

INVITATION FOR BID
**DWIGHT ROAD CORRIDOR
IMPROVEMENTS**



TOWN OF LONGMEADOW
MASSACHUSETTS

March, 2018

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LEGAL NOTICE/ ADVERTISEMENT FOR BID:

**INVITATION FOR BID (IFB)
DWIGHT ROAD CORRIDOR IMPROVEMENTS**

The Town of Longmeadow invites sealed bids for the Dwight Road Corridor Improvements Project. The scope of work consists of road resurfacing, traffic signal installation, sidewalks, and related corridor improvements. Sealed bids should be delivered to the Town of Longmeadow, Purchasing Department, Attn: Chad Thompson-Procurement Manager, 735 Longmeadow Street, Suite 101, Longmeadow, MA 01106. Sealed bids delivered should be labeled on the outer envelope with 'IFB Dwight Road Corridor Improvements' along with the address, and complete contact information of the bidder. Sealed bids will be accepted until the **bid deadline of 11:00 a.m. on Thursday, April 12, 2018**. Late bids will be rejected. Bids received will be publicly opened in the auditorium immediately following the bid deadline.

All bids for this contract are subject to the provisions of Massachusetts General Laws Chapter 30, Section 39M as amended.

Bid documents may be examined and/or obtained at the Longmeadow Purchasing Department between the hours of 8:00 a.m. and 4:30 p.m., Monday through Thursday, and Fridays from 8:00am to noon, excluding legal holiday. Contact information: Phone: 413-565-4185, cthompson@longmeadow.org. Bid documents may also be accessed online through the Purchasing Department page of the Town website www.longmeadow.org by selecting 'Bid &RFP' links to access documents. Bidders are encouraged to register with the Purchasing Department, those that do not register with the Purchasing Department will be responsible for monitoring the bid listing service for updates and addenda. Failure to acknowledge the receipt of addenda may result in a bid rejection. Bid Documents will be mailed upon request via standard mail for a prepaid non-refundable handling and postage charge of \$25.00.

All bidders shall furnish with their bid a bid guaranty in the form of a bid bond, certified check, treasurer's check, or cashier's check issued by a responsible bank or trust company, in the amount of 5% of the total amount of the bid made payable to the Town of Longmeadow, Massachusetts.

A Payment Bond and Performance Bond, both in the amount of one hundred percent (100%) will be required of the successful contractor. No bid may be withdrawn within sixty (60) days after the date of the opening of bids.

This project is being funded in part by MassDOT Chapter 90 funds. MassDOT vendor pre-qualification is required. Minimum wage rates as determined by the Commissioner of Department of Workforce Development under the provision of the Massachusetts General Laws, Chapter 149, Sections 26 to 27H, as amended, apply to this project.

The Town of Longmeadow acting through the Town Manager, the Awarding Authority reserves the right to reject any or all bids, waive minor informalities, and to award the contract in the best interest of the Town.

END OF SECTION

SECTION A
GENERAL CONDITIONS

SECTION A

GENERAL CONDITIONS

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SECTION A

GENERAL CONDITIONS

DEFINITION OF TERMS

Article 1. Definition of Terms

Wherever in these Specifications or other Contractual Documents the following terms, or pronouns in place of them, are used, the intent and meaning shall be interpreted as follows:

<u>Addendum</u>	An addition to or alteration of the Plans and/or Specifications generally issued for clarification purposes prior to the opening of Proposals.
<u>Advertisement</u>	The notice published in newspapers and trade bulletins announcing the time and place for the opening of bids for work to be done.
<u>A.A.S.H.T.O.</u>	The American Association of State Highway and Transportation Officials.
<u>Alteration</u>	Change in the form or character of any of the work done or to be done.
<u>A.S.T.M.</u>	The American Society for Testing and Materials.
<u>Bidder</u>	Any individual, firm or corporation submitting a Proposal for the work contemplated, acting directly or through a duly authorized representative.
<u>Contract</u>	A written agreement executed by the parties thereto for the construction, reconstruction, alteration, remodeling, repair, demolition, improvement or development of any building, structure, addition, facility, system, or pipeline.
<u>Contractor</u>	A party to the Contract, acting directly or through an authorized lawful agent or employee.
<u>Engineer</u>	The Town of Longmeadow or his/her designee acting as an authorized representative, such representative acting within the scope of the particular duties entrusted to him/her.
<u>Extra Work</u>	Work or materials not called for in the Plans and Specifications and which is deemed necessary and authorized by the Engineer.
<u>Layout</u>	See Right of Way.
<u>Location</u>	See Right of Way.
<u>Lump Sum Contract</u>	One in which the Proposal is a fixed price; inclusion of alternates requested by the Owner for variations in the scope of the work does not modify or rescind this definition.
<u>Material</u>	Any article, assembly, system, or any component part thereof.
<u>Owner</u>	The Contracting or the Awarding Authority.
<u>Plans</u>	The Contract Drawings, detail sheets, or exact reproductions thereof, which show the location, character, dimension. And details of the work including any alterations thereof permissible under the Contract and authorized by duly approved written orders.
<u>Proposal</u>	The written offer of the Bidder submitted in approved form to perform the work contemplated under the Contract.
<u>Project</u>	The purpose for which bids have been called and work contracted for.
<u>Right of Way</u>	That area which has been laid out or acquired for the purpose of this project.

<u>Special Provisions</u>	The special directions, provisions and requirements prepared to cover Contract requirements or work not satisfactorily provided for by these General Conditions. These Special Provisions shall be included within the general term "Specifications" and shall be made a part of the Contract with the express purpose that they shall prevail over all other Specifications.
<u>Specifications</u>	The directions, provisions and requirements, designated as Specifications, together with all written agreements made or to be made pertaining to the method and manner of performing the work, or the quantities and qualities of materials to be furnished under the Contract. The Specifications shall include the Instructions/Advertisement for Bidders, General Conditions, Special Provisions, State Mandatory Forms, Bond Descriptions, Bid and Contract Forms, Maps and Details, and Addenda.
<u>Subcontractor</u>	<p>(a) For contracts awarded pursuant to sections 44A to 44L of Chapter 149, a person who files a sub-bid and receives a contract as a result of filing sub-bid or who is approved by the Owner in writing as a person performing labor or both performing labor and furnishing labor pursuant to a Contract with the General Contractor.</p> <p>(b) A person approved by the Awarding Authority in writing as a person performing labor or both performing labor and furnishing labor pursuant to a Contract with the General Contractor.</p> <p>(c) For contracts with the Commonwealth of Massachusetts not awarded as provided in rules 44A to 44L, inclusive, of Chapter 149, 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.</p>
<u>Unit Price Contract</u>	One in which the Proposal is based on unit bid prices and estimated quantities; payment is based on field measurement of actual quantities completed or constructed.
<u>The Words</u>	<p>"As directed", "as permitted", "as required", or words of like effect shall mean that the direction, permission or requirement of the Engineer is intended; and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean approved by or acceptable or satisfactory to the Engineer, unless otherwise provided herein. The words "necessary", "suitable", "equal", or words of like import shall mean necessary, suitable or equal in the opinion of the Engineer.</p> <p>The words "approval of the Owner" or "approval by the Owner" shall mean approval either by vote of or in writing by the duly authorized officials.</p>
<u>Written Notice</u>	Shall be deemed to have been duly served if delivered in person to the individual, or to a member of the firm or to an officer of the Corporation for whom it is intended, or if delivered at or sent by certified mail - return receipt requested - to the last business address known to whomever who gives the notice.

PROPOSAL REQUIREMENTS AND CONDITIONS

Article 2. Contents of Proposal Forms

One set of Proposal Forms consisting of the documents listed below will be furnished by the Owner to each general bidder upon request at the office of the Longmeadow Procurement Manager. These proposal forms will be available without cost or charge. Bid documents are also available online through the Purchasing Department page of the Town website. www.longmeadow.org

The Specifications; including the Instructions/Advertisement for Bidders, General Conditions, Special Provisions, State Mandatory Forms, Bond Descriptions, Bid and Contract Forms, Maps and Details, and Addenda.

Article 3. Interpretation of Basic Estimates of Quantities for Unit Price Contracts

- A. All bids will be compared on the basis of the Engineer's estimate of quantities of work to be done, as shown in the Proposal. These quantities are approximate only, being given as a basis for the comparison of bids. The Owner does not expressly or by implication agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class, item, or portion of the work as may be deemed necessary or expedient by the Owner.

Bidders are required to submit their estimate upon the following express conditions, which shall apply to and become part of every bid received. An increase or decrease in the quantity for any item or group of items shall not be regarded as cause for an increase or decrease in the prices, nor in the time allowed for the completion of the work, except as provided in the Contract. An increase or decrease in the quantity of work to be done shall not warrant any claim for loss, damage, or anticipated profit.

- B. The work has been divided into classes and items in order to enable the bidder to bid on the different portions of the work in accordance with his/her estimate of their cost, so that in the event of an increase or decrease in the quantities of any particular class of work the actual quantities of any particular class of work the actual quantities executed may be paid for at the price bid for that particular class of work.
- C. It is the intent of these specifications to provide valuable input for future hot mix asphalt (HMA) production and testing for the Town of Longmeadow. The Town will monitor the HMA according to these Special Provisions. All requirements of the Special Provisions will apply except that measurement and payment will be made in accordance with the MassDOT "Standard Specifications for Highways and Bridges".

D. Article 4. Examination of the Location

Statements as to the condition under which the work is to be performed, including plans, surveys, measurements, dimensions, calculations, estimates, borings, etc., are made solely to furnish a basis for comparison of bids, and the Owner does not guarantee that they are even approximately correct. This material represents the best factual information available to the Owner and is made available without the assumption of responsibility for its accuracy. The Contractor must satisfy him/herself by his/her own investigation and research regarding all conditions affecting the work to be done and labor and material needed, and make his/her bid in sole reliance thereon. The Contractor should carefully examine any materials furnished by the Owner, the location of the work, the difficulties to be encountered in doing the work, and all other factors relating to the project.

No allowance will be made, and no responsibility will be assumed, by the Owner for any failure of the Contractor to estimate correctly any difficulty attending the execution of the work.

In regard to subsurface soil conditions, the provisions of Chapter 30, Section 39M of the Mass. General Laws (recited hereinafter) will prevail in every Contract subject to Section 39M of Chapter 30 or Section 44A of Chapter 149.

"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 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."

Article 5. Preparation of Proposals

A. Proposal Prices for Unit Price Contract

Each general bid shall be submitted upon a form furnished by the Owner. All words and figures shall be in ink. In case of discrepancy between the unit prices and the extended totals, the unit prices shall govern.

The bidder shall specify a unit price; in both words and figures, for each and every item for which a quantity is given, and shall also show the products of the respective unit prices and quantities, written in figures in the column provided for that purpose, and the total amount of the Proposal obtained by adding the amounts of the several items. In case of discrepancy between the unit prices and the extended totals, the unit prices shall govern. No bid will be accepted which does not contain a unit price for every item shown on the Proposal Form. No conditional bids will be accepted.

B. General

When an item in the Proposal contains a choice to be made by the bidder, the bidder shall indicate his/her choice in accordance with the Specifications for that particular item. Thereafter no further choice will be permitted without permission from the Owner.

The price for any item, bid and/or contracted for, unless otherwise noted or specified shall include full compensation for all materials, equipment, tools, labor and incidental work, necessary to complete the item to the satisfaction of the Engineer. The prices shall, without exception, include all royalties and costs arising from patents, trademarks, and copyrights in any way involved in the work.

C. Signatures

All Proposals shall be signed correctly with ink in the proper places provided, as follows: If the Proposal is made by an individual, his/her name and post office address shall be given. If the Proposal is made by a firm, partnership or corporation, it shall be signed by a person having such legal authority from the said firm, partnership or corporation and the person so signing the Proposal shall give his/her own name and title (if any) in addition to the name and address of the firm, partnership or corporation. If the Proposal is made by a firm or partnership, the names and addresses of the individual members shall be given. If the Proposal is made by a corporation, the name of the State under the laws of which the corporation was chartered and the names, titles and business addresses of the President, Treasurer and Manager and a certificate of vote granting authority to make such Proposal shall be given. If the Proposal is made by a foreign corporation, it must comply with the provisions of Chapter 181 of the Massachusetts General Laws and any amendments thereto. The Non-Collusion bid form must be completed and signed with the bid submission. Failure to supply a complete Non-Collusion form with the bid submission will result in a bid rejection.

Article 6. Delivery of Proposals

Each Proposal shall be submitted to the Owner in a sealed envelope. On the outside of the envelope shall be written the bidder's name and address and the words "IFB-Dwight Road Corridor Improvements". If forwarded by mail, the sealed envelope containing the Proposal, and marked as directed above, must be enclosed in another envelope addressed to the Owner. The recommended method of mailing shall be "Certified Mail - Return Receipt Requested".

Proposals shall be delivered as instructed in the Legal Notice / Advertisement for Bid. Proposals received by the Owner at the designated place after the time designated in the Advertisement for Bidders, or Proposals received at other than the designated place, will be returned to the bidder unopened. It is the bidder's responsibility to see that his/her Proposal is at the designated place at the designated time.

