00 (single family house projects) or \$245 (all other projects)
- ☐ Superseding Determination of Applicability – Fee: \$120
- ☐ Superseding Order of Resource Area Delineation – Fee: \$120

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.





**Massachusetts Department of Environmental Protection**  
Bureau of Resource Protection - Wetlands

DEP File Number: \_\_\_\_\_

**Request for Departmental Action Fee  
Transmittal Form**

\_\_\_\_\_  
Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**B. Instructions (cont.)**

Send this form and check or money order, payable to the *Commonwealth of Massachusetts*, to:

Department of Environmental Protection  
Box 4062  
Boston, MA 02211

2. On a separate sheet attached to this form, state clearly and concisely the objections to the Determination or Order which is being appealed. To the extent that the Determination or Order is based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.
3. Send a **copy** of this form and a **copy** of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/>).
4. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

## **APPENDIX B**

MWRA Wastewater 8(m) Permit





# **MASSACHUSETTS WATER RESOURCES AUTHORITY**

## **APPLICATION FOR 8(m) PERMIT**

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### **What is this application and why is it necessary?**

This application, when completed and submitted, requests the MWRA to issue an 8(m) Permit. Section 8(m) of chapter 372 of the Acts of 1984 enables the Authority to issue permits to other entities to build, construct, excavate, or cross within an easement or other property interest held by the Authority.

### **How to complete and submit this application?**

Please print legibly in black or dark blue ink or type all responses. Answer all questions: if a question does not apply to your project, write "Not Applicable" or "N/A". Include all necessary documents. Keep a copy of the completed application for your records.

Send a \$100.00 non-refundable check for the administrative processing fee, the original and five (5) copies of the completed application and any other required documents to either:

**Massachusetts Water Resources Authority  
Wastewater 8(m) Permitting Unit  
2 Griffin Way  
Chelsea, MA 02150  
Attn: Kevin McKenna  
Or**

**Massachusetts Water Resources Authority  
Waterworks 8(m) Permitting Unit  
2 Griffin Way  
Chelsea, MA 02150  
Attn: Ralph A. Francesconi**

### **Permit Process:**

- The owner of the work, project, property or facilities that are resulting in the need for this 8m permit must be the party signing the permit application (not the project contractor or consultant).
- MWRA staff will review the application to determine if your request can be approved. If MWRA cannot issue the requested permit, you will receive a letter explaining the reasons for denying the request.
- If the permit application is approved, MWRA staff will send you three original 8(m) Permits for your signature. Additionally, a completed 8(m) Permit Assessment Fee Form noting any additional charges beyond the administrative processing fee (if required) will be sent.
- Upon receipt of all signed originals and payment for any additional fees, MWRA will execute the document.
- MWRA will mail the executed documents with a Notice to Proceed.
- All plans submitted shall be stamped by a Professional Engineer or Professional Land Surveyor licensed in the State of Massachusetts.
- All design, construction and excavation shall be conducted in accordance with all federal, state and local safety regulations including but not limited to federal OSHA regulations (29 CFR 1926) and Massachusetts Department of Public Safety regulations (520 CMR 14.00). During construction, appropriate sheeting and shoring measures must be taken to protect the integrity of the Authority's water/ sewer mains. Any sheeting and shoring design must be submitted to MWRA prior to the start of the construction. The submitted design of excavation trench support and all temporary supports associated with excavating under or near MWRA water and sewer lines shall be stamped by a Professional Engineer, licensed in Massachusetts.

**Questions and answers:**

For answers to questions about this application and MWRA 8(m) Permits, contact MWRA's Wastewater 8(m) Permitting Unit at (617) 305-5956 or MWRA's Waterworks 8(m) Permitting Unit at (617) 305-5827.

**MASSACHUSETTS WATER RESOURCES AUTHORITY  
APPLICATION FOR 8(m) PERMIT**

**1. Applicant Owner Permit Issued To (Town or City, Utility Co. Owner of Property)**

Name: Town of Natick Department of Public Works

Mailing Address: 75 West Street Natick, MA 01760

Telephone (include area code): 508-647-6400 x2015

Fax (include area code): 508-647-6560

**2. Person to contact about this application (if other than the applicant):**

Name: William McDowell, P.E. (Town Engineer)

Mailing Address: 75 West Street Natick, MA 01760

Telephone (include area code): 508-647-6400 x2015

Fax (include area code): 508-647-6560

**3. Location of the proposed work:**

Street Address: 116-117 South Main Street

City/Town: Natick, MA 01760

MWRA sewer line or waterline, section, nearest manhole:  
Framingham Trunk Interceptor, Section 133B, nearest manhole approx. 650ft west (see attached)

Deed Book and Page or Land Court Certificate (if known): \_\_\_\_\_

**4. Brief description of work to be performed: \_\_\_\_\_**

Full depth pavement reclamation of the roadway, reconstruction of 5' HMA sidewalks on.

both sides of the roadway and minor grading behind the sidewalk. There is also some underground  
drainage work near the sewer easement.

Approximate Start Date: April, 2020 Estimated Completion Date: August 2021



5. **Permits other than MWRA 8(m) Permit that need to be obtained before work can commence:**

Order of Conditions

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Please attach available plans and specifications of work to be performed and any other information that would be helpful in reviewing this application.

6. **OTHER FILINGS**

There are circumstances when the MWRA cannot issue a permit to you until you fulfill the requirements of another agency. This page asks for information about whether you are required to file with the Massachusetts Historical Commission (MHC) or under the Massachusetts Environmental Policy Act (MEPA) and the status of your filing, if any. If you have any questions about the requirements of those agencies, please contact them for information: MHC may be reached at 617-727-8470; the MEPA office may be reached at 617-727-5830.

1. Is the activity for which you require an MWRA permit a part of a project that is likely to impact a geographic area and affect or cause a change in the historical, architectural, archeological, or cultural qualities of a property as defined by the Massachusetts Historical Commission (MHC)? (For example, answer “no” if this application is for a permit renewal or you are not doing new construction. MHC defines “new construction” as a modification to the land or any existing structure.) ☐Yes ☒No If “no,” skip question 2.
2. If your answer to question 1 is “yes:”
  - a) Have you provided the required project notification form (950 CMR 71, Appendix A) to the MHC? ☐Yes ☐No
  - b) Briefly describe the status of the project with MHC. Provide documentation (see 950 CMR 71.07) allowing the MWRA to act on this application. If you have not provided notice to the MHC, explain why you have not provided notice and when you will provide notice.
3. Is the activity for which you require an MWRA permit a part of a project that is subject to review under the Massachusetts Environmental Policy Act (MEPA)? (For example, answer “no” if this application is for a permit renewal or not part of a larger project. The MEPA review thresholds are found in 301 CMR 11.00.) ☐Yes ☒No If “no,” skip question 4.
4. If your answer to question 3 is “yes:”
  - a) Have you made the required MEPA filing? ☐Yes ☐No
  - b) Briefly describe the status of the MEPA review. Provide documentation (see 301 CMR 11.10) allowing the MWRA to act on this application. If you have not filed with MEPA, explain why you have not filed and when you will file.

7. Applicant Certification:

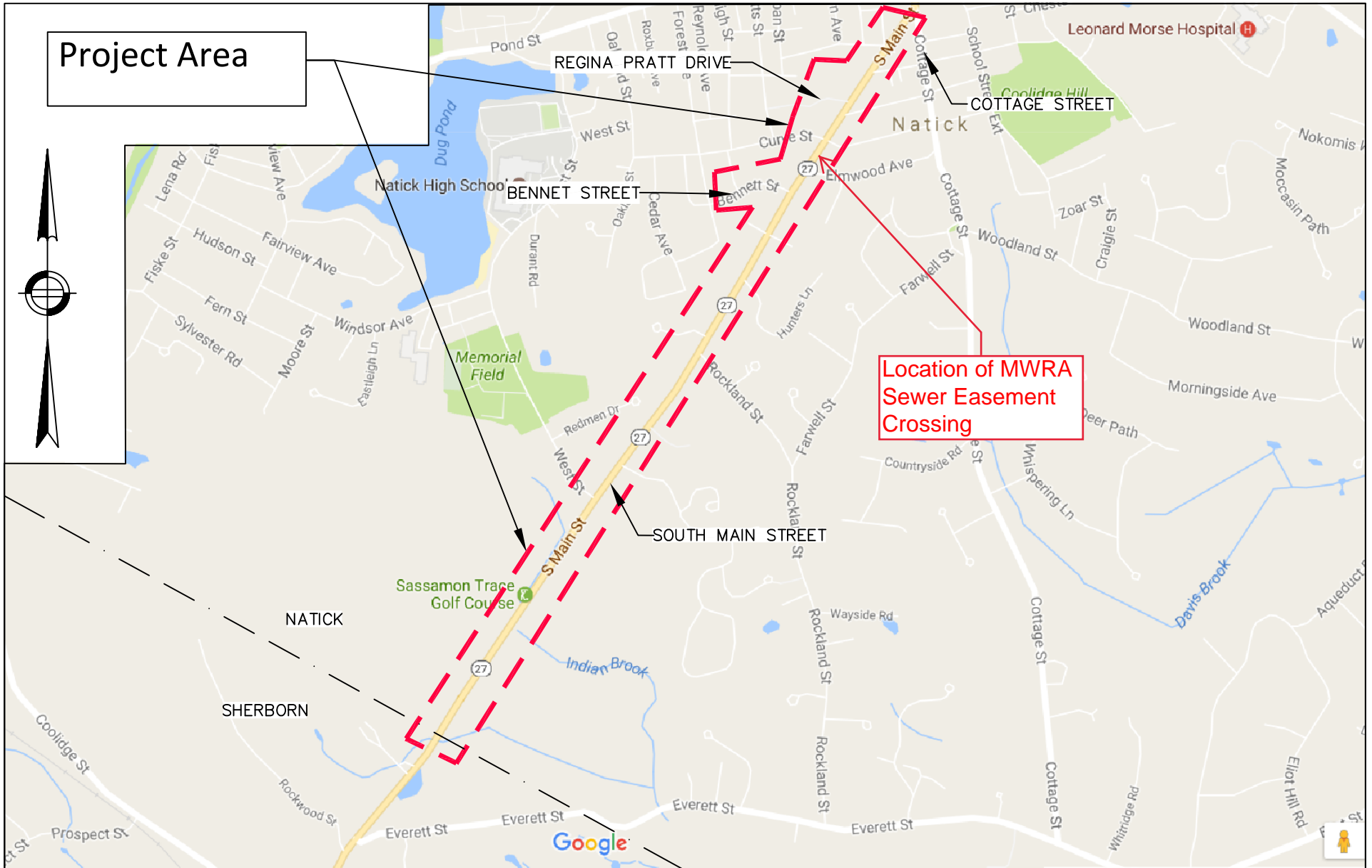
I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Applicant's Signature:  Date: 9/30/19

Print the name of the person whose signature is above: William McDowell, P.E.

Corporate Title (if any): Town Engineer

# Project Area



SOUTH MAIN STREET  
NATICK, MA

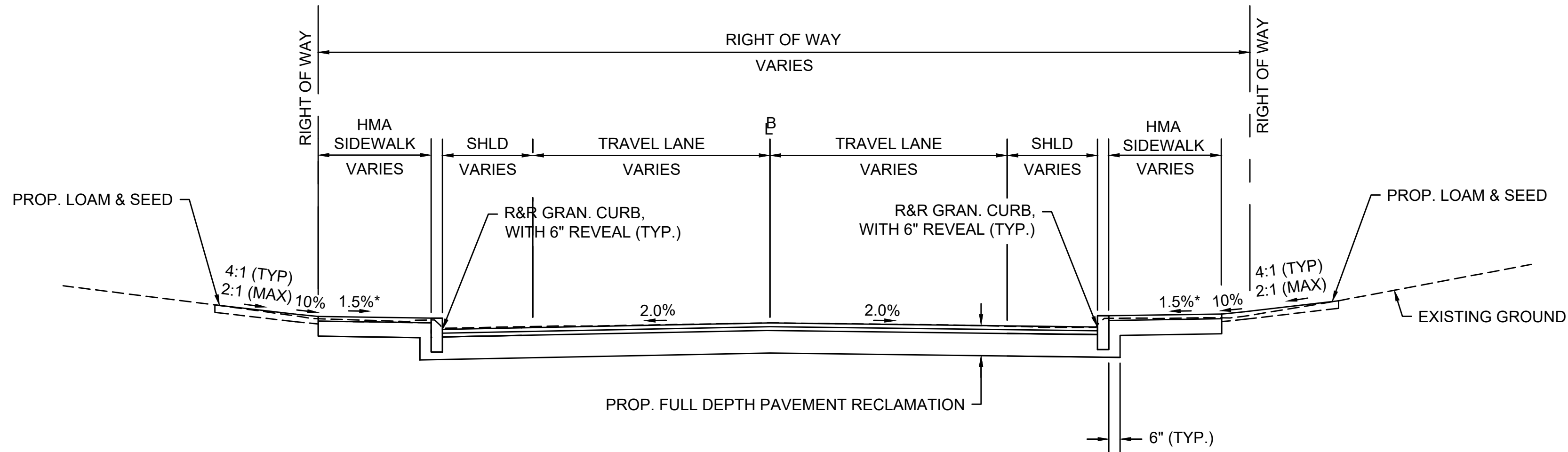


**GREEN INTERNATIONAL  
AFFILIATES, INC.**

CIVIL AND STRUCTURAL ENGINEERS

WESTFORD, MASSACHUSETTS

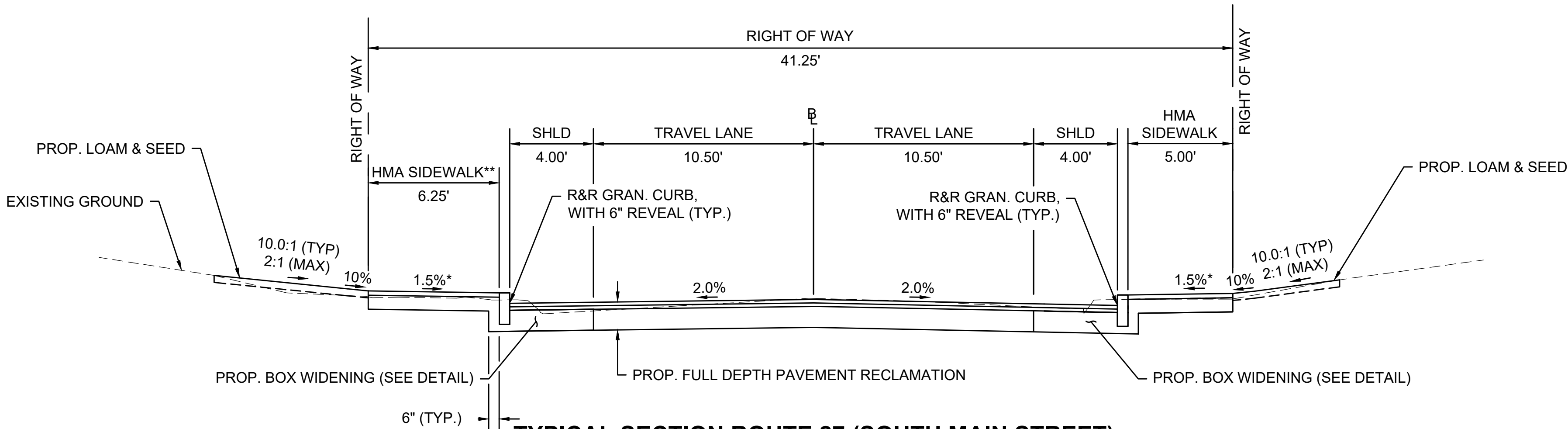
**OVERALL LOCUS MAP**  
NOT TO SCALE



**TYPICAL SECTION ROUTE 27 (SOUTH MAIN STREET)**  
**SIDE STREETS**

SCALE: 1" = 4'

\* TOLERANCE FOR CONSTRUCTION ± 0.5% (TYP.)

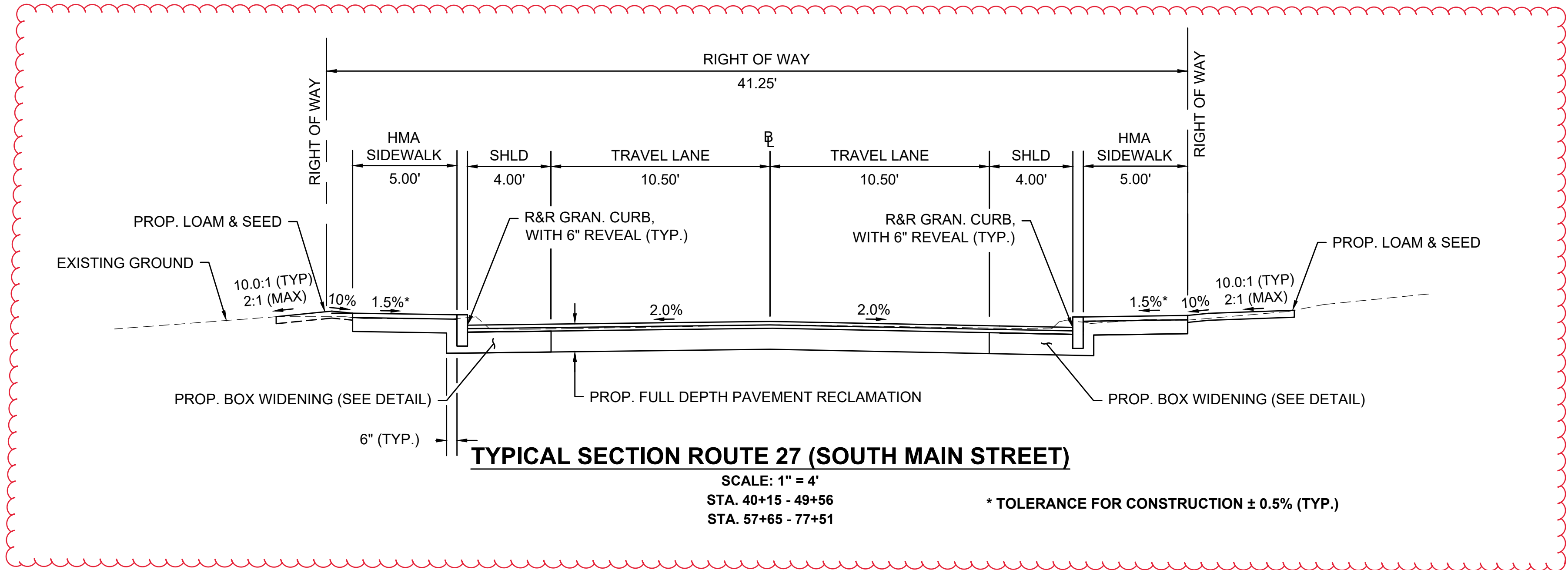


**TYPICAL SECTION ROUTE 27 (SOUTH MAIN STREET)**

SCALE: 1" = 4'

STA. 49+56 - 57+65

\* TOLERANCE FOR CONSTRUCTION ± 0.5% (TYP.)



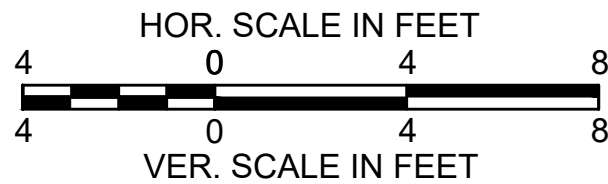
**TYPICAL SECTION ROUTE 27 (SOUTH MAIN STREET)**

SCALE: 1" = 4'

STA. 40+15 - 49+56

STA. 57+65 - 77+51

\* TOLERANCE FOR CONSTRUCTION ± 0.5% (TYP.)



**PAVEMENT NOTES**

**PROPOSED FULL DEPTH PAVEMENT RECLAMATION**

SURFACE COURSE: 1-1/2" HOT MIX ASPHALT SURFACE COURSE

INTERMEDIATE COURSE: 1-3/4" HOT MIX ASPHALT INTERMEDIATE COURSE

BASE COURSE: 3-1/4" HOT MIX ASPHALT BASE COURSE

SUBBASE: 12" RECLAIMED PAVEMENT FOR SUB-BASE MEETING MASSDOT SECTION 403

**PROPOSED BOX WIDENING**

SURFACE COURSE: 1-1/2" HOT MIX ASPHALT SURFACE COURSE

INTERMEDIATE COURSE: 1-3/4" HOT MIX ASPHALT INTERMEDIATE COURSE

BASE COURSE: 3-1/4" HOT MIX ASPHALT BASE COURSE

SUBBASE: 12" GRAVEL BORROW

**PROPOSED PAVEMENT MILLING & RESURFACING**

PAVEMENT MILLING: 1-1/2" DEPTH

RESURFACING: 1-1/2" HOT MIX ASPHALT SURFACE COURSE

**PROPOSED HOT MIX ASPHALT WALK**

SURFACE COURSE: 1-1/4" HOT MIX ASPHALT SURFACE COURSE

INTERMEDIATE COURSE: 1-1/4" HOT MIX ASPHALT SURFACE COURSE

SUBBASE: 8" GRAVEL BORROW

**PROPOSED CEMENT CONCRETE WALK/WHEELCHAIR RAMP**

WALK/RAMP SURFACE: 4" CEMENT CONCRETE

DRIVEWAY SURFACE: 6" CEMENT CONCRETE

FOUNDATION: 8" GRAVEL BORROW

**PROPOSED HMA DRIVEWAY**

SURFACE COURSE: 1-1/2" HOT MIX ASPHALT SURFACE COURSE

INTERMEDIATE COURSE: 2" HOT MIX ASPHALT SURFACE COURSE

SUBBASE: 8" GRAVEL BORROW

**NOTE:**

TACK COAT SHALL BE APPLIED BETWEEN PAVEMENT LAYERS AT A RATE OF 0.05 GALLONS PER SQUARE YARD ON NEW PAVEMENT AND ON MILLED SURFACES AT A RATE OF 0.07 GALLONS PER SQUARE YARD.

PROJECT: **IMPROVEMENTS TO SOUTH MAIN STREET**

DESIGN SUBMISSION: **PRELIMINARY DESIGN**

DRAWING TITLE: **TYPICAL SECTIONS**

PREPARED FOR: **TOWN OF NATICK  
DEPARTMENT OF PUBLIC WORKS  
75 WEST STREET  
NATICK, MASSACHUSETTS**

PREPARED BY: **GREEN INTERNATIONAL AFFILIATES, INC.**  
Civil and Structural Engineers (978) 923-0400  
Westford, Massachusetts GreenIntl.com

SCALE: AS NOTED

DESIGNED BY: MB

DATE: 04/29/2019

DRAWN BY: JL

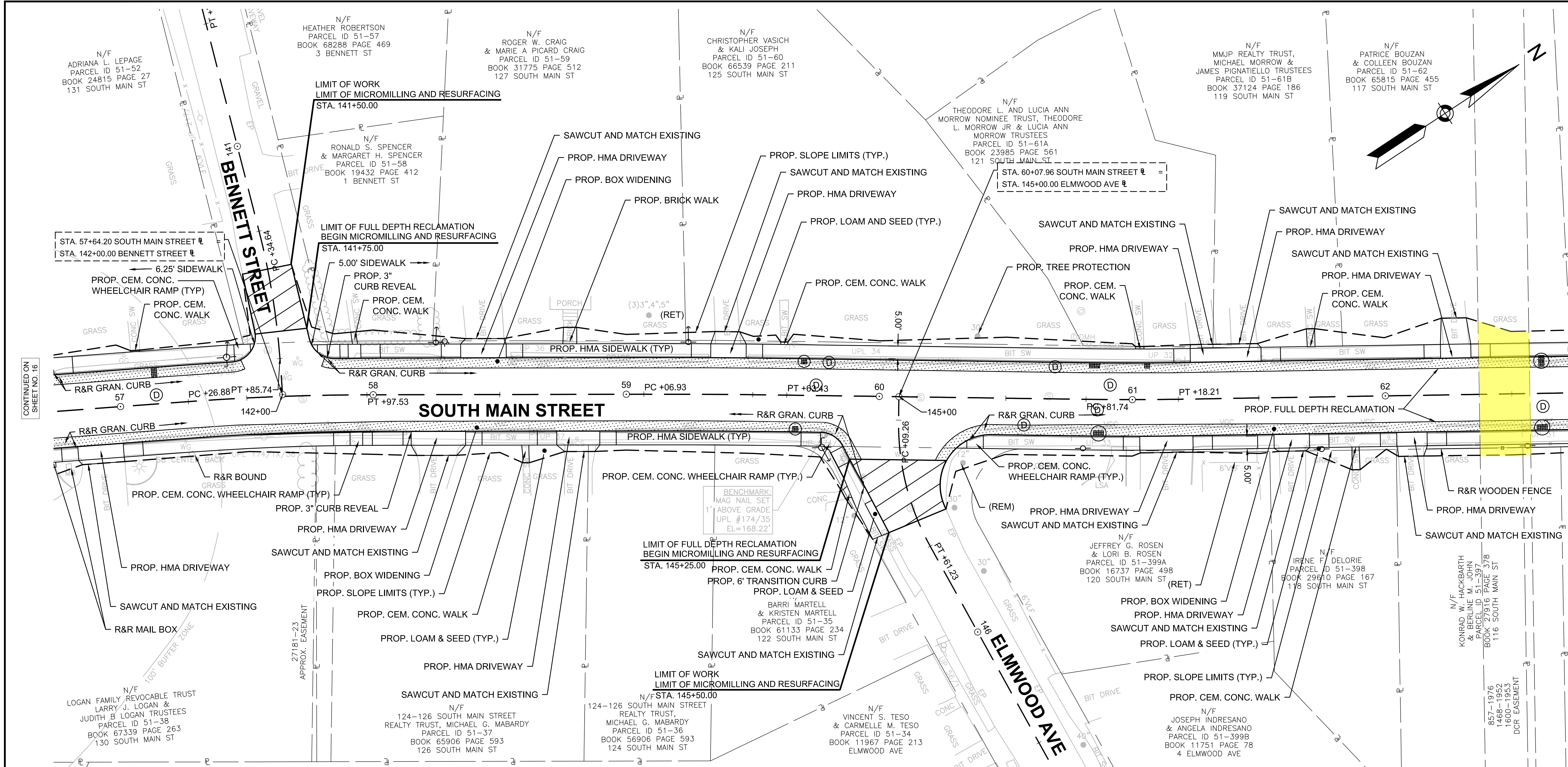
PROJECT NO. 17008.01X

CHECKED BY: EA

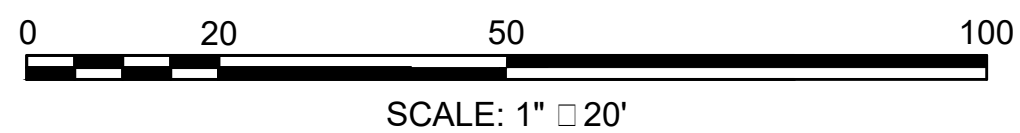
SHEET NO.

6 OF 167





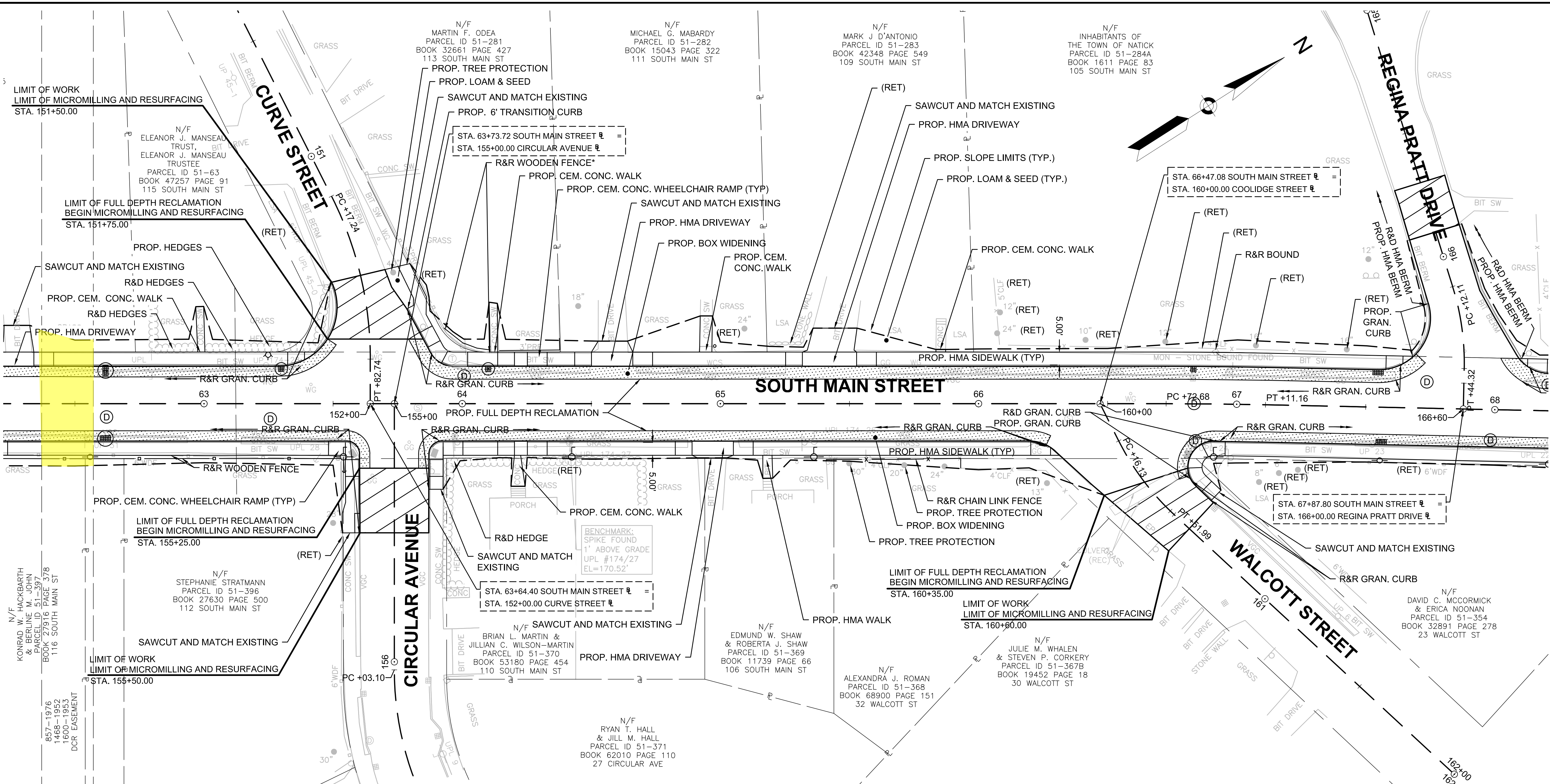
- NOTES:
1. SEE DRAINAGE AND UTILITY PLANS FOR PROPOSED DISPOSITION OF ALL EXISTING AND PROPOSED UTILITIES, DRAINAGE, SEWER AND WATER.