In the event that the Town of Longmeadow office of the Purchasing Department is closed on the date and time of the bid deadline due to weather, natural disaster, fire, municipal office closure, etc, then the bid deadline will be extended to the next regular business day that the office of the Longmeadow Purchasing Department is open with the bid deadline time being at the same time as previously scheduled.

Article 7. Proposal Guaranty Required

In order to ensure the faithful fulfillment of its terms, each Proposal shall be accompanied by cash, certified check, bank check or lawful money or a bond from an approved surety in an amount of five percent (5%) as specified in the Bond Descriptions. Said check will be returned to the bidder unless retained by the Owner under the conditions hereinafter stipulated. Bids received that do not contain the mandatory bid deposit will be rejected.

Article 8. Public Opening of Proposals

Proposals will be publicly opened and read aloud at the time and place indicated in the legal notice or date as amended in an addendum (if any). Bidders should check the purchasing department page of the town website (www.longmeadow.org) for the link to active bids and any updates or addenda. Bidders or their authorized agents are invited to be present.

Article 9. Rejection of Proposals

Proposals which fail to meet the requirements of Articles 5, 6, and 7, or which are incomplete, conditional, or obscure, or which contain additions not called for, erasures, alterations, or irregularities of any kind, or in which errors occur, or which contain abnormally high or abnormally low bid prices for any class or item of work, may be rejected as informal. The Owner may waive any informalities in or reject any or all bids and may accept any bid the Owner deems to be in his/her best interests or in the best interests of the group represented by the Owner.

More than one Proposal from the same bidder, whether or not the same or different names appear on the signature page, will not be considered. Reasonable proof for believing that any bidder is so interested in more than one Proposal for the work contemplated will cause the rejection of all Proposals made by him/her directly or indirectly. Any or all Proposals will be rejected if there is reason for believing that collusion exists among the bidders.

Bidders whose Proposals have been rejected because of evidence of collusion as specified in Article 9 will not be considered in future Proposals for the same work, and such bidders may be disqualified from bidding on future work.

Article 10. Withdrawal of Proposals

Any bid may be withdrawn prior to the scheduled time for opening as shown in the Special Provisions or authorized postponements thereof. After the bid opening no bidder may withdraw his/her Proposal within sixty (60) days.

Article 11. Competency of Bidders

No Contract will be awarded except to responsible bidders capable of performing the class of work

contemplated. Before the award of the Contract, any bidder may be required to show that s/he has the necessary facilities; experience, ability and financial resources to perform the work in a satisfactory manner and within the time stipulated. If the Contract contains special work of a complicated nature or if it contains items for materials or

work the character of which will depend upon the Contractor's skill or experience, s/he will be required to show proof that s/he has a satisfactory record of similar work performed or materials furnished under other Contracts. Bidders may be required to furnish the Owner with formal sworn statements as to their experience and their financial status. In the event that MassDot Prequalification is required, the low bidder must meet prequalification requirements in order to be a responsive bidder for contract award.

Article 12. Material Guaranty

Before any Contract is awarded, the Bidder may be required to furnish without expense to the Owner, a complete statement of the origin, composition and manufacture of any or all materials proposed to be used in the construction of the work, together with samples, which samples may be subjected to the tests required by the Owner to determine their quality and fitness for the work.

Article 13. Questions, Interpretation, and Addenda

No interpretation of the meaning of the Specifications or other Contract Documents will be made to any bidder orally. Every request for such interpretation should be made in writing addressed to Town of Longmeadow, Purchasing Department, Attn: Chad Thompson-Procurement Manager, 735 Longmeadow Street, Suite 101, Longmeadow, MA 01106. Fax: 413-565-4370, Email: cthompson@longmeadow.org. To be given consideration, the request must be received by the bid deadline time no later than 120 hours (5 days) prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the Specifications which, if issued, will be mailed, fax or email.

All addenda will be posted online through the Town website before the bid deadline. To access IFB documents, forms and updates including issued addenda go to the Purchasing Department page of the Town website (www.longmeadow.org) and select 'Bid & RFP' links to access documents.

Acknowledge the receipt of issued addenda, if any, on the bid submission form. Failure of any bidder to receive any such addenda or interpretation shall not relieve any bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the Contract Documents. Failure to acknowledge the receipt of addenda may result in a bid rejection.

AWARD AND EXECUTION OF THE CONTRACT

Article 14. Consideration of Bids

The Owner reserves the right to reject any or all Bids, to waive minor technicalities and informalities as described under Article 9, to advertise for new Bid, or proceed to do the work otherwise, as it may deem best for its own interest.

Article 15. Award of Contract

Unit price Contracts will be compared on the basis of the totals of the sums obtained by multiplying the Engineer's estimate of quantities by the unit price stated on the Bid Submission Forms for each respective item.

The Contract will be awarded to the lowest responsible and eligible bidder on the basis of the Bid Total. Special attention is directed to the provision of General Laws Chapter 149, Section 44A defining the term 'lowest responsible and eligible bidder'. The successful bidder will be notified in writing, by mail, or otherwise, that his/her bid has been accepted and that s/he has been awarded the Contract.

If there is any discrepancy or issue with interpretation of bid pricing, the written words of the unit pricing shall prevail in determining and correcting the bid unit price and any recalculation of multiplication or addition thereafter.

Article 16. Return of Proposal Guaranty

All Proposal Guaranties of general bidders, except those under consideration by the Awarding Authority, will be returned within 5 days -- Saturdays, Sundays and legal holidays excluded -- after the opening of bids. Other Proposal Guaranties will be returned upon the execution and delivery of the general Contract.

Article 17. Contract Bond Required

100% Performance and Payment Bond is required with the contract. Prior to the execution of the Contract, the Contractor will be required to furnish a surety bond in the amount specified in the Bond Descriptions as security for faithful payment of all persons performing labor on the project under this Contract and furnishing materials and/or equipment in connection with this Contract.

The bond must be in the usual and approved form and must also contain the following: "the principal shall pay for all labor performed or furnished and for all materials used or employed, and shall pay all persons who contract with the principal for labor and materials as provided in the General Laws of Massachusetts, Section 29 of Chapter 149, then this obligation to be void, otherwise to remain in full force and effect."

Attorneys in fact who sign Contract Bonds must file with each bond a certified copy of their power of attorney to sign said bonds. The surety is to be a bonding company or security satisfactory to the Owner. Any bond must be with a bonding company having a place of business in the Commonwealth of Massachusetts.

Article 18. Execution of Contract

The Contractor to whom the Contract is awarded will be required to appear at the office of the Longmeadow Procurement Manager with the surety offered by him/her and to execute the Contract within five days -- Saturdays, Sundays and legal holidays excluded -- after presentation thereof by the awarding authorities, and execute a Contract in accordance with the terms of his/her bid. The Contract shall be in writing on the forms provided.

Article 19. Failure to Execute Contract

Should the successful bidder fail to execute the Contract and/or to furnish the Contract Bond and Insurance as herein specified within the five-day time limit specified herein before, the Owner may at its option determine that the bidder has refused to execute a Contract with the Owner. The Owner may then offer the Contract to the next lowest responsible bidder if the Owner deems it to be advisable.

If any general bidder fails to execute a Contract within five days -- Saturdays, Sundays and legal holidays excluded -- then the bidder's Proposal Guaranty shall be forfeited as liquidated damages and the Contract may be offered to the next lowest responsible bidder.

SCOPE OF WORK

Article 20. Intent of Specifications

It is the intent that the Specifications shall prescribe a complete work or improvement; and when the work is completed, the Contractor shall leave the job site in a neat and finished condition.

The Contractor shall do all the work and furnish all the materials, tools and appliances, except as otherwise specified, necessary or proper for performing and completing the work required by the Contract, in the manner and within the time specified, and in accordance with the Specifications for the work, at the prices agreed upon.

All the work, labor and materials to be done and furnished under the Contract shall be done and furnished strictly pursuant to, and in conformity with, the Specifications for the work, which said Specifications shall form part of the Contract, and also in accordance with the directions of the Engineer as given from time to time during the progress of the work under the terms of the Contract.

The Town will monitor the HMA according to these Special Provisions. All requirements of the Special Provisions will apply except that measurement and payment will be made in accordance with the MHD "Standard Specifications for Highways and Bridges".

Article 21. Special Conditions

Construction items or conditions anticipated for any proposed work, and not covered by these "General Conditions", will be described and specified in "Special Provisions". Said Special Provisions shall be considered a part of the Contract. In case of conflict between the said Special Provisions and General Conditions, the Special Provisions shall govern.

Article 22. Alteration of Work

Should it be found desirable by the Engineer to make alterations in the form or character of any of the work done, or to be done, the Engineer may order such alterations to be made, defining them in writing, and the alterations shall be made accordingly. Provided that in case such alterations increase the cost of the work, the Contractor shall be remunerated at prices based on prices allowed on the same character of work under Specifications, and in case the alterations shall diminish the cost of the work, no allowance will be made for anticipated profits.

In case of any alteration, change or addition to the work as originally contemplated, and if said alteration, change or addition justified an increase in the cost of the work, the Owner reserves the right to decide the method that will be used to determine said additional costs (See Article 72).

In case of any alterations, so much of the Contract as is not necessarily affected by such alterations shall remain in force upon the parties thereto, and such alterations shall be made under the terms of and as part of the Contract, and the security for the performance of the Contract shall not be invalidated, but shall be held to secure in like manner the performance of the alterations made under the Contract and of any extra work done under provisions of Article 23.

The Contractor shall perform the work as increased or decreased within the qualifying limits named and subject to the provisions outlined above, but no allowance shall be made for any change in anticipated profits. Adjustments shall be considered waived unless specific complaint is made in writing by the Contractor previous to the construction of such alteration or change and within three calendar days following notice from the owner of such alteration or change.

Article 23. Extra Work

The Contractor shall do any work not herein otherwise provided when and as ordered in writing by the Engineer. If the Contractor claims that any instructions from the Engineer involve extra cost or an extension of time, s/he shall so notify the Engineer in writing within three (3) calendar days after the receipt of the Engineer's instructions and in any event before proceeding to execute the extra work. No claim from the Contractor will be considered valid unless made in accordance with the terms of this Article.

Such notice by the Contractor and the keeping of costs by the Engineers shall not in any way be construed as proving the validity of the claim. Payment for extra work will be made in accordance with the provisions of Article 72.

The Owner may, at any time by a written order, and without notice to the surety or sureties, require the performance of such changes in the work as it may find necessary or desirable.

Article 24. Maintenance of Detours

When required by the Owner, a project shall be closed to travel during construction. Suitable detours shall be provided and maintained as directed or as specified in Articles 49 and 50 of the General Conditions. Payment for this work is to be included by the Contractor in his/her price for the work. No special payment will be provided unless otherwise stated in the Specifications.

Article 25. Removal and Disposal of Structures and Obstructions

Existing structures such as bridges, culverts, dikes, walls, pipes, guardrail, fences, street railway ties and rails, found within the project limits or right-of-way, which are to be replaced or rendered useless by new construction, shall be removed by the Contractor at his/her own expense unless otherwise provided in the Specifications. When their location is such as not to interfere with the work, the removal shall not be done until the new structures replacing them are ready for traffic or until the Engineer shall permit.

All material in existing structures requiring removal shall remain the property of the Owner. The material shall be removed without damage, in sections which will permit easy handling and disposal, to locations within the limits of the project, and convenient for their subsequent removal by the Owner, or as directed by the Engineer. All discarded material, rubbish or debris shall be removed from the work and disposed of as directed. No foreign material or debris shall be permitted to remain or move in a waterway.

Article 26. Rights in the Use of Materials Found on the Work

The Contractor with the approval of the Engineer, may use suitable ledge, gravel, sand, loam, clay, or other material from within the location lines of the project under construction. If such use necessitates securing additional material for forming embankments, the Contractor shall at his/her own expense, furnish an amount of borrow of a satisfactory quality, equal to the amount of material taken, as measured in excavation. The Contractor shall not excavate or remove any material which is not within the excavation as indicated by the slope stakes and grade lines, without written approval. No excavated material suitable for use shall be wasted, unless as directed.

Unless otherwise provided the material from any existing structure may be used temporarily by the Contractor during construction. Such material shall not be cut, bent, broken or otherwise damaged.

Nothing in the Contract shall be construed as vesting in the Contractor any right or property in the materials used after they have been attached or affixed to the work or the soil; but all such material shall, upon being so attached or affixed, become the property of the Owner.

Article 27. Final Cleaning Up

Upon completion of the work and before acceptance and final payment, the Contractor shall remove, at his/her own expense, from the project location and from adjoining property, all temporary structures and all surplus material and rubbish which may have accumulated during the prosecution of the work, and shall leave the work broom clean and in a neat and orderly condition.

No equipment or materials shall be left on the right-of-way or project limits without the written permission of the Engineer.