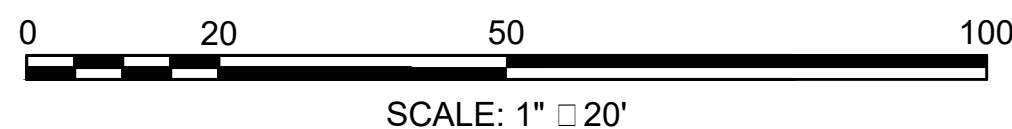
PROJECT: <b>IMPROVEMENTS TO SOUTH MAIN STREET</b>		
DESIGN SUBMISSION: <b>PRELIMINARY DESIGN</b>		
DRAWING TITLE: <b>CONSTRUCTION PLANS</b>		
PREPARED FOR:  <b>TOWN OF NATICK</b> DEPARTMENT OF PUBLIC WORKS 75 WEST STREET NATICK, MASSACHUSETTS		
PREPARED BY:  <b>GREEN INTERNATIONAL AFFILIATES, INC.</b> Civil and Structural Engineers Westford, Massachusetts (978) 923-0400 GreenIntl.com		
SCALE: AS NOTED	DESIGNED BY: MB	SHEET NO. <b>17</b> OF <b>167</b>
DATE: 04/29/2019	DRAWN BY: KG	
PROJECT NO. 17008.01X	CHECKED BY: EA	

EP:\p17008\01X\17008.01X.dwg Printed: 8/12/2018 10:44 AM





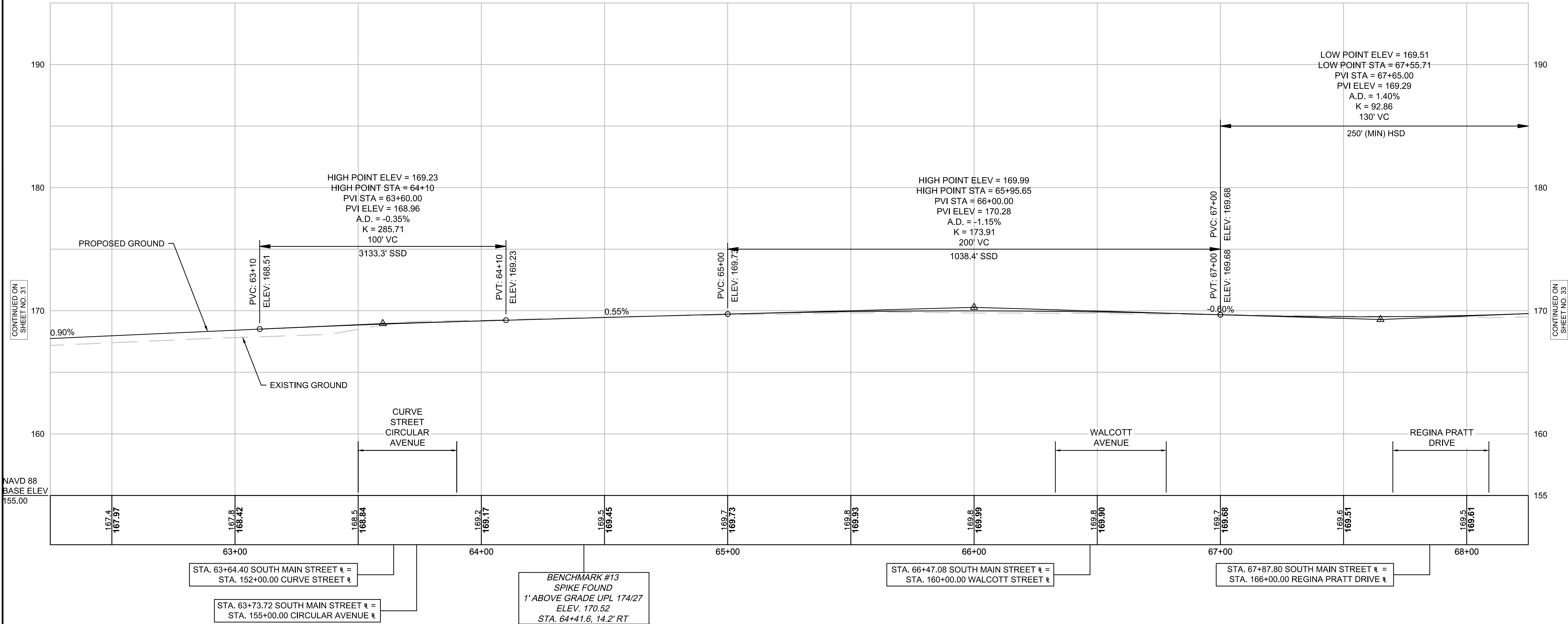
NOTES:  
1. SEE DRAINAGE AND UTILITY PLANS FOR PROPOSED DISPOSITION OF ALL EXISTING AND PROPOSED UTILITIES, DRAINAGE, SEWER AND WATER.  
\* REMOVE EXISTING POST AT WALK AND RESET OR PLACE NEW POST OUTSIDE OF PROPOSED WALK. SEE DETAIL ON CONSTRUCTION DETAIL SHEET 6



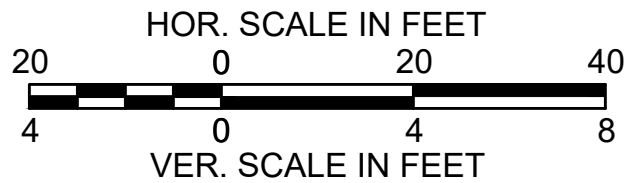
PROJECT: <b>IMPROVEMENTS TO SOUTH MAIN STREET</b>		
DESIGN SUBMISSION: <b>PRELIMINARY DESIGN</b>		
DRAWING TITLE: <b>CONSTRUCTION PLANS</b>		
PREPARED FOR:  <b>TOWN OF NATICK</b> DEPARTMENT OF PUBLIC WORKS 75 WEST STREET NATICK, MASSACHUSETTS		
PREPARED BY:  <b>GREEN INTERNATIONAL AFFILIATES, INC.</b> Civil and Structural Engineers Westford, Massachusetts (978) 923-0400 GreenIntl.com		
SCALE: AS NOTED	DESIGNED BY: MB	SHEET NO. <b>18</b> OF <b>167</b>
DATE: 04/29/2019	DRAWN BY: KG	
PROJECT NO. 17008.01X	CHECKED BY: EA	



SOUTH MAIN STREET



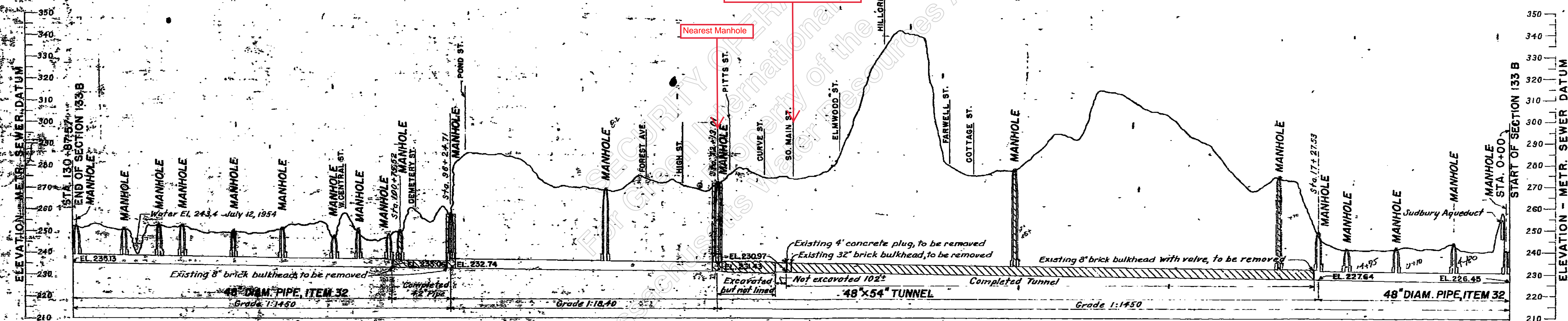
South Main Street Baseline Sta. 62+50±  
Approximate depth and location of 48"x54" Framingham Trunk Interceptor, Section 133B  
Elev. = 124.54 NAVD88 (230.97 on MET Base)



PROJECT: IMPROVEMENTS TO SOUTH MAIN STREET		
DESIGN SUBMISSION: PRELIMINARY DESIGN		
DRAWING TITLE: CONSTRUCTION PROFILES		
PREPARED FOR: TOWN OF NATICK DEPARTMENT OF PUBLIC WORKS 75 WEST STREET NATICK, MASSACHUSETTS		
PREPARED BY: GREEN INTERNATIONAL AFFILIATES, INC. Civil and Structural Engineers Westford, Massachusetts (978) 923-0400 GreenIntl.com		
SCALE: AS NOTED	DESIGNED BY: MB	SHEET NO. 32 OF 167
DATE: 04/29/2019	DRAWN BY: KG	
PROJECT NO. 17008.01X	CHECKED BY: EA	



Note "A":  
For work to be done at this location  
see Sheet 13.



### LEGEND

Construction done under  
a previous contract.

COMMONWEALTH OF MASSACHUSETTS  
METR. DISTR. COMMISSION — CONSTRUCTION DIVISION  
SOUTH METROPOLITAN SEWERAGE DISTRICT  
**FRAMINGHAM TRUNK INTERCEPTOR**  
SECTION 133B

SCALES AS NOTED  
JULY 15, 1954

FILE CONT. 220 5.31 N-7



## **APPENDIX C**

### Prevailing Wage Rates





CHARLES D. BAKER  
Governor

KARYN E. POLITO  
Lt. Governor

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

**Prevailing Wage Rates**

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

ROSALIN ACOSTA  
Secretary  
WILLIAM D MCKINNEY  
Director

**Awarding Authority:** Natick Department of Public Works  
**Contract Number:** **City/Town:** NATICK  
**Description of Work:** Roadway Work - Project is approx. 1.3 miles long and includes full depth roadway reclamation, driveway reconstruction, HMA sidewalk, underground drainage, signing, pavement markings & retaining walls.  
**Job Location:** South Main Street Natick, MA 01760

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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 B</i>	08/01/2019	\$34.25	\$12.41	\$12.70	\$0.00	\$59.36
	12/01/2019	\$34.25	\$12.41	\$13.72	\$0.00	\$60.38
	06/01/2020	\$35.15	\$12.41	\$13.72	\$0.00	\$61.28
	08/01/2020	\$35.15	\$12.91	\$13.72	\$0.00	\$61.78
	12/01/2020	\$35.15	\$12.91	\$14.82	\$0.00	\$62.88
	06/01/2021	\$35.95	\$12.91	\$14.82	\$0.00	\$63.68
	08/01/2021	\$35.95	\$13.41	\$14.82	\$0.00	\$64.18
	12/01/2021	\$35.95	\$13.41	\$16.01	\$0.00	\$65.37
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2019	\$34.32	\$12.41	\$12.70	\$0.00	\$59.43
	12/01/2019	\$34.32	\$12.41	\$13.72	\$0.00	\$60.45
	06/01/2020	\$35.22	\$12.41	\$13.72	\$0.00	\$61.35
	08/01/2020	\$35.22	\$12.91	\$13.72	\$0.00	\$61.85
	12/01/2020	\$35.22	\$12.91	\$14.82	\$0.00	\$62.95
	06/01/2021	\$36.02	\$12.91	\$14.82	\$0.00	\$63.75
	08/01/2021	\$36.02	\$13.41	\$14.82	\$0.00	\$64.25
	12/01/2021	\$36.02	\$13.41	\$16.01	\$0.00	\$65.44
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2019	\$34.44	\$12.41	\$12.70	\$0.00	\$59.55
	12/01/2019	\$34.44	\$12.41	\$13.72	\$0.00	\$60.57
	06/01/2020	\$35.34	\$12.41	\$13.72	\$0.00	\$61.47
	08/01/2020	\$35.34	\$12.91	\$13.72	\$0.00	\$61.97
	12/01/2020	\$35.34	\$12.91	\$14.82	\$0.00	\$63.07
	06/01/2021	\$36.14	\$12.91	\$14.82	\$0.00	\$63.87
	08/01/2021	\$36.14	\$13.41	\$14.82	\$0.00	\$64.37
	12/01/2021	\$36.14	\$13.41	\$16.01	\$0.00	\$65.56
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	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 2</i>	06/01/2019	\$34.70	\$7.85	\$14.88	\$0.00	\$57.43
	12/01/2019	\$35.56	\$7.85	\$14.88	\$0.00	\$58.29
	06/01/2020	\$36.45	\$7.85	\$14.88	\$0.00	\$59.18
	12/01/2020	\$37.34	\$7.85	\$14.88	\$0.00	\$60.07
	06/01/2021	\$38.26	\$7.85	\$14.88	\$0.00	\$60.99
	12/01/2021	\$39.17	\$7.85	\$14.88	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i>	06/01/2019	\$36.00	\$12.50	\$8.85	\$0.00	\$57.35
	12/01/2019	\$37.00	\$12.50	\$8.85	\$0.00	\$58.35
	06/01/2020	\$38.00	\$12.50	\$8.85	\$0.00	\$59.35
	12/01/2020	\$39.00	\$12.50	\$8.85	\$0.00	\$60.35
ASPHALT RAKER <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.70	\$7.85	\$14.88	\$0.00	\$57.43
	12/01/2019	\$35.56	\$7.85	\$14.88	\$0.00	\$58.29
	06/01/2020	\$36.45	\$7.85	\$14.88	\$0.00	\$59.18
	12/01/2020	\$37.34	\$7.85	\$14.88	\$0.00	\$60.07
	06/01/2021	\$38.26	\$7.85	\$14.88	\$0.00	\$60.99
	12/01/2021	\$39.17	\$7.85	\$14.88	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2019	\$44.71	\$7.07	\$17.72	\$0.00	\$69.50
	01/01/2020	\$46.10	\$7.07	\$17.98	\$0.00	\$71.15

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - BOILERMAKER - Local 29**
**Effective Date - 01/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$29.06	\$7.07	\$11.52	\$0.00	\$47.65
2	65	\$29.06	\$7.07	\$11.52	\$0.00	\$47.65
3	70	\$31.30	\$7.07	\$12.40	\$0.00	\$50.77
4	75	\$33.53	\$7.07	\$13.30	\$0.00	\$53.90
5	80	\$35.77	\$7.07	\$14.18	\$0.00	\$57.02
6	85	\$38.00	\$7.07	\$15.07	\$0.00	\$60.14
7	90	\$40.24	\$7.07	\$15.95	\$0.00	\$63.26
8	95	\$42.47	\$7.07	\$16.84	\$0.00	\$66.38

**Effective Date - 01/01/2020**

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

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

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	08/01/2019	\$52.26	\$10.75	\$20.70	\$0.00	\$83.71
BRICKLAYERS LOCAL 3 (LOWELL)	02/01/2020	\$52.86	\$10.75	\$20.70	\$0.00	\$84.31
	08/01/2020	\$54.21	\$10.75	\$20.85	\$0.00	\$85.81
	02/01/2021	\$54.81	\$10.75	\$20.85	\$0.00	\$86.41
	08/01/2021	\$56.21	\$10.75	\$21.01	\$0.00	\$87.97
	02/01/2022	\$56.79	\$10.75	\$21.01	\$0.00	\$88.55

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Lowell**

**Effective Date - 08/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.13	\$10.75	\$20.70	\$0.00	\$57.58
2	60	\$31.36	\$10.75	\$20.70	\$0.00	\$62.81
3	70	\$36.58	\$10.75	\$20.70	\$0.00	\$68.03
4	80	\$41.81	\$10.75	\$20.70	\$0.00	\$73.26
5	90	\$47.03	\$10.75	\$20.70	\$0.00	\$78.48

**Effective Date - 02/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.43	\$10.75	\$20.70	\$0.00	\$57.88
2	60	\$31.72	\$10.75	\$20.70	\$0.00	\$63.17
3	70	\$37.00	\$10.75	\$20.70	\$0.00	\$68.45
4	80	\$42.29	\$10.75	\$20.70	\$0.00	\$73.74
5	90	\$47.57	\$10.75	\$20.70	\$0.00	\$79.02

**Notes:**

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

BULLDOZER/GRADER/SCRAPER OPERATING ENGINEERS LOCAL 4	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN LABORERS - FOUNDATION AND MARINE	06/01/2019	\$40.25	\$7.85	\$16.05	\$0.00	\$64.15
	12/01/2019	\$41.25	\$7.85	\$16.05	\$0.00	\$65.15
	06/01/2020	\$42.24	\$7.85	\$16.05	\$0.00	\$66.14
	12/01/2020	\$43.22	\$7.85	\$16.05	\$0.00	\$67.12
	06/01/2021	\$44.24	\$7.85	\$16.05	\$0.00	\$68.14
	12/01/2021	\$45.25	\$7.85	\$16.05	\$0.00	\$69.15
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER LABORERS - FOUNDATION AND MARINE	06/01/2019	\$39.10	\$7.85	\$16.05	\$0.00	\$63.00
	12/01/2019	\$40.10	\$7.85	\$16.05	\$0.00	\$64.00
	06/01/2020	\$41.09	\$7.85	\$16.05	\$0.00	\$64.99
	12/01/2020	\$42.07	\$7.85	\$16.05	\$0.00	\$65.97
	06/01/2021	\$43.09	\$7.85	\$16.05	\$0.00	\$66.99
	12/01/2021	\$44.10	\$7.85	\$16.05	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2019	\$39.10	\$7.85	\$16.05	\$0.00	\$63.00
	12/01/2019	\$40.10	\$7.85	\$16.05	\$0.00	\$64.00
	06/01/2020	\$41.09	\$7.85	\$16.05	\$0.00	\$64.99
	12/01/2020	\$42.07	\$7.85	\$16.05	\$0.00	\$65.97
	06/01/2021	\$43.09	\$7.85	\$16.05	\$0.00	\$66.99
	12/01/2021	\$44.10	\$7.85	\$16.05	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	09/01/2019	\$41.90	\$9.40	\$18.95	\$0.00	\$70.25
	03/01/2020	\$42.50	\$9.40	\$18.95	\$0.00	\$70.85
	09/01/2020	\$43.15	\$9.40	\$18.95	\$0.00	\$71.50
	03/01/2021	\$43.75	\$9.40	\$18.95	\$0.00	\$72.10
	09/01/2021	\$44.40	\$9.40	\$18.95	\$0.00	\$72.75
	03/01/2022	\$45.00	\$9.40	\$18.95	\$0.00	\$73.35
	09/01/2022	\$45.65	\$9.40	\$18.95	\$0.00	\$74.00
	03/01/2023	\$46.25	\$9.40	\$18.95	\$0.00	\$74.60



**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - CARPENTER - Zone 2 Eastern MA**
**Effective Date - 09/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.95	\$9.40	\$1.73	\$0.00	\$32.08
2	60	\$25.14	\$9.40	\$1.73	\$0.00	\$36.27
3	70	\$29.33	\$9.40	\$13.76	\$0.00	\$52.49
4	75	\$31.43	\$9.40	\$13.76	\$0.00	\$54.59
5	80	\$33.52	\$9.40	\$15.49	\$0.00	\$58.41
6	80	\$33.52	\$9.40	\$15.49	\$0.00	\$58.41
7	90	\$37.71	\$9.40	\$17.22	\$0.00	\$64.33
8	90	\$37.71	\$9.40	\$17.22	\$0.00	\$64.33

**Effective Date - 03/01/2020**

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

**Notes:**

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80  
Step 1&2 \$29.99/ 3&4 \$35.85/ 5&6 \$54.22/ 7&8 \$60.14

**Apprentice to Journeyworker Ratio:1:5**
**CARPENTER WOOD FRAME**
*CARPENTERS -ZONE 2 (Wood Frame)*

10/01/2019

\$27.95

\$7.07

\$7.86

\$0.00

\$42.88

All Aspects of New Wood Frame Work

**Apprentice - CARPENTER (Wood Frame) - Zone 2****Effective Date - 10/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$16.77	\$7.07	\$0.00	\$0.00	\$23.84
2	60	\$16.77	\$7.07	\$0.00	\$0.00	\$23.84
3	65	\$18.17	\$7.07	\$7.86	\$0.00	\$33.10
4	70	\$19.57	\$7.07	\$7.86	\$0.00	\$34.50
5	75	\$20.96	\$7.07	\$7.86	\$0.00	\$35.89
6	80	\$22.36	\$7.07	\$7.86	\$0.00	\$37.29
7	85	\$23.76	\$7.07	\$7.86	\$0.00	\$38.69
8	90	\$25.16	\$7.07	\$7.86	\$0.00	\$40.09

**Notes:**

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80  
 Step 1&2 \$19.65/ 3&4 \$27.19/ 5&6 \$34.50/ 7&8 \$37.29

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

CEMENT MASONRY/PLASTERING

07/01/2019

\$43.99

\$12.75

\$22.41

\$0.62

\$79.77

BRICKLAYERS LOCAL 3 (LOWELL)

01/01/2020

\$45.23

\$12.75

\$22.41

\$0.62

\$81.01

**Apprentice - CEMENT MASONRY/PLASTERING - Lowell****Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.00	\$12.75	\$15.41	\$0.00	\$50.16
2	60	\$26.39	\$12.75	\$17.41	\$0.62	\$57.17
3	65	\$28.59	\$12.75	\$18.41	\$0.62	\$60.37
4	70	\$30.79	\$12.75	\$19.41	\$0.62	\$63.57
5	75	\$32.99	\$12.75	\$20.41	\$0.62	\$66.77
6	80	\$35.19	\$12.75	\$21.41	\$0.62	\$69.97
7	90	\$39.59	\$12.75	\$22.41	\$0.62	\$75.37

**Effective Date - 01/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.62	\$12.75	\$15.41	\$0.00	\$50.78
2	60	\$27.14	\$12.75	\$17.41	\$0.62	\$57.92
3	65	\$29.40	\$12.75	\$18.41	\$0.62	\$61.18
4	70	\$31.66	\$12.75	\$19.41	\$0.62	\$64.44
5	75	\$33.92	\$12.75	\$20.41	\$0.62	\$67.70
6	80	\$36.18	\$12.75	\$21.41	\$0.62	\$70.96
7	90	\$40.71	\$12.75	\$22.41	\$0.62	\$76.49

**Notes:**

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

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$49.18	\$12.00	\$15.60	\$0.00	\$76.78
	12/01/2019	\$50.33	\$12.00	\$15.60	\$0.00	\$77.93
	06/01/2020	\$51.43	\$12.00	\$15.60	\$0.00	\$79.03
	12/01/2020	\$52.58	\$12.00	\$15.60	\$0.00	\$80.18
	06/01/2021	\$53.68	\$12.00	\$15.60	\$0.00	\$81.28
	12/01/2021	\$54.83	\$12.00	\$15.60	\$0.00	\$82.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$32.28	\$12.00	\$15.60	\$0.00	\$59.88
	12/01/2019	\$33.07	\$12.00	\$15.60	\$0.00	\$60.67
	06/01/2020	\$33.82	\$12.00	\$15.60	\$0.00	\$61.42
	12/01/2020	\$34.60	\$12.00	\$15.60	\$0.00	\$62.20
	06/01/2021	\$35.35	\$12.00	\$15.60	\$0.00	\$62.95
	12/01/2021	\$36.14	\$12.00	\$15.60	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2019	\$50.66	\$8.20	\$21.45	\$0.00	\$80.31
	01/01/2020	\$50.96	\$8.20	\$22.10	\$0.00	\$81.26
	07/01/2020	\$52.06	\$8.20	\$22.10	\$0.00	\$82.36
	01/01/2021	\$53.16	\$8.20	\$22.10	\$0.00	\$83.46

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

**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.33	\$8.20	\$0.00	\$0.00	\$33.53
2	55	\$27.86	\$8.20	\$5.78	\$0.00	\$41.84
3	60	\$30.40	\$8.20	\$6.30	\$0.00	\$44.90
4	65	\$32.93	\$8.20	\$6.83	\$0.00	\$47.96
5	70	\$35.46	\$8.20	\$18.30	\$0.00	\$61.96
6	75	\$38.00	\$8.20	\$18.83	\$0.00	\$65.03
7	80	\$40.53	\$8.20	\$19.35	\$0.00	\$68.08
8	90	\$45.59	\$8.20	\$20.40	\$0.00	\$74.19

**Effective Date - 01/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.48	\$8.20	\$0.00	\$0.00	\$33.68
2	55	\$28.03	\$8.20	\$5.94	\$0.00	\$42.17
3	60	\$30.58	\$8.20	\$6.48	\$0.00	\$45.26
4	65	\$33.12	\$8.20	\$7.02	\$0.00	\$48.34
5	70	\$35.67	\$8.20	\$18.51	\$0.00	\$62.38
6	75	\$38.22	\$8.20	\$19.05	\$0.00	\$65.47
7	80	\$40.77	\$8.20	\$19.59	\$0.00	\$68.56
8	90	\$45.86	\$8.20	\$20.67	\$0.00	\$74.73

**Notes:**

Steps are 750 hrs.

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

DEMO: ADZEMAN LABORERS - ZONE 2	06/01/2019	\$39.30	\$7.85	\$15.85	\$0.00	\$63.00
	12/01/2019	\$40.30	\$7.85	\$15.85	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 2	06/01/2019	\$40.30	\$7.85	\$15.85	\$0.00	\$64.00
	12/01/2019	\$41.30	\$7.85	\$15.85	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS LABORERS - ZONE 2	06/01/2019	\$40.05	\$7.85	\$15.85	\$0.00	\$63.75
	12/01/2019	\$41.05	\$7.85	\$15.85	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						
DEMO: CONCRETE CUTTER/SAWYER LABORERS - ZONE 2	06/01/2019	\$40.30	\$7.85	\$15.85	\$0.00	\$64.00
	12/01/2019	\$41.30	\$7.85	\$15.85	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR LABORERS - ZONE 2	06/01/2019	\$40.05	\$7.85	\$15.85	\$0.00	\$63.75
	12/01/2019	\$41.05	\$7.85	\$15.85	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER LABORERS - ZONE 2	06/01/2019	\$39.30	\$7.85	\$15.85	\$0.00	\$63.00
	12/01/2019	\$40.30	\$7.85	\$15.85	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	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>	08/01/2019	\$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>	08/01/2019	\$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>	08/01/2019	\$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>	03/01/2019	\$51.10	\$13.00	\$18.88	\$0.00	\$82.98
For apprentice rates see "Apprentice- ELECTRICIAN"						
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2019	\$51.10	\$13.00	\$18.88	\$0.00	\$82.98

**Apprentice - ELECTRICIAN - Local 103**

**Effective Date - 03/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$20.44	\$13.00	\$0.61	\$0.00	\$34.05
2	40	\$20.44	\$13.00	\$0.61	\$0.00	\$34.05
3	45	\$23.00	\$13.00	\$14.34	\$0.00	\$50.34
4	45	\$23.00	\$13.00	\$14.34	\$0.00	\$50.34
5	50	\$25.55	\$13.00	\$14.76	\$0.00	\$53.31
6	55	\$28.11	\$13.00	\$15.17	\$0.00	\$56.28
7	60	\$30.66	\$13.00	\$15.58	\$0.00	\$59.24
8	65	\$33.22	\$13.00	\$16.00	\$0.00	\$62.22
9	70	\$35.77	\$13.00	\$16.40	\$0.00	\$65.17
10	75	\$38.33	\$13.00	\$16.82	\$0.00	\$68.15

**Notes: :**

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

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

ELEVATOR CONSTRUCTOR <i>ELEVATOR CONSTRUCTORS LOCAL 4</i>	01/01/2019	\$59.47	\$15.58	\$17.51	\$0.00	\$92.56
	01/01/2020	\$61.42	\$15.73	\$18.41	\$0.00	\$95.56
	01/01/2021	\$63.47	\$15.88	\$19.31	\$0.00	\$98.66
	01/01/2022	\$65.62	\$16.03	\$20.21	\$0.00	\$101.86

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - ELEVATOR CONSTRUCTOR - Local 4**

**Effective Date - 01/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$29.74	\$15.58	\$0.00	\$0.00	\$45.32
2	55	\$32.71	\$15.58	\$17.51	\$0.00	\$65.80
3	65	\$38.66	\$15.58	\$17.51	\$0.00	\$71.75
4	70	\$41.63	\$15.58	\$17.51	\$0.00	\$74.72
5	80	\$47.58	\$15.58	\$17.51	\$0.00	\$80.67

**Effective Date - 01/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$30.71	\$15.73	\$0.00	\$0.00	\$46.44
2	55	\$33.78	\$15.73	\$18.41	\$0.00	\$67.92
3	65	\$39.92	\$15.73	\$18.41	\$0.00	\$74.06
4	70	\$42.99	\$15.73	\$18.41	\$0.00	\$77.13
5	80	\$49.14	\$15.73	\$18.41	\$0.00	\$83.28

**Notes:**

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

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

ELEVATOR CONSTRUCTOR HELPER	01/01/2019	\$41.63	\$15.58	\$17.51	\$0.00	\$74.72
ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2020	\$42.99	\$15.73	\$18.41	\$0.00	\$77.13
	01/01/2021	\$44.43	\$15.88	\$19.31	\$0.00	\$79.62
	01/01/2022	\$45.93	\$16.03	\$20.21	\$0.00	\$82.17

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

FENCE & GUARD RAIL ERECTOR	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
LABORERS - ZONE 2	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	05/01/2019	\$43.68	\$11.50	\$15.60	\$0.00	\$70.78
OPERATING ENGINEERS LOCAL 4	11/01/2019	\$44.18	\$12.00	\$15.60	\$0.00	\$71.78
	05/01/2020	\$45.33	\$12.00	\$15.60	\$0.00	\$72.93
	11/01/2020	\$46.33	\$12.00	\$15.60	\$0.00	\$73.93
	05/01/2021	\$47.48	\$12.00	\$15.60	\$0.00	\$75.08
	11/01/2021	\$48.48	\$12.00	\$15.60	\$0.00	\$76.08
	05/01/2022	\$49.63	\$12.00	\$15.60	\$0.00	\$77.23

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2019	\$45.17	\$11.50	\$15.60	\$0.00	\$72.27
	11/01/2019	\$45.68	\$12.00	\$15.60	\$0.00	\$73.28
	05/01/2020	\$46.83	\$12.00	\$15.60	\$0.00	\$74.43
	11/01/2020	\$47.84	\$12.00	\$15.60	\$0.00	\$75.44
	05/01/2021	\$49.00	\$12.00	\$15.60	\$0.00	\$76.60
	11/01/2021	\$50.01	\$12.00	\$15.60	\$0.00	\$77.61
	05/01/2022	\$51.17	\$12.00	\$15.60	\$0.00	\$78.77
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2019	\$22.48	\$11.50	\$15.60	\$0.00	\$49.58
	11/01/2019	\$22.57	\$12.00	\$15.60	\$0.00	\$50.17
	05/01/2020	\$23.24	\$12.00	\$15.60	\$0.00	\$50.84
	11/01/2020	\$23.83	\$12.00	\$15.60	\$0.00	\$51.43
	05/01/2021	\$24.51	\$12.00	\$15.60	\$0.00	\$52.11
	11/01/2021	\$25.11	\$12.00	\$15.60	\$0.00	\$52.71
	05/01/2022	\$25.78	\$12.00	\$15.60	\$0.00	\$53.38
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 103</i>	03/01/2019	\$51.10	\$13.00	\$18.88	\$0.00	\$82.98
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING <i>ELECTRICIANS LOCAL 103</i>	03/01/2019	\$38.33	\$13.00	\$16.82	\$0.00	\$68.15
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$39.54	\$12.00	\$15.60	\$0.00	\$67.14
	12/01/2019	\$40.49	\$12.00	\$15.60	\$0.00	\$68.09
	06/01/2020	\$41.40	\$12.00	\$15.60	\$0.00	\$69.00
	12/01/2020	\$42.35	\$12.00	\$15.60	\$0.00	\$69.95
	06/01/2021	\$43.26	\$12.00	\$15.60	\$0.00	\$70.86
	12/01/2021	\$44.21	\$12.00	\$15.60	\$0.00	\$71.81
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER <i>LABORERS - ZONE 2</i>	06/01/2019	\$22.50	\$7.85	\$14.88	\$0.00	\$45.23
	12/01/2019	\$23.50	\$7.85	\$14.88	\$0.00	\$46.23
	06/01/2020	\$23.50	\$7.85	\$14.88	\$0.00	\$46.23
	12/01/2020	\$24.50	\$7.85	\$14.88	\$0.00	\$47.23
	06/01/2021	\$24.50	\$7.85	\$14.88	\$0.00	\$47.23
	12/01/2021	\$24.50	\$7.85	\$14.88	\$0.00	\$47.23
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE I</i>	09/01/2019	\$46.25	\$9.40	\$19.25	\$0.00	\$74.90
	03/01/2020	\$47.05	\$9.40	\$19.25	\$0.00	\$75.70
	09/01/2020	\$47.85	\$9.40	\$19.25	\$0.00	\$76.50
	03/01/2021	\$48.65	\$9.40	\$19.25	\$0.00	\$77.30
	09/01/2021	\$49.45	\$9.40	\$19.25	\$0.00	\$78.10
	03/01/2022	\$50.25	\$9.40	\$19.25	\$0.00	\$78.90