Unless otherwise provided, the Contractor shall be responsible for the work for a period of ONE YEAR after date of Acceptance. Neither the making of partial payments nor the making of the final payment shall relieve the Contractor of responsibility for faulty materials or workmanship and, unless otherwise specified, s/he shall remedy any defects and pay for any damage resulting from faulty materials or workmanship which shall appear within a period of ONE YEAR from the date of Acceptance (See Articles 73, 74 and 75, hereof).

CONTROL OF WORK

Article 28. Authority of the Engineer

The Engineer, or his/her authorized designee, shall decide all questions which may arise as to the quantity, quality, acceptability, fitness and rate of progress of the several kinds of work to be performed and materials to be furnished under the Contract, and shall decide all questions which may arise as to the interpretation of any part of the Contract, especially the Specifications which are a part thereof, as to the fulfillment of this Contract on the part of the Contractor, and the determination and decision of the Engineer shall be final and conclusive; and such determination and decision, in case any question shall arise, shall be a condition precedent to the right of the Contractor to receive any money hereunder.

The Engineer assumes no liability whatsoever for the obligations entered into by the Owner, or by the Engineer on behalf of the Owner, and the Contractor must look solely to the Owner for payment of any claims.

Article 29. Specifications

All work shall be performed in strict conformity with the approved Specifications for the project. The Owner is responsible for the adequacy of the design and sufficiency of the Specifications. The Owner, through the Engineer, or the Engineer acting as the Owner's representative, will furnish with reasonable promptness, additional instructions necessary for the proper execution of the work. These additional instructions may be either additional specifications or descriptions as necessary. These additional instructions will become a part of the complete Contract Document.

Article 30. Conformity with Specifications and Allowable Deviations

The finished work shall conform in all respects to the information detailed in the Specifications. Where conditions make it necessary or desirable for major deviation from the Specifications, such changes shall be made as specified in Article 22 and 23, upon authorization in writing by the Owner.

Article 31. Coordination of Specifications and Plans

The Instructions/Advertisement for Bidders, General Conditions, Special Provisions, State Mandatory Forms, Bond Descriptions, Bid and Contract Forms, Maps and Details, and Addenda, and all supplementary documents, are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. The Contract Documents are complementary and what is called for by any one shall be as binding as if called for by all. In case of disagreement, the Special Provisions shall have precedence over the General Conditions.

Article 32. Cooperation by Contractor

The Contractor will be given the reasonably necessary number of copies of approved Addenda and Specifications. S/he shall have one copy of all such information and a copy of the Specifications on the work and available for reference at all times during the prosecution of the work.

The Contractor shall have at all times a competent and reliable superintendent or foreman on the work, authorized to receive orders and to act for him/her. Whenever the Contractor is not present on any part of the work when it may be desired to give directions, orders will be given by the Engineer and they shall be received and executed by the foreman or superintendent who is in charge of the particular work in reference to which the orders are given.

The superintendent shall not be changed during the progress of the work without the consent of the Engineer unless s/he shall prove to be unsatisfactory to the Contractor, and on this account or otherwise shall cease to be in the Contractor's employment.

The Contractor shall provide all reasonable facilities to enable the Engineer to inspect the workmanship and materials entering into the work. S/he shall cooperate in the matter of setting and preserving stakes, bench marks, etc., for controlling the work.

The Contractor shall so carry on his/her work under the direction of the Engineer that public service corporations, or municipal departments may enter on the work to make changes in their structures or to place new structures and connections therewith without interference, and the Contractor shall have no claim for or on account of any delay which may be due to or result from said work of public service corporations or municipal departments.

Article 33. Adjacent Contracts and Operations

Interference with the normal operation of adjacent facilities or equipment of the Owner shall be avoided wherever possible. Upon request by the Contractor, the Engineer will determine in advance whether such interference with existing facilities is unavoidable and will establish the necessary procedures involved. Except in an emergency involving the protection of life or property, the Contractor shall not operate any of the Owner's equipment, control devices, or similar items, except in the presence of and at the direction of a responsible representative of the Owner and the Engineer.

The Owner reserves the right to carry on work adjacent to the work under this Contract by either letting other Contracts or by use of the Owner's forces. The Contractor shall afford other Contractors and the Owner's forces

reasonable opportunity for the carrying out of their work and shall properly coordinate his/her work with theirs. Wherever work being done by the Owner's forces or by other Contractors is adjacent to work covered by this Contract, the respective rights of the various interests involved shall be established by the Engineer so as to secure the rapid completion of the various portions of the work in a most harmonious fashion

If any part of the Contractor's work under this Contract depends for proper execution or results upon the work of any other Contractor or upon the Owner's forces, the Contractor shall inspect and properly report to the Engineer any defects in such work that render it unsuitable for proper execution and results. This Contractor's failure to so inspect and report shall constitute an acceptance of the other work as fit and proper or the reception of his/her work, except as to defects which may develop in the other work after the execution of this Contractor's work.

Article 34. Construction Surveys

The Owner will furnish to the Contractor the necessary benchmarks and base lines for locating the principal component parts of the work contemplated under this Contract. Based on this information, the Contractor shall lay out the work, marking and identifying all necessary points for construction as may be required. The Contractor shall furnish free of charge, all protective stakes and temporary structures as may be necessary for marking and maintaining points and lines given by the Engineer for the building of the work, and shall give the Engineer such facilities and materials for establishing said lines and points as s/he may require. The Engineer's stakes, benchmarks, and base lines shall be carefully preserved. If the Engineer's stakes and points are lost through the neglect of the Contractor and must be re-established, they will be re-established at the Contractor's expense.

Article 35. Authority and Duties of Engineer's Assistants

The Engineer may appoint such assistants and representatives as he desires and they shall be authorized to inspect work and materials, to give directions pertaining to the work or to the safety and convenience of the public, to approve or reject materials, to make measurements of quantities and to perform such other duties as may be designated by the Engineer.

In case of any dispute arising between the Contractor and the Engineer's assistants, as to materials furnished or the manner or performing the work, the Engineer's assistants shall have the authority to reject the materials or to suspend the work until the question at issue can be referred to and decided by the Engineer.

Engineer's assistants are not authorized to revoke, alter, enlarge, relax or release any requirements of these Specifications nor to issue instructions contrary to the Specifications. They shall in no case act as foreman or perform other duties for the Contractor.

Article 36. Inspection of Work and Materials

The Engineer's agents and employees of the Owner may for any purpose enter upon the work and premises used by the Contractor and the Contractor shall provide safe and proper facilities therefore.

The inspection or non-inspection of the work shall not relieve the Contractor of any of his/her obligations to fulfill the terms of the Contract as herein prescribed by the Specifications.

The Contractor shall furnish the Engineer or his/her authorized representative with every reasonable facility and assistance for ascertaining whether or not the work as performed is in accordance with the requirements and intent of the Specifications. If so directed, the Contractor shall, at any time, before the acceptance of the work, remove or uncover any portions of the finished work necessary for inspection. After the inspection, the Contractor shall restore said portions of the work to the condition required by the Specifications.

The Contractor shall furnish written information to the Engineer stating the original sources of supply and dates of manufacture of all materials manufactured away from the actual site of the work. In order to ensure a proper time sequence for required inspection and approval, this information shall be furnished at least two (2) weeks (or otherwise directed by the Engineer) in advance of the incorporation in the work of any such materials.

Failure to reject any defective work or materials shall not in any way prevent later rejection when such defect is discovered, or obligate the Owner to make final acceptance.

Article 37. Removal of Defective or Unauthorized Work

All defective work shall be removed, repaired or made good, notwithstanding that such work has previously been inspected and approved or estimated for payment. If the work or any part thereof shall be found defective at any time before the final acceptance of the whole work, the Contractor shall at his/her own expense make good such defect in a satisfactory manner. If the defective or unauthorized work to be corrected was originally done by the Contractor, then s/he shall promptly correct his/her own work in accordance with the Contract and without expense to the Owner. If the defective or unauthorized work was carried out by a sub-contractor, then the sub-contractor shall carry out the replacement or corrective work as directed by the Contractor and the Engineer.

Any work done beyond the lines and grades as given, except as herein provided, or any extra work done without authority, shall be considered as unauthorized and at the expense of the Contractor. Such work will not be measured nor compensation allowed therefore. Work so done may be ordered removed at the Contractor's expense.

Upon failure of the Contractor to remove and satisfactorily dispose of any or all defective or unauthorized work, and to remedy the same after being so notified, the Engineer may cause such defective work to be remedied, removed and replaced, and such unauthorized work to be removed; and to deduct the costs therefor from any monies due to become due the Contractor.

Article 38. Final Inspection Report

Upon presentation of the Contractor's certification that the work has been substantially completed, the Engineer, as the authorized representative of the Awarding Authority, shall carry out a final inspection of the work and shall either certify to the Owner that the work required under the Contract has been substantially completed, or that the work has not been substantially completed. In the latter event, the Engineer, as the duly authorized representative of the Awarding Authority, shall prepare and submit to the Contractor an itemized list of incomplete or unsatisfactory work items required by the Contract which will be sufficient to demonstrate that the work has not been substantially completed.

Substantial completion shall be as defined in Chapter 30, Section 39G 6f the MGL as most recently amended by Chapter 460 of the Acts of 1978 or as amended thereafter.

Final completion, as required for meeting the requirements of the Contract for completion within the specified time, shall occur when, in the opinion of the Engineer, all work required under the Contract has been completed including all items of work on punch lists issued by the Engineer.

CONTROL OF MATERIALS

Article 39. Source of Supply and Quality

The source of supply of each material shall be approved by the Engineer before delivery is started.

The Contractor shall furnish all materials required for the work specified in the Contract, and said materials shall meet the requirements of the Specifications for the kind of work involving their use.

Only new and first quality materials, conforming to the requirements of these Specifications and approved by the Engineer, shall be used in the work. If, after trial, it is found that sources of supply which have been approved do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish approved material from other approved sources.

The Contractor may be required to furnish sworn certificates as to quality and quantity of materials before said materials are incorporated in the work.

Article 40. Samples and Tests

Tests of materials will be made by the Owner or under its direction, unless noted in the Specifications. The Contractor shall furnish such facilities as the Engineer may require for collecting and forwarding samples, and shall not make use of, or incorporate in the work, any material represented by the samples until the required tests have been made and the material accepted. The Contractor, in all cases, shall furnish the required

samples without charge. Where tests are required of materials already incorporated in the work, the Contractor shall furnish samples, cut from the completed work at a time and as directed by the Engineer. The area affected by the removal shall be replaced and refinished and the Contractor will receive no special compensation for any of the aforesaid work.

Article 41. Delivery and Storage of Materials

Materials and equipment shall be progressively delivered at the site so there will be neither delay in the progress of the work nor an accumulation of material that is not to be used within a reasonable time.

Materials shall be stored at the expense of the Contractor so as to ensure the preservation of their quality and fitness for the work. When considered necessary by the Engineer, they shall be placed on wooden platforms or other hard clean surfaces, and not on the ground. Motors and mechanical equipment shall be placed in secure, dry and heated storage when directed by the Engineer. Stored materials shall be so located as to facilitate prompt inspection.

Article 42. Defective Materials

Materials not conforming to these Specifications shall be rejected, and removed from the work by the Contractor as directed. No rejected material, the defects of which have been subsequently corrected, shall be used except with the permission of the Engineer. Should the Contractor fail to remove defective material within the time indicated in writing, the Engineer shall have the authority to remove and replace the defective material, and the cost of such removal and replacement will be deducted from any monies due or to become due the Contractor.

The Contractor shall carefully inspect all materials and work furnished or provided by the Owner. Any defects observed by the Contractor shall be reported to the Engineer in writing. The Contractor's failure to so inspect and promptly report any defects shall constitute an acceptance of the materials and/or work furnished as being fit and proper for installation by the Contractor or for the reception of this Contractor's work. Thereafter, any defect observed shall be made good by the Contractor except that if the defect is in materials furnished by the Owner and is not related to the Contractor's actions, then the Owner will furnish new materials at no cost to the Contractor.

LEGAL RELATIONS AND CONTRACTOR'S RESPONSIBILITY

Article 43. Laws to be Observed

The Contractor shall keep him/herself fully informed of all existing and future Federal and State Laws, Municipal Ordinances and Federal, State and local Regulations, in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the Contract for this work in relation to any such law, ordinance, regulation, order or decree, s/he shall forthwith report the same to the Engineer in writing. S/he shall, at all times him/herself observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees.

The Contractor's attention is directed to the fact that all applicable Federal, State and Municipal laws, rules and regulations of all authorities having jurisdiction affecting the project are deemed to be included herein, the same as though herein written in full. The Contractor's attention is directed to the Occupational Safety and Health Act 29 CFR Part 1926 and all amendments thereto which Act is commonly referred to as OSHA.

Article 44. Insurance Requirements

Compensation Insurance for Workmen and Traffic Officers

- A. The Contractor shall, before commencing performance of the Contract, provide by insurance for the payment of compensation and the furnishing of other benefits under Chapter 152 of the General Laws, to all persons to be employed under the Contract, and s/he shall continue such insurance in full force and effect during the term of the Contract.
- B. The Contractor shall take out and maintain at his/her own expense, insurance against damage arising from injury to uniformed police, referred to in Article 56, while they are engaged in the performance of their duties.