**Classification**

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

**Apprentice - FLOORCOVERER - Local 2168 Zone I**
**Effective Date - 09/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.13	\$9.40	\$1.79	\$0.00	\$34.32
2	55	\$25.44	\$9.40	\$1.79	\$0.00	\$36.63
3	60	\$27.75	\$9.40	\$13.88	\$0.00	\$51.03
4	65	\$30.06	\$9.40	\$13.88	\$0.00	\$53.34
5	70	\$32.38	\$9.40	\$15.67	\$0.00	\$57.45
6	75	\$34.69	\$9.40	\$15.67	\$0.00	\$59.76
7	80	\$37.00	\$9.40	\$17.46	\$0.00	\$63.86
8	85	\$39.31	\$9.40	\$17.46	\$0.00	\$66.17

**Effective Date - 03/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.53	\$9.40	\$1.79	\$0.00	\$34.72
2	55	\$25.88	\$9.40	\$1.79	\$0.00	\$37.07
3	60	\$28.23	\$9.40	\$13.88	\$0.00	\$51.51
4	65	\$30.58	\$9.40	\$13.88	\$0.00	\$53.86
5	70	\$32.94	\$9.40	\$15.67	\$0.00	\$58.01
6	75	\$35.29	\$9.40	\$15.67	\$0.00	\$60.36
7	80	\$37.64	\$9.40	\$17.46	\$0.00	\$64.50
8	85	\$39.99	\$9.40	\$17.46	\$0.00	\$66.85

**Notes:** Steps are 750 hrs.  
 % After 09/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)  
 Step 1&2 \$32.00/ 3&4 \$38.36/ 5&6 \$57.45/ 7&8 \$63.86

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

<b>FORK LIFT/CHERRY PICKER</b> <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
<b>GENERATOR/LIGHTING PLANT/HEATERS</b> <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$32.28	\$12.00	\$15.60	\$0.00	\$59.88
	12/01/2019	\$33.07	\$12.00	\$15.60	\$0.00	\$60.67
	06/01/2020	\$33.82	\$12.00	\$15.60	\$0.00	\$61.42
	12/01/2020	\$34.60	\$12.00	\$15.60	\$0.00	\$62.20
	06/01/2021	\$35.35	\$12.00	\$15.60	\$0.00	\$62.95
	12/01/2021	\$36.14	\$12.00	\$15.60	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
<b>GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)</b> <i>GLAZIERS LOCAL 35 (ZONE 2)</i>	07/01/2019	\$40.16	\$8.20	\$21.45	\$0.00	\$69.81
	01/01/2020	\$40.46	\$8.20	\$22.10	\$0.00	\$70.76
	07/01/2020	\$41.56	\$8.20	\$22.10	\$0.00	\$71.86
	01/01/2021	\$42.66	\$8.20	\$22.10	\$0.00	\$72.96



**Classification**

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

**Apprentice - GLAZIER - Local 35 Zone 2**
**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.08	\$8.20	\$0.00	\$0.00	\$28.28
2	55	\$22.09	\$8.20	\$5.78	\$0.00	\$36.07
3	60	\$24.10	\$8.20	\$6.30	\$0.00	\$38.60
4	65	\$26.10	\$8.20	\$6.83	\$0.00	\$41.13
5	70	\$28.11	\$8.20	\$18.30	\$0.00	\$54.61
6	75	\$30.12	\$8.20	\$18.83	\$0.00	\$57.15
7	80	\$32.13	\$8.20	\$19.35	\$0.00	\$59.68
8	90	\$36.14	\$8.20	\$20.40	\$0.00	\$64.74

**Effective Date - 01/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.23	\$8.20	\$0.00	\$0.00	\$28.43
2	55	\$22.25	\$8.20	\$5.94	\$0.00	\$36.39
3	60	\$24.28	\$8.20	\$6.48	\$0.00	\$38.96
4	65	\$26.30	\$8.20	\$7.02	\$0.00	\$41.52
5	70	\$28.32	\$8.20	\$18.51	\$0.00	\$55.03
6	75	\$30.35	\$8.20	\$19.05	\$0.00	\$57.60
7	80	\$32.37	\$8.20	\$19.59	\$0.00	\$60.16
8	90	\$36.41	\$8.20	\$20.67	\$0.00	\$65.28

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**
**HOISTING ENGINEER/CRANES/GRADALLS**
*OPERATING ENGINEERS LOCAL 4*

06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - OPERATING ENGINEERS - Local 4**
**Effective Date - 06/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$26.50	\$12.00	\$0.00	\$0.00	\$38.50
2	60	\$28.91	\$12.00	\$15.60	\$0.00	\$56.51
3	65	\$31.32	\$12.00	\$15.60	\$0.00	\$58.92
4	70	\$33.73	\$12.00	\$15.60	\$0.00	\$61.33
5	75	\$36.14	\$12.00	\$15.60	\$0.00	\$63.74
6	80	\$38.54	\$12.00	\$15.60	\$0.00	\$66.14
7	85	\$40.95	\$12.00	\$15.60	\$0.00	\$68.55
8	90	\$43.36	\$12.00	\$15.60	\$0.00	\$70.96

**Effective Date - 12/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$27.13	\$12.00	\$0.00	\$0.00	\$39.13
2	60	\$29.60	\$12.00	\$15.60	\$0.00	\$57.20
3	65	\$32.06	\$12.00	\$15.60	\$0.00	\$59.66
4	70	\$34.53	\$12.00	\$15.60	\$0.00	\$62.13
5	75	\$37.00	\$12.00	\$15.60	\$0.00	\$64.60
6	80	\$39.46	\$12.00	\$15.60	\$0.00	\$67.06
7	85	\$41.93	\$12.00	\$15.60	\$0.00	\$69.53
8	90	\$44.40	\$12.00	\$15.60	\$0.00	\$72.00

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

HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 17 - A	08/01/2019	\$48.10	\$13.20	\$24.12	\$2.56	\$87.98
	02/01/2020	\$49.75	\$13.20	\$24.12	\$2.61	\$89.68
	08/01/2020	\$51.35	\$13.20	\$24.12	\$2.66	\$91.33
	02/01/2021	\$53.00	\$13.20	\$24.12	\$2.71	\$93.03
	08/01/2021	\$54.75	\$13.20	\$24.12	\$2.76	\$94.83
	02/01/2022	\$56.50	\$13.20	\$24.12	\$2.81	\$96.63
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 103	03/01/2019	\$51.10	\$13.00	\$18.88	\$0.00	\$82.98
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 17 - A	08/01/2019	\$48.10	\$13.20	\$24.12	\$2.56	\$87.98
	02/01/2020	\$49.75	\$13.20	\$24.12	\$2.61	\$89.68
	08/01/2020	\$51.35	\$13.20	\$24.12	\$2.66	\$91.33
	02/01/2021	\$53.00	\$13.20	\$24.12	\$2.71	\$93.03
	08/01/2021	\$54.75	\$13.20	\$24.12	\$2.76	\$94.83
	02/01/2022	\$56.50	\$13.20	\$24.12	\$2.81	\$96.63
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>	09/01/2019	\$54.69	\$10.95	\$19.74	\$0.00	\$85.38
	03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
	09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
	03/01/2021	\$59.19	\$10.95	\$19.74	\$0.00	\$89.88
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PIPEFITTERS LOCAL 537</i>	09/01/2019	\$54.69	\$10.95	\$19.74	\$0.00	\$85.38
	03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
	09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
	03/01/2021	\$59.19	\$10.95	\$19.74	\$0.00	\$89.88
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.70	\$7.85	\$14.88	\$0.00	\$57.43
	12/01/2019	\$35.56	\$7.85	\$14.88	\$0.00	\$58.29
	06/01/2020	\$36.45	\$7.85	\$14.88	\$0.00	\$59.18
	12/01/2020	\$37.34	\$7.85	\$14.88	\$0.00	\$60.07
	06/01/2021	\$38.26	\$7.85	\$14.88	\$0.00	\$60.99
	12/01/2021	\$39.17	\$7.85	\$14.88	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i>	09/01/2019	\$48.44	\$12.80	\$16.40	\$0.00	\$77.64

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

**Effective Date -** 09/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.22	\$12.80	\$11.90	\$0.00	\$48.92
2	60	\$29.06	\$12.80	\$12.80	\$0.00	\$54.66
3	70	\$33.91	\$12.80	\$13.70	\$0.00	\$60.41
4	80	\$38.75	\$12.80	\$14.60	\$0.00	\$66.15

**Notes:**

Steps are 1 year

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

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (BOSTON AREA)</i>	03/16/2019	\$46.66	\$8.00	\$23.50	\$0.00	\$78.16
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**Classification**

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

**Apprentice - IRONWORKER - Local 7 Boston**
**Effective Date - 03/16/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$28.00	\$8.00	\$23.50	\$0.00	\$59.50
2	70	\$32.66	\$8.00	\$23.50	\$0.00	\$64.16
3	75	\$35.00	\$8.00	\$23.50	\$0.00	\$66.50
4	80	\$37.33	\$8.00	\$23.50	\$0.00	\$68.83
5	85	\$39.66	\$8.00	\$23.50	\$0.00	\$71.16
6	90	\$41.99	\$8.00	\$23.50	\$0.00	\$73.49

**Notes:**

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

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

JACKHAMMER & PAVING BREAKER OPERATOR	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
LABORERS - ZONE 2	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

LABORER	06/01/2019	\$33.95	\$7.85	\$14.88	\$0.00	\$56.68
LABORERS - ZONE 2	12/01/2019	\$34.81	\$7.85	\$14.88	\$0.00	\$57.54
	06/01/2020	\$35.70	\$7.85	\$14.88	\$0.00	\$58.43
	12/01/2020	\$36.59	\$7.85	\$14.88	\$0.00	\$59.32
	06/01/2021	\$37.51	\$7.85	\$14.88	\$0.00	\$60.24
	12/01/2021	\$38.42	\$7.85	\$14.88	\$0.00	\$61.15

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - LABORER - Zone 2**

**Effective Date - 06/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.37	\$7.85	\$14.88	\$0.00	\$43.10
2	70	\$23.77	\$7.85	\$14.88	\$0.00	\$46.50
3	80	\$27.16	\$7.85	\$14.88	\$0.00	\$49.89
4	90	\$30.56	\$7.85	\$14.88	\$0.00	\$53.29

**Effective Date - 12/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.89	\$7.85	\$14.88	\$0.00	\$43.62
2	70	\$24.37	\$7.85	\$14.88	\$0.00	\$47.10
3	80	\$27.85	\$7.85	\$14.88	\$0.00	\$50.58
4	90	\$31.33	\$7.85	\$14.88	\$0.00	\$54.06

**Notes:**

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

LABORER: CARPENTER TENDER	06/01/2019	\$33.95	\$7.85	\$14.88	\$0.00	\$56.68
LABORERS - ZONE 2	12/01/2019	\$34.81	\$7.85	\$14.88	\$0.00	\$57.54
	06/01/2020	\$35.70	\$7.85	\$14.88	\$0.00	\$58.43
	12/01/2020	\$36.59	\$7.85	\$14.88	\$0.00	\$59.32
	06/01/2021	\$37.51	\$7.85	\$14.88	\$0.00	\$60.24
	12/01/2021	\$38.42	\$7.85	\$14.88	\$0.00	\$61.15
For apprentice rates see "Apprentice- LABORER"						
LABORER: CEMENT FINISHER TENDER	06/01/2019	\$33.95	\$7.85	\$14.88	\$0.00	\$56.68
LABORERS - ZONE 2	12/01/2019	\$34.81	\$7.85	\$14.88	\$0.00	\$57.54
	06/01/2020	\$35.70	\$7.85	\$14.88	\$0.00	\$58.43
	12/01/2020	\$36.59	\$7.85	\$14.88	\$0.00	\$59.32
	06/01/2021	\$37.51	\$7.85	\$14.88	\$0.00	\$60.24
	12/01/2021	\$38.42	\$7.85	\$14.88	\$0.00	\$61.15
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	06/01/2019	\$34.15	\$7.85	\$14.83	\$0.00	\$56.83
LABORERS - ZONE 2	12/01/2019	\$35.01	\$7.85	\$14.83	\$0.00	\$57.69
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
LABORERS - ZONE 2	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	06/01/2019	\$33.95	\$7.85	\$14.88	\$0.00	\$56.68
	12/01/2019	\$34.81	\$7.85	\$14.88	\$0.00	\$57.54
	06/01/2020	\$35.70	\$7.85	\$14.88	\$0.00	\$58.43
	12/01/2020	\$36.59	\$7.85	\$14.88	\$0.00	\$59.32
	06/01/2021	\$37.51	\$7.85	\$14.88	\$0.00	\$60.24
	12/01/2021	\$38.42	\$7.85	\$14.88	\$0.00	\$61.15
	For apprentice rates see "Apprentice- LABORER"					
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	06/01/2019	\$33.95	\$7.85	\$14.88	\$0.00	\$56.68
	12/01/2019	\$34.81	\$7.85	\$14.88	\$0.00	\$57.54
	06/01/2020	\$35.70	\$7.85	\$14.88	\$0.00	\$58.43
	12/01/2020	\$36.59	\$7.85	\$14.88	\$0.00	\$59.32
	06/01/2021	\$37.51	\$7.85	\$14.88	\$0.00	\$60.24
	12/01/2021	\$38.42	\$7.85	\$14.88	\$0.00	\$61.15
	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 2</i>	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40
	For apprentice rates see "Apprentice- LABORER"					
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	08/01/2019	\$41.49	\$10.75	\$19.61	\$0.00	\$71.85
	02/01/2020	\$42.00	\$10.75	\$19.61	\$0.00	\$72.36
	08/01/2020	\$43.08	\$10.75	\$19.76	\$0.00	\$73.59
	02/01/2021	\$43.59	\$10.75	\$19.76	\$0.00	\$74.10
	08/01/2021	\$44.71	\$10.75	\$19.92	\$0.00	\$75.38
	02/01/2022	\$45.18	\$10.75	\$19.92	\$0.00	\$75.85

**Classification**

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

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

**Effective Date - 08/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.75	\$10.75	\$19.61	\$0.00	\$51.11
2	60	\$24.89	\$10.75	\$19.61	\$0.00	\$55.25
3	70	\$29.04	\$10.75	\$19.61	\$0.00	\$59.40
4	80	\$33.19	\$10.75	\$19.61	\$0.00	\$63.55
5	90	\$37.34	\$10.75	\$19.61	\$0.00	\$67.70

**Effective Date - 02/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.00	\$10.75	\$19.61	\$0.00	\$51.36
2	60	\$25.20	\$10.75	\$19.61	\$0.00	\$55.56
3	70	\$29.40	\$10.75	\$19.61	\$0.00	\$59.76
4	80	\$33.60	\$10.75	\$19.61	\$0.00	\$63.96
5	90	\$37.80	\$10.75	\$19.61	\$0.00	\$68.16

**Notes:**

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

MARBLE MASONS,TILELAYERS & TERRAZZO MECH	08/01/2019	\$54.42	\$10.75	\$21.30	\$0.00	\$86.47
BRICKLAYERS LOCAL 3 - MARBLE & TILE	02/01/2020	\$55.05	\$10.75	\$21.30	\$0.00	\$87.10
	08/01/2020	\$56.40	\$10.75	\$21.45	\$0.00	\$88.60
	02/01/2021	\$57.04	\$10.75	\$21.45	\$0.00	\$89.24
	08/01/2021	\$58.44	\$10.75	\$21.61	\$0.00	\$90.80
	02/01/2022	\$59.01	\$10.75	\$21.61	\$0.00	\$91.37

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile**

**Effective Date -** 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.21	\$10.75	\$21.30	\$0.00	\$59.26
2	60	\$32.65	\$10.75	\$21.30	\$0.00	\$64.70
3	70	\$38.09	\$10.75	\$21.30	\$0.00	\$70.14
4	80	\$43.54	\$10.75	\$21.30	\$0.00	\$75.59
5	90	\$48.98	\$10.75	\$21.30	\$0.00	\$81.03

**Effective Date -** 02/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.53	\$10.75	\$21.30	\$0.00	\$59.58
2	60	\$33.03	\$10.75	\$21.30	\$0.00	\$65.08
3	70	\$38.54	\$10.75	\$21.30	\$0.00	\$70.59
4	80	\$44.04	\$10.75	\$21.30	\$0.00	\$76.09
5	90	\$49.55	\$10.75	\$21.30	\$0.00	\$81.60

**Notes:**

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

MECH. SWEEPER OPERATOR (ON CONST. SITES)	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 2)	04/01/2019	\$38.87	\$9.90	\$18.50	\$0.00	\$67.27
MILLWRIGHTS LOCAL 1121 - Zone 2						



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Apprentice - MILLWRIGHT - Local 1121 Zone 2</b>						
<b>Effective Date - 04/01/2019</b>						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$21.38	\$9.90	\$5.31	\$0.00	\$36.59
2	65	\$25.27	\$9.90	\$15.13	\$0.00	\$50.30
3	75	\$29.15	\$9.90	\$16.10	\$0.00	\$55.15
4	85	\$33.04	\$9.90	\$17.06	\$0.00	\$60.00
<b>Notes:</b>						
Steps are 2,000 hours						
<b>Apprentice to Journeyworker Ratio:1:5</b>						
MORTAR MIXER	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
LABORERS - ZONE 2	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	06/01/2019	\$23.11	\$12.00	\$15.60	\$0.00	\$50.71
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$23.68	\$12.00	\$15.60	\$0.00	\$51.28
	06/01/2020	\$24.23	\$12.00	\$15.60	\$0.00	\$51.83
	12/01/2020	\$24.80	\$12.00	\$15.60	\$0.00	\$52.40
	06/01/2021	\$25.35	\$12.00	\$15.60	\$0.00	\$52.95
	12/01/2021	\$25.93	\$12.00	\$15.60	\$0.00	\$53.53
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS)	06/01/2019	\$27.57	\$12.00	\$15.60	\$0.00	\$55.17
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$28.24	\$12.00	\$15.60	\$0.00	\$55.84
	06/01/2020	\$28.89	\$12.00	\$15.60	\$0.00	\$56.49
	12/01/2020	\$29.57	\$12.00	\$15.60	\$0.00	\$57.17
	06/01/2021	\$30.21	\$12.00	\$15.60	\$0.00	\$57.81
	12/01/2021	\$30.89	\$12.00	\$15.60	\$0.00	\$58.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS)	07/01/2019	\$50.66	\$8.20	\$21.45	\$0.00	\$80.31
PAINTERS LOCAL 35 - ZONE 2	01/01/2020	\$50.96	\$8.20	\$22.10	\$0.00	\$81.26
	07/01/2020	\$52.06	\$8.20	\$22.10	\$0.00	\$82.36
	01/01/2021	\$53.16	\$8.20	\$22.10	\$0.00	\$83.46

**Classification**

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

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

**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.33	\$8.20	\$0.00	\$0.00	\$33.53
2	55	\$27.86	\$8.20	\$5.78	\$0.00	\$41.84
3	60	\$30.40	\$8.20	\$6.30	\$0.00	\$44.90
4	65	\$32.93	\$8.20	\$6.83	\$0.00	\$47.96
5	70	\$35.46	\$8.20	\$18.30	\$0.00	\$61.96
6	75	\$38.00	\$8.20	\$18.83	\$0.00	\$65.03
7	80	\$40.53	\$8.20	\$19.35	\$0.00	\$68.08
8	90	\$45.59	\$8.20	\$20.40	\$0.00	\$74.19

**Effective Date - 01/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.48	\$8.20	\$0.00	\$0.00	\$33.68
2	55	\$28.03	\$8.20	\$5.94	\$0.00	\$42.17
3	60	\$30.58	\$8.20	\$6.48	\$0.00	\$45.26
4	65	\$33.12	\$8.20	\$7.02	\$0.00	\$48.34
5	70	\$35.67	\$8.20	\$18.51	\$0.00	\$62.38
6	75	\$38.22	\$8.20	\$19.05	\$0.00	\$65.47
7	80	\$40.77	\$8.20	\$19.59	\$0.00	\$68.56
8	90	\$45.86	\$8.20	\$20.67	\$0.00	\$74.73

**Notes:**

Steps are 750 hrs.

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

PAINTER (SIGN, PICTORIAL & DISPLAY)	06/01/2013	\$25.81	\$7.07	\$7.05	\$0.00	\$39.93
PAINTERS LOCAL 35 - ZONE 2						

**Apprentice - PAINTER SIGN - 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**

PAINTER (SPRAY OR SANDBLAST, NEW) \*

07/01/2019 \$41.56 \$8.20 \$21.45 \$0.00 \$71.21

\* If 30% or more of surfaces to be painted are new construction,

01/01/2020 \$41.86 \$8.20 \$22.10 \$0.00 \$72.16

NEW paint rate shall be used. *PAINTERS LOCAL 35 - ZONE 2*

07/01/2020 \$42.96 \$8.20 \$22.10 \$0.00 \$73.26

01/01/2021 \$44.06 \$8.20 \$22.10 \$0.00 \$74.36

**Classification**
**Effective Date**
**Base Wage**
**Health**
**Pension**
**Supplemental  
Unemployment**
**Total Rate**
**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New**
**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.78	\$8.20	\$0.00	\$0.00	\$28.98
2	55	\$22.86	\$8.20	\$5.78	\$0.00	\$36.84
3	60	\$24.94	\$8.20	\$6.30	\$0.00	\$39.44
4	65	\$27.01	\$8.20	\$6.83	\$0.00	\$42.04
5	70	\$29.09	\$8.20	\$18.30	\$0.00	\$55.59
6	75	\$31.17	\$8.20	\$18.83	\$0.00	\$58.20
7	80	\$33.25	\$8.20	\$19.35	\$0.00	\$60.80
8	90	\$37.40	\$8.20	\$20.40	\$0.00	\$66.00

**Effective Date - 01/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.93	\$8.20	\$0.00	\$0.00	\$29.13
2	55	\$23.02	\$8.20	\$5.94	\$0.00	\$37.16
3	60	\$25.12	\$8.20	\$6.48	\$0.00	\$39.80
4	65	\$27.21	\$8.20	\$7.02	\$0.00	\$42.43
5	70	\$29.30	\$8.20	\$18.51	\$0.00	\$56.01
6	75	\$31.40	\$8.20	\$19.05	\$0.00	\$58.65
7	80	\$33.49	\$8.20	\$19.59	\$0.00	\$61.28
8	90	\$37.67	\$8.20	\$20.67	\$0.00	\$66.54

**Notes:**

Steps are 750 hrs.

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

PAINTER (SPRAY OR SANDBLAST, REPAINT)	07/01/2019	\$39.62	\$8.20	\$21.45	\$0.00	\$69.27
PAINTERS LOCAL 35 - ZONE 2	01/01/2020	\$39.92	\$8.20	\$22.10	\$0.00	\$70.22
	07/01/2020	\$41.02	\$8.20	\$22.10	\$0.00	\$71.32
	01/01/2021	\$42.12	\$8.20	\$22.10	\$0.00	\$72.42

**Classification**

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

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint**
**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.81	\$8.20	\$0.00	\$0.00	\$28.01
2	55	\$21.79	\$8.20	\$5.78	\$0.00	\$35.77
3	60	\$23.77	\$8.20	\$6.30	\$0.00	\$38.27
4	65	\$25.75	\$8.20	\$6.83	\$0.00	\$40.78
5	70	\$27.73	\$8.20	\$18.30	\$0.00	\$54.23
6	75	\$29.72	\$8.20	\$18.83	\$0.00	\$56.75
7	80	\$31.70	\$8.20	\$19.35	\$0.00	\$59.25
8	90	\$35.66	\$8.20	\$20.40	\$0.00	\$64.26

**Effective Date - 01/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.96	\$8.20	\$0.00	\$0.00	\$28.16
2	55	\$21.96	\$8.20	\$5.94	\$0.00	\$36.10
3	60	\$23.95	\$8.20	\$6.48	\$0.00	\$38.63
4	65	\$25.95	\$8.20	\$7.02	\$0.00	\$41.17
5	70	\$27.94	\$8.20	\$18.51	\$0.00	\$54.65
6	75	\$29.94	\$8.20	\$19.05	\$0.00	\$57.19
7	80	\$31.94	\$8.20	\$19.59	\$0.00	\$59.73
8	90	\$35.93	\$8.20	\$20.67	\$0.00	\$64.80

**Notes:**

Steps are 750 hrs.

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

PAINTER (TRAFFIC MARKINGS)	06/01/2019	\$33.95	\$7.85	\$14.88	\$0.00	\$56.68
LABORERS - ZONE 2	12/01/2019	\$34.81	\$7.85	\$14.88	\$0.00	\$57.54
	06/01/2020	\$35.70	\$7.85	\$14.88	\$0.00	\$58.43
	12/01/2020	\$36.59	\$7.85	\$14.88	\$0.00	\$59.32
	06/01/2021	\$37.51	\$7.85	\$14.88	\$0.00	\$60.24
	12/01/2021	\$38.42	\$7.85	\$14.88	\$0.00	\$61.15
For Apprentice rates see "Apprentice- LABORER"						
PAINTER / TAPER (BRUSH, NEW) *	07/01/2019	\$40.16	\$8.20	\$21.45	\$0.00	\$69.81
* If 30% or more of surfaces to be painted are new construction,	01/01/2020	\$40.46	\$8.20	\$22.10	\$0.00	\$70.76
NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	07/01/2020	\$41.56	\$8.20	\$22.10	\$0.00	\$71.86
	01/01/2021	\$42.66	\$8.20	\$22.10	\$0.00	\$72.96

**Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW****Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.08	\$8.20	\$0.00	\$0.00	\$28.28
2	55	\$22.09	\$8.20	\$5.78	\$0.00	\$36.07
3	60	\$24.10	\$8.20	\$6.30	\$0.00	\$38.60
4	65	\$26.10	\$8.20	\$6.83	\$0.00	\$41.13
5	70	\$28.11	\$8.20	\$18.30	\$0.00	\$54.61
6	75	\$30.12	\$8.20	\$18.83	\$0.00	\$57.15
7	80	\$32.13	\$8.20	\$19.35	\$0.00	\$59.68
8	90	\$36.14	\$8.20	\$20.40	\$0.00	\$64.74

**Effective Date - 01/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.23	\$8.20	\$0.00	\$0.00	\$28.43
2	55	\$22.25	\$8.20	\$5.94	\$0.00	\$36.39
3	60	\$24.28	\$8.20	\$6.48	\$0.00	\$38.96
4	65	\$26.30	\$8.20	\$7.02	\$0.00	\$41.52
5	70	\$28.32	\$8.20	\$18.51	\$0.00	\$55.03
6	75	\$30.35	\$8.20	\$19.05	\$0.00	\$57.60
7	80	\$32.37	\$8.20	\$19.59	\$0.00	\$60.16
8	90	\$36.41	\$8.20	\$20.67	\$0.00	\$65.28

**Notes:**

Steps are 750 hrs.

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

PAINTER / TAPER (BRUSH, REPAINT)

PAINTERS LOCAL 35 - ZONE 2

07/01/2019	\$38.22	\$8.20	\$21.45	\$0.00	\$67.87
01/01/2020	\$38.52	\$8.20	\$22.10	\$0.00	\$68.82
07/01/2020	\$39.62	\$8.20	\$22.10	\$0.00	\$69.92
01/01/2021	\$40.72	\$8.20	\$22.10	\$0.00	\$71.02

**Classification**

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

**Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT**
**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.11	\$8.20	\$0.00	\$0.00	\$27.31
2	55	\$21.02	\$8.20	\$5.78	\$0.00	\$35.00
3	60	\$22.93	\$8.20	\$6.30	\$0.00	\$37.43
4	65	\$24.84	\$8.20	\$6.83	\$0.00	\$39.87
5	70	\$26.75	\$8.20	\$18.30	\$0.00	\$53.25
6	75	\$28.67	\$8.20	\$18.83	\$0.00	\$55.70
7	80	\$30.58	\$8.20	\$19.35	\$0.00	\$58.13
8	90	\$34.40	\$8.20	\$20.40	\$0.00	\$63.00

**Effective Date - 01/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.26	\$8.20	\$0.00	\$0.00	\$27.46
2	55	\$21.19	\$8.20	\$5.94	\$0.00	\$35.33
3	60	\$23.11	\$8.20	\$6.48	\$0.00	\$37.79
4	65	\$25.04	\$8.20	\$7.02	\$0.00	\$40.26
5	70	\$26.96	\$8.20	\$18.51	\$0.00	\$53.67
6	75	\$28.89	\$8.20	\$19.05	\$0.00	\$56.14
7	80	\$30.82	\$8.20	\$19.59	\$0.00	\$58.61
8	90	\$34.67	\$8.20	\$20.67	\$0.00	\$63.54

**Notes:**

Steps are 750 hrs.

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

PANEL & PICKUP TRUCKS DRIVER	08/01/2019	\$34.08	\$12.41	\$12.70	\$0.00	\$59.19
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2019	\$34.08	\$12.41	\$13.72	\$0.00	\$60.21
	06/01/2020	\$34.98	\$12.41	\$13.72	\$0.00	\$61.11
	08/01/2020	\$34.98	\$12.91	\$13.72	\$0.00	\$61.61
	12/01/2020	\$34.98	\$12.91	\$14.82	\$0.00	\$62.71
	06/01/2021	\$35.78	\$12.91	\$14.82	\$0.00	\$63.51
	08/01/2021	\$35.78	\$13.41	\$14.82	\$0.00	\$64.01
	12/01/2021	\$35.78	\$13.41	\$16.01	\$0.00	\$65.20
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
PILE DRIVER LOCAL 56 (ZONE 1)						
For apprentice rates see "Apprentice- PILE DRIVER"						
PILE DRIVER	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
PILE DRIVER LOCAL 56 (ZONE 1)						

**Apprentice - PILE DRIVER - Local 56 Zone 1****Effective Date - 08/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.47	\$9.90	\$21.15	\$0.00	\$55.52
2	60	\$29.36	\$9.90	\$21.15	\$0.00	\$60.41
3	70	\$34.26	\$9.90	\$21.15	\$0.00	\$65.31
4	75	\$36.71	\$9.90	\$21.15	\$0.00	\$67.76
5	80	\$39.15	\$9.90	\$21.15	\$0.00	\$70.20
6	80	\$39.15	\$9.90	\$21.15	\$0.00	\$70.20
7	90	\$44.05	\$9.90	\$21.15	\$0.00	\$75.10
8	90	\$44.05	\$9.90	\$21.15	\$0.00	\$75.10

**Notes:****Apprentice to Journeyworker Ratio:1:5****PIPEFITTER & STEAMFITTER***PIPEFITTERS LOCAL 537*

09/01/2019	\$54.69	\$10.95	\$19.74	\$0.00	\$85.38
03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
03/01/2021	\$59.19	\$10.95	\$19.74	\$0.00	\$89.88

**Apprentice - PIPEFITTER - Local 537****Effective Date - 09/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$21.88	\$10.95	\$8.00	\$0.00	\$40.83
2	45	\$24.61	\$10.95	\$19.74	\$0.00	\$55.30
3	60	\$32.81	\$10.95	\$19.74	\$0.00	\$63.50
4	70	\$38.28	\$10.95	\$19.74	\$0.00	\$68.97
5	80	\$43.75	\$10.95	\$19.74	\$0.00	\$74.44

**Effective Date - 03/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$22.48	\$10.95	\$8.00	\$0.00	\$41.43
2	45	\$25.29	\$10.95	\$19.74	\$0.00	\$55.98
3	60	\$33.71	\$10.95	\$19.74	\$0.00	\$64.40
4	70	\$39.33	\$10.95	\$19.74	\$0.00	\$70.02
5	80	\$44.95	\$10.95	\$19.74	\$0.00	\$75.64

**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 2	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

PLUMBERS & GASFITTERS PLUMBERS & GASFITTERS LOCAL 12	09/01/2019	\$57.69	\$11.82	\$17.01	\$0.00	\$86.52
	03/01/2020	\$59.19	\$11.82	\$17.01	\$0.00	\$88.02
	09/01/2020	\$60.69	\$11.82	\$17.01	\$0.00	\$89.52
	03/01/2021	\$62.19	\$11.82	\$17.01	\$0.00	\$91.02

#### Apprentice - PLUMBER/GASFITTER - Local 12

Effective Date - 09/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$20.19	\$11.82	\$6.16	\$0.00	\$38.17
2	40	\$23.08	\$11.82	\$6.99	\$0.00	\$41.89
3	55	\$31.73	\$11.82	\$9.53	\$0.00	\$53.08
4	65	\$37.50	\$11.82	\$11.18	\$0.00	\$60.50
5	75	\$43.27	\$11.82	\$12.88	\$0.00	\$67.97

Effective Date - 03/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$20.72	\$11.82	\$6.16	\$0.00	\$38.70
2	40	\$23.68	\$11.82	\$6.99	\$0.00	\$42.49
3	55	\$32.55	\$11.82	\$9.53	\$0.00	\$53.90
4	65	\$38.47	\$11.82	\$11.18	\$0.00	\$61.47
5	75	\$44.39	\$11.82	\$12.88	\$0.00	\$69.09

#### Notes:

\*\* 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr  
Step4 with lic\$64.20, Step5 with lic\$71.67

Apprentice to Journeyworker Ratio:\*\*

PNEUMATIC CONTROLS (TEMP.) PIPEFITTERS LOCAL 537	09/01/2019	\$54.69	\$10.95	\$19.74	\$0.00	\$85.38
	03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
	09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
	03/01/2021	\$59.17	\$10.95	\$19.74	\$0.00	\$89.86

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR LABORERS - ZONE 2	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
POWDERMAN & BLASTER <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.95	\$7.85	\$14.88	\$0.00	\$57.68
	12/01/2019	\$35.81	\$7.85	\$14.88	\$0.00	\$58.54
	06/01/2020	\$36.70	\$7.85	\$14.88	\$0.00	\$59.43
	12/01/2020	\$37.59	\$7.85	\$14.88	\$0.00	\$60.32
	06/01/2021	\$38.51	\$7.85	\$14.88	\$0.00	\$61.24
	12/01/2021	\$39.42	\$7.85	\$14.88	\$0.00	\$62.15
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$32.28	\$12.00	\$15.60	\$0.00	\$59.88
	12/01/2019	\$33.07	\$12.00	\$15.60	\$0.00	\$60.67
	06/01/2020	\$33.82	\$12.00	\$15.60	\$0.00	\$61.42
	12/01/2020	\$34.60	\$12.00	\$15.60	\$0.00	\$62.20
	06/01/2021	\$35.35	\$12.00	\$15.60	\$0.00	\$62.95
	12/01/2021	\$36.14	\$12.00	\$15.60	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS 170 - Dauphinais (Bellingham)</i>	01/01/2019	\$23.75	\$10.56	\$2.50	\$0.00	\$36.81
	12/01/2019	\$24.00	\$10.56	\$2.50	\$0.00	\$37.06
	01/01/2020	\$24.00	\$11.01	\$2.50	\$0.00	\$37.51
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg) <i>ROOFERS LOCAL 33</i>	08/01/2019	\$44.64	\$11.50	\$15.90	\$0.00	\$72.04
	02/01/2020	\$45.92	\$11.50	\$15.90	\$0.00	\$73.32
	08/01/2020	\$47.35	\$11.50	\$15.90	\$0.00	\$74.75
	02/01/2021	\$48.78	\$11.50	\$15.90	\$0.00	\$76.18
	08/01/2021	\$50.21	\$11.50	\$15.90	\$0.00	\$77.61
	02/01/2022	\$51.64	\$11.50	\$15.90	\$0.00	\$79.04

#### Apprentice - ROOFER - Local 33

Effective Date - 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.32	\$11.50	\$3.69	\$0.00	\$37.51
2	60	\$26.78	\$11.50	\$15.90	\$0.00	\$54.18
3	65	\$29.02	\$11.50	\$15.90	\$0.00	\$56.42
4	75	\$33.48	\$11.50	\$15.90	\$0.00	\$60.88
5	85	\$37.94	\$11.50	\$15.90	\$0.00	\$65.34

Effective Date - 02/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.96	\$11.50	\$3.69	\$0.00	\$38.15
2	60	\$27.55	\$11.50	\$15.90	\$0.00	\$54.95
3	65	\$29.85	\$11.50	\$15.90	\$0.00	\$57.25
4	75	\$34.44	\$11.50	\$15.90	\$0.00	\$61.84
5	85	\$39.03	\$11.50	\$15.90	\$0.00	\$66.43

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

Apprentice to Journeyworker Ratio:\*\*

ROOFER SLATE / TILE / PRECAST CONCRETE <i>ROOFERS LOCAL 33</i>	08/01/2019	\$44.89	\$11.50	\$15.90	\$0.00	\$72.29
	02/01/2020	\$46.17	\$11.50	\$15.90	\$0.00	\$73.57
	08/01/2020	\$47.60	\$11.50	\$15.90	\$0.00	\$75.00
	02/01/2021	\$49.03	\$11.50	\$15.90	\$0.00	\$76.43
	08/01/2021	\$50.46	\$11.50	\$15.90	\$0.00	\$77.86
	02/01/2022	\$51.89	\$11.50	\$15.90	\$0.00	\$79.29

For apprentice rates see "Apprentice- ROOFER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SHEETMETAL WORKER	08/01/2019	\$48.10	\$13.20	\$24.12	\$2.56	\$87.98
<i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2020	\$49.75	\$13.20	\$24.12	\$2.61	\$89.68
	08/01/2020	\$51.35	\$13.20	\$24.12	\$2.66	\$91.33
	02/01/2021	\$53.00	\$13.20	\$24.12	\$2.71	\$93.03
	08/01/2021	\$54.75	\$13.20	\$24.12	\$2.76	\$94.83
	02/01/2022	\$56.50	\$13.20	\$24.12	\$2.81	\$96.63

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

**Effective Date - 08/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	42	\$20.20	\$13.20	\$5.89	\$0.00	\$39.29
2	42	\$20.20	\$13.20	\$5.89	\$0.00	\$39.29
3	47	\$22.61	\$13.20	\$11.13	\$1.41	\$48.35
4	47	\$22.61	\$13.20	\$11.13	\$1.41	\$48.35
5	52	\$25.01	\$13.20	\$12.08	\$1.51	\$51.80
6	52	\$25.01	\$13.20	\$12.33	\$1.52	\$52.06
7	60	\$28.86	\$13.20	\$13.70	\$1.67	\$57.43
8	65	\$31.27	\$13.20	\$14.65	\$1.77	\$60.89
9	75	\$36.08	\$13.20	\$16.56	\$1.98	\$67.82
10	85	\$40.89	\$13.20	\$17.96	\$2.16	\$74.21

**Effective Date - 02/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	42	\$20.90	\$13.20	\$5.89	\$0.00	\$39.99
2	42	\$20.90	\$13.20	\$5.89	\$0.00	\$39.99
3	47	\$23.38	\$13.20	\$11.13	\$1.43	\$49.14
4	47	\$23.38	\$13.20	\$11.13	\$1.43	\$49.14
5	52	\$25.87	\$13.20	\$12.08	\$1.53	\$52.68
6	52	\$25.87	\$13.20	\$12.33	\$1.54	\$52.94
7	60	\$29.85	\$13.20	\$13.70	\$1.70	\$58.45
8	65	\$32.34	\$13.20	\$14.65	\$1.82	\$62.01
9	75	\$37.31	\$13.20	\$16.56	\$2.01	\$69.08
10	85	\$42.29	\$13.20	\$17.96	\$2.20	\$75.65

**Notes:**

Steps are 6 mos.

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPECIALIZED EARTH MOVING EQUIP < 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2019	\$34.54	\$12.41	\$12.70	\$0.00	\$59.65
	12/01/2019	\$34.54	\$12.41	\$13.72	\$0.00	\$60.67
	06/01/2020	\$35.44	\$12.41	\$13.72	\$0.00	\$61.57
	08/01/2020	\$35.44	\$12.91	\$13.72	\$0.00	\$62.07
	12/01/2020	\$35.44	\$12.91	\$14.82	\$0.00	\$63.17
	06/01/2021	\$36.24	\$12.91	\$14.82	\$0.00	\$63.97
	08/01/2021	\$36.24	\$13.41	\$14.82	\$0.00	\$64.47
	12/01/2021	\$36.24	\$13.41	\$16.01	\$0.00	\$65.66
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2019	\$34.83	\$12.41	\$12.70	\$0.00	\$59.94
	12/01/2019	\$34.83	\$12.41	\$13.72	\$0.00	\$60.96
	06/01/2020	\$35.73	\$12.41	\$13.72	\$0.00	\$61.86
	08/01/2020	\$35.73	\$12.91	\$13.72	\$0.00	\$62.36
	12/01/2020	\$35.73	\$12.91	\$14.82	\$0.00	\$63.46
	06/01/2021	\$36.53	\$12.91	\$14.82	\$0.00	\$64.26
	08/01/2021	\$36.53	\$13.41	\$14.82	\$0.00	\$64.76
	12/01/2021	\$36.53	\$13.41	\$16.01	\$0.00	\$65.95
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>	10/01/2019	\$60.48	\$9.47	\$19.60	\$0.00	\$89.55
	03/01/2020	\$61.98	\$9.47	\$19.60	\$0.00	\$91.05
	10/01/2020	\$63.48	\$9.47	\$19.60	\$0.00	\$92.55
	03/01/2021	\$64.98	\$9.47	\$19.60	\$0.00	\$94.05

**Classification**

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

**Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1**
**Effective Date - 10/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$21.17	\$9.47	\$11.15	\$0.00	\$41.79
2	40	\$24.19	\$9.47	\$11.80	\$0.00	\$45.46
3	45	\$27.22	\$9.47	\$12.45	\$0.00	\$49.14
4	50	\$30.24	\$9.47	\$13.10	\$0.00	\$52.81
5	55	\$33.26	\$9.47	\$13.75	\$0.00	\$56.48
6	60	\$36.29	\$9.47	\$14.40	\$0.00	\$60.16
7	65	\$39.31	\$9.47	\$15.05	\$0.00	\$63.83
8	70	\$42.34	\$9.47	\$15.70	\$0.00	\$67.51
9	75	\$45.36	\$9.47	\$16.35	\$0.00	\$71.18
10	80	\$48.38	\$9.47	\$17.00	\$0.00	\$74.85

**Effective Date - 03/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$21.69	\$9.47	\$11.15	\$0.00	\$42.31
2	40	\$24.79	\$9.47	\$11.80	\$0.00	\$46.06
3	45	\$27.89	\$9.47	\$12.45	\$0.00	\$49.81
4	50	\$30.99	\$9.47	\$13.10	\$0.00	\$53.56
5	55	\$34.09	\$9.47	\$13.75	\$0.00	\$57.31
6	60	\$37.19	\$9.47	\$14.40	\$0.00	\$61.06
7	65	\$40.29	\$9.47	\$15.05	\$0.00	\$64.81
8	70	\$43.39	\$9.47	\$15.70	\$0.00	\$68.56
9	75	\$46.49	\$9.47	\$16.35	\$0.00	\$72.31
10	80	\$49.58	\$9.47	\$17.00	\$0.00	\$76.05

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	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2019	\$38.33	\$13.00	\$16.82	\$0.00	\$68.15

**Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103**

**Effective Date -** 03/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$15.33	\$13.00	\$0.46	\$0.00	\$28.79
2	40	\$15.33	\$13.00	\$0.46	\$0.00	\$28.79
3	45	\$17.25	\$13.00	\$13.42	\$0.00	\$43.67
4	45	\$17.25	\$13.00	\$13.42	\$0.00	\$43.67
5	50	\$19.17	\$13.00	\$13.73	\$0.00	\$45.90
6	55	\$21.08	\$13.00	\$14.03	\$0.00	\$48.11
7	60	\$23.00	\$13.00	\$14.34	\$0.00	\$50.34
8	65	\$24.91	\$13.00	\$14.66	\$0.00	\$52.57
9	70	\$26.83	\$13.00	\$14.96	\$0.00	\$54.79
10	75	\$28.75	\$13.00	\$15.27	\$0.00	\$57.02

**Notes:**

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

TERRAZZO FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	08/01/2019	\$53.34	\$10.75	\$21.30	\$0.00	\$85.39
	02/01/2020	\$53.98	\$10.75	\$21.30	\$0.00	\$86.03
	08/01/2020	\$55.33	\$10.75	\$21.45	\$0.00	\$87.53
	02/01/2021	\$55.97	\$10.75	\$21.45	\$0.00	\$88.17
	08/01/2021	\$57.37	\$10.75	\$21.61	\$0.00	\$89.73
	02/01/2022	\$57.96	\$10.75	\$21.61	\$0.00	\$90.32

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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**Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile**

**Effective Date - 08/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.67	\$10.75	\$21.30	\$0.00	\$58.72
2	60	\$32.00	\$10.75	\$21.30	\$0.00	\$64.05
3	70	\$37.34	\$10.75	\$21.30	\$0.00	\$69.39
4	80	\$42.67	\$10.75	\$21.30	\$0.00	\$74.72
5	90	\$48.01	\$10.75	\$21.30	\$0.00	\$80.06

**Effective Date - 02/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.99	\$10.75	\$21.30	\$0.00	\$59.04
2	60	\$32.39	\$10.75	\$21.30	\$0.00	\$64.44
3	70	\$37.79	\$10.75	\$21.30	\$0.00	\$69.84
4	80	\$43.18	\$10.75	\$21.30	\$0.00	\$75.23
5	90	\$48.58	\$10.75	\$21.30	\$0.00	\$80.63

**Notes:**

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

TEST BORING DRILLER	06/01/2019	\$40.50	\$7.85	\$16.05	\$0.00	\$64.40
LABORERS - FOUNDATION AND MARINE	12/01/2019	\$41.50	\$7.85	\$16.05	\$0.00	\$65.40
	06/01/2020	\$42.49	\$7.85	\$16.05	\$0.00	\$66.39
	12/01/2020	\$43.47	\$7.85	\$16.05	\$0.00	\$67.37
	06/01/2021	\$44.49	\$7.85	\$16.05	\$0.00	\$68.39
	12/01/2021	\$45.50	\$7.85	\$16.05	\$0.00	\$69.40
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER	06/01/2019	\$39.22	\$7.85	\$16.05	\$0.00	\$63.12
LABORERS - FOUNDATION AND MARINE	12/01/2019	\$40.22	\$7.85	\$16.05	\$0.00	\$64.12
	06/01/2020	\$41.21	\$7.85	\$16.05	\$0.00	\$65.11
	12/01/2020	\$42.19	\$7.85	\$16.05	\$0.00	\$66.09
	06/01/2021	\$43.21	\$7.85	\$16.05	\$0.00	\$67.11
	12/01/2021	\$44.22	\$7.85	\$16.05	\$0.00	\$68.12
For apprentice rates see "Apprentice- LABORER"						
TEST BORING LABORER	06/01/2019	\$39.10	\$7.85	\$16.05	\$0.00	\$63.00
LABORERS - FOUNDATION AND MARINE	12/01/2019	\$40.10	\$7.85	\$16.05	\$0.00	\$64.00
	06/01/2020	\$41.09	\$7.85	\$16.05	\$0.00	\$64.99
	12/01/2020	\$42.07	\$7.85	\$16.05	\$0.00	\$65.97
	06/01/2021	\$43.09	\$7.85	\$16.05	\$0.00	\$66.99
	12/01/2021	\$44.10	\$7.85	\$16.05	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$47.69	\$12.00	\$15.60	\$0.00	\$75.29
	12/01/2019	\$48.83	\$12.00	\$15.60	\$0.00	\$76.43
	06/01/2020	\$49.91	\$12.00	\$15.60	\$0.00	\$77.51
	12/01/2020	\$51.05	\$12.00	\$15.60	\$0.00	\$78.65
	06/01/2021	\$52.14	\$12.00	\$15.60	\$0.00	\$79.74
	12/01/2021	\$53.28	\$12.00	\$15.60	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2019	\$35.12	\$12.41	\$12.70	\$0.00	\$60.23
	12/01/2019	\$35.12	\$12.41	\$13.72	\$0.00	\$61.25
	06/01/2020	\$36.02	\$12.41	\$13.72	\$0.00	\$62.15
	08/01/2020	\$36.02	\$12.91	\$13.72	\$0.00	\$62.65
	12/01/2020	\$36.02	\$12.91	\$14.82	\$0.00	\$63.75
	06/01/2021	\$36.82	\$12.91	\$14.82	\$0.00	\$64.55
	08/01/2021	\$36.82	\$13.41	\$14.82	\$0.00	\$65.05
	12/01/2021	\$36.82	\$13.41	\$16.01	\$0.00	\$66.24
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	06/01/2019	\$51.38	\$7.85	\$16.45	\$0.00	\$75.68
	12/01/2019	\$52.38	\$7.85	\$16.45	\$0.00	\$76.68
	06/01/2020	\$53.37	\$7.85	\$16.45	\$0.00	\$77.67
	12/01/2020	\$54.35	\$7.85	\$16.45	\$0.00	\$78.65
	06/01/2021	\$55.37	\$7.85	\$16.45	\$0.00	\$79.67
	12/01/2021	\$56.38	\$7.85	\$16.45	\$0.00	\$80.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	06/01/2019	\$53.38	\$7.85	\$16.45	\$0.00	\$77.68
	12/01/2019	\$54.38	\$7.85	\$16.45	\$0.00	\$78.68
	06/01/2020	\$55.37	\$7.85	\$16.45	\$0.00	\$79.67
	12/01/2020	\$56.35	\$7.85	\$16.45	\$0.00	\$80.65
	06/01/2021	\$57.37	\$7.85	\$16.45	\$0.00	\$81.67
	12/01/2021	\$58.38	\$7.85	\$16.45	\$0.00	\$82.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2019	\$43.45	\$7.85	\$16.45	\$0.00	\$67.75
	12/01/2019	\$44.45	\$7.85	\$16.45	\$0.00	\$68.75
	06/01/2020	\$45.44	\$7.85	\$16.45	\$0.00	\$69.74
	12/01/2020	\$46.42	\$7.85	\$16.45	\$0.00	\$70.72
	06/01/2021	\$47.44	\$7.85	\$16.45	\$0.00	\$71.74
	12/01/2021	\$48.45	\$7.85	\$16.45	\$0.00	\$72.75
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2019	\$45.45	\$7.85	\$16.45	\$0.00	\$69.75
	12/01/2019	\$46.45	\$7.85	\$16.45	\$0.00	\$70.75
	06/01/2020	\$47.44	\$7.85	\$16.45	\$0.00	\$71.74
	12/01/2020	\$48.42	\$7.85	\$16.45	\$0.00	\$72.72
	06/01/2021	\$49.44	\$7.85	\$16.45	\$0.00	\$73.74
	12/01/2021	\$50.45	\$7.85	\$16.45	\$0.00	\$74.75
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2019	\$34.54	\$12.41	\$12.70	\$0.00	\$59.65
	12/01/2019	\$34.54	\$12.41	\$13.72	\$0.00	\$60.67
	06/01/2020	\$35.44	\$12.41	\$13.72	\$0.00	\$61.57
	08/01/2020	\$35.44	\$12.91	\$13.72	\$0.00	\$62.07
	12/01/2020	\$35.44	\$12.91	\$14.82	\$0.00	\$63.17
	06/01/2021	\$36.24	\$12.91	\$14.82	\$0.00	\$63.97
	08/01/2021	\$36.24	\$13.41	\$14.82	\$0.00	\$64.47
	12/01/2021	\$36.24	\$13.41	\$16.01	\$0.00	\$65.66
WAGON DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2019	\$34.20	\$7.85	\$14.88	\$0.00	\$56.93
	12/01/2019	\$35.06	\$7.85	\$14.88	\$0.00	\$57.79
	06/01/2020	\$35.95	\$7.85	\$14.88	\$0.00	\$58.68
	12/01/2020	\$36.84	\$7.85	\$14.88	\$0.00	\$59.57
	06/01/2021	\$37.76	\$7.85	\$14.88	\$0.00	\$60.49
	12/01/2021	\$38.67	\$7.85	\$14.88	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2019	\$48.18	\$12.00	\$15.60	\$0.00	\$75.78
	12/01/2019	\$49.33	\$12.00	\$15.60	\$0.00	\$76.93
	06/01/2020	\$50.43	\$12.00	\$15.60	\$0.00	\$78.03
	12/01/2020	\$51.58	\$12.00	\$15.60	\$0.00	\$79.18
	06/01/2021	\$52.68	\$12.00	\$15.60	\$0.00	\$80.28
	12/01/2021	\$53.83	\$12.00	\$15.60	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS &amp; GASFITTERS LOCAL 12</i>	09/01/2019	\$57.69	\$11.82	\$17.01	\$0.00	\$86.52
	03/01/2020	\$59.19	\$11.82	\$17.01	\$0.00	\$88.02
	09/01/2020	\$60.69	\$11.82	\$17.01	\$0.00	\$89.52
	03/01/2021	\$62.19	\$11.82	\$17.01	\$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>	09/01/2019	\$28.83	\$8.75	\$1.86	\$0.00	\$39.44
	08/30/2020	\$29.67	\$9.25	\$1.89	\$0.00	\$40.81
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$40.84	\$8.75	\$10.02	\$0.00	\$59.61
	08/30/2020	\$42.03	\$9.25	\$10.27	\$0.00	\$61.55
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$33.64	\$8.75	\$9.86	\$0.00	\$52.25
	08/30/2020	\$34.62	\$9.25	\$10.07	\$0.00	\$53.94
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$26.43	\$8.75	\$1.79	\$0.00	\$36.97
	08/30/2020	\$27.20	\$9.25	\$1.82	\$0.00	\$38.27
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$40.84	\$8.75	\$14.10	\$0.00	\$63.69
	08/30/2020	\$42.03	\$9.25	\$14.35	\$0.00	\$65.63
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$36.04	\$8.75	\$10.65	\$0.00	\$55.44
	08/30/2020	\$37.09	\$9.25	\$10.87	\$0.00	\$57.21
For apprentice rates see "Apprentice- LINEMAN"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$21.62	\$8.75	\$1.65	\$0.00	\$32.02
	08/30/2020	\$22.25	\$9.25	\$1.67	\$0.00	\$33.17
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$26.43	\$8.75	\$1.79	\$0.00	\$36.97
	08/30/2020	\$27.20	\$9.25	\$1.82	\$0.00	\$38.27
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$48.05	\$8.75	\$17.19	\$0.00	\$73.99
	08/30/2020	\$49.45	\$9.25	\$17.48	\$0.00	\$76.18

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

**Effective Date - 09/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$28.83	\$8.75	\$3.36	\$0.00	\$40.94
2	65	\$31.23	\$8.75	\$3.44	\$0.00	\$43.42
3	70	\$33.64	\$8.75	\$3.51	\$0.00	\$45.90
4	75	\$36.04	\$8.75	\$5.08	\$0.00	\$49.87
5	80	\$38.44	\$8.75	\$5.15	\$0.00	\$52.34
6	85	\$40.84	\$8.75	\$5.23	\$0.00	\$54.82
7	90	\$43.25	\$8.75	\$7.30	\$0.00	\$59.30

**Effective Date - 08/30/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$29.67	\$9.25	\$3.39	\$0.00	\$42.31
2	65	\$32.14	\$9.25	\$3.46	\$0.00	\$44.85
3	70	\$34.62	\$9.25	\$3.54	\$0.00	\$47.41
4	75	\$37.09	\$9.25	\$5.11	\$0.00	\$51.45
5	80	\$39.56	\$9.25	\$5.19	\$0.00	\$54.00
6	85	\$42.03	\$9.25	\$5.26	\$0.00	\$56.54
7	90	\$44.51	\$9.25	\$7.34	\$0.00	\$61.10

**Notes:**

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

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/04/2019	\$30.73	\$4.70	\$3.17	\$0.00	\$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/04/2019	\$28.93	\$4.70	\$3.14	\$0.00	\$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/04/2019	\$28.93	\$4.70	\$3.14	\$0.00	\$36.77
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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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 Apprentices 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.

## **APPENDIX D**

Monthly Price Adjustment for Hot Mix Asphalt (HMA) Mixtures

Monthly Price Adjustment for Diesel Fuel and Gasoline



DOCUMENT 00811  
SPECIAL PROVISIONS  
MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES  
ENGLISH AND METRIC UNITS  
Revised: 07/08/2016

This provision applies to all projects using greater than 100 tons (91 megagrams) of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the Notice to Contractors section of the bid documents.

Price Adjustments will be based on the variance in price, for the liquid asphalt component only, between the Base Price and the Period Price. They shall not include transportation or other charges. Price Adjustments will occur on a monthly basis.

**Base Price**

The Base Price of liquid asphalt on a project as listed in the Notice to Contractors section of the bid documents is a fixed price determined by the Department at the time of the bid using the same method as the determination of the Period Price detailed below. The Base Price shall be used in all bids.

**Period Price**

The Period Price is the price of liquid asphalt for each monthly period as determined by the Department using the average selling price per standard ton of PG64-28 paving grade (primary binder classification) asphalt, FOB manufacturer's terminal, as listed under the "East Coast Market - New England, Boston, Massachusetts area" section of the Poten & Partners, Inc. "Asphalt Weekly Monitor". This average selling price is listed in the issue having a publication date of the second Friday of the month and will be posted as the Period Price for that month. The Department will post this Period Price on its website at <http://www.mhd.state.ma.us/> within two (2) business days following its receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners has granted the Department the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor. This method of period price determination was formerly called the New Asphalt Period Price Method. Separate website postings using both the New Asphalt Period Price Method and the Old Asphalt Period Price Method were discontinued after June 2013.

**Price Adjustment Determination, Calculation and Payment**

The Contract Price of the HMA mixture will be paid under the respective item in the Contract. Price Adjustments, as herein provided, either upwards or downwards, will be made after the work has been performed using the monthly period price for the month during which the work was performed.

Price Adjustments will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M3.11.03.

Price Adjustments will be separate payment items. The pay item numbers are 999.401 for a positive price adjustment (a payment) and 999.402 for a negative price adjustment (a deduction). Price Adjustments will be calculated using the following equation:

Price Adjustment = Tons of HMA Placed X Liquid Asphalt Content % X RAP Factor X (Period Price - Base Price)

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

\*\*\*\*\* END OF DOCUMENT \*\*\*\*\*





DOCUMENT 00812

SPECIAL PROVISIONS  
MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE –  
ENGLISH UNITS

Revised: 01/26/2009

This monthly fuel price adjustment is inserted in this contract because the national and worldwide energy situation has made the future cost of fuel unpredictable. This adjustment will provide for either additional compensation to the Contractor or repayment to the Commonwealth, depending on an increase or decrease in the average price of diesel fuel or gasoline.

This adjustment will be based on fuel usage factors for various items of work developed by the Highway Research Board in Circular 158, dated July 1974. These factors will be multiplied by the quantities of work done in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.

The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Department's web site ([www.mhd.state.ma.us](http://www.mhd.state.ma.us)) for the month in which the contract was bid, which includes State Tax.

The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchases made during each month.

This adjustment will be effected only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No adjustment will be paid for work done beyond the extended completion date of any contract.

Any adjustment (increase or decrease) to estimated quantities made to each item at the time of final payment will have the fuel price adjustment figured at the average period price for the entire term of the project for the difference of quantity.

The fuel price adjustment will apply only to the following items of work at the fuel factors shown:

ITEMS COVERED	FUEL FACTORS	
	Diesel	Gasoline
Excavation: and Borrow Work: Items 120, 120.1, 121, 123, 124, 125, 127, 129.3, 140, 140.1, 141, 142, 143, 144., 150, 150.1, 151 and 151.1 (Both Factors used)	0.29 Gallons / CY.	0.15 Gallons / CY
Surfacing Work: All Items containing Hot Mix Asphalt	2.90 Gallons / Ton	Does Not Apply

\*\*\*\*\* END OF DOCUMENT \*\*\*\*\*



DOCUMENT 00814

SPECIAL PROVISIONS  
PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES

January 12, 2009

This provision applies to all projects using greater than 100 Cubic Yards (76 Cubic Meters) of Portland cement concrete containing Portland cement as stipulated in the Notice to Contractors section of the Bid Documents. This Price Adjustment will occur on a monthly basis.

The Price Adjustment will be based on the variance in price for the Portland cement component only from the Base Price to the Period Price. It shall not include transportation or other charges.

The Base Price of Portland cement on a project is a fixed price determined at the time of bid by the Department by using the same method as for the determination of the Period Price (see below) and found in the Notice to Contractors.

The Period Price of Portland cement will be determined by using the latest published price, in dollars per ton (U.S.), for Portland cement (Type I) quoted for Boston, U.S.A. in the **Construction Economics** section of *ENR Engineering News-Record* magazine or at the ENR website <http://www.enr.com> under **Construction Economics**. The Period Price will be posted on the MassHighway website the Wednesday immediately following the publishing of the monthly price in ENR, which is normally the first week of the month.

The Contract Price of the Portland cement concrete mix will be paid under the respective item in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which the work was performed.

The price adjustment applies only to the actual Portland cement content in the mix placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M4.02.01. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.

The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of cubic yards of Portland cement concrete placed during each monthly period times the Portland cement content percentage times the variance in price between the Base Price and Period Price of Portland cement.

This Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

\*\*\*\*\*

\*

END OF DOCUMENT



## **APPENDIX E**

Test Pit Data

Sieve Analyses



# GREEN INTERNATIONAL AFFILIATES, INC.

Civil and Structural Engineers

## BORING/TEST PIT OBSERVATION SHEET

**Project Name:** S. Main Street Reconstruction  
**City/Town:** Natick, MA  
**Location:** South Main Street

**Green Project Number:** 17008.012  
**Date of Observation:** 4/27/2017  
**Temperature/Weather:** 52 deg/Cloudy  
**Observed By:** M. Buraczynski

**Boring/Test Pit Number:** TP-1      **Station:** 6+50 LT      **Approx Ground Elevation:** 145.5'

**Contractor:** Town of Natick Department of Public Works, Natick MA

**Personnel:** Gary Walker (Foreman), Derek Santasky (Operator), Shawn Vidinha (Truck Driver)

**Equipment:** 1 Backhoe, 1 Dump Truck, DPW Pickup Truck w/ Air Compressor and Jack Hammer, 1 Police D

**Start Time:** 8:30      **AM / PM**

**End Time:** 9:10      **AM / PM**

**Pavement Thickness:** 6.0      **inches**

**Depth<sup>(1)</sup> of Groundwater Observed:** 54"      **feet**

**Approx. Groundwater Elevation:** 141.0'

### Notes<sup>(1)</sup>:

The pavement was approx. 6" thick.