The coverage and provisions of such insurance shall be similar to those required to ensure employees of the Contractor under the Workmen's Compensation Act, and shall be in addition thereto.

Contractor's Public Liability and Property Damage Liability Insurance

- A. The Contractor shall furnish evidence to the Owner that with respect to the operations s/he performs, s/he carries Contractor's Public Liability insurance providing for a limit of not less than a monetary value specified in the Supplementary Conditions for all damages arising out of bodily injuries or death in any accident, and Contractor's Property Damage Liability Insurance providing for a limit of not less than a monetary value specified in the Supplementary Conditions for all damages arising out of injury to or destruction of property, subject to that limit per accident a total (or aggregate) limit of a monetary value specified in the Supplementary Conditions for all damages arising out of injury to or destruction of property during the policy period.
- B. If any part of the work is sublet, similar insurance shall be provided by or in behalf of the Subcontractors to cover their operations.
- C. Such property damage and public liability insurance as are provided under this Contract must cover all the various types and items of work that are to be undertaken. For the purpose of this Contract, the insurance shall be considered to be in full effect from the date of signing of the Contract to the date of the last day of the guarantee period.
- D. To the fullest extent permitted by Laws and Regulations Contractor shall indemnify, defend and save harmless Owner and Engineer and their consultants, agents and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (A) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of any property (other than the Work itself) including the loss of use resulting therefrom and (B) is caused in whole or in part by any act, error, omission of Contractor, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.
- E. If, through acts of neglect on the part of Contractor, any other Contractor or any Subcontractor shall suffer loss or damage on the Work, Contractor shall settle with such other Contractor or Subcontractor by agreement or arbitration if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor shall assert any claim against Owner on account of any such damage alleged to have been sustained, Owner shall notify Contractor, who shall indemnify, defend, and save harmless Owner against any such claim.
- F. If any and all claims against Owner or Engineer or any of their consultants, agents or employees by any employee of Contractor, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under the foregoing paragraphs shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any such Subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts, but in all events the Contractor shall indemnify, defend and hold harmless the Owner and Engineer for all such claims.
- G. The obligations of Contractor under the foregoing paragraph shall not extend to the liability of Engineer, Engineer's consultants, agents or employees arising solely out of the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications.

General.

- A. Each insurance policy and each certificate of insurance shall include the name of the Awarding Authority and contain the stipulation that 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 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

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 s/he has so sent such notice addressed as aforesaid shall be prima facie evidence on the sending thereof as aforesaid. This section shall apply to the legal representatives, trustee in bankruptcy, receiver, assignee, trustee and the successor in interest of any such Contractor.

- B. Satisfactory proof of insurance coverage shall be given to the Owner. Four copies of the insurance certificate shall be furnished prior to the signing of the Contract. A complete policy will be furnished to the Engineer before the beginning of construction operation.
- C. Failure to provide and continue in force all insurance required under the Contract during the life of this Contract shall be deemed a breach of the Contract and shall operate as an immediate termination thereof.
- D. The aforesaid insurance shall be taken out and maintained at Contractor's expense.

Article 45. Massachusetts Department of Labor and Industries Minimum Wage Rates

For all Contracts subject to the provisions of Section 39M of Chapter 30 and/or Sections 44A to 44L of Chapter 149 of the Massachusetts General Laws, the Contractor shall comply with the Provisions of Section 26 to 27H, inclusive, of Chapter 149 of the General Laws of Massachusetts, as amended.

Article 46. Permits, Licenses and Approvals

The Contractor shall procure at his/her own expense all permits, licenses and approvals, pay all charges and fees and give all notices necessary and due in connection with the lawful prosecution of the work. This shall apply equally regardless of whether the permits and licenses are of a temporary nature necessary for the execution of the work or whether they are for permanent structures or permanent changes in existing facilities.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations having an effect on the work as drawn and specified by the Engineer.

Article 47. Patented Devices, Materials and Processes

Whenever the Contractor desires to use any design, device, material or process covered by letters patent or copyright, the right for such use shall be secured by suitable legal agreement with the patentee or Owner, and a copy of this agreement shall be filed with the Owner.

The Contractor shall save and hold the Owner harmless from all loss, cost, damage or expense that it may be put to be reason of any alleged infringements of any patent, or patents, covering the manufacture, installation or use of any part of the apparatus or equipment, or any machinery or mechanism or part of thing installed or used, or installed for the purpose of use in the work hereinafter contemplated. The Contractor does further agree that the Owner shall not be disturbed in the use or operation or installation of work or equipment herein contemplated by litigation based upon such alleged infringements, and the Contractor does hereby further agree that at his/her own expense s/he will defend any and all suits or proceedings for infringement, or otherwise, that may be brought or instituted by any party, persons, companies, or corporations against the said Owner for alleged infringement or infringements of any patent or patents. Notice of such action or of any action under infringement proceedings shall be served on the Contractor at his/her address in writing by registered mail by the Owner.

Said Contractor shall then be required, through counsel; to assume the defense of and to defend same at his/her own expense.

Article 48. Sanitary Facilities, Weather Protection and Heat

The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of his/her employees as may be necessary to comply with the requirements of health officials, local and state requirements for weather protection and heat, and of other authorities having jurisdiction.

Article 49. Public Safety and Convenience

The Contractor shall be responsible for the maintenance of traffic over, through and around the work included in his/her Contract with the maximum of safety and practicable convenience to such traffic during the life of the

Contract, and whether or not work thereon has been suspended temporarily. S/he shall take all precautions for preventing injuries to persons or damage to property in or about the work. If the Contractor constructs temporary bridges or provides temporary crossings of streams, his/her responsibility for accidents shall include the roadway approaches as well as the structures of such crossings.

The work shall be carried on in such a manner as to provide safe passage at all times for public travel and with least obstruction to traffic. The convenience of the general public and of residents along and adjacent to the project shall be provided for in an adequate and satisfactory manner. The Contractor shall provide and maintain at his/her own expense (except as otherwise provided herein) in a safe and passable condition, such temporary bypasses and temporary bridges as may be necessary to accommodate traffic on and around the construction; and s/he shall provide and maintain, in a safe condition, temporary approaches to and crossings of intersecting highways.

Roads shall be closed to travel only as directed by the Engineer. Where the new construction coincides with the present traveled way, the Contractor shall so carry on his/her work that travel will not be obstructed. The Contractor shall at all times so conduct the work that the abutters shall have reasonable access to their property as directed by the Engineer. When it is necessary to leave materials and equipment upon the highway they shall be placed so as to cause the least possible interference to pedestrians and other travel.

Approval of local fire department authorities shall be obtained prior to closing any private or public road to travel.

When the work in any way affects the operation, management, maintenance, business or traffic, on any railroad, such work shall be carried on in a manner satisfactory to the said railroad. The Contractor shall use all possible vigilance in order to effectually guard against all accidents or damages on the railroad due to his/her work, and the Contractor shall at all times during the progress of the work so manage and execute the same as to cause the least possible interference with the operation, management, business or traffic of the railroad.

In the event that the Contractor fails to comply with the provisions of this Article, then the Owner shall proceed to make such required improvements, detours, by-passes, etc., as s/he believes necessary. The Owner shall, at his/her own discretion, either proceed with said work immediately or after a suitable time limit specified in a notice to the Contractor. The cost of said work will be borne by the Contractor.

Article 50. Barricades, Warning Signs and Lights

The Contractor shall at his/her own expense provide, place and erect all necessary barricades and warning signs and furnish and keep lighted all lights necessary to protect the work, traffic, pedestrians and animals. S/he shall also furnish at his/her own expense a sufficient number of watchmen at all times to protect the work.

Highways closed to traffic shall be protected by suitable barricades and warning signs, and the Contractor shall provide and maintain adequate lights and illumination therefore. S/he shall be held responsible for all damage due to any failure of signs and barricades to protect the work properly from traffic, pedestrians, animals or other cases.

In the event that the Contractor fails to comply with the provisions of the Article, then the Owner shall proceed to make such required improvements detours, bypasses, etc., as s/he believes necessary. The Owner shall, at his/her own discretion, either proceed with said work immediately or after a suitable time limit specified in a notice to the Contractor. The cost of said work will be borne by the Contractor.

Article 51. Protection and Restoration of Property

The Contractor shall, at his/her own expense, preserve and protect from injury all property either public or private along and adjacent to the project, and s/he shall be responsible for and repair at his/her own expense any and all damage and injury thereto. S/he shall exercise special care during his/her operations to avoid injury to underground structures such as water or gas mains, pipes, conduits, manholes, catch basins, etc.

The Contractor shall cooperate with representatives of public service companies in order to avoid damage to their structures by furnishing and/or erecting suitable supports, props, shoring or other means of protection.

The Contractor shall comply with the provisions of Chapter 82, Section 40 of the Massachusetts General Laws and shall notify public utility companies in writing at least 48 hours before excavating in a public way. For the purpose of this Contract, this requirement for advance notice in writing shall apply to all utilities, both public and private, and shall apply to all locations at which construction is to be carried out.

Fire hydrants adjacent to the work at all times shall be readily accessible to fire apparatus and no material or other obstructions shall be placed within a radius of ten (10) feet of a fire hydrant.

The Contractor shall confine his/her movements and operations to the limits of the location; the area outside the scope of work shall not be disturbed.

Land monuments and property markers shall be carefully protected. If the Engineer deems it necessary to remove the same, the Contractor shall do so only after a Land Surveyor, registered in the Commonwealth of Massachusetts, has witnessed or otherwise referenced their location. When so directed by the Engineer, the Contractor shall authorize his/her designated registered Land Surveyor to return said monuments and property markers to their exact location.

The Contractor shall not injure or remove trees or shrubs without prior written approval of the Engineer. Trees and shrubs temporarily removed shall be replaced. If any such tree or shrub fails to survive transplanting, it shall be replaced by a tree or shrub of same species and similar size.

Article 52. Responsibility for Claims

The Contractor shall assume complete responsibility for the work and take all precautions for preventing injuries to persons and property in or about the work. All injury or damage of whatever nature resulting from the work, or resulting to persons, property or the work during its progress, from any cause whatsoever, shall be the responsibility of and borne by the Contractor. S/he shall bear all losses resulting on account of the amount or character of the work, or on account of the weather elements or on account of other causes.

Damage to materials furnished by the Owner or damage to the Owner's property, either now existing or constructed under this Contract, and all loss or deterioration occurring prior to the final acceptance of the work, and resulting from the Contractor's operations, shall be replaced by the Contractor at no expense to the Owner.

The Contractor shall indemnify the Owner and the Consulting Engineer in accordance with provisions of last four paragraphs of Article 44, Section 2. Contractor's Public Liability and Property Damage Liability Insurance of these General Conditions.

Article 53. Contractor's Responsibility for the Work

Until its final acceptance by the Owner, the Contractor shall assume full charge and care of the work and s/he shall take every necessary precaution against injury or damage to the work by action of the elements, or from any cause whatsoever, whether arising from the execution or non-execution of the Contract. The Contractor shall bear all losses resulting to him/her on account of the amount or the character of the work, or because the nature of the land in or on which the work is done is different from what was estimated or expected, or on account of the weather elements, or other causes.

The Contractor shall rebuild, repair, restore and make good at his/her own expense, all injuries or damages to any portion of the work occasioned by any of the above causes before the completion and acceptance of the work by the Owner. Issuance of partial payment on any part of the work done shall not be construed as final acceptance of any work completed up to that time.

The Contractor shall reimburse the Owner for all expenses, losses, or damages, as determined by the Engineer, incurred by or in consequence of any defect, act, omission, neglect, or mistake of the Contractor, his/her employees, or Subcontractors.

The Contractor will be held responsible for any and all claims for damage to underground structures such as water or gas mains, pipes, conduits manholes or catch basins, due to his/her operations or to the operations of any of his/her employees or Subcontractors.

Locations shown for existing underground pipes and utilities are approximate only, as determined from records, M-scope surveys and field observation. The Contractor shall have no claim if any utility or pipeline is not shown in correct location or is present but not mentioned in the Specifications. The Contractor shall be responsible for notifying utility owners in reasonable advance of his/her work and s/he shall request of the utility owner the staking out on the ground surface, of underground utilities and structures. The Contractor shall notify the Engineer of any refusal or failure to stake out utilities after reasonable notice, and the Engineer and the Contractor will jointly take reasonable action to determine the location of the utilities before the beginning of excavation.

Article 54 No Waiver of Legal Rights

Neither the inspection by the Owner nor any of its employees or agents, nor any order, measurement or certificate by the Engineer, nor any order by the Owner for the payment of money, nor any payment for, or acceptance of, the whole or any part of the work by the Engineer or Owner, nor any extension of time, nor any possession taken by the Owner or its employees, shall operate as a waiver of any provision of the Contract, or of any power herein reserved to the Owner or any right to damages herein provided. A waiver of any breach of the Contract is not a waiver of any other or subsequent breach. Any remedy provided in the Contract shall be taken and construed as cumulative, that is in addition to each and every other remedy, herein provided; and the Owner shall also be entitled as of right to a writ of injunction against any breach of any of the provisions of the Contract.