The sample was taken from a depth 8" - 18" below the existing ground.

6" - 20" Dark brown, free draining soil, less than 3" stone.

20" - 29" Light brown sandy soil, less than 3" stone.

29" - 54" Grey silty sand.

54" End test pit, due to groundwater.

54" Groundwater was observed.

### Photo(s):



(1): All depths noted are from the original ground elevation



# GREEN INTERNATIONAL AFFILIATES, INC.

Civil and Structural Engineers

## BORING/TEST PIT OBSERVATION SHEET

**Project Name:** S. Main Street Reconstruction  
**City/Town:** Natick, MA  
**Location:** South Main Street

**Green Project Number:** 17008.012  
**Date of Observation:** 4/27/2017  
**Temperature/Weather:** 54 deg/Cloudy  
**Observed By:** M. Buraczynski

**Boring/Test Pit Number:** TP-2      **Station:** 12+50 RT      **Approx Ground Elevation:** 148.5'

**Contractor:** Town of Natick Department of Public Works, Natick MA

**Personnel:** Gary Walker (Foreman), Derek Santasky (Operator), Shawn Vidinha (Truck Driver)

**Equipment:** 1 Backhoe, 1 Dump Truck, DPW Pickup Truck w/ Air Compressor and Jack Hammer, 1 Police D

**Start Time:** 9:35      **AM / PM**

**End Time:** 9:55      **AM / PM**

**Pavement Thickness:** 6.0      **inches**

**Depth<sup>(1)</sup> of Groundwater Observed:** NA      **feet**

**Approx. Groundwater Elevation:** NA

### Notes<sup>(1)</sup>:

The pavement was approx. 6" thick.

The sample was taken from a depth 8" - 18" below the existing ground.

6" - 24" Dark brown, free draining soil, less than 4" stone.

24" - 64" Light brown soil, less than 4" stone.

45" Streaks of Orange Clay.

58" Evidence of clay mixed with small areas grey silty sand.

64" End test pit.

No groundwater was observed.

### Photo(s):



(1): All depths noted are from the original ground elevation





# GREEN INTERNATIONAL AFFILIATES, INC.

Civil and Structural Engineers

## BORING/TEST PIT OBSERVATION SHEET

**Project Name:** S. Main Street Reconstruction  
**City/Town:** Natick, MA  
**Location:** South Main Street

**Green Project Number:** 17008.012  
**Date of Observation:** 4/27/2017  
**Temperature/Weather:** 55 deg/Cloudy  
**Observed By:** M. Buraczynski

**Boring/Test Pit Number:** TP-3      **Station:** 34+80 RT      **Approx Ground Elevation:** 200.4'

**Contractor:** Town of Natick Department of Public Works, Natick MA

**Personnel:** Gary Walker (Foreman), Derek Santasky (Operator), Shawn Vidinha (Truck Driver)

**Equipment:** 1 Backhoe, 1 Dump Truck, DPW Pickup Truck w/ Air Compressor and Jack Hammer, 1 Police D

**Start Time:** 10:20      **AM / PM**

**End Time:** 10:50      **AM / PM**

**Pavement Thickness:** 6.5      **inches**

**Depth<sup>(1)</sup> of Groundwater Observed:** NA      **feet**

**Approx. Groundwater Elevation:** NA

### Notes<sup>(1)</sup>:

The pavement was approx. 6.5" thick.

The test pit was excavated within existing roadway patch. MB was notified that this section of pavement was milled down and repaved to fix roadway cracking.

The sample was taken from a depth 8" - 18' below the existing ground.

6.5" - 20" Dark brown, free draining soil, less than 3" stone.

20" - 27" Light brown soil, less than 3" stone.

27" - 60" Light brown silty sand.

60" End test pit.

No groundwater was observed.

### Photo(s):



(1): All depths noted are from the original ground elevation





**GREEN INTERNATIONAL AFFILIATES, INC.**  
*Civil and Structural Engineers*

## BORING/TEST PIT OBSERVATION SHEET

**Project Name:** S. Main Street Reconstruction  
**City/Town:** Natick, MA  
**Location:** South Main Street

**Green Project Number:** 17008.012  
**Date of Observation:** 4/27/2017  
**Temperature/Weather:** 57 deg/Cloudy  
**Observed By:** M. Buraczynski

**Boring/Test Pit Number:** TP-4      **Station:** 53+10 RT      **Approx Ground Elevation:** 167.3'

**Contractor:** Town of Natick Department of Public Works, Natick MA

**Personnel:** Gary Walker (Foreman), Derek Santasky (Operator), Shawn Vidinha (Truck Driver)

**Equipment:** 1 Backhoe, 1 Dump Truck, DPW Pickup Truck w/ Air Compressor and Jack Hammer, 1 Police D

**Start Time:** 11:20      **AM / PM**

**End Time:** 11:40      **AM / PM**

**Pavement Thickness:** 5.5      **inches**

**Depth<sup>(1)</sup> of Groundwater Observed:** NA      **feet**

**Approx. Groundwater Elevation:** NA

**Notes<sup>(1)</sup>:**

The pavement was approx. 5.5" thick.

The sample was taken from a depth 8" - 18" below the existing ground.

5.5" - 12" Light brown sandy soil; gravelly, with gravel stones 4" - 5".

12" - 62" Light brown silty sand, no gravel.

Some streaking of orange clay was observed beyond 4' in depth.

62" End test pit.

No groundwater was observed.

**Photo(s):**

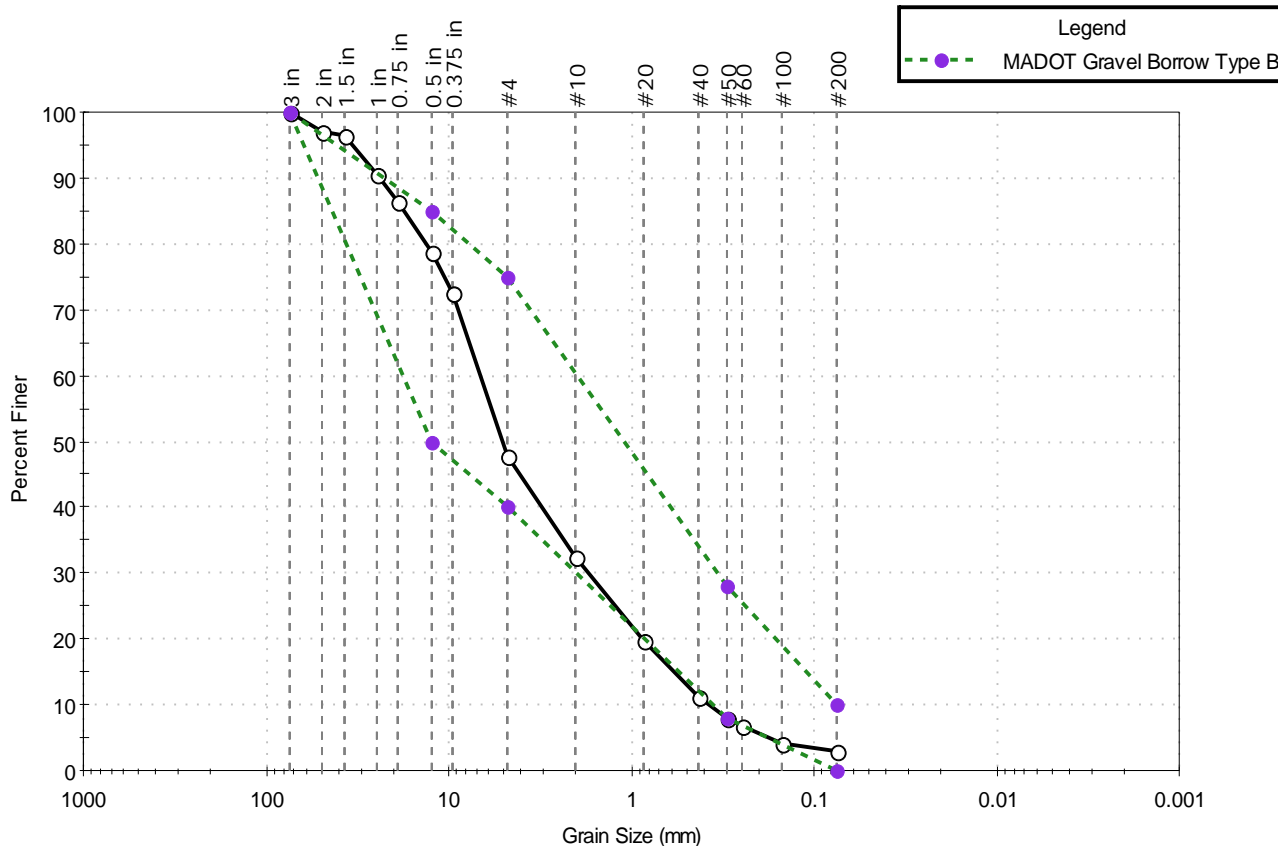


(1): All depths noted are from the original ground elevation



Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-1	Sample Type:	bag
Sample ID:	---	Test Date:	05/19/17
Depth :	8-18 in	Test Id:	410848
Test Comment:	---		
Visual Description:	Moist, black gravel with sand		
Sample Comment:	---		

## Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	52.1	45.0	2.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent MADOT Gravel Borrow Type B	Complies
3 in	75.00	100	100 - 100	YES
2 in	50.00	97		
1.5 in	37.50	96		
1 in	25.00	91		
0.75 in	19.00	86		
0.5 in	12.50	79	50 - 85	YES
0.375 in	9.50	73		
#4	4.75	48	40 - 75	YES
#10	2.00	33		
#20	0.85	20		
#40	0.42	11		
#50	0.30	8	8 - 28	YES
#60	0.25	7		
#100	0.15	4		
#200	0.075	2.9	0 - 10	YES

### Coefficients

$D_{85} = 17.6437$  mm       $D_{30} = 1.6917$  mm  
 $D_{60} = 6.6624$  mm       $D_{15} = 0.5840$  mm  
 $D_{50} = 5.0361$  mm       $D_{10} = 0.3765$  mm  
 $C_u = 17.696$        $C_c = 1.141$

### Classification

**ASTM** Well-graded gravel with sand (GW)

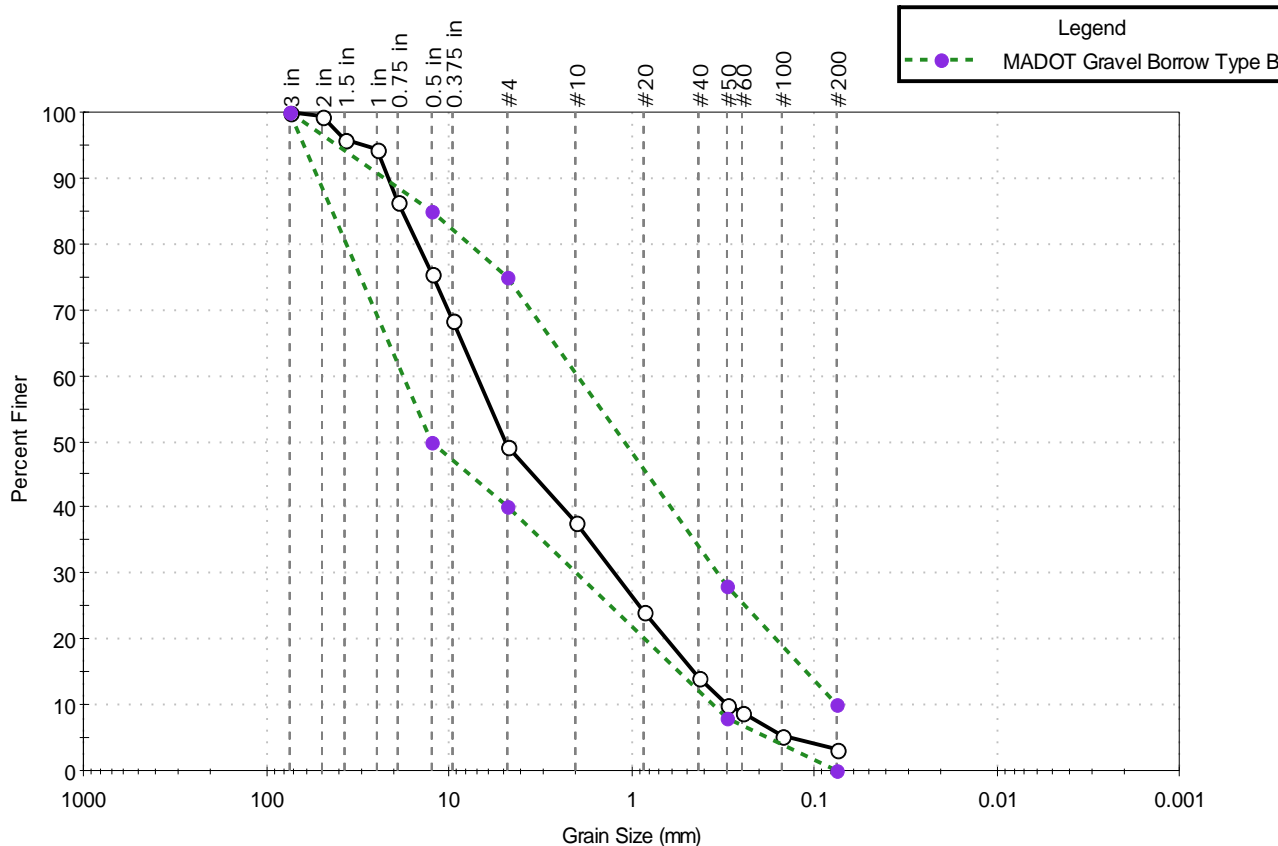
**AASHTO** Stone Fragments, Gravel and Sand (A-1-a (1))

### Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR  
 Sand/Gravel Hardness : HARD

Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-2	Sample Type:	bag
Sample ID:	---	Test Date:	05/19/17
Depth :	8-18 in	Test Id:	410849
Test Comment:	---		
Visual Description:	Moist, black gravel with sand		
Sample Comment:	---		

## Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	50.9	45.8	3.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent MADOT Gravel Borrow Type B	Complies
3 in	75.00	100	100 - 100	YES
2 in	50.00	99		
1.5 in	37.50	96		
1 in	25.00	94		
0.75 in	19.00	86		
0.5 in	12.50	76	50 - 85	YES
0.375 in	9.50	69		
#4	4.75	49	40 - 75	YES
#10	2.00	38		
#20	0.85	24		
#40	0.42	14		
#50	0.30	10	8 - 28	YES
#60	0.25	9		
#100	0.15	5		
#200	0.075	3.3	0 - 10	YES

### Coefficients

$D_{85} = 18.0222 \text{ mm}$        $D_{30} = 1.2242 \text{ mm}$   
 $D_{60} = 7.0044 \text{ mm}$        $D_{15} = 0.4491 \text{ mm}$   
 $D_{50} = 4.8958 \text{ mm}$        $D_{10} = 0.2939 \text{ mm}$   
 $C_u = 23.833$        $C_c = 0.728$

### Classification

**ASTM** Poorly graded gravel with sand (GP)

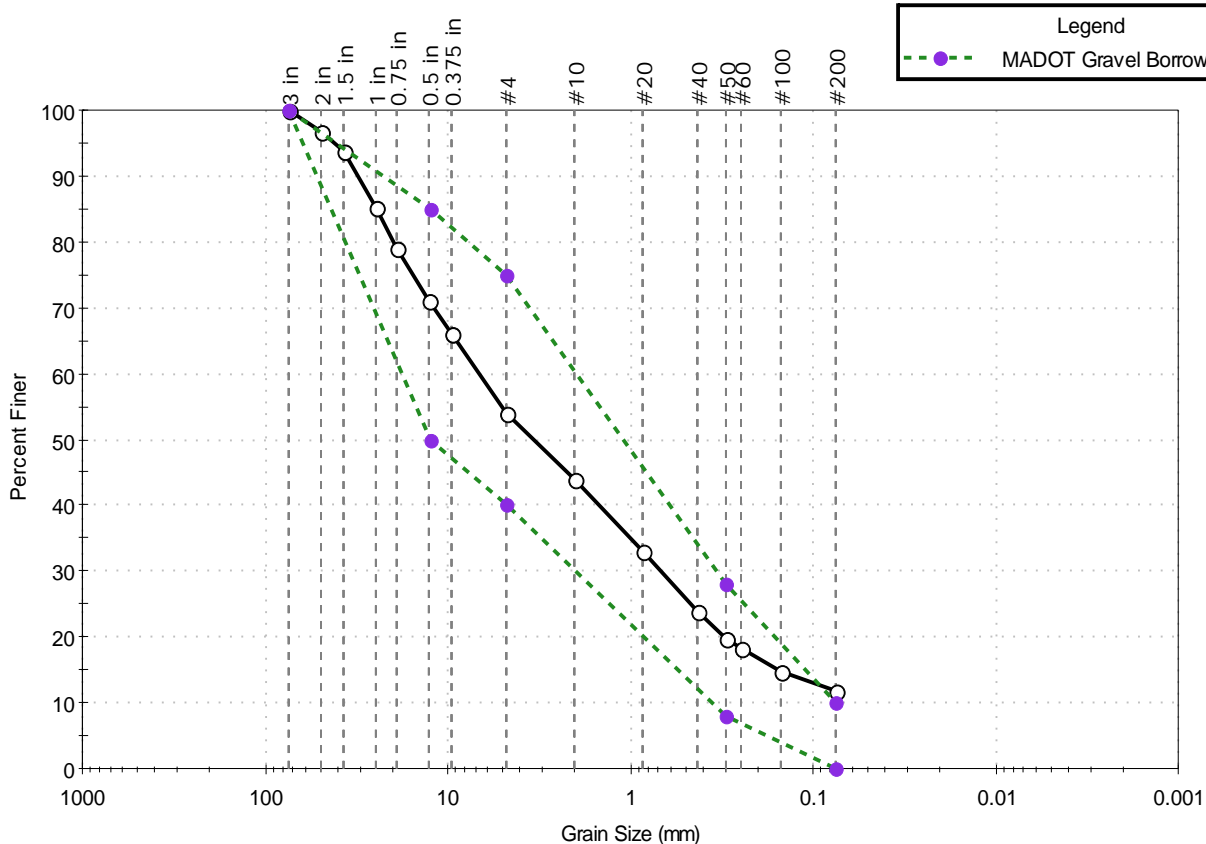
**AASHTO** Stone Fragments, Gravel and Sand (A-1-a (1))

### Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR  
 Sand/Gravel Hardness : HARD

Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-3	Sample Type:	bag
Sample ID:	---	Test Date:	05/15/17
Depth:	8-18 in	Test Id:	410850
Test Comment:	---		
Visual Description:	Moist, very dark grayish brown sand with gravel		
Sample Comment:	---		

## Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	45.9	42.2	11.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent MADOT Gravel Borrow Type B	Complies
3 in	75.00	100	100 - 100	YES
2 in	50.00	97		
1.5 in	37.50	94		
1 in	25.00	85		
0.75 in	19.00	79		
0.5 in	12.70	71	50 - 85	YES
0.375 in	9.50	66		
#4	4.75	54	40 - 75	YES
#10	2.00	44		
#20	0.85	33		
#40	0.42	24		
#50	0.30	20	8 - 28	YES
#60	0.25	18		
#100	0.15	15		
#200	0.075	12	0 - 10	NO

### Coefficients

$D_{85} = 24.8672 \text{ mm}$        $D_{30} = 0.6693 \text{ mm}$   
 $D_{60} = 6.7075 \text{ mm}$        $D_{15} = 0.1577 \text{ mm}$   
 $D_{50} = 3.3692 \text{ mm}$        $D_{10} = \text{N/A}$   
 $C_u = \text{N/A}$        $C_c = \text{N/A}$

### Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-a (0))

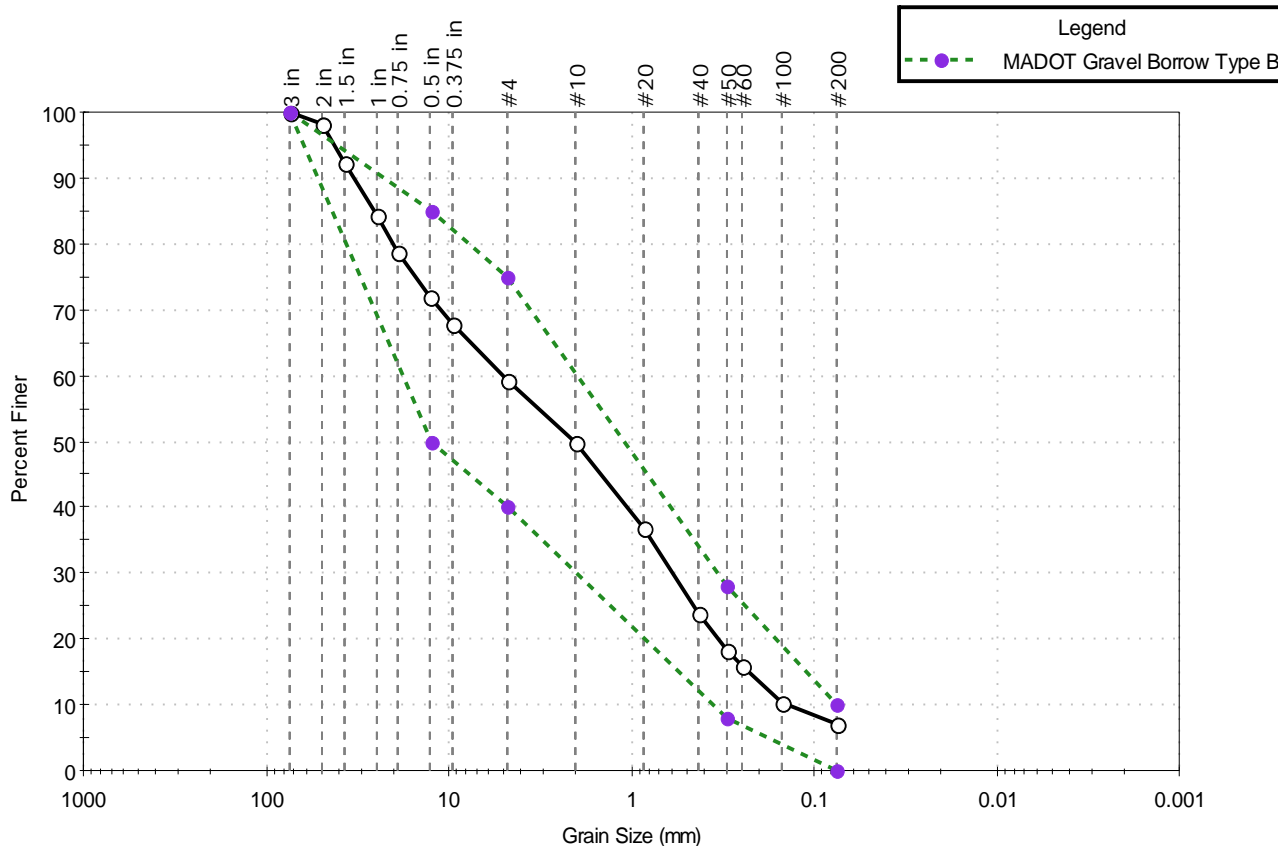
### Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR  
 Sand/Gravel Hardness : HARD



Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-4	Sample Type:	bag
Sample ID:	---	Test Date:	05/15/17
Depth :	8-18 in	Test Id:	410851
Test Comment:	---		
Visual Description:	Moist, brownish yellow sand with silt and gravel		
Sample Comment:	---		

## Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	40.8	52.1	7.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent MADOT Gravel Borrow Type B	Complies
3 in	75.00	100	100 - 100	YES
2 in	50.00	98		
1.5 in	37.50	92		
1 in	25.00	84		
0.75 in	19.00	79		
0.5 in	12.70	72	50 - 85	YES
0.375 in	9.50	68		
#4	4.75	59	40 - 75	YES
#10	2.00	50		
#20	0.85	37		
#40	0.42	24		
#50	0.30	18	8 - 28	YES
#60	0.25	16		
#100	0.15	10		
#200	0.075	7.1	0 - 10	YES

### Coefficients

D <sub>85</sub> = 25.7420 mm	D <sub>30</sub> = 0.5872 mm
D <sub>60</sub> = 5.0733 mm	D <sub>15</sub> = 0.2314 mm
D <sub>50</sub> = 2.0399 mm	D <sub>10</sub> = 0.1370 mm
C <sub>u</sub> = 37.031	C <sub>c</sub> = 0.496

### Classification

<b>ASTM</b>	Poorly graded sand with silt and gravel (SP-SM)
<b>AASHTO</b>	Stone Fragments, Gravel and Sand (A-1-a (1))

### Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR  
Sand/Gravel Hardness : HARD



Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-1	Sample Type:	bag
Sample ID:	---	Test Date:	05/17/17
Depth :	8-18 in	Test Id:	410844
Test Comment:	---		
Visual Description:	Moist, black gravel with sand		
Sample Comment:	---		

## Atterberg Limits - ASTM D4318

**Sample Determined to be non-plastic**

Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	TP-1	8-18 in	---	n/a	n/a	n/a	n/a	Well-graded gravel with sand (GW)

89% Retained on #40 Sieve

Dry Strength: MEDIUM

Dilatancy: RAPID

Toughness: n/a

The sample was determined to be Non-Plastic



Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-2	Sample Type:	bag
Sample ID:	---	Test Date:	05/17/17
Depth :	8-18 in	Test Id:	410845
Test Comment:	---		
Visual Description:	Moist, black gravel with sand		
Sample Comment:	---		

## Atterberg Limits - ASTM D4318

**Sample Determined to be non-plastic**

Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	TP-2	8-18 in	15	n/a	n/a	n/a	n/a	Poorly graded gravel with sand (GP)

86% Retained on #40 Sieve

Dry Strength: MEDIUM

Dilatancy: RAPID

Toughness: n/a

The sample was determined to be Non-Plastic



Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-3	Sample Type:	bag
Sample ID:	---	Test Date:	05/15/17
Depth :	8-18 in	Test Id:	410846
Test Comment:	---		
Visual Description:	Moist, very dark grayish brown sand with gravel		
Sample Comment:	---		

## Atterberg Limits - ASTM D4318

**Sample Determined to be non-plastic**

Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	TP-3	8-18 in	24	n/a	n/a	n/a	n/a	

76% Retained on #40 Sieve

Dry Strength: MEDIUM

Dilatancy: RAPID

Toughness: n/a

The sample was determined to be Non-Plastic





Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-4	Sample Type:	bag
Sample ID:	---	Test Date:	05/15/17
Depth :	8-18 in	Checked By:	jdt
		Test Id:	410847
Test Comment:	---		
Visual Description:	Moist, brownish yellow sand with silt and gravel		
Sample Comment:	---		

## Atterberg Limits - ASTM D4318

**Sample Determined to be non-plastic**

Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	TP-4	8-18 in	n/a	n/a	n/a	n/a	n/a	Poorly graded sand with silt and gravel (SP-SM)

76% Retained on #40 Sieve

Dry Strength: MEDIUM

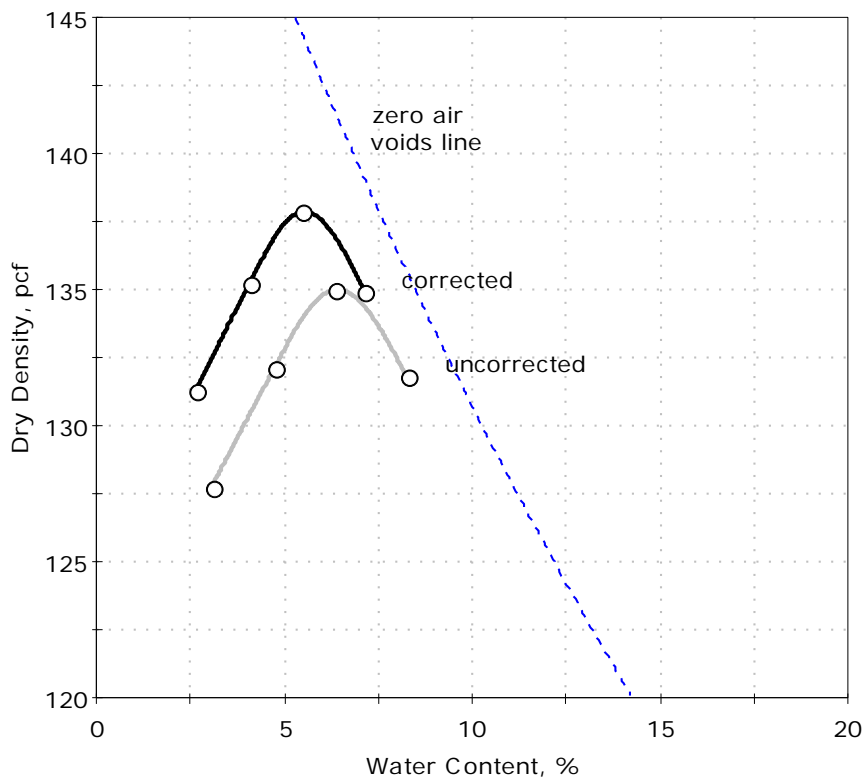
Dilatancy: RAPID

Toughness: n/a

The sample was determined to be Non-Plastic

Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-1	Sample Type:	bag
Sample ID:	---	Test Date:	06/01/17
Depth :	8-18 in	Test Id:	410852
Test Comment:	---		
Visual Description:	Moist, black gravel with sand		
Sample Comment:	---		

## Compaction Report - ASTM D1557



Data Points	Point 1	Point 2	Point 3	Point 4
Dry density, pcf	127.8	132.1	135.0	131.8
Moisture Content, %	3.1	4.7	6.4	8.3

Method : C

Preparation : WET

As received Moisture : ---

Rammer : Mechanical

Zero voids line based on assumed specific gravity of 2.65

Maximum Dry Density= 135.0 pcf  
Optimum Moisture= 6.4 %

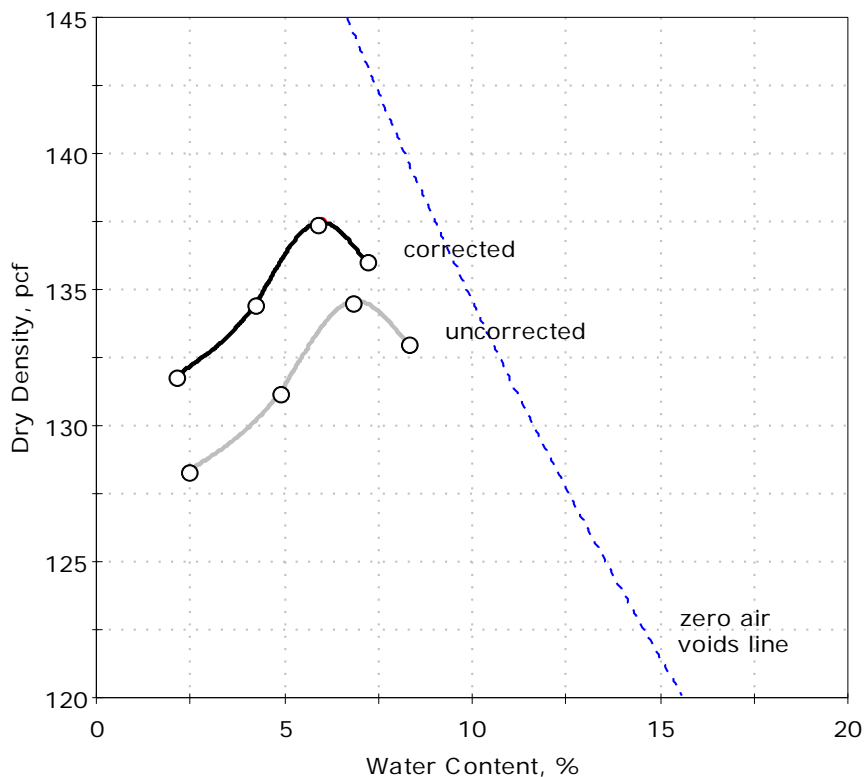
Oversize Correction (13.7% > 3/4 inch Sieve)

Corrected Maximum Dry Density= 137.9 pcf  
Corrected Optimum Moisture= 5.5 %

Assumed Average Bulk Specific Gravity = 2.55

Client:	Green International Affiliates, Inc.		
Project:	S. Main Street		
Location:	Natick, MA	Project No:	GTX-306396
Boring ID:	TP-2	Sample Type:	bag
Sample ID:	---	Test Date:	06/06/17
Depth :	8-18 in	Test Id:	410853
Test Comment:	---		
Visual Description:	Moist, black gravel with sand		
Sample Comment:	---		

## Compaction Report - ASTM D1557



Data Points	Point 1	Point 2	Point 3	Point 4
Dry density, pcf	128.4	131.2	134.5	133.0
Moisture Content, %	2.5	4.9	6.8	8.3

Method : C

Preparation : WET

As received Moisture : 15 %

Rammer : Mechanical

Zero voids line based on assumed specific gravity of 2.75

Maximum Dry Density= 134.6 pcf  
Optimum Moisture= 6.9 %

Oversize Correction (13.6% > 3/4 inch Sieve)

Corrected Maximum Dry Density= 137.5 pcf  
Corrected Optimum Moisture= 6.0 %

Assumed Average Bulk Specific Gravity = 2.55



## **APPENDIX F**

### Subsurface Utility Engineering Analyses

Dates: 7/24/19 - 7/26/19



South Main Street

TH# 1 & 3      TH# 2 & 7      TH# 4, 6 & 8      TH# 5A      TH# 5B      TH# 9 & 10

**NOTES:**

TH#3 - CABLE DIRECTLY BENEATH CURB.