Article 55. Use of Explosives

When the use of explosives is necessary for the prosecution of the work, the Contractor shall observe the utmost care not to endanger life and property and whenever directed, the number and size of the charges shall be reduced. All explosives shall be stored in a secure manner and all such storage places shall be marked clearly "DANGEROUS - EXPLOSIVES," and shall be in the care of competent watchmen at all times. The method of storage and handling explosives and highly inflammable materials shall conform with all the State laws and regulations, as well as any local requirements.

The Contractor must comply with all requirements of State and local laws, rules and regulations, Officers, Authorities and Boards in using explosives. All necessary permits must be obtained by the Contractor from the proper Offices, Departments and Boards prior to such use of explosives. The Contractor shall give prior written notification of each day's contemplated use of explosives to the local Fire Department and Police Department.

Prior to blasting, the Contractor shall serve reasonable notice thereof to the operation official or company, or companies, leasing or owning pipes, conduits, poles, wires, etc., in danger of being injured by the blasting in order that a representative of said Owner or lessees may be present at the site, and s/he shall take proper precaution to prevent such injury by the use of sufficient signage. No blasting shall be attempted until sufficient warning has been given to all persons in the vicinity of the work.

The cost of additional bond or insurance, if any, required by the Owner and/or his/her agents, or by other duly authorized officials, shall be borne by the Contractor. No extra compensation will be paid the Contractor for the additional risk involved in blasting, for the additional cost of the extreme precautions required for safe blasting or for the additional cost of bonds or insurance required.

Article 56. Traffic Officers and Flagmen

When in the opinion of the Owner, it is necessary that uniformed police be used to direct traffic, s/he may request the Contractor to obtain, in addition to the usual employees of the Contractor, a reasonable number of uniformed police, and the Contractor shall request the local Police Department to furnish such officers. These uniformed police shall at all times be subject to the direction and control of the Contractor.

Payment for police officers employed on the project as traffic officers shall be made pursuant to the provisions of Section 53C of Chapter 44 of the General Laws. This act requires that police officers when engaged on this project be municipal employees and that payment to them shall be made by the Owner's Treasurer. The cost of traffic officers will be borne by the Owner, unless otherwise specified in the Special Provisions or General Conditions.

When any work is being done by the Contractor which may obstruct the tracks of a railroad or in any way endanger the running of trains, a flagman or flagmen, designated by the Chief Engineer of the railroad, shall be on duty for the protection of the property and traffic of the railroad.

The expense for all flagging service which is required shall be assumed by the Contractor and included in the prices bid for the various items for work to be performed under this Contract.

Article 57. Temporary Use of Work

Any portion of the work which is in an acceptable condition for use may be opened for use as directed and such opening for use shall not be construed as an acceptance of the work, or part thereof, nor shall it act as a waiver of any of the provisions of these Specifications and the Contract. The Contractor shall make at his/her own

expense any and all necessary repairs or renewals to the work due to said opening for use under instructions from the Engineer, as well as to defective materials and work, natural causes, to ordinary wear and tear or otherwise, preceding completion and acceptance of the work. Completed sections of the work shall be maintained by the Contractor in an acceptable manner, until the final acceptance of the Contract. S/he shall not permit use of any portion of the work unless so authorized by the Engineer.

PROSECUTION AND PROGRESS

Article 58. Subletting or Assignment of Contract

The Contractor shall give his/her personal attention constantly to the faithful prosecution of the work, shall keep the same under his/her personal control, and shall not assign by power of attorney or otherwise, or sublet the work or any part thereof without the previous written consent of the Owner and shall not, either legally or equitably, assign any of the monies payable under this agreement, or his/her claim thereto, unless by and with the like consent of the Owner. S/he shall be responsible for the acts, omissions, neglect and mistakes of his/her Subcontractors, if any, and of all persons directly or indirectly employed by him/her or them in connection with the work.

For Contracts subject to the provisions of Section 39M of Chapter 30 and Sections 44A to 44L of Chapter 149 of the Massachusetts General Laws, the Contractor shall comply with the provisions of Section 179A of Chapter 149 of the General Laws, relative to preference to citizens.

Article 59. Schedule of Operations

Before commencing work, the Contractor shall submit a schedule of operations for approval by the Engineer. The schedule shall show the methods and order of operations that the Contractor proposes to use. Said schedule shall establish separable portions of the work although other items of work may also be considered "separable portions" of the work. Time for completion of each separable portion shall become an essential part of the Contract and shall be enforceable pursuant to the provisions of Articles 60, 61, 62 and 64. The approval of the schedule by the Engineer shall not be construed as relieving the Contractor from any responsibility.

Article 60. Prosecution of Work

The Contractor shall commence work within seven (7) calendar days after the execution of the Contract, or within such other period as the Engineer shall authorize in writing (approved by the Owner), at such points as the Engineer may direct, and s/he shall thereafter prosecute the work at such points and in such order as the Engineer may from time to time prescribe.

Should the prosecution of the work for any reason be discontinued, the Contractor shall notify the Engineer at least twenty-four (24) hours in advance of resuming operations.

It is the purpose of the Owner to complete the work in the shortest time possible and consistent with approved construction. To this end, Contractors will be required to use improved methods and equipment for doing the work and various parts thereof. All equipment shall be complete and well designed, and the organization shall be efficient and effective.

If, at the sole discretion of the Engineer, it is necessary at any time, the Contractor shall, when directed, employ such forces and equipment for one or more additional shifts as will be required to ensure the proper completion of the work. The Contractor shall provide and maintain sufficient lights for the safety of his/her construction forces and to ensure the proper construction, inspection and prosecution of the work, any lights necessary to protect the work or the public. The Contractor shall not receive any compensation therefore in addition to the Contract price.

The Contractor shall work diligently and steadily on the project. When ordered in writing by the Engineer, the Contractor shall resume work and/or increase personnel and equipment to accelerate progress. Failure of the Contractor to comply with said order within five (5) calendar days of receipt of same shall be considered as abandonment of the Contract. The Contractor shall not receive any compensation therefore in addition to the Contract price.

If the work is abandoned by the Contractor, the Owner may, without further notice and without in any way

affecting the terms of the Contract, make such arrangements as deemed necessary and proper to complete the work. The Owner may either direct the bonding company to complete the work, may order the completion of the work with his/her own forces, or may employ another Contractor to complete the work.

Article 61. Delay in Commencing Work

The Owner may delay the commencing of the work, or any part thereof, if the Owner shall deem it best for its interests to do so. The Contractor shall have no claim for damages on account of such delay, but shall be entitled to an equivalent extension of time in which to complete the whole or any portion of the work required under the Contract. The Contractor shall have no claim for damages on account of any delay on the part of the Owner in performing or furnishing any work or materials to be performed or furnished by the said Owner in connection with the execution of the work covered by the Contract.

Article 62. Limitations of Operations

The Contractor shall so limit his/her operations and carry on his/her work in such a manner and sequence as to ensure the least possible interference with traffic and abutters. The Owner reserves the right to limit the prosecution of the work to such points and in such order as the Engineer may direct.

Article 63. Character of Workers

The Contractor shall employ only competent employees to do the work, and whenever the Engineer shall notify the Contractor in writing that any worker is, in his/her opinion, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, such worker shall be discharged from the work, and shall not again be employed on it except with the consent of the Engineer.

Article 64. Temporary Suspension of Work

The Engineer shall have the authority to suspend the work wholly or any part thereof, for such periods as s/he shall deem necessary because of unsuitable weather conditions, or failure to complete adjacent contracts, or to provide time for moving of utilities, or for such other causes as are considered unfavorable for the satisfactory prosecution of the work, or for such time as s/he may deem necessary due to the failure of the Contractor to carry out orders given or to perform any provision of the Contract. Upon receipt of written order from the Engineer, the Contractor shall immediately suspend work or such part thereof in accordance with the order. The work shall be resumed when conditions so warrant or deficiencies have been corrected and the conditions of the Contract satisfied as ordered or approved in writing by the Engineer. No work shall be suspended without the written permission of the Engineer. No allowance of any kind will be made for suspension of work by order of the Engineer, except for an extension of time equal to the period of suspension.

Pursuant to Section 390 of Chapter 30, every Contract subject to the provisions of Section 39M of Chapter 30 or subject to Section 44A of Chapter 149 of the Massachusetts General Laws shall be subject to the following provisions:

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 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.

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 days before the General Contractor notified the Awarding Authority in writing of the act or failure to act involved in the claim.

Article 65. Failure to Complete Work on Time

On or before the date stated in the proposal for completion, the whole work shall have been performed in accordance with the terms of the Contract. The time in which the various portions and the whole of the Contract are to be performed and the work is to be completed is an essential part of the Contract.

In case the work embraced in the Contract shall not have been completed by the time stipulated therein (according to the foregoing requirements) the Contractor shall reimburse to the Owner a sum of money equal to the amount that the Owner is required to spend as a result of the delay in completion of the work. This amount shall include all identifiable costs including but not limited to engineering, inspection, interest and financing costs, loss of Federal and/or State grants, and fines imposed by regulatory agencies.

The Engineer is to constitute an adjudicator in regard to this Article of the Contract. S/he is to determine the cost of loss suffered by the Owner as a result of the delay in completion of the work. In addition to expenses incurred by the Town resulting from the delay in completion of the work by the Substantial Completion date, the Contractor will be liable for liquidated damages in the amount of \$500.00 per calendar day for work not completed beyond the stated date for the completion of work, the Substantial Completion date. The date of Substantial Completion is November 30, 2018.

Whatever sum of money may become due and payable to the Owner by the Contractor under this Article may be retained out of money belonging to the Contractor in the hands and possession of the owner; and it is agreed that this Article is to be construed and treated both by the parties to the Contract and by all courts of law or equity, not as imposing a penalty upon said Contractor for failing fully to complete said work as agreed on or before the time specified in the Proposal, but as liquidated damages to compensate the said Owner for all damages actually suffered because of the failure of the Contractor fully to complete said work on or before the date of completion specified in the Proposal.

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, shall in no way operate as a waiver on the part of the Owner of any of its rights under the Contract.

Article 66. Annulment of Contract

If the Contractor shall be adjudged a bankrupt, or if s/he shall make a general assignment for the benefit of his/her creditors, or if a receiver of his/her property shall be appointed, or if the work to be done under the Contract shall be abandoned, as set forth in Article 60, or if the Contract or any part thereof shall be sublet without the previous written consent of the Owner (Article 57), or if the Contract or any claim thereunder shall be assigned by the Contractor otherwise than as herein specified, or if at any time the Engineer shall be of the opinion, and shall so certify in writing to the Owner that the work, or any part thereof, is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of the Contract, the Owner may notify the Contractor to discontinue all work, or any part thereof; and thereupon the Contractor shall discontinue such work, or such part thereof as the Owner may designate, and the Owner may thereupon, by contract or otherwise as it may determine, complete the work, or such part thereof, and charge the entire expense of so completing the work or part thereof to the Contractor; and for such completion the Owner for itself or its agents may take possession of and use or cause to be used in the completion of the work or part thereof, any such materials, machinery, implements or tools of every description as may be found upon the site of said work. The Owner shall not be liable for any depreciation, loss or damage to said materials, machinery, implements or tools during said use, nor until removed by the Contractor after completion of the work. Unless so removed within fifteen (15) days after mailing of notice so to do, they may be sold at public auction, after publication of notice thereof at least twice in any newspaper published in the Town, and the proceeds credited to the Contractor's expense subject to a lien for the storage charges.

If the Engineer shall certify that the rate of progress is not satisfactory, the Owner may, instead of notifying the Contractor to discontinue all work or any part thereof, notify him/her from time to time to increase the force, equipment and plant, or any of them, employed on the whole or any part of the work, stating the amount of increase required; and unless s/he shall within five (5) calendar days after any such notice, increase his/her force, equipment and plant to the extent required therein, and maintain and employ the same from day to day until completion of the work or such part thereof or until the conditions as to the rate of progress shall, in the opinion of the Engineer, be fulfilled, the Owner may employ and direct the labors of such additional force, equipment and plant as may, in the opinion of the Engineer, be necessary to ensure the completion of the work

or such part thereof within the time specified, or at the earliest possible date thereafter, and the cost thereof is to be borne by the Contractor and his/her sureties, as directed. Neither the notice from the Owner to the Contractor to increase his/her force, equipment or plant, nor the employment of additional force, equipment or plant by the Owner shall be held to prevent a subsequent notice from the Owner to him/her to discontinue work under the provisions of the preceding portion of the Article.

All expenses charged under this Article shall be deducted and paid for by the Owner out of any monies then due or to become due the Contractor under the Contract, or any part thereof; and in such accounting the Owner shall not be held to obtain the lowest figures for the work of completing the Contract or any part thereof, or for ensuring its proper completion, but all sums actually paid therefore shall be charged to the Contractor and/or his/her surety. In case the expenses so charged are less than the sum which would have been payable under the Contract if the same had been completed by the Contractor, the Contractor shall be entitled to receive the difference; and in case such expenses shall exceed the said sum, the Contractor and his/her surety shall pay the amount of the excess to the Owner upon completion of the work, without further demand being made therefore.

MEASUREMENT AND PAYMENT

Article 67. Measurement of Quantities

For unit price Contracts, the Engineer shall determine the quantities of the various items of work performed.

Upon the completion of the work and after the final inspection report is made as described in Article 38, the Engineer will make final measurement to determine the quantities of the various items of work performed as the basis for final payment. All measurements shall be made according to the United States standard units of measurements, unless stated otherwise.

All measurement and payment will be made in accordance with the MHD "Standard Specifications for Highways and Bridges". The low-bid contractor is advised that no award will be made until the Town has accepted the Contractor's Process/Quality Control Plan as outlined in the Special Provisions.

Throughout the duration of the project, all materials which are specified for measurement by weight shall be weighed on standard scales. If materials are shipped by rail or trucks, the car weights or quarry weights may be accepted. The Owner reserves the right to require the Contractor to furnish sealed scales.

Article 68. Scope of Payments

The Owner will pay and the Contractor shall receive and accept the compensation as herein provided, in full payment for the furnishing of all materials, labor, tools and equipment and for performing all work contemplated and embraced under the Contract, also for all loss or damage arising out of the nature of the work, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered during the prosecution of the work and until its final acceptance by the Owner, and for all risks or every description connected with the prosecution of the work, also for all expenses incurred by, or in consequence of the suspension or discontinuance of the said prosecution of the work as herein specified, and for any infringement of patent, trade-mark or copyright, and for completing the work in an acceptable manner according to the Specifications. Compensation for actual quantities shall be based on unit pricing rates as submitted on the bid submission form of the awarded contractor.

The payment of any current estimate, or of any retained percentage shall in no way constitute an acknowledgment of the acceptance of the work or in no way or degree prejudice or affect the obligation of the Contractor, at his/her own cost and expense, to repair, correct, renew or replace any defects and imperfections in the construction of, or in the strength of, or quality of materials used in or about the construction of the work under Contract and its appurtenances, as well as all damages due or attributable to such defects; which defects, imperfections or damages shall have been discovered on or before the final inspection and acceptance of the work. The Engineer shall be the sole judge of such defects, imperfections, or damages and the Contractor shall be liable to the Owner for failure to correct the same as provided herein.

The compensation provided herein is to include the cost of the ONE YEAR guarantee period as specified under Articles 27 and 75.

Article 69. Claims Against Contractors

The Contractor shall pay all bills for labor and materials contracted by him/her and for the rental of appliances and equipment hired by him/her for or on account of the work herein contemplated.

The Owner may keep any monies, which would otherwise be payable at any time hereunder, and apply the same, or so much as may be necessary therefore, to the payment of any expense, losses or damages incurred by the Owner and determined as herein provided, and may retain, until all claims are settled, so much of the monies as the Owner shall be of opinion will be required to settle (1) all claims against the Owner and its officers and agents as specified in Article 52 and 53, and (2) all claims for labor performed or furnished, for materials used or employed in such construction or repair, including lumber so employed which is not incorporated in the construction or repair work and is not wholly or necessarily consumed or made so worthless as to lose its identity but only to the extent of its purchase price less its fair salvage value, and for the rental or hire of vehicles, shovels, excavating and backfilling equipment, rollers propelled by steam or other power, concrete mixers, tools and other appliances and equipment employed.

If the monies retained under the Contract are insufficient to pay the sum due under the claims for labor and materials and for the rental of appliances and equipment filed as aforesaid, the Owner may, at its discretion, pay the same, and the Contractor shall repay to the Owner all sums so paid. The Owner may also, with the written consent of the Contractor, use any monies retained, due or to become due under the Contract, for the purposes of paying for labor and materials and for the rental of appliances and equipment for the work for which claims have not been filed as specified above. It is understood that the security required by Section 29 of Chapter 149 of the General Laws is obtained both by the bond accompanying the Contract and by the power of the Owner to retain and pay money under the provisions of this Article, but the release of one shall in no way impair or discharge the other.

Pursuant to the provisions of Chapter 30 Section 39F of the Massachusetts General Laws, the following subparagraphs (A) through (I) included herein are binding between the General Contractor and each Subcontractor on every Contract awarded pursuant to Sections 44A through 44L inclusive of Chapter 149 of the Massachusetts General Laws and the sub-paragraphs (A) through (H) are binding between the General Contractor and each Subcontractor on every Contract awarded pursuant to Section 39M of Chapter 30 of the Massachusetts Laws.

Forthwith after the General Contractor received 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 for the Subcontractor by the General Contractor.

Not later than the sixty-fifth day after each Subcontractor substantially completes his/her work in accordance with the Specifications, the entire balance due under the Subcontractor 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 of 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.

Each payment made by the Awarding Authority to the General Contractor pursuant to subparagraphs (A) and (B) of this paragraph for the labor performed and the materials furnished by a Subcontractor shall be made to the General Contractor for the account of that Subcontractor; and the Once the engineer confirms completed scope of work, 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 subparagraphs (A) and (B), the Awarding Authority shall act upon the demand as provided in this section.

If, within seventy days after the Subcontractor has substantially completed the Subcontract work, the Subcontractor has not received from the General Contractor the balance due under the Subcontractor 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 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 day after the Subcontractor has substantially completed the Subcontract work. Within ten 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.

- A. Once the engineer confirms scope of work completed, within fifteen 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 (1) retained by the Awarding Authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (2) specified in any court proceedings barring such payment, or (3) 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 (3) 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 (1) and (2) of this subparagraph.
- B. The Awarding Authority shall forthwith deposit the amount deducted from a direct payment as provided in part (3) 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.
- C. 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.
- D. 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 Subcontractor shall have a right in such deductions prior to any claims against such amounts by creditors of the General Contractor.
- E. 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).

Article 70. Payment for Increased or Decreased Quantities

An increase in quantities of work to be performed (as set forth in Articles 3, 22 and 23) will be paid for at the Contract unit price for the actual work done, in the same manner as if such work had been included in the original estimated quantities. No allowance will be made for anticipated profits involved in changes in quantities

from those quantities originally estimated.

Changes involving extra work will be paid for according to the method stipulated in the extra work orders.

Article 71. Omitted Items

The Engineer may order omitted from the work any items or portions of the work found unnecessary to the improvement. Such omission shall not operate as a waiver of any condition of the Contract nor invalidate any of the provisions thereof, nor shall the Contractor have any claim for anticipated profit.

Article 72. Payment for Extra Work

Extra work will be paid for in accordance with the accepted and approved extra work orders according to procedures outlined in Articles 22 and 23.

The determination of the Engineer shall be final upon all questions pertaining to the amount and value of extra work performed.

In making any change contemplated, the charge or credit for the change shall be determined by the Owner in one of the following methods prior to the issuance of the order for the changed work:

The order shall fix the total lump sum cost of the change in the work as mutually agreed on between the Owner and the Contractor and shall set out such cost as the amount to be added to or deducted from the Contract amount by virtue of the change in the work. The cost as above shall include the Contractor's overhead and profit subject to a maximum limitation of fifteen (15) percent. In any change which involves a net credit to the Owner, no allowance for overhead and profit shall be figured.

By estimating the number of unit quantities of each part of the work which is changed and then multiplying the estimated number of such unit quantities by the price (which price shall include the Contractor's overhead and profit) for a unit quantity thereof. Unit prices refer to unit prices bid herein. In the event there are no unit prices in the Proposal that are applicable, the Owner and the Contractor may work out a mutually agreeable unit price. The Engineer shall determine whether or not the unit prices in the Proposal are applicable to the extra work under consideration.

By ordering the Contractor to proceed with the work and to keep and present in such forms as the Owner may direct, a correct account of the cost of the change together with all vouchers therefore. The cost may include a lump sum allowance (fixed fee) for profit and overhead of fifteen (15) percent. The Contractor's labor costs may be increased by the cost of the various health, welfare, and liability insurance s/he is required to carry. The Contractor's total actual cost may be increased by the cost of his/her Performance Bond.

In figuring changes, the instructions for measurement of quantities set forth in the General Conditions and Special Provisions shall be followed insofar as possible. Items such as shovels, picks, small tools, manual equipment, melting pots, etc. shall be considered as part of the Contractor's overhead.

For machinery, trucks and equipment, a standard rental allowance shall be charged. A reasonable rental allowance determined by the Engineer based on published rates and reasonable rental periods shall be used. If a piece of equipment used on extra work for a short period of time (hours or days) is on the job, or has previously been rented for a long period of time (months) then the long-term rental rate shall be used in determining costs

In the case of any extra work ordered by the Owner and completed by a Subcontractor on the project, the General Contractor will be allowed to increase the Subcontractor's cost to him/her by 5% to cover bookkeeping costs, overhead, etc. In determining costs, the Subcontractor is to use one of the three methods described herein above, as directed by the Engineer.

Article 73. Partial Payments

For unit price Contracts, the Engineer shall, once in each month, make an estimate in writing of the total value of the work completed to the time of such estimate.

During the last week of each month for the duration of the Contract, the Contractor shall submit to the Engineer for review and comment a draft of each partial payment request. The Engineer shall promptly review and return

the payment request with appropriate notations to the Contractor for correction and re-submission.

The Owner shall retain a fixed percentage of each monthly estimate as part security for the fulfillment of the Contract by the Contractor. The maximum retainage shall be 5% or any other amount as defined in MGL. The Owner may at its sole option reduce retainage as it deems this to be prudent.

The Owner shall pay monthly to the Contractor, while carrying on the work, the balance not retained as aforesaid, after deducting there from all previous payments and all sums to be kept or retained under the provision of this Contract.

No such estimate or payment shall be required to be made when, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the Contract, or when in his/her judgment the total value of the work done since the last estimate amounts to less than three hundred (\$300) dollars.

It is the intention of this Article of the Specifications to control the delivery of materials and equipment to the project so that materials and equipment are available when required but not unreasonably in advance of the time required.

Major process equipment must be suitably stored in order to be included in the periodic payments. Suitably stored shall mean storage in a dry, watertight, heated and insured commercial warehouse facility approved by the Engineer in writing. All drive motors shall be equipped with thermostatically controlled strip heaters. The Owner assumes no responsibility for physical damage to the equipment, corrosion, damage to motors due to condensation or any other factors which render equipment defective.

Partial payment requests for so-called "engineering costs" by equipment manufacturers shall not be honored by the Owner. All such costs shall be distributed proportionately among the various items of equipment/hardware to be furnished.

For Contracts awarded under Sections 44A to 44L of Chapter 149, the following paragraph is included pursuant to the provisions of Section 39K, Chapter 30 of the Massachusetts General Laws:

Within fifteen days (twenty-four days in the case of the Commonwealth) 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, 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 39F, and less (3) a retention not exceeding five percent 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 percent 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 39F, 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 39F. 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 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 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 interest paid in accordance with the amount due each Subcontractor.

Partial payments shall not be construed as acceptance of title. The Owner may increase the retained percentage as security for claims or costs incurred under Articles 60, 64, 65 and 68, or any other section of the Contract.

Article 74. Acceptance and Final Payment

Final payment shall be made pursuant to the provisions of M.G.L. Chapter 30, Section 39G or 39K, as applicable.

For unit price Contracts, the Engineer shall, as soon as practicable after the satisfactory completion of the final inspection report (Article 38), make a final estimate of the value of work constructed. This final estimate shall contain all final quantities for all items of the Contract and for all extra work authorized. This final estimate shall be submitted to the Contractor for certification.

For lump sum Contracts, the Contractor shall submit to the Engineer for review and comment a draft of the final payment request, including claims for all extra work authorized. Upon approval by the Engineer, the final payment request shall be certified by the Contractor.

The Owner shall, upon approval of the final estimate certified by the Engineer and the Contractor, issue a semi-final partial payment providing for payment of all amounts due less the percentage retainage and any amounts due the Owner.

All prior estimates and payments shall be subject to correction at the time of preparation of the final estimate.

Article 75. Guarantee Period

The Contractor shall guarantee all work under this Contract for a period of ONE YEAR from the date of the final inspection report, unless otherwise specified. The cost of the guarantee is to be included by the Contractor in his/her proposal form Contract and no additional payment will be provided.

The guarantee shall cover and include all workmanship, materials, equipment, and performance, and all combinations thereof required in the work under the Contract. Any and all defects and/or deficiencies which become evident during the guarantee period shall be corrected, repaired, replaced, or otherwise remedied to the satisfaction of the Owner and Engineer at no cost of any nature to the Owner or Engineer.

Article 76 Monthly Price Adjustment for HMA Mixtures

This project is subjected to price adjustment requirement per MGL Chapter 303, Section 60- An Act Financing Improvements to the Commonwealth's Transportation System.

This provision applies to all projects using greater than 100 tons of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the bid documents. The price Adjustment will be based on the variance in price for the liquid asphalt component only from the Base Price to the Period Price. It shall not include transportation or other charges. This Price Adjustment will occur on a monthly basis.