TH#7 - NO VISUAL DUE TO WATER. TEST HOLE AT JOINT.

TH#8 - TRACER WIRE 1' +/- ABOVE PIPE.

Date: AUGUST 15, 2019

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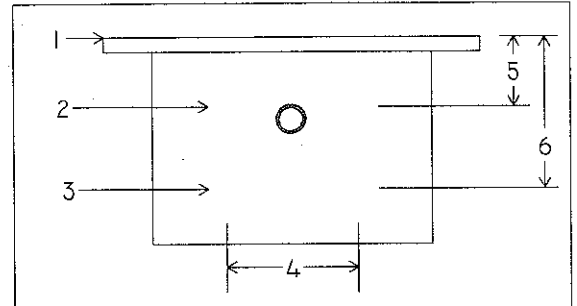
**SoftDig**  
Underground Services Inc.

VACUUM EXCAVATION DATA SHEET  
ENGLISH UNITS

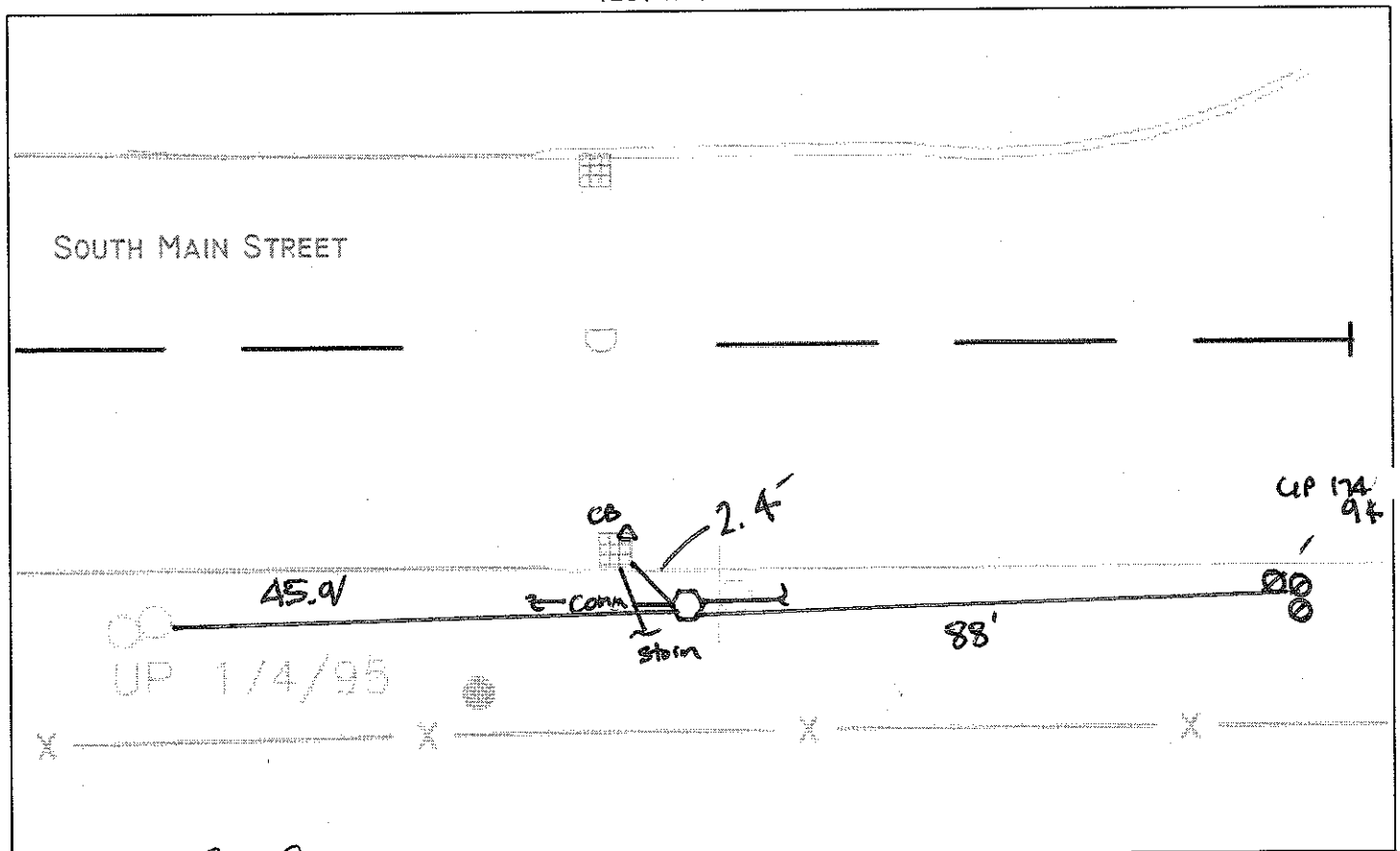
PHONE NO: (877)SOFTDIG  
(763-8344)  
FAX: (610)696-7864  
EMAIL: SOFTDIG@SOFTDIG.COM

SOFTDIG PROJECT #: 192730 TEST HOLE #: 1 CLIENT: GREEN INTERNATIONAL AFFILIATES, INC DATE: 7/24/2019  
ONE-CALL PERMIT: 2019 290 7856 CREW: Molnar / Warren TRUCK #: S187  
CITY / COUNTY / STATE: NATICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: ON EDGE OF NORTH BOUND SIDE OF ROAD ANTICIPATED UTILITY: COMM

----- TEST HOLE INFORMATION -----  
ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY 3" Black Direct Burial Cable Communications  
UTILITY OWNER: Verizon DESIGNATION COLOR: Orange  
OBSERVED UTILITY CONDITION: GOOD ☒ POOR ☐ OTHER ☐  
TEST HOLE MARKED BY: PK NAIL ☐ HUB ☒ X MARK ☐  
PORTION OF UTILITY EXPOSED TOP ☒ HALF ☐ SIDE ☐  
1) REFERENCE ELEVATION 149.37'  
2) UTILITY TOP ELEVATION 146.23'  
3) UTILITY BOTTOM ELEVATION  
4) WIDTH TYPE: FORMED ☐ ROUGH POUR ☐ RACKED ☐  
5) UTILITY TOP DEPTH FROM REFERENCE 3.14'  
6) UTILITY BOTTOM DEPTH FROM REFERENCE  
SURFACE COVERING TYPE: ASPHALT ☐ CONCRETE ☐ SOIL ☒ SURFACE COVERING DEPTH: IN  
GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐ CLAY ☐ OTHER  
BENCHMARK ELEVATION: 149.16' DESCRIPTION: North Rim Catch Basin  
BENCHMARK ELEVATION: DESCRIPTION:



----- TEST HOLE PLAN -----



CHECKED BY: [Signature]  
DATE: 7/24/2019

SURFACE MARKINGS BY SOFTDIG OR OTHERS DO NOT  
NECESSARILY INDICATE TRUE LOCATION OR DEPTH

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SOFTDIG PROJECT #: 192730 TEST HOLE #: 2 CLIENT: GREEN INTERNATIONAL AFFILIATES, INC DATE: 7/24/2019  
ONE-CALL PERMIT: 2019 290 7856 CREW: molnar/Warren TRUCK #: S187  
CITY / COUNTY / STATE: NATICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: IN SOUTH BOUND SIDE OF ROADWAY IN FRONT OF HOUSE 193 ANTICIPATED UTILITY: WATER

TEST HOLE INFORMATION

ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY 12" Black metal water pipe

UTILITY OWNER: Unknown

DESIGNATION COLOR: Blue

OBSERVED UTILITY CONDITION: GOOD ☒ POOR ☐ OTHER ☐

TEST HOLE MARKED BY: PK NAIL ☒ HUB ☐ X MARK ☐

PORTION OF UTILITY EXPOSED TOP ☒ HALF ☐ SIDE ☐

1) REFERENCE ELEVATION 174.39'

2) UTILITY TOP ELEVATION 169.23'

3) UTILITY BOTTOM ELEVATION -

4) WIDTH - TYPE: FORMED ☐ ROUGH POUR ☐ RACKED ☐

5) UTILITY TOP DEPTH FROM REFERENCE 5.16'

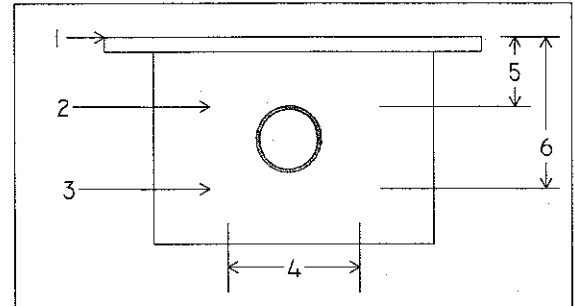
6) UTILITY BOTTOM DEPTH FROM REFERENCE -

SURFACE COVERING TYPE: ASPHALT ☒ CONCRETE ☐ SOIL ☐ SURFACE COVERING DEPTH: 7" IN

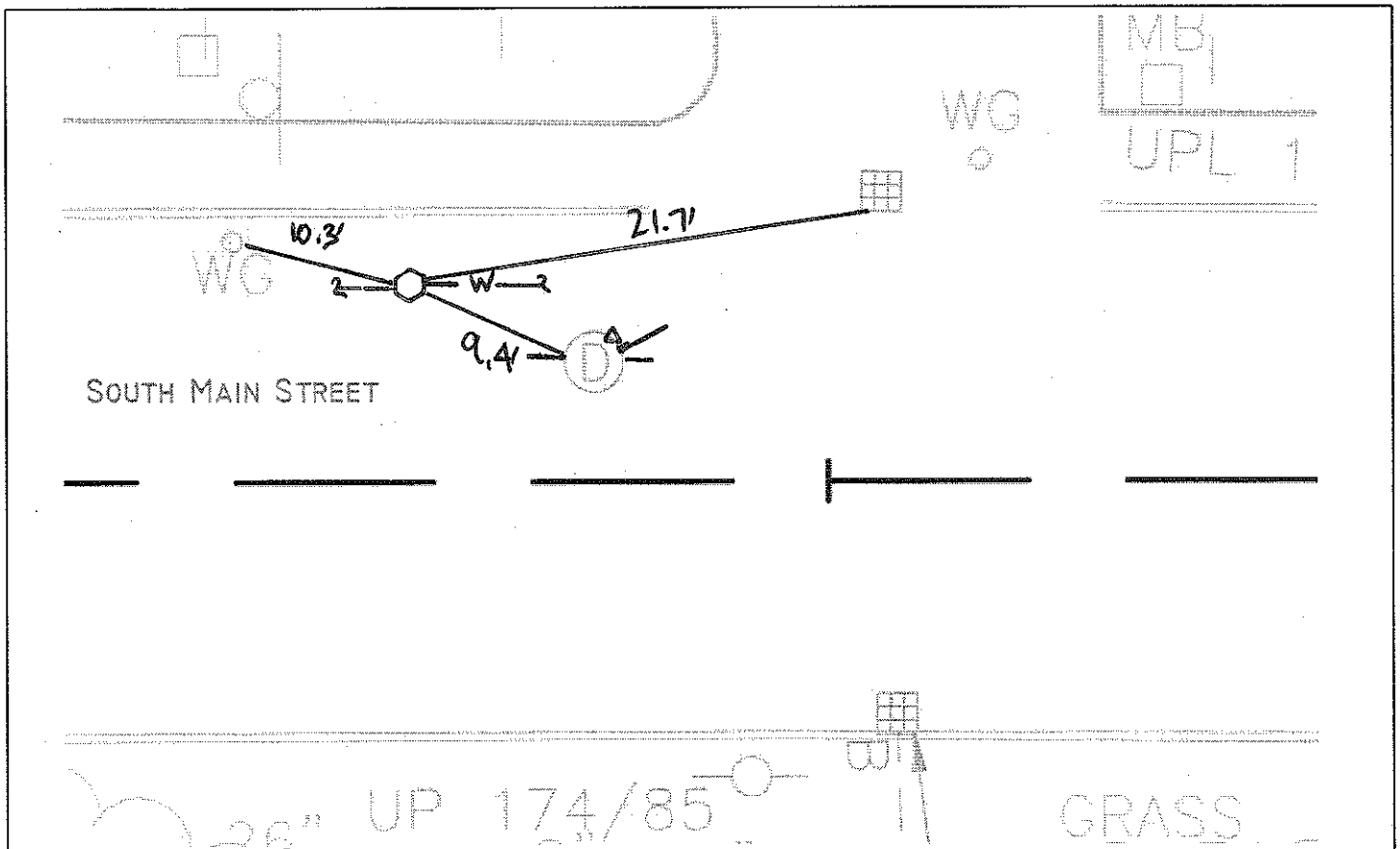
GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐ CLAY ☐ OTHER

BENCHMARK ELEVATION: 174.92 DESCRIPTION: North Rim Storm Manhole

BENCHMARK ELEVATION: - DESCRIPTION: -



TEST HOLE PLAN



CHECKED BY: [Signature]  
DATE: 7/24/2019

SURFACE MARKINGS BY SOFTDIG OR OTHERS DO NOT  
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S.17



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ENGLISH UNITS

SOFTDIG PROJECT #: 192730 TEST HOLE #: 3 CLIENT: GREEN INTERNATIONAL AFFILIATES, INC DATE: 7/24/2019  
ONE-CALL PERMIT: 2019 290 7856 CREW: molnar/Warren TRUCK #: 5187  
CITY / COUNTY / STATE: NATICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: IN NORTH BOUND SIDE OF ROADWAY IN FRONT OF HOUSE 183 ANTICIPATED UTILITY: COMM

TEST HOLE INFORMATION

ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY 3" Black Direct Buried Cable Communications

UTILITY OWNER: Verizon

DESIGNATION COLOR: Orange

OBSERVED UTILITY CONDITION: GOOD ☒ POOR ☐ OTHER ☐

TEST HOLE MARKED BY: PK NAIL ☒ HUB ☐ X MARK ☐

PORTION OF UTILITY EXPOSED TOP ☒ HALF ☐ SIDE ☐

1) REFERENCE ELEVATION 197.30'

2) UTILITY TOP ELEVATION 194.87'

3) UTILITY BOTTOM ELEVATION

4) WIDTH TYPE: FORMED ☐ ROUGH POUR ☐ RACKED ☐

5) UTILITY TOP DEPTH FROM REFERENCE 2.43'

6) UTILITY BOTTOM DEPTH FROM REFERENCE

SURFACE COVERING TYPE: ASPHALT ☐ CONCRETE ☐ SOIL ☐ SURFACE COVERING DEPTH: 7" IN

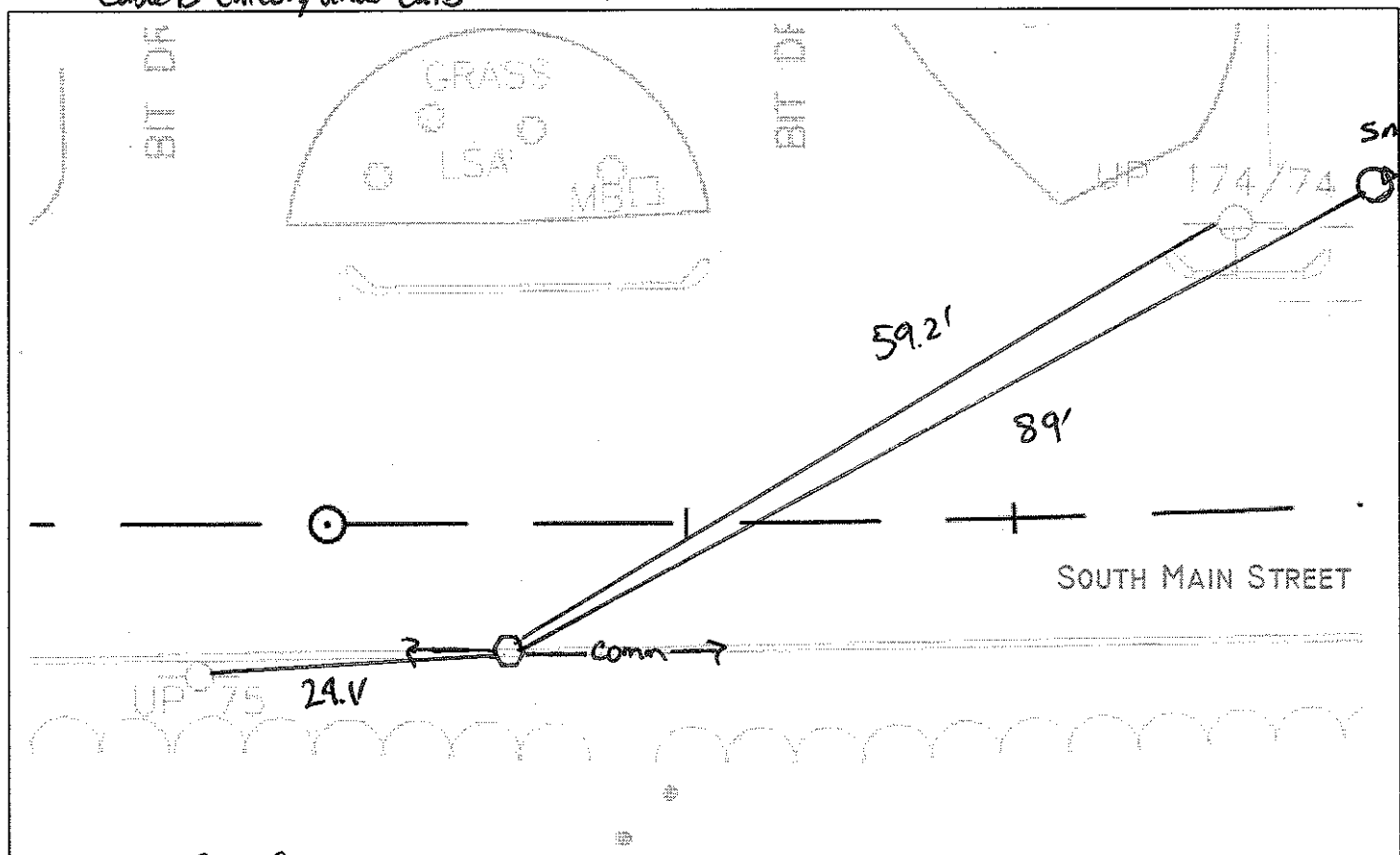
GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐ CLAY ☐ OTHER

BENCHMARK ELEVATION: 202.01' DESCRIPTION: Sanitary Manhole North Rim

BENCHMARK ELEVATION: DESCRIPTION:

Cable is directly under Carb

TEST HOLE PLAN



CHECKED BY: R. molnar

DATE: 7/24/2019

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ENGLISH UNITS

SOFTDIG PROJECT #: 192730 TEST HOLE #: 4 CLIENT: GREEN INTERNATIONAL AFFILIATES, INC DATE: 7/25/2019  
ONE-CALL PERMIT: 209 290 7856 CREW: Mohar/Warren TRUCK #: 5187  
CITY / COUNTY / STATE: NATICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: IN NORTH BOUND SIDE OF ROADWAY IN FRONT OF HOUSE 164 ANTICIPATED UTILITY: GAS

----- TEST HOLE INFORMATION -----

ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY 4" Yellow Plastic Gas Pipe

UTILITY OWNER: DESIGNATION COLOR: Yellow

OBSERVED UTILITY CONDITION: GOOD ☒ POOR ☐ OTHER ☐

TEST HOLE MARKED BY: PK NAIL ☐ HUB ☒ X MARK ☐

PORTION OF UTILITY EXPOSED TOP ☒ HALF ☐ SIDE ☐

1) REFERENCE ELEVATION 179.81'

2) UTILITY TOP ELEVATION 176.91'

3) UTILITY BOTTOM ELEVATION

4) WIDTH TYPE: FORMED ☐ ROUGH POUR ☐ RACKED ☐

5) UTILITY TOP DEPTH FROM REFERENCE 2.90'

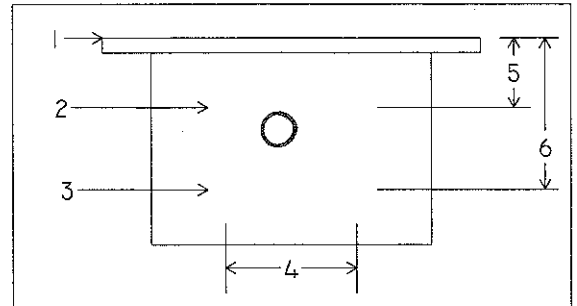
6) UTILITY BOTTOM DEPTH FROM REFERENCE

SURFACE COVERING TYPE: ASPHALT ☐ CONCRETE ☐ SOIL ☒ SURFACE COVERING DEPTH: IN

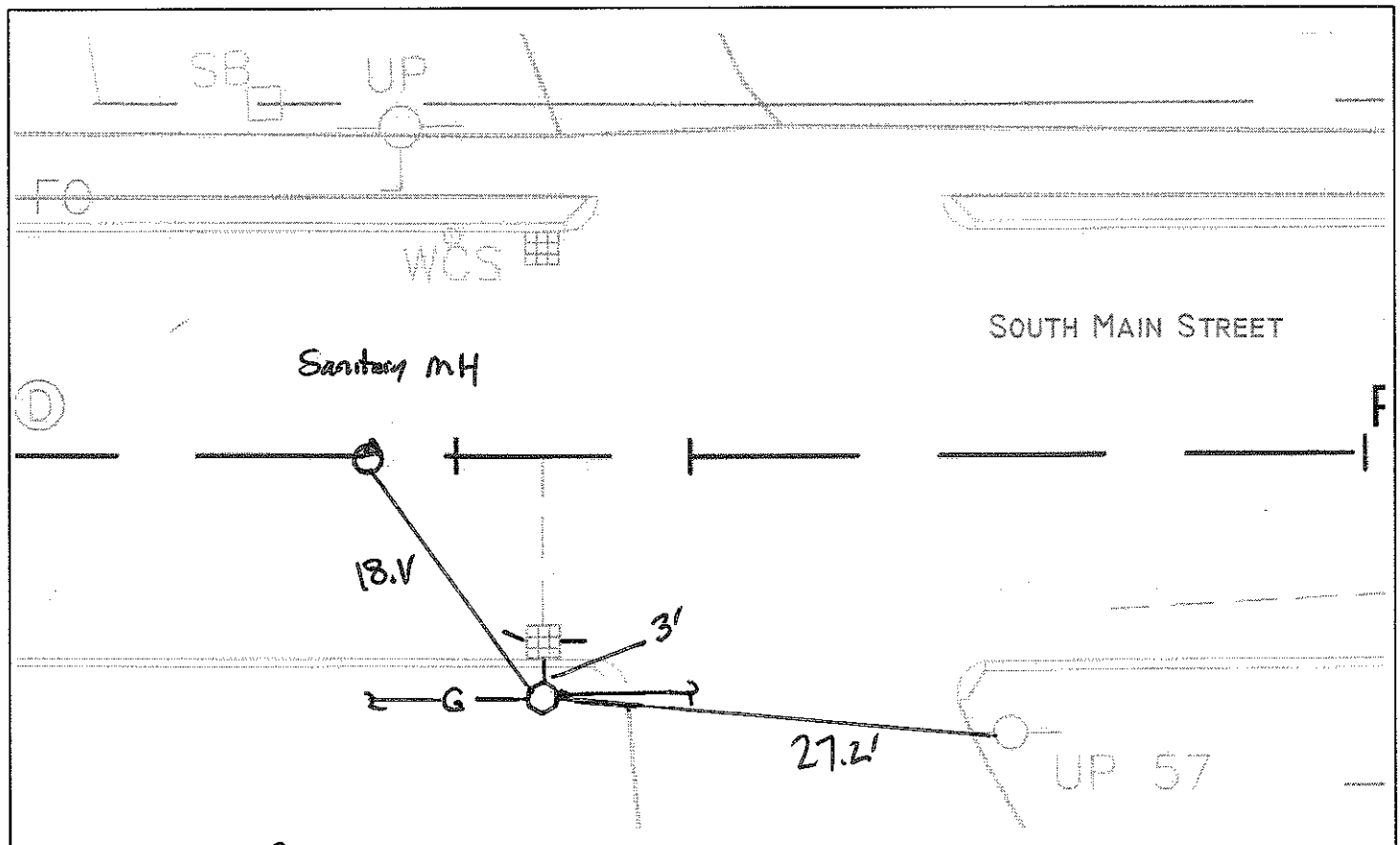
GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐ CLAY ☐ OTHER

BENCHMARK ELEVATION: 180.09 DESCRIPTION: North Rim Sanitary Manhole

BENCHMARK ELEVATION: DESCRIPTION:



----- TEST HOLE PLAN -----



CHECKED BY: R. Mohar  
DATE: 7/25/2019

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2.91'

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# VACUUM EXCAVATION DATA SHEET

## ENGLISH UNITS

SOFTDIG PROJECT #: 192730 TEST HOLE #: 5A CLIENT: GREEN INTERNATIONAL AFFILIATES, INC. DATE: 7/25/2019  
ONE-CALL PERMIT: 2019 290 7856 CREW: molnar / Warren TRUCK #: 8187  
CITY / COUNTY / STATE: NATICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: IN GRASS LEFT OF GRAVEL DRIVE WAY ANTICIPATED UTILITY: FIBER OPTIC

### TEST HOLE INFORMATION

ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY Concrete Duct Bank Communications  
UTILITY OWNER: Verizon DESIGNATION COLOR: Orange

OBSERVED UTILITY CONDITION:	GOOD	<input checked="" type="checkbox"/>	POOR	<input type="checkbox"/>	OTHER	<input type="checkbox"/>
TEST HOLE MARKED BY:	PK NAIL	<input type="checkbox"/>	HUB	<input type="checkbox"/>	X MARK	<input type="checkbox"/>
PORTION OF UTILITY EXPOSED	TOP	<input type="checkbox"/>	HALF	<input type="checkbox"/>	SIDE	<input type="checkbox"/>

1) REFERENCE ELEVATION	180.29'
2) UTILITY TOP ELEVATION	178.67'
3) UTILITY BOTTOM ELEVATION	

4) WIDTH 3' TYPE: FORMED ☐ ROUGH POUR ☒ RACKED ☐

5) UTILITY TOP DEPTH FROM REFERENCE 1.62'

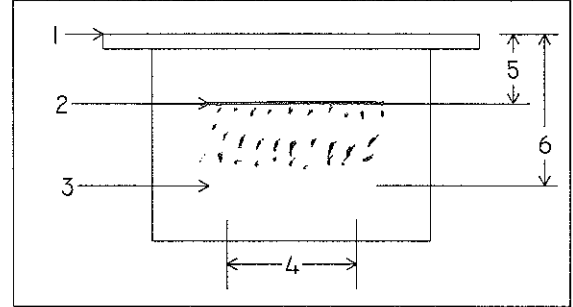
8) UTILITY BOTTOM DEPTH FROM REFERENCE \_\_\_\_\_

SURFACE COVERING TYPE: ASPHALT ☐ CONCRETE ☐ SOIL ☒ SURF ☐

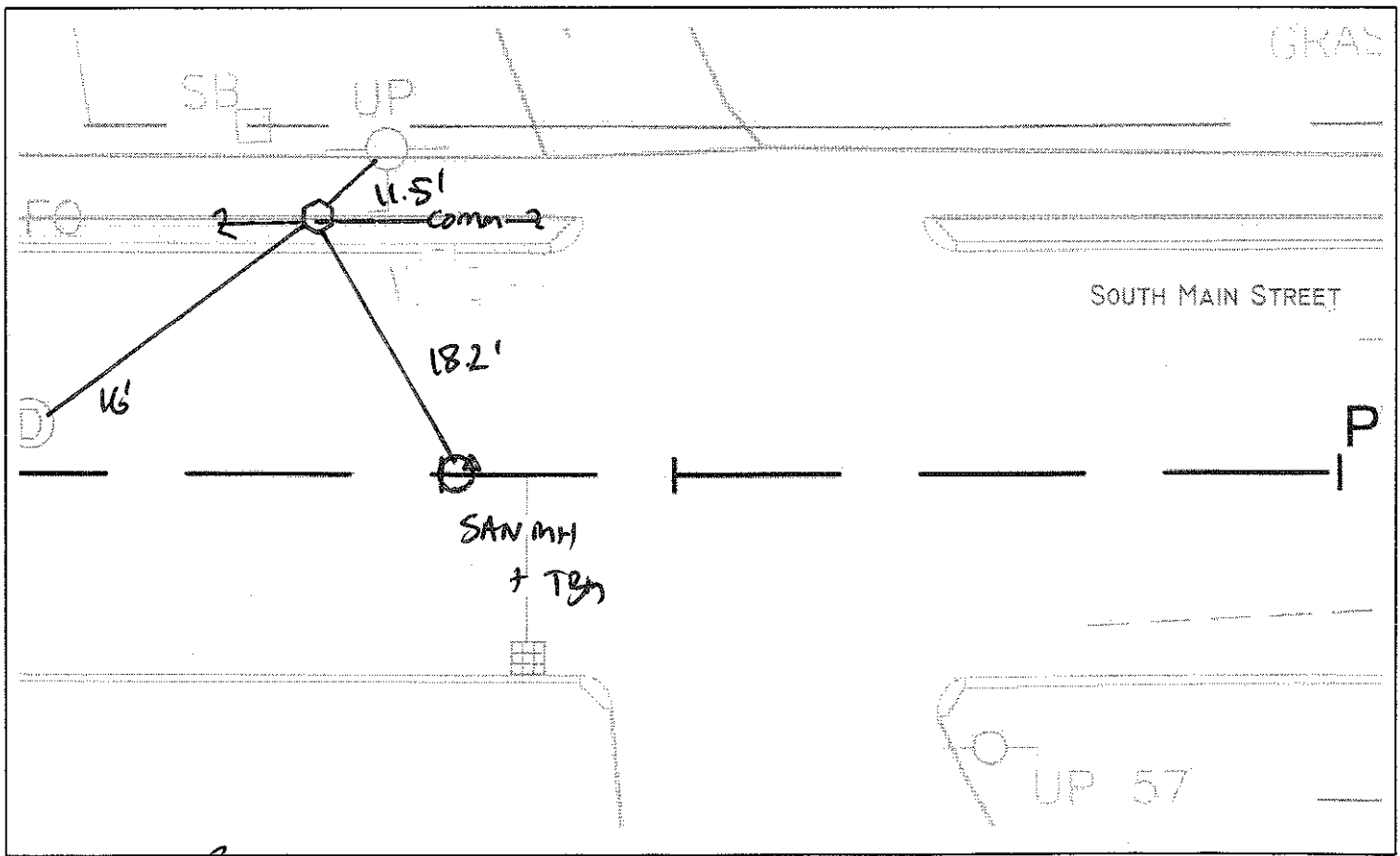
GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐

BENCHMARK ELEVATION: 180.09 DESCRIPTION: North King S  
BENCHMARK ELEVATION: - DESCRIPTION: -

----- TEST HOLE PLAN -----



## TEST HOLE PLAN



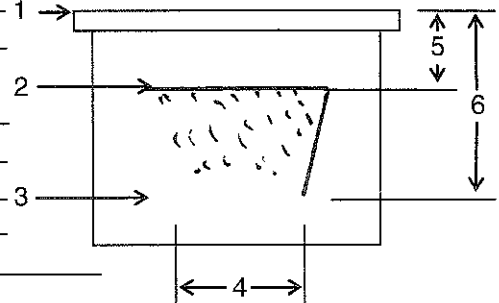
CHECKED BY: Th. Moly  
DATE: 7/25/2019

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SoftDig® Project #: 192730 Test Hole #: 5B Client: Green International Date: 7/25/2019  
One-Call Permit #: 2019 290 7856 SUE Analyst: \_\_\_\_\_ Truck #: 5187  
City / County/State: Natick / Middlesex County / MA Road: South Main St  
General Location: at SA location in Asphalt Sidewalk

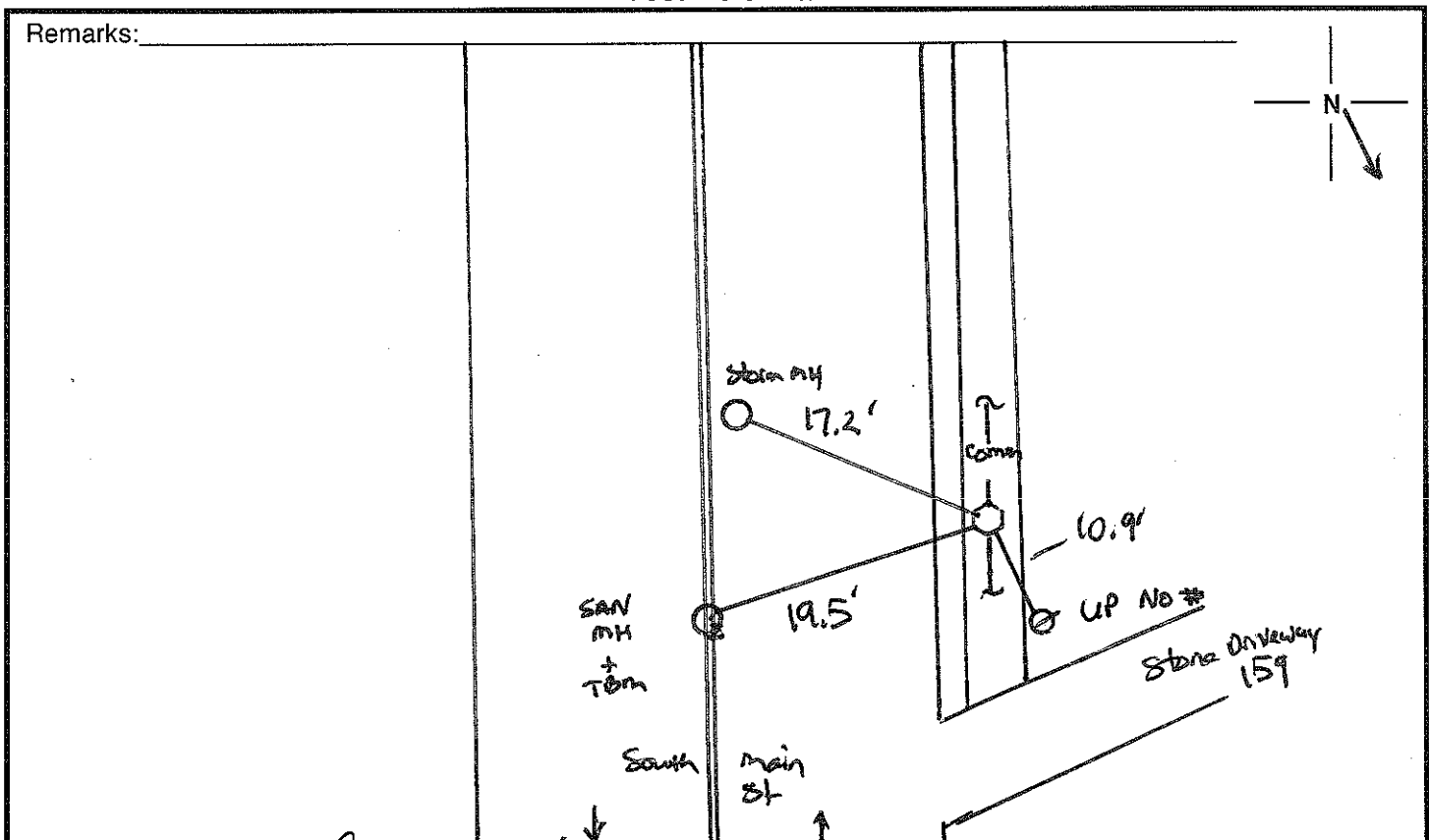
—Test Hole Information—

Actual Size, Color, Material, Type of Utility: Rough Poor Concrete Duct Bank (Communications)  
Utility Owner: Verizon Designation Color: Orange  
Observed Utility Condition: Good ☒ Poor ☐ Other: \_\_\_\_\_  
Test Hole marked by: PK Nail ☒ Hub ☐ Other: \_\_\_\_\_  
Portion of Utility Exposed: Top ☒ Half ☐ Side ☐ Full ☐  
1. Reference Elevation: 180.60'  
2. Utility Top Elevation: 178.97'  
3. Utility Bottom Elevation (if applicable): 177.41'  
4. Width (if applicable): 3'  
5. Utility Top Depth from Reference: 1.63'  
6. Utility Bottom Depth from Reference: 3.19'  
Surface Covering Type: Asphalt ☐ Concrete ☒ Soil ☐ Surface Covering Depth: 4"  
Generalized Soil Profile: Select Fill ☐ Rock ☒ Sand ☐ Clay ☐ Other: \_\_\_\_\_  
1.) Bench Mark Elev.: 180.09' Description: North Rim Sanitary manhole  
2.) Bench Mark Elev.: \_\_\_\_\_ Description: \_\_\_\_\_  
Excavated Location Coordinates: N. \_\_\_\_\_ E. \_\_\_\_\_  
Station: \_\_\_\_\_ Offset: ☒



—Test Hole Plan—

Remarks: \_\_\_\_\_



Checked by: [Signature] Date: 7/25/2019

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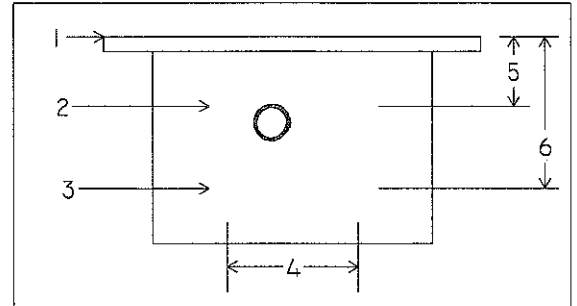
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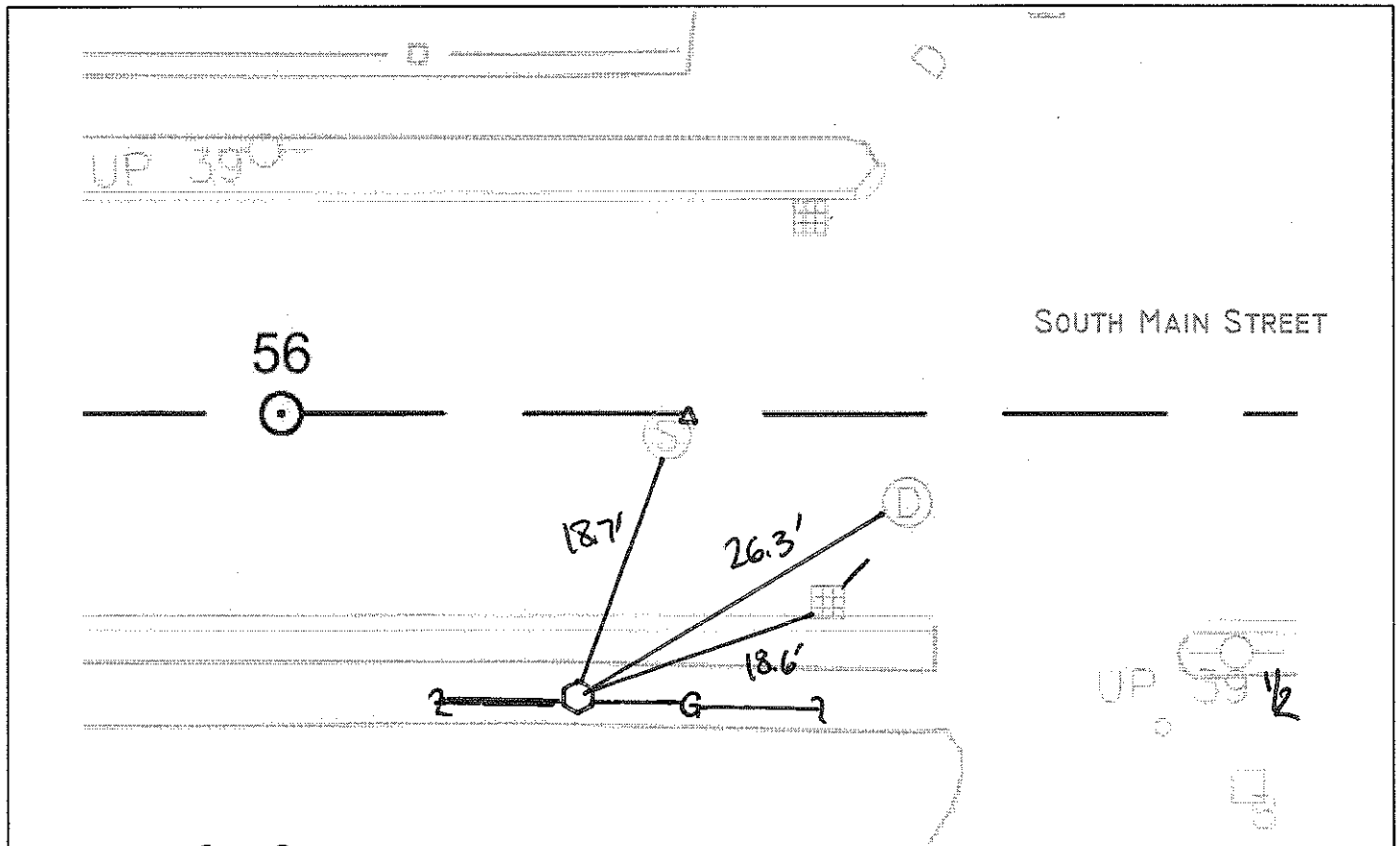
SOFTDIG PROJECT #: 192730 TEST HOLE #: 6 CLIENT: GREEN INTERNATIONAL AFFILIATES, INC DATE: 7/25/2019  
ONE-CALL PERMIT: 2019 290 7856 CREW: Molnar/Warren TRUCK #: 8187  
CITY / COUNTY / STATE: NATLICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: IN NORTH BOUND ROADWAY LEFT OF UP 39 ANTICIPATED UTILITY: GAS

TEST HOLE INFORMATION

ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY: 4" Yellow Plastic Gas Pipe  
UTILITY OWNER: Unknown DESIGNATION COLOR: Yellow  
OBSERVED UTILITY CONDITION: GOOD ☒ POOR ☐ OTHER ☐  
TEST HOLE MARKED BY: PK NAIL ☒ HUB ☐ X MARK ☐  
PORTION OF UTILITY EXPOSED: TOP ☒ HALF ☐ SIDE ☐  
1) REFERENCE ELEVATION: 167.01'  
2) UTILITY TOP ELEVATION: 164.32'  
3) UTILITY BOTTOM ELEVATION: \_\_\_\_\_  
4) WIDTH: \_\_\_\_\_ TYPE: FORMED ☐ ROUGH POUR ☐ RACKED ☐  
5) UTILITY TOP DEPTH FROM REFERENCE: 2.69'  
6) UTILITY BOTTOM DEPTH FROM REFERENCE: \_\_\_\_\_  
SURFACE COVERING TYPE: ASPHALT ☐ CONCRETE ☐ SOIL ☐ SURFACE COVERING DEPTH: 3" IN  
GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐ CLAY ☐ OTHER \_\_\_\_\_  
BENCHMARK ELEVATION: 167.08' DESCRIPTION: North Rim Sanitary MH  
BENCHMARK ELEVATION: \_\_\_\_\_ DESCRIPTION: \_\_\_\_\_



TEST HOLE PLAN



CHECKED BY: R. Molnar  
DATE: 7/25/2019

SURFACE MARKINGS BY SOFTDIG OR OTHERS DO NOT  
NECESSARILY INDICATE TRUE LOCATION OR DEPTH

2.71'

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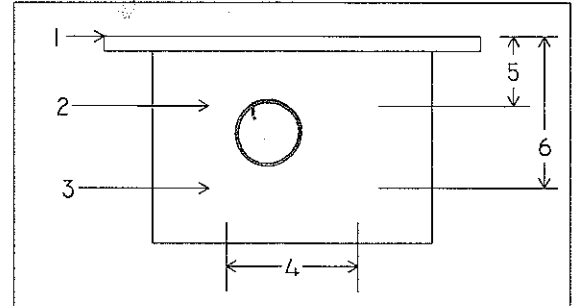
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VACUUM EXCAVATION DATA SHEET  
ENGLISH UNITS

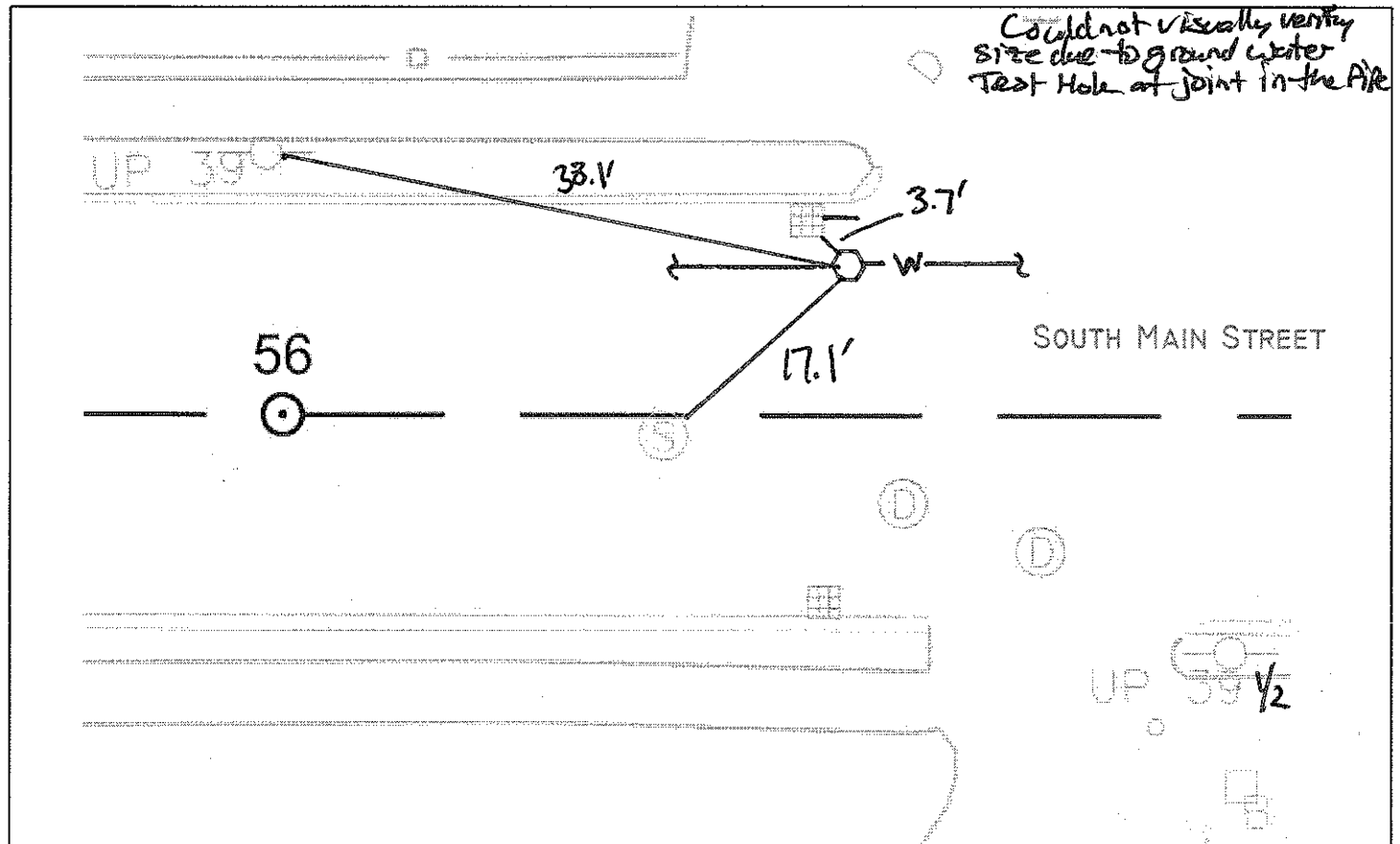
SOFTDIG PROJECT #: 192730 TEST HOLE #: 7 CLIENT: GREEN INTERNATIONAL AFFILIATES, INC DATE: 7/25/2019  
ONE-CALL PERMIT: 2019 290 7856 CREW: Molnar/Warren TRUCK #: 5187  
CITY / COUNTY / STATE: NATICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: IN SOUTH BOUND LANE IN FRONT OF HOUSE 131 ANTICIPATED UTILITY: WATER

TEST HOLE INFORMATION

ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY: 12" Black metal water pipe  
UTILITY OWNER: Unknown DESIGNATION COLOR: Blue  
OBSERVED UTILITY CONDITION: GOOD ☒ POOR ☐ OTHER ☐  
TEST HOLE MARKED BY: PK NAIL ☐ HUB ☐ X MARK ☐  
PORTION OF UTILITY EXPOSED: TOP ☒ HALF ☐ SIDE ☐  
1) REFERENCE ELEVATION: 166.61'  
2) UTILITY TOP ELEVATION: 161.23'  
3) UTILITY BOTTOM ELEVATION: -  
4) WIDTH: TYPE: FORMED ☐ ROUGH POUR ☐ RACKED ☐  
5) UTILITY TOP DEPTH FROM REFERENCE: 5.38'  
6) UTILITY BOTTOM DEPTH FROM REFERENCE: -  
SURFACE COVERING TYPE: ASPHALT ☒ CONCRETE ☐ SOIL ☐ SURFACE COVERING DEPTH: 7" IN  
GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐ CLAY ☐ OTHER: Ground Water  
BENCHMARK ELEVATION: 167.08' DESCRIPTION: North Rim Sanitary manhole  
BENCHMARK ELEVATION: - DESCRIPTION: -



TEST HOLE PLAN



CHECKED BY: H. Molnar  
DATE: 7/25/2019

SURFACE MARKINGS BY SOFTDIG OR OTHERS DO NOT  
NECESSARILY INDICATE TRUE LOCATION OR DEPTH

5136

# VACUUM EXCAVATION DATA SHEET

## ENGLISH UNITS

SOFTDIG PROJECT #: 192730 TEST HOLE #: 8 CLIENT: GREEN INTERNATIONAL AFFILIATES, INC DATE: 7/26/2019  
ONE-CALL PERMIT: 2019 290 7856 CREW: Molnar/Warren TRUCK #: S187  
CITY / COUNTY / STATE: NATICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: IN NORTH BOUND LANE IN FRONT OF HOUSE 120 ANTICIPATED UTILITY: GAS

### TEST HOLE INFORMATION

ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY 4" Yellow Plastic Gas Pipe

UTILITY OWNER: Unknown

DESIGNATION COLOR: Yellow

OBSERVED UTILITY CONDITION:      GOOD ☒      POOR ☐      OTHER ☐

TEST HOLE MARKED BY: PK NAIL ☒ HUB ☐ X MARK ☐

PORTION OF UTILITY EXPOSED      TOP ☐      HALF ☐      SIDE ☐

1) REFERENCE ELEVATION 167.19'

2) UTILITY TOP ELEVATION 163.83'

3) UTILITY BOTTOM ELEVATION \_\_\_\_\_

4) WIDTH  TYPE: FORMED ☒ ROUGH POUR ☐ RACKED ☐

5) UTILITY TOP DEPTH FROM REFERENCE 3.36'

6) UTILITY BOTTOM DEPTH FROM REFERENCE —

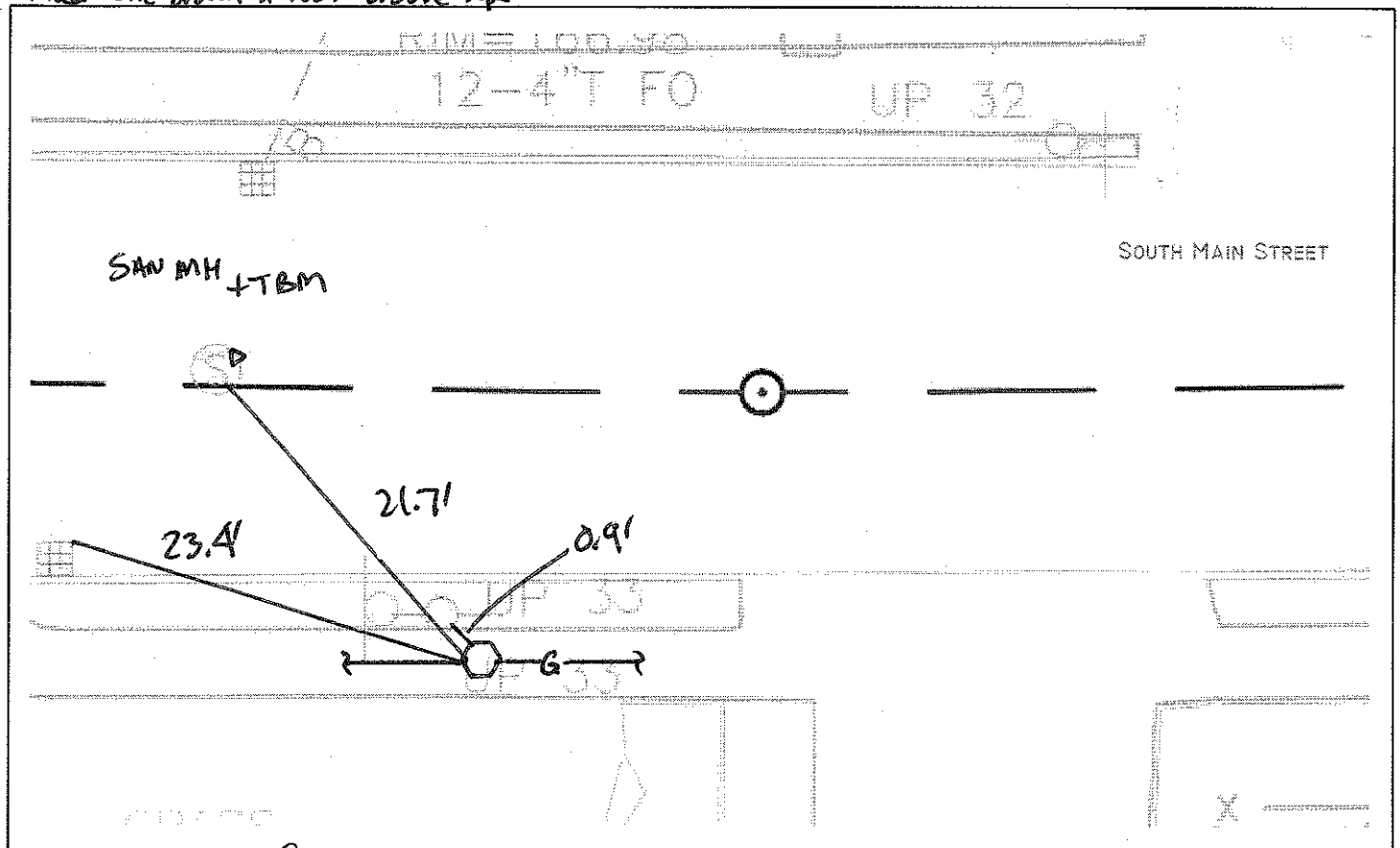
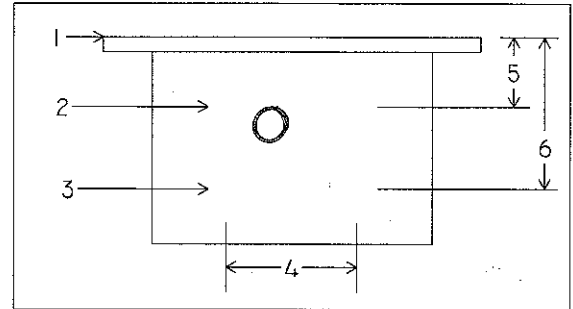
SURFACE COVERING TYPE: ASPHALT ☒ CONCRETE ☐ SOIL ☐ SURFACE COVERING DEPTH: 4" IN

GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐ CLAY ☐ OTHER ☐

BENCHMARK ELEVATION: 166.77' (Given) DESCRIPTION: North Rim Sanitary manhole

BENCHMARK ELEVATION: \_\_\_\_\_ DESCRIPTION: \_\_\_\_\_

Tracer Wire about a foot above Pipe ---- TEST HOLE PLAN ----



CHECKED BY: AL MCK

DATE: 7/26/2019

SURFACE MARKINGS BY SOFTDIG OR OTHERS DO NOT  
NECESSARILY INDICATE TRUE LOCATION OR DEPTH

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WWW.SOFTDIG.COM

**SoftDig**  
Underground Services Inc.

PHONE NO: (877)SOFTDIG  
(763-8344)  
FAX: (610)696-7864  
EMAIL: SOFTDIG@SOFTDIG.COM

VACUUM EXCAVATION DATA SHEET  
ENGLISH UNITS

SOFTDIG PROJECT #: 192730 TEST HOLE #: 9 CLIENT: GREEN INTERNATIONAL AFFILIATES, INC DATE: 7/26/2019  
ONE-CALL PERMIT: 2019 290 7856 CREW: McLennan/Warren TRUCK #: S187  
CITY / COUNTY / STATE: NATICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: IN GRASS ACROSS FROM COOLIDGE AVE INTERSECTION ANTICIPATED UTILITY: COMM

TEST HOLE INFORMATION

ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY Concrete Duct Bank Communication

UTILITY OWNER: Verizon

DESIGNATION COLOR: Orange

OBSERVED UTILITY CONDITION: GOOD ☒ POOR ☐ OTHER ☐  
TEST HOLE MARKED BY: PK NAIL ☒ HUB ☐ X MARK ☐  
PORTION OF UTILITY EXPOSED TOP ☒ HALF ☐ SIDE ☐

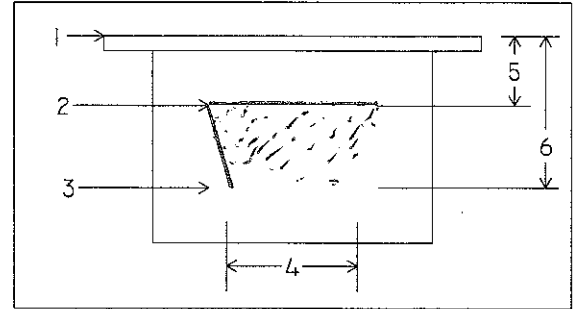
1) REFERENCE ELEVATION 170.07'  
2) UTILITY TOP ELEVATION 167.86'  
3) UTILITY BOTTOM ELEVATION 166.39'  
4) WIDTH 2.5' TYPE: FORMED ☐ ROUGH POUR ☒ RACKED ☐  
5) UTILITY TOP DEPTH FROM REFERENCE 2.21'  
6) UTILITY BOTTOM DEPTH FROM REFERENCE 3.68'

SURFACE COVERING TYPE: ASPHALT ☒ CONCRETE ☐ SOIL ☐ SURFACE COVERING DEPTH: 4" IN

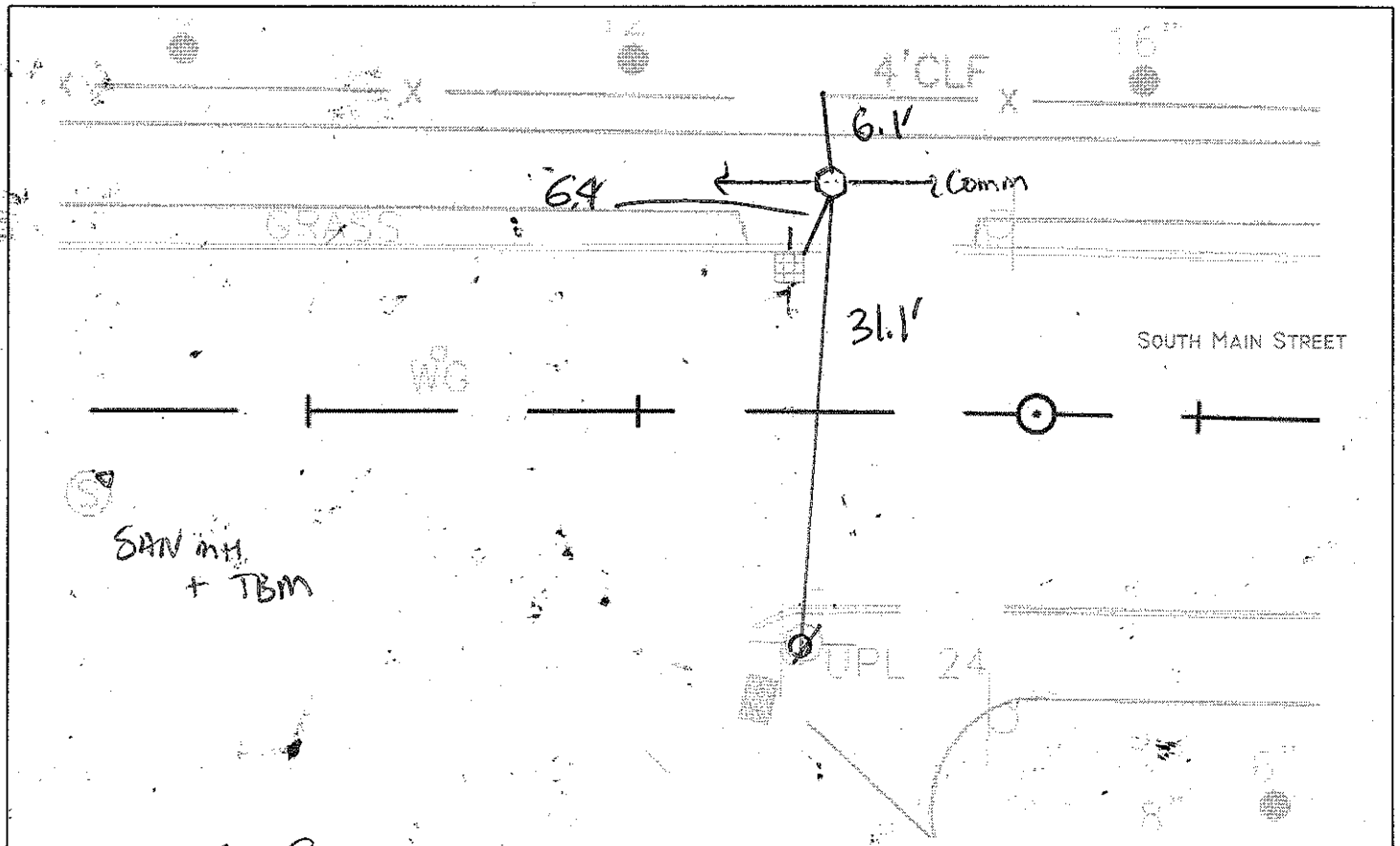
GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐ CLAY ☐ OTHER ☐