BASE PRICE: The Base Price of liquid asphalt on a project as listed in the bid documents 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 detailing below.

PERIOD PRICE: Please note that starting December 15, 2008, two sets of period prices will be posted each month on the MassHighway website at [HTTP://WWW.MASSDOT.STATE.MA.US/](http://www.massdot.state.ma.us/). They will be labeled "New Asphalt Period Price Method" and "Old Asphalt Period Price Method". This contract will utilize the "New Asphalt Period Price Method".

The "New Asphalt Period Price Method" is for contracts bid after December 15, 2008 and will show the Period Price for liquid asphalt for each monthly period as determined by MassHighway using the average selling period 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. MassHighway will post this Price Period on this website within two (2) business days following the receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners, Inc. has granted MassHighway the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor.

The Contract price of the hot mix asphalt mixture 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 virgin liquid asphalt content in the mixture placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section Mc.11.03.

The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of tons of hot mix asphalt mixtures placed during each monthly period times the liquid asphalt content percentage times the variance in price between Base Price and Period Price of liquid asphalt.

This Price Adjustment will be paid only if the variance from the Base Price is 5% or more of the 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 GENERAL CONDITIONS SECTION *****

SECTION B
SPECIAL PROVISIONS

Special Provisions

for

Dwight Road Corridor Improvements Dwight Road, Longmeadow, MA

Prepared For:

Longmeadow Medical Arts Center
70 Post Office Park Suite 7010
Wilbraham, MA 01095

February 19, 2018

Prepared By:



FUSS & O'NEILL

1550 Main Street, Suite 400
Springfield, MA 01103

SPECIAL PROVISIONS

DWIGHT ROAD CORRIDOR IMPROVEMENTS

LONGMEADOW, MASSACHUSETTS

SCOPE OF WORK

Work to be done under this contract consists of improvements to widen the roadway for improved traffic and bicycle flow, addition of sidewalks and crosswalks, improved and added traffic signals, drainage improvements, pavement marking, traffic signage and roadway pavement surface on Dwight Road from just north of Converse Street to just south of Williams Street, a distance of approximately 1,800 feet.

All work under this contract shall be done in conformance with the Massachusetts Highway Department *Standard Specifications for Highways and Bridges* dated 1988, the *Supplemental Specifications* dated July 1, 2015, and the *Interim Supplemental Specifications* dated September 20, 2017; the 2017 *Construction Standard Details*, the 1996 *Construction and Traffic Standard Details* (as relates to traffic standard details only); 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 December 2015 *Overhead Signal Structure & Foundation Standard Drawings*; the latest edition of *American Standard for Nursery Stock*; the Plans and these Special Provisions.

Plans and Specifications for the work on this street improvement project refer to those drawings and documents prepared by the design engineer, Fuss & O'Neill, Inc., Consulting Engineers, 1550 Main Street, Suite 400, Springfield, MA 01103.

The Engineer referred to in these Special Provisions shall mean the engineer employed at the site by The Owner, or other duly authorized engineer representing The Owner.

THE DEPARTMENT IN THESE SPECIAL PROVISIONS REFERS TO THE TOWN OF LONGMEADOW, THE AWARDED AUTHORITY, CORPORATION, ASSOCIATION, FIRM OR PERSON WITH WHOM THE CONTRACTOR HAS ENTERED INTO AN AGREEMENT AND FOR WHOM THE WORK IS TO BE PROVIDED.

The General Conditions, Supplementary Conditions and Special Provisions shall take precedence over the General Requirements of Division 1 of the Standard Specifications of the Massachusetts Highway Department.

DESIGNER/PROJECT MANAGER

DESIGNER

Fuss & O'Neill
1550 Main Street, Suite 400
Springfield, MA 01103
Attn: Steve Savaria, P.E. – Sr. Project
Manager

PROJECT MANAGER

Andrew J. Krar, P.E.
Town Engineer
31 Pondsides Road
Longmeadow, MA 01106

CONTRACTOR QUESTIONS

No interpretation of the meaning of the Specifications or other Contract Documents will be made to any bidder orally. **Every request for such interpretation should be made in writing addressed to:**

Town of Longmeadow
Purchasing Department
Attn: Chad Thompson-Procurement Manager
735 Longmeadow Street, Suite 101
Longmeadow, MA 01106
Fax: 413-565-4370
Email: cthompson@longmeadow.org

Questions received will be tracked and sourced for response.

To be given consideration, the request must be received by the bid deadline time no later than 120 hours (5 days) prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the Specifications which, if issued, will be mailed, fax or email.

All addenda will be posted online through the Town website before the bid deadline. To access IFB documents, forms and updates including issued addenda go to the Purchasing Department page of the Town website (www.longmeadow.org) and select 'Bid & RFP' links to access documents.

Acknowledge the receipt of issued addenda, if any, on the bid submission form. Failure of any bidder to receive any such addenda or interpretation shall not relieve any bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the Contract Documents. Failure to acknowledge the receipt of addenda may result in a bid rejection.

MASSHIGHWAY TO MASSDOT NAME CHANGE

The following definitions in Section 100 of the Standard Specifications for Highways and Bridges are revised as follows:

(Amend definition of Department)

1.17 – Department.....Effective November 1, 2009, St. 2009, c. 25 abolishes the Massachusetts Department of Highways and all assets, liabilities, and obligations become those of the Massachusetts Department of Transportation (“MassDOT”). Anywhere in this contract the terms Commission, Commonwealth, Department of Public Works, Department, Massachusetts Highway Department, MassHighway, Party of the First Part, or any other term intending to mean the former Massachusetts Department of Highways is used, it shall be interpreted to mean MassDOT or applicable employee of MassDOT unless the context clearly requires otherwise. Furthermore, MassDOT by operation of law inherited all rights and obligations pursuant to any contract, and therefore parties to this contract hereby acknowledge and agree that its terms shall be liberally construed and interpreted to maintain the rights and obligations of MassDOT. Furthermore, the parties hereby acknowledge and agree that the transfer of all rights and obligations from the Massachusetts Department of Highways to MassDOT shall not have the effect of altering or eliminating any provision of this contract in a manner that inures to the detriment of MassDOT.

(Add a definition for MassDOT)

1.46 – MassDOT The Massachusetts Department of Transportation, a body politic and corporate, under St. 2009, c. 25 “An Act Modernizing the Transportation Systems of the Commonwealth”, as amended.

PERSONAL PROTECTIVE SAFETY EQUIPMENT FOR CONTRACTOR PERSONNEL

The Contractor is responsible to ensure that all personnel, including all Subcontractors, working on the project are issued and are wearing all necessary personal protective safety equipment while working within the project limits. This equipment shall include, as a minimum, a hardhat and a safety vest, regardless of the type of work being performed. Other safety equipment shall be added as required to perform the work in which they are engaged and in accordance with all local, state and federal requirements in effect.

MINIMUM BID PRICES

All contracts, bid in accordance with Massachusetts General Law (MGL) Chapter 30, § 39M or MGL Chapter 149, §44A through 44H, which include bid items for hourly wage rates for, but not limited to mechanics, electricians, plumbers, masons, laborers, etc. must include a bid price equal to or greater than the prevailing wage rate shown in the proposal booklet. The rate as set by the Commonwealth of Massachusetts Department of Labor and Workforce Development, in accordance with MGL chapter 149, § 26 through 27H, shall be the minimum hourly rate allowed. If a bid is received containing a rate lower than that specified for that class of work, the Owner may declare the bid non-responsive.

BUY AMERICA PROVISIONS (23 CFR 635.410) (Supplementing Subsection 6.01 Source of Supply and Quality)

Federal law 23 CFR 635.410 requires that all manufacturing processes, including application of the coating, for steel and iron materials to be permanently incorporated in Federal-aid highway construction projects must occur in the United States. Coating includes all processes which protect or enhance the value of a material to which the coating is applied.

Foreign steel and iron may be used if the cost of the materials as they are delivered to the jobsite does not exceed 0.1% of the total contract cost or \$2,500 whichever is greater.

PROMPT PAYMENT AND RELEASE OF RETAINAGE TO SUBCONTRACTORS

The Contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of subcontract work not later than 10 business days from the receipt of each payment the prime Contractor receives from The Owner. Failure to comply with this requirement may result in the withholding of payment to the prime Contractor until such time as all payment due under this provision has been received by the subcontractor(s) and/or referral to the Prequalification Committee for action which may affect the Contractor's prequalification status. The Contractor further agrees to make payment in full, including retainage, to each subcontractor not later than 10 business days after the subcontractor has completed all of the work required under its subcontract.

SECTION 3.00 - REQUIREMENTS OF THE CONTRACT

PRE-CONSTRUCTION CONFERENCE

Following award of the Contract on a date to be announced, a pre-construction conference may be held at the Longmeadow Department of Public Works. At that time, the Contractor will be required to submit a preliminary plan showing his schedule of operations and how he intends to provide uninterrupted flow of traffic through the area, delivery and storage of construction materials, equipment and construction parking.

Present at the pre-construction conference will be representatives of State, Federal, Town and other agencies; various utility companies, both public and private; and other parties involved with the Project. The meeting will enable said representatives to apprise the Contractor regarding:

- A. Work to be performed by the Contractor.
- B. Work performed, being performed and to be performed by other Department Contractors, adjacent to and within the project limits.
- C. Work performed, being performed, and to be performed by various other agencies and utility companies.

The meeting will enable concerned parties to discuss scheduling of the work, potential problems, conflicts and impacts, and to promote a comprehensive understanding of the work to be performed, in order that full cooperation may be established and maintained between the Contractor and the various agencies and concerned parties, in accordance with Subsection 5.05, "Cooperation by Contractor", other relevant provisions of the Standard

Specifications for Highways and Bridges, these Special Provisions and other contract documents.

QUALIFIED ELECTRICIANS

Within 10 days after opening of bids, the low bidder shall submit a list of the Journeyman Electricians (Massachusetts License) who will perform the electrical work in this contract.

Also, the low bidder shall submit copies of each Journeyman Electrician's current Massachusetts License.

The Department will determine whether the low bidder has an adequate qualified work force to perform the work.

ORDERING OF MATERIALS AND DRAWINGS

The Contractor shall provide the Department, within fifteen 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 on the subject contract; and
2. He has ordered from a supplier or manufacturer items not requiring shop drawings. Upon receipt of a notice of proposed delivery from the supplier or manufacturer, the Contractor shall forward a copy of same to the Engineer.

The Contractor shall further provide the Department 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.

Failure to comply with the above will nullify a request for an extension of the project completion date because of a late delivery.

WORK SCHEDULE

Work on this project is restricted to a normal eight-hour day, five-day week, with Prime Contractor and all Subcontractors working on the same shift.

No work shall be done on this contract on Saturdays, Sundays or holidays, without prior approval by the Engineer. Work will not be allowed the day before or the day after a long weekend which involves a holiday without prior written approval by the Engineer.

The Contractor will not be permitted to work at more than two (2) locations simultaneously without the prior permission of the Engineer.

Work that requires the closure of a travel lane shall not be performed between the hours of 7:00 AM and 9:00 AM, and 4:00 PM and 6:00 PM. Set-up and removal of all equipment and

materials for construction and/or traffic maintenance shall be done during the prescribed work hours. The roadway shall be free of the Contractor's personnel and operations during the restricted hours.

The Contractor MAY be required to perform COLD PLANING AND PAVING AT NIGHT (Sunday to Thursday or Monday to Friday as determined by the Town) between the hours of 8:00 p.m. and 4:30 a.m. at the direction of the Engineer.

The Contractor shall give notice to the Engineer at least 48 hours in advance of beginning any work affecting the maintenance of traffic and shall not proceed with surfacing operations without specific notice to, and the approval of, the Engineer.

PROSECUTION OF WORK AND PROVISIONS FOR TRAVEL (Supplementing Subsections 8.02, Schedule of Operations and 8.03, Prosecution of Work)

Before starting any work under this contract, the Contractor shall submit to the Engineer for approval a Schedule of Operations as provided in Section 8.02. The work schedule shall include a plan of his construction procedures and the safety measures he will use during the prosecution of the work as set forth in Section 850 of the Standard Specifications for Highways and Bridges.

The proposed safety measures shall include the temporary barricades, signs, cones, drums and other safety and traffic control devices to be employed during each stage and time period of the work to maintain and protect traffic and access to abutting properties. These measures may also include removal and resetting of these devices.

As necessary and/or as directed by the Engineer, uniformed traffic police shall be employed for the protection and maintenance of traffic. Reasonable facilities shall be provided by the Contractor for the convenient and safe passage of pedestrians and vehicles through the project and also to and from properties abutting the site of improvement.

The Contractor shall schedule their operations to minimize interruption to the normal flow of traffic at all times during the period of time required for the completion of the work. Only one-half of the roadway may be closed to traffic at any given time unless directed by the Engineer.

Attention is further directed to the following provisions unless otherwise directed by the Engineer.

1. During working hours, bi-directional flow shall be maintained on all streets.
2. During other than working hours, all existing roadway surfaces shall remain available for vehicle travel.
3. Pedestrian access to all buildings shall be maintained at all times.
4. No detouring of traffic shall be allowed without written permission of the Town. Trucks shall not be excluded from any detour roadway.
5. The Fire Department and Police Department shall be notified 48-hours prior to the start of any work that will affect the operations of their departments (e.g. the partial street

closures, trenching, etc.).

Particular care should be taken to establish and maintain methods and procedures that will not create unnecessary or unusual hazards to public safety. Traffic control and safety devices required only during working hour operations shall be removed at the end of each working day.

Signs having messages that are irrelevant to normal traffic conditions shall be removed or properly covered at the end of each work period. Signs shall be kept clean at all times and legends shall be distinctive and unmarred.

PROCEDURES FOR SHOP DRAWINGS SUBMITTAL

The following procedures shall be followed when making Shop Drawings submittals for this Project:

1. The Prime Contractor shall shop drawings and submittals directly to the Department's field representative via electronic pdf through email. Two (2) hardcopies shall be provided to the Resident Engineer upon request to be forwarded to the appropriate parties for preliminary review.
2. A written reply will be forwarded to the Prime Contractor, returning two (2) sets of shop drawings within five (5) working days of receipt of the drawings, unless the submittal requires a more detailed review. The Engineer shall notify the contractor within 5 days if the review shall take more time.
3. If the reply indicates rejection or advises corrections or additions to the drawings, Steps 1 and 2 are repeated until the approval will be given.
4. The Contractor shall then submit five (5) sets of drawings to the Department's field representative for distribution and approval per the standard operating procedures of the Department.
5. The Contractor shall take care that every separate document in each set of every submittal shall carry the following identifying information:
Information Required
 - a) Community name of Project.
 - b) Federal or State Aid Project Number, if applicable.
 - c) Identifying item number from proposal, if applicable.
 - d) Locations where material is proposed to be used, if applicable.
 - e) Name of submitting Contractor.
 - f) Personal signature and title of an official of the Prime Contractor authorized to make shop drawing submittals.
 - g) Date of signature of submittal.

The Contractor shall not receive payment for, nor shall he be allowed to install any item or materials that require shop drawings approval unless and until he receives shop drawing approval for that item as detailed above.

Complete shop drawing and/or erection plan approvals are required for: all signal equipment and hardware; mast arms and foundations; all structural support materials and fabricated items that are not specifically detailed on the plans.

STEEL PLATES IN CONSTRUCTION ZONES (Supplementing Subsection 7.09, Public Safety and Convenience)

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 2-feet horizontally to 1-inch vertically. Any temporary patching materials and their maintenance and removal will be considered incidental to the Item involved with no separate payment.

PLANS (Subsection 5.02)

The Contractor shall furnish all changes made during the construction period to the Design Engineer prior to the date of final acceptance for incorporation into "AS BUILT" plans and signal permits.

APPROVAL OF MATERIALS

All equipment and materials to be furnished under this Section shall conform to the requirements and standards of the Commonwealth of Massachusetts Highway Department and be included on the latest edition of the State's Approved Equipment List, unless otherwise approved by the Engineer.

The Contractor shall furnish written information to the Engineer stating the original sources of supply and dates of manufacture of all signal-related materials manufactured away from the actual site of the work.

Cut sheets showing details and manufacturers of all signal items in this Contract shall be given to the Engineer prior to any delivery of said materials to the site unless arranged otherwise between the Contractor and the Department. The Contractor shall allow the Engineer sufficient time to approve or disapprove any of the materials in question before delivery is made to the site.

Only new and first quality materials, conforming to the requirements of these specifications or otherwise approved by the Engineer shall be used in the work, unless otherwise noted in the construction plans.

INSPECTION OF WORK (Supplementing MHD Specification 5.09)

The Engineer may appoint such assistants and representatives as he desires and they shall be authorized to inspect work and materials, to give directions pertaining to the work or to the safety and convenience of the public, to approve or reject materials, to make measurements of quantities and to perform such other duties as may be designated by the Engineer.

Failure to reject any defective work or materials shall not in any way prevent later rejection when such defect is discovered, or obligate The Department to make final payment.

COOPERATION OF THE CONTRACTOR (Supplementing Subsections 5.05 and 5.06)

Agents of various public service agencies, municipal and State departments may be entering on the work site to remove existing facilities, to construct or place new facilities or to make alterations to existing facilities.

The Contractor shall perform the work in cooperation with the various agencies in a manner which causes the least interference with the operations of the aforementioned agencies and shall have no claim for delay which may be due, or result, from said work of these agents.

PUBLIC SAFETY AND CONVENIENCE (Supplementing Subsection 7.09, Public Safety and Convenience)

The Contractor shall be required without additional compensation to provide safe and convenient access to all abutters during the prosecution of the work. Necessary access for fire apparatus and other emergency vehicles shall be maintained at all times. The Contractor shall pay particular attention to the project's Transportation Management Plan, which shall be detailed and followed relative to construction work staging and safe maintenance of traffic.

Drainage structures shall not be constructed until the required castings are at the project location. The castings shall be installed immediately after completion of the structures and the drainage structures at no time shall be left unprotected during the construction.

Sweeping and cleaning of surfaces beyond the limits of the project caused by vehicular tracking of materials during the various phases of the work shall be considered as incidental to the work being performed under the Contract and there will be no additional compensation.

MAINTENANCE OF TRAFFIC SIGNALS

The Contractor shall provide all labor, equipment and material required for the total maintenance of all existing and proposed traffic signal control equipment, within the project limits, including damage by automobile accidents, unless otherwise specified under Subsection 7.17 "Traffic Accommodation" of the Standard Specifications, as amended, in which case Subsection 7.17 will govern. These provisions will apply to the signalized location included as part of the Contract from the date of written notice given to the Engineer that the Contractor will begin work on the signal until the date when the Engineer shall recommend acceptance of the completed project. This written notice must be given before the Contractor may proceed with any work on the specified traffic signal system. For the purpose of these paragraphs, the phrase "Traffic Signal Control Equipment" is intended to include, but is not limited to, controllers, detectors, signal housings, supporting structures, cabinets, wires, conduit and all other ancillary electrical equipment used for traffic control. The cost of maintenance of signals shall be deemed to be included in the various traffic signal contract items, and no additional payments shall be made therefore, except as provided by Subsection 7.17 of the Standard Specifications as amended.

PROTECTION OF UNDERGROUND FACILITIES

The Contractor shall make his own investigation to assure that no damage to existing

structures, drainage lines, traffic signal conduits, and other utilities will occur as a result of his operations.

The Contractor shall notify "Mass. DIG SAFE" and procure a DIG SAFE number of each location prior to disturbing ground in any way.

"DIG-SAFE" Call Center: Telephone 1-888-DIG-SAFE (1-888-344-7233)

NOTICE TO OWNERS OF UTILITIES
(Supplementing Subsection 7.13)

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. Following are the names of owners and representatives of the principal utilities affected, but completeness of the list is not guaranteed by the Department:

OWNERS OF UTILITIES

Longmeadow - Pole Data:

Municipality	Pole Set Responsibility	Updated
LONGMEADOW	Western Massachusetts Electric/Verizon	6/28/2007

Water & Sewer:
Longmeadow Water & Wastewater Dept.
31 Pondsides Road
Longmeadow, MA 01106
Contact: Peter Thurber
Tel: (413) 567-3400

Electric:
Eversource Electric West
Contact: Michael Rosenburg
michael.rosenburg@eversource.com
Tel: (413) 787-9462

Gas:
Columbia Gas of Massachusetts
2025 Roosevelt Ave.
Springfield, MA 01101
Contact: Martin Kulig
Tel: (413) 781-9200 ext. 2736

Pipeline Gas:
Tennessee Gas Pipeline
8 Anngina Drive
Enfield, CT 06082
Contact: David Wood
Tel: (860) 763-6005

Telephone:
Verizon
385 Myles Standish Blvd.
Taunton, MA 02780

Cable:
Lighttower
80 Central Street
Boxborough, MA 01719

Contact: Karen Mealey
Tel: (774) 409-3160

Contact: Matt Bonanno
Tel: (508) 616-7818

Fiber:
Axia FiberNet
110, 220 – 12 Ave SW
Calgary, Alberta, Canada ABT2R 0E9
Contact: Jason Wing
jason.wing@axia.com
Tel: 403-538-4545

Department of Public Works:
Longmeadow Town Engineer
31 Pondsides Road
Longmeadow, MA 01106
Contact: Andrew Krar, P. E.
Tel: (413)567-3400
Cell: (860)748-8279

The Contractor shall notify "Mass. DIG SAFE" and procure a DIG SAFE number for each location prior to disturbing existing ground in any way.

"DIG-SAFE" Call Center: Tel: 1-888-344-7233

The Contractor will cooperate fully with all utility companies private or public, and will notify all such companies at least seventy-two (72) 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.

At locations where the proposed drainage crosses the existing gas mains care should be taken during excavation to avoid undermining or damaging the existing gas mains. If the existing gas main is required to be undermined, the Contractor shall keep the trench width to a minimum and provide in-place support to gas mains as approved by the representative of the utility or as directed by the Engineer.

WORK IN THE IMMEDIATE VICINITY OF CERTAIN UNDERGROUND STRUCTURES AND UTILITY POLES

For overhead connections, the local power company will make the connection from the top of the riser on the utility pole to the power source. The Contractor shall supply all labor, materials and equipment to install the service signal connection, complete in place and in accordance with the power company procedures, from the signal controller to and including the riser with enough wire coiled above the riser to permit the power company to make the final connection.

For underground connections, the power company will perform the actual wiring of the service connections from its power source to the sweep at the local controllers, but all steel sweeps, ducts, entrance holes into manholes, patching and all other necessary labor, materials and equipment required to install the electric service, complete in place, shall be furnished by the Contractor.

The Contractor shall pay the power company for their services rendered for the connection of overhead and underground service connections.

No work is to be performed in the immediate vicinity of the power company manholes or utility poles, or the VERIZON manholes or utility poles or conduit system without prior notice (at least 48 hours) to the affected company.

Before starting work at existing manholes, the Contractor shall test for gas and blow out the manholes.

PROTECTION OF UTILITIES AND PROPERTY (Supplementing Subsection 7.13, Protection and Restoration of Property)

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

In case of damage to utilities, the Contractor shall promptly notify the Owner and shall, if requested by the Engineer, furnish laborers to work temporarily under the Owner's direction in providing access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by the utility company that 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 Department will, as soon thereafter as it reasonably can, cause the position of the utilities to be changed or take such other action as it deems suitable and proper.

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

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

PREVENTION OF WATER POLLUTION - SANITARY PROVISIONS
(Supplementing Subsection 7.02)

During the performance of all Work done under this contract, the Contractor shall adopt such precautions in the conduct of his operations as may be necessary to avoid contaminating water in adjacent streams, pond or channel areas. All moving of equipment and other operations likely to create silting, shall be so planned and conducted as to minimize pollution in adjacent streams, pond or channel areas. Water used for any purpose by the Contractor, which has been contaminated with soil, bitumen, salt or other pollutants shall be so discharged as to avoid affecting nearby waters. Under no circumstances shall the Contractor discharge pollutants directly into any stream or pond area.

When the Contractor uses water from natural sources for any of his operations, intake methods shall be such as to avoid contaminating the source of supply and maintain adequate downstream flow when the source is a stream.

SAWCUTS

Sawcuts shall be made in the existing pavement at areas of new or reset curb, limits of full depth pavement construction, limits of HMA new HMA driveways and as directed by the Engineer. Payment for this work shall be included in the unit price under the applicable items.

SHEETING AND BRACING

The Contractor shall furnish, place, and remove (unless otherwise noted) all sheeting and bracing required to support the sides of all trenches or other excavations for this Project.

The Contractor shall be solely responsible for the safety of the workmen and the adjacent facilities from danger of caving and sliding. All work to be done shall be in strict accordance with the Department of Labor, Occupational Safety and Health Administration regulations and suggested practices for construction excavations and/or other applicable codes and regulations. Special precautions shall be taken to guard against any damage to or settlement

of pavements, buildings, walls, pipes, ducts or other structures and facilities which are adjacent to the work.

The cost of providing and removing sheeting, shoring and bracing shall be included in the cost of the various items of work under this Contract and no additional compensation will be allowed therefore.

EXCAVATION AND PATCHING OF TRENCHES ON PAVED SURFACES
(Supplementing Subsection 801.60)

Whenever the existing pavement or sidewalk is to be disturbed, the existing surface shall be cut in neat true lines by mechanical means along the length of the trench, equally spaced from the center line of the trench and not more than one and one-half (1.50 ft) feet apart. The trench shall then be excavated, conduit placed and backfilled in accordance with MHD Specifications and Standard Drawings, to a compacted depth of one and one-half (1.5 in) inches below the existing surface. The trench will then be patched temporarily with one and one-half (1.5 in) inches of hot mix asphalt placed in one course, unless otherwise approved by the Engineer.

Permanent patching will not begin until, in the Engineer's judgment, final compaction and settlement of the trench area has taken