BENCHMARK ELEVATION: 169.88' DESCRIPTION: North Rim Sanitary Manhole

BENCHMARK ELEVATION:          DESCRIPTION:         



TEST HOLE PLAN



CHECKED BY: H. m. k.  
DATE: 7/26/2019

SURFACE MARKINGS BY SOFTDIG OR OTHERS DO NOT  
NECESSARILY INDICATE TRUE LOCATION OR DEPTH



OFFICES IN:  
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EMAIL: SOFTDIG@SOFTDIG.COM

VACUUM EXCAVATION DATA SHEET  
ENGLISH UNITS

SOFTDIG PROJECT #: 192730 TEST HOLE #: 10 CLIENT: GREEN INTERNATIONAL AFFILIATES, INC DATE: 7/26/2019  
ONE-CALL PERMIT: 2019 290 7856 CREW: Molnar / Warren TRUCK #: S187  
CITY / COUNTY / STATE: NATICK, MIDDLESEX COUNTY, MA ROAD: SOUTH MAIN STREET  
GENERAL LOCATION: GRASS IN LEFT CORNER OF FLORAL AVE/PLAIN ST INTERSECTION ANTICIPATED UTILITY: COMM

TEST HOLE INFORMATION

ACTUAL SIZE, COLOR, MATERIAL, TYPE OF UTILITY Concrete Duct Bank Communications

UTILITY OWNER: Verizon

DESIGNATION COLOR: Orange

OBSERVED UTILITY CONDITION: GOOD ☒ POOR ☐ OTHER ☐

TEST HOLE MARKED BY: PK NAIL ☒ HUB ☐ X MARK ☐

PORTION OF UTILITY EXPOSED TOP ☒ HALF ☐ SIDE ☐

1) REFERENCE ELEVATION 173.39'

2) UTILITY TOP ELEVATION 170.87'

3) UTILITY BOTTOM ELEVATION 169.35'

4) WIDTH 2.5 TYPE: FORMED ☐ ROUGH POUR ☒ RACKED ☐

5) UTILITY TOP DEPTH FROM REFERENCE 2.52'

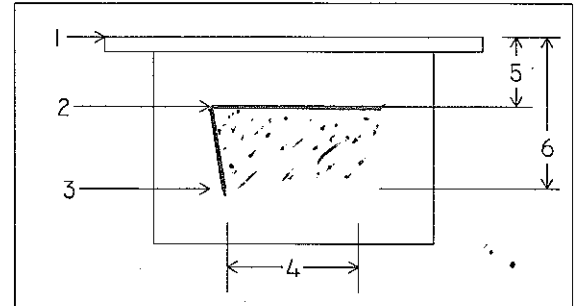
6) UTILITY BOTTOM DEPTH FROM REFERENCE 4.04'

SURFACE COVERING TYPE: ASPHALT ☒ CONCRETE ☐ SOIL ☐ SURFACE COVERING DEPTH: 5" IN

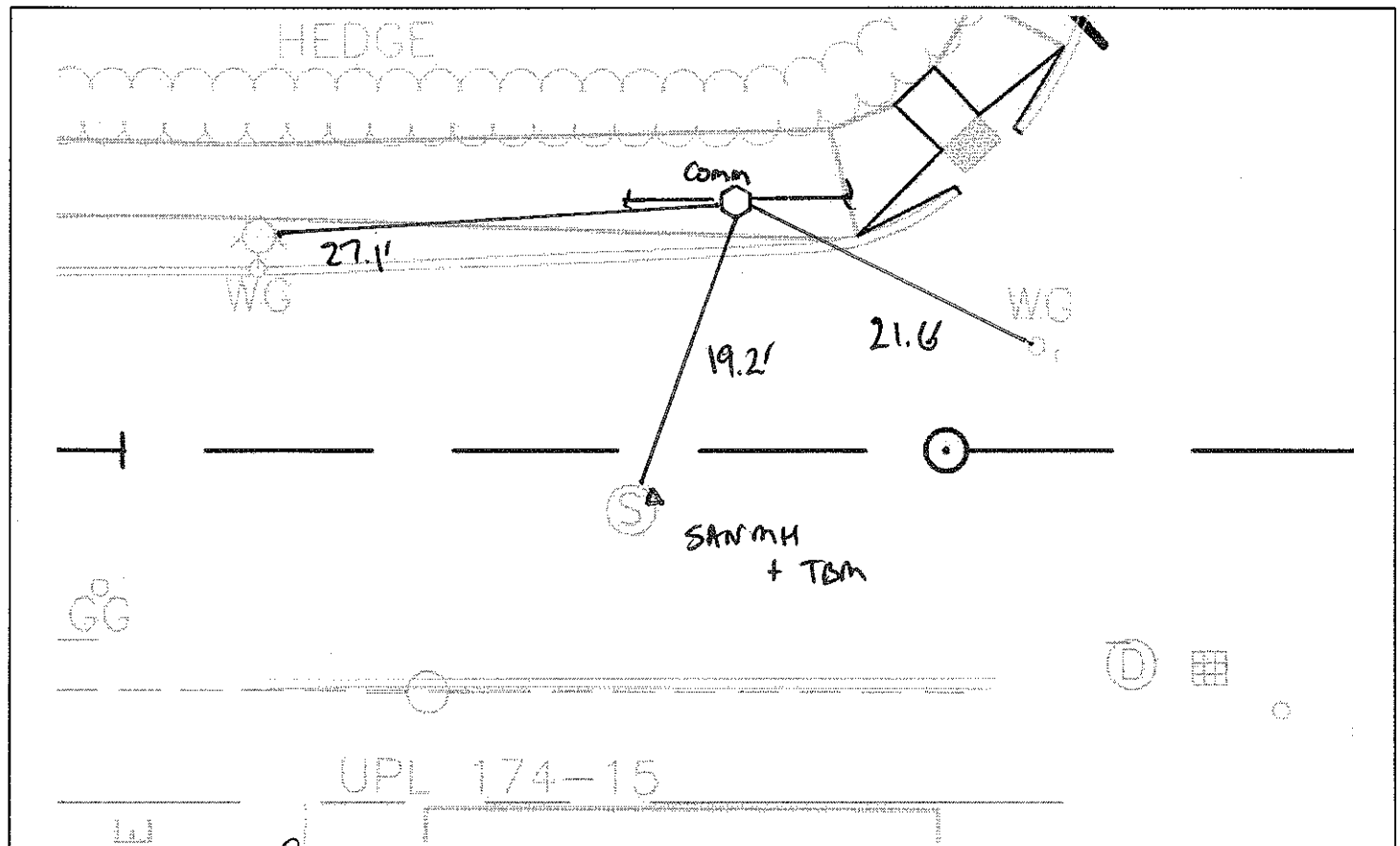
GENERALIZED SOIL PROFILE: SELECT FILL ☐ ROCK ☒ SAND ☐ CLAY ☐ OTHER

BENCHMARK ELEVATION: 173.05' DESCRIPTION: North Rim Sanitary manhole

BENCHMARK ELEVATION: DESCRIPTION:



TEST HOLE PLAN



CHECKED BY: [Signature]  
DATE: 7/26/2019

SURFACE MARKINGS BY SOFTDIG OR OTHERS DO NOT  
NECESSARILY INDICATE TRUE LOCATION OR DEPTH



## **APPENDIX G**

Ledge Subsurface Investigation Analyses

May 8, 2019



Green International Affiliates, Inc.  
239 Littleton Road, #3  
Westford, MA 01886

Attn: Mr. Erik C. Atkins, P.E. – Transportation Design Group Leader  
P: (978) 923 0400

Re: Geophysical Exploration Report  
South Main Street Widening  
Natick, Massachusetts  
Terracon Project No.: J1195024

Dear Mr. Atkins:

Terracon Consultants, Inc. (Terracon) performed field reconnaissance and geophysical exploration services at the above referenced site in accordance with Terracon Proposal No. PJ1195024 dated March 8, 2019. This report provides a summary of our field services, and subsurface conditions identified by geophysical exploration.

## 1.0 PROJECT INFORMATION

The Town of Natick plans to redevelop a portion of South Main Street to include full depth reclamation and widening of the road and installation of curbing and sidewalks. Green International Affiliates, Inc. (Green) has been tasked with the design of the road widening and has proposed a 2H:1V cut. Bedrock outcrops were reported to be present along the eastern side of South Main Street, between Heavey Way and Rockland Street. Shallow bedrock could affect the design of the widening and add rock removal costs. Terracon performed a field reconnaissance to evaluate the presence of bedrock within the project site. In addition, due to site constraints which limit physical subsurface exploration, Terracon used geophysical testing to evaluate the depth of bedrock along the alignment from approximately Sta 34+00 to 35+50.

## 2.0 GEOPHYSICAL PROCEDURES

For the geophysical scope, Terracon used a seismic refraction system consisting of a SeismicSource DAQLink III seismograph and 24 geophones to derive subsurface seismic velocity information. We tested two linear arrays of 24 geophones, with spacings of 5 feet, and the following types of seismic data were recorded:



- *Refraction microtremors* produced by ambient seismic noise were recorded. The data was then processed using a wavefield-transformation data-processing technique and an interactive Rayleigh-wave dispersion-modeling tool. The refraction microtremor exploits aspects of spectral analysis of surface waves (SASW) and multi-channel analysis of surface waves (MASW) to derive a shear wave (s-wave) profile and an average shear-wave velocity along the array for a corresponding depth.
- MASW was performed by collecting surface waves created by a seismic energy source consisting of a sledge hammer contacting a metal plate. The data was then processed using dispersion analysis software (SurfSeis, engineered by the Kansas Geological Survey) that extracts the fundamental-mode dispersion curve(s). The curves were inverted and modeled to yield a 1D shear-wave velocity profile along the array for a corresponding depth. Using a roll-along setup and subsets of geophones, many 1D profiles are created along an array and then combined to yield a 2D profile.

## **3.0 FINDINGS AND CONCLUSIONS**

### **3.1 Field Reconnaissance**

To evaluate the presence and nature of bedrock outcrops within the proposed cuts for the new roadway widening, a Terracon professional engineer and geologist visited the site on May 1, 2019. No exposures of rock with characteristics of bedrock outcrops were observed in the vegetated slope immediately adjacent to the roadway to the southeast. Rock exposed in this portion of the slope appeared to be either boulders or detached fragments of rock from outcrops further up the slope. The field team could not study these outcrops up-close since they are located on private property and permission to access was not secured. A large outcrop forms the upper portion of the slope to the southeast of the road and appears hard and resistant, with a relatively smooth surface dipping toward the roadway at an estimated 45 degrees. Frequent and persistent discontinuities in the outcrop (i.e. fracture planes, foliation planes or joints) were not observed from the roadway.

According to the Bedrock Geologic Map of the Natick Quadrangle, Middlesex and Norfolk Counties, Massachusetts, prepared by Arthur E. Nelson in 1975, the geology within and adjacent to the roadway is mapped as Dedham Granodiorite, described as a “light gray to pinkish gray, medium to coarse grained plutonic rock ranging from granite to quartz diorite, mostly massive, rarely foliated”. In the study area, the granite is in close contact with rocks mapped as the Westboro quartzite, including thick-bedded to massive quartzite interlayered with schist, gneiss and amphibolite.

### **3.2 Geophysical Results**

Two geophysical lines were positioned along the proposed widening alignment, approximately parallel to the existing roadway. They were positioned approximately 15 feet laterally from, and generally east/southeast of, Utility Poles 75 and 79. A geophysical line location diagram is provided as Exhibit 1. This diagram is based on the Preliminary Design Construction Plans, prepared by Green International Affiliates, Inc., dated June 15, 2018.

Collected data was first analyzed through MASW methods to pick the fundamental-mode dispersion curves. There was difficulty picking the appropriate dispersion curves because of noise caused by site conditions, including but not limited to heavy traffic along South Main Street. Due to a low signal-to-noise ratio, additional analyses were performed through Refraction Microtremor (ReMi) methods in order to supplement the MASW results. The ReMi method is a coarse, low resolution modeling tool and was analyzed to confirm the MASW method. Based on the findings of the ReMi method, it is our opinion the original MASW model is reliable despite noisy site conditions.

The MASW shear wave velocity model is provided in the attached Exhibit 2. Based on ASCE 7 Table 20.3-1, soft rock is defined to have shear wave velocities between 1,200 and 2,500 feet per second (ft/s). Therefore we used 1,200 ft/s as our conservative threshold to determine the bedrock surface. The seismic refraction models show shear waves velocities interpreted as top of bedrock between 9 and 14 feet below existing ground surface along the test lines.

There are some anomalous zones along Line 1 which give the appearance of bedrock shallower than shown along the majority of the profile. Based on our field observations and the presence of detached pieces of the rock outcrop or boulders on the ground surface, it is possible similar materials could be buried within the overburden.

It should be noted that, as with any geophysical testing method, these processes rely on instrument signals to indicate physical conditions in the field. Signal information can be affected by on-site conditions beyond the control of the operator such as, but not limited to, soil types, soil moisture, and/or ambient vibration. Interpretation of those signals is based on a combination of known factors combined with the experience of the operator and geophysical scientist evaluating the results. Utilizing conventional observation, sampling and testing ("truthing") of select areas is highly recommended to confirm the results from the geophysical surveys. As with all geophysical methods, the geophysical results provide a level of confidence but are not absolute.

### **3.3 Conclusions**

Field observations do not indicate the presence of bedrock at the surface adjacent to the existing roadway. The exposed rock we observed in the vegetated area directly adjacent to the east side

## Geophysical Exploration Report

South Main Street Widening ■ Natick, Massachusetts

May 8, 2019 ■ Terracon Project No. J1195024



of South Main Street appeared to be either detached pieces from the outcrop to the southeast or boulders. Our observations are also in agreement with the geophysical survey results.

Considering the proposed cut depths for the widening between Sta 34+00 to 35+50 range from about 2 to 7 feet, there is no present evidence that bedrock will be encountered within the proposed excavation depth. Therefore, the proposed 2H:1V final excavation side slopes in soil appear suitable. When the site becomes more accessible, we recommend test pits be completed before, or early in, the construction phase to confirm observational and geophysical findings.

Lastly, although the massive rock outcrop to the southeast appears to be hard and stable, based on the rock pieces found on the ground surface and potential loose rock noted higher up on the outcrop, future rockfall could occur if not removed during construction. To evaluate the potential for future rockfall near and into the proposed roadway widening and sidewalk, closer review of the up-slope outcrop should be performed. For this to occur, permission must be obtained from the current property owner.

## 4.0 GENERAL COMMENTS

This report has been prepared for the exclusive use of our client for specific application to the project discussed herein and has been prepared in accordance with generally accepted geophysical exploration practices. No warranties, either express or implied, are intended or made.

Our scope of services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Seismic testing uses shear and compressive wave arrival times and dispersion to detect changes in the subsurface of the area being investigated. Changes in the travel time and dispersion generally indicate material property changes such as, but not limited to, density and wave speed, which in some cases can be used to derive qualitative and quantitative soil and rock properties.

The analysis and recommendations presented in this report are based upon the data obtained from the geophysical surveys and from other information discussed in this report. This report does not reflect variations that may occur in areas inaccessible to the geophysical equipment, across the site, or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction.

**Geophysical Exploration Report**

South Main Street Widening ■ Natick, Massachusetts

May 8, 2019 ■ Terracon Project No. J1195024



We appreciate the opportunity to be of service to you on this project. Please do not hesitate to contact the undersigned if you have any questions regarding this information or if we can be of further service to you.

Sincerely,

**Terracon Consultants, Inc.**

(for) Marc A. Gullison, P.E. (NH)  
P.E. Senior Staff Engineer

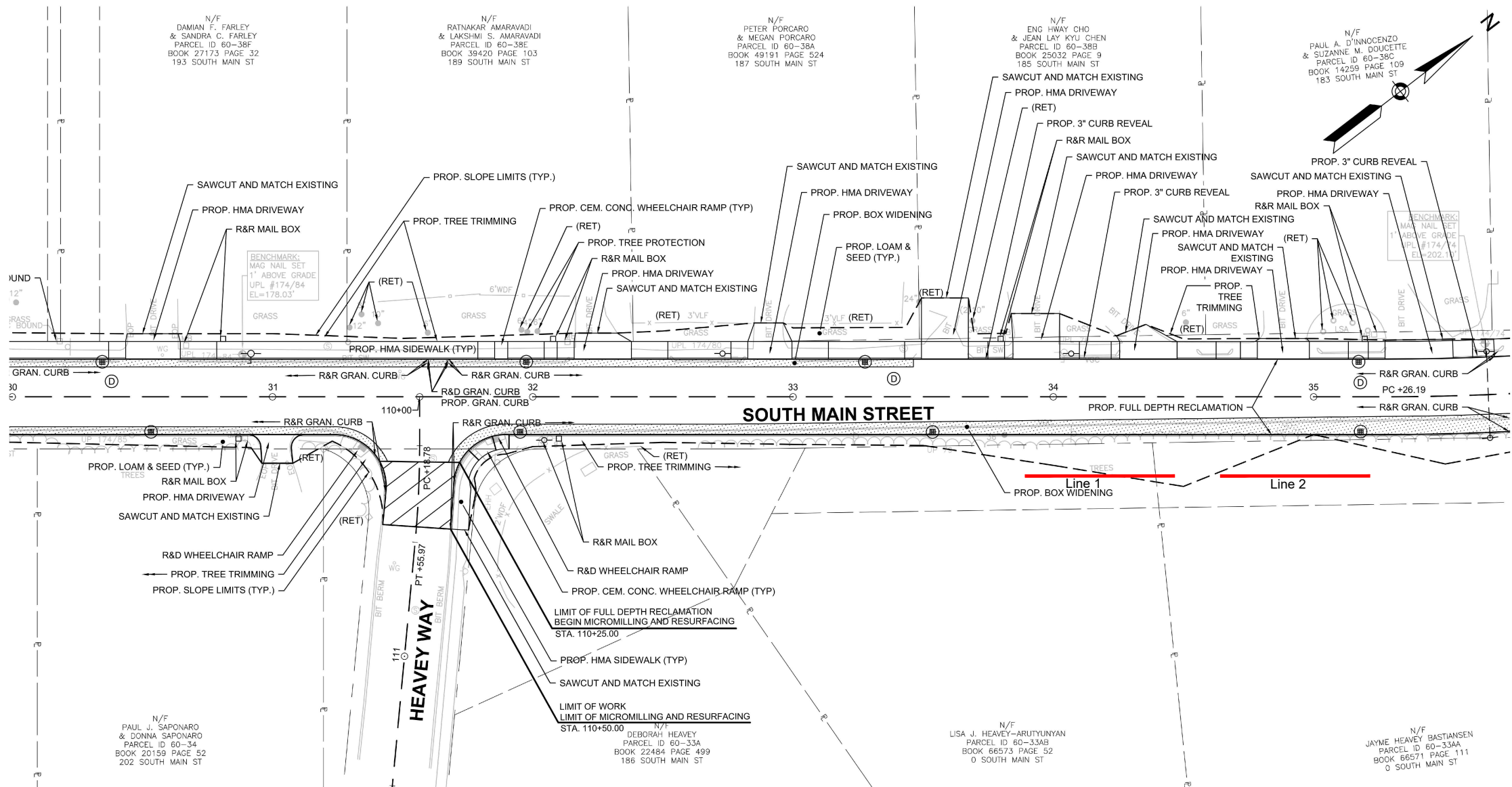
Lawrence J. Dwyer,  
Principal

A handwritten signature in blue ink, appearing to read "Rob Kramer". The signature is fluid and cursive, with a long horizontal stroke at the end.

Rob Kramer  
Project Geophysicist

Attachments: Exhibit 1 – Geophysical Line Diagram  
Exhibit 2 – MASW Profiles





**NOTES:**

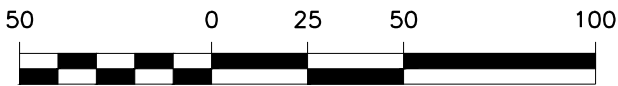
1. THIS EXHIBIT WAS PREPARED FROM A PLAN TITLED IMPROVEMENTS TO SOUTH MAIN STREET, PRELIMINARY DESIGN, CONSTRUCTION PLANS, SHEET 12, PREPARED BY GREEN INTERNATIONAL AFFILIATES, INC. OF WESTFORD, MA.
2. GEOPHYSICAL LINES SHOWN WERE TESTED ON APRIL 18, 2019 UNDER THE DIRECTION OF TERRACON WITH EQUIPMENT OWNED AND OPERATED BY TERRACON OF MANCHESTER, NH.
3. USE OF THIS EXHIBIT IS LIMITED TO THE APPROXIMATE LOCATION OF THE GEOPHYSICAL LINES AND OTHER PERTINENT SITE FEATURES. OTHER USE OF THIS EXHIBIT WITHOUT PERMISSION FROM TERRACON IS PROHIBITED.

**LEGEND**

Line 1 SEISMIC REFRACTION LINE LOCATION

CONTINUED ON  
SHEET NO. 13

MANAGEMENT AND UTILITY PLANS FOR PROPOSED DISPOSITION OF ALL  
G AND PROPOSED UTILITIES, DRAINAGE, SEWER AND WATER.



GRAPHIC SCALE IN FEET

Prepared For:

Green International  
Affiliates, Inc.  
Westford, MA

Project Mngr:

MAG

Drawn By:

MCR

Checked By:

MAG

Approved By:

LJD

Project No.

J1195024

Scale:

As shown

File No.

J1195024.dwg

Date:

May 2019

**Terracon**

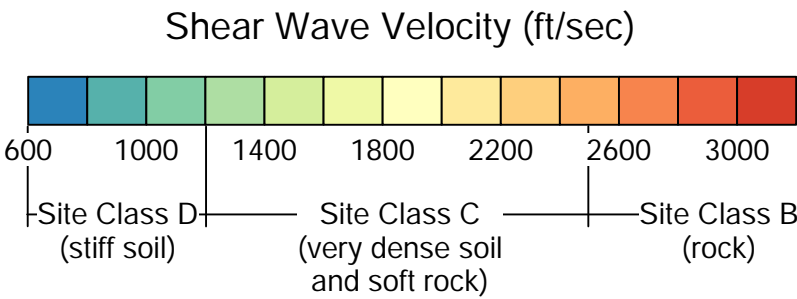
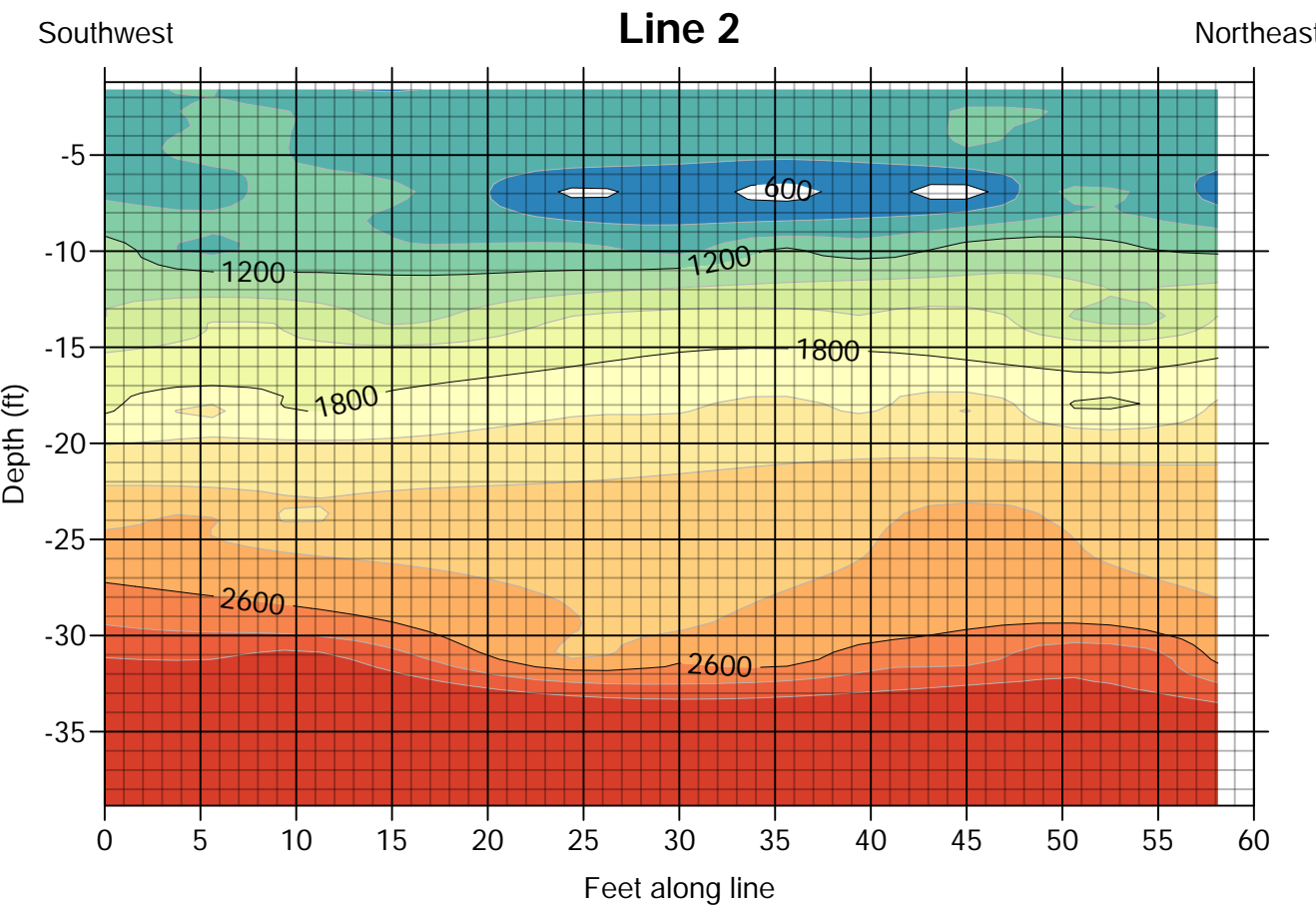
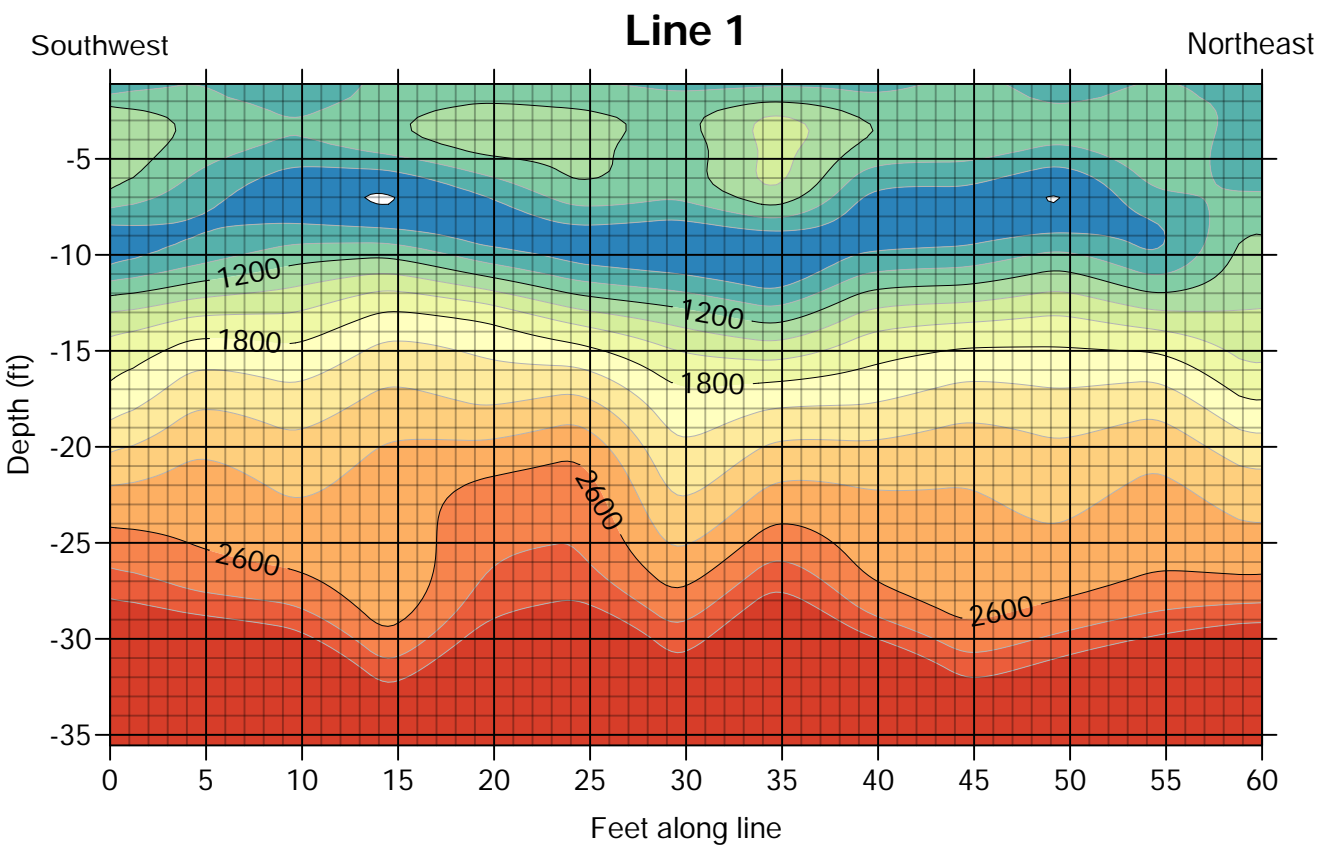
77 Sundial Avenue, Suite 401W  
Manchester, NH 03103

GEOPHYSICAL LINE DIAGRAM

SOUTH MAIN STREET WIDENING  
SOUTH MAIN STREET  
NATICK, MA

EXHIBIT

1



Legend	Notes	Exhibit 2 - MASW Profiles
	1. Prolife Scales (Vertical & Horizontal) 1" = 10'. 2. Site Class according to ASCE 7.	<div>Project: South Main Street Widening</div> <div>Client: Green International Affiliates, Inc.</div> <div>Location: Natick, Massachusetts</div> <div>Project No.: J1195024</div> <div>Date: May 7, 2019</div> <div>Terracon</div>

## **APPENDIX H**

Contract Plans

(Under Separate Cover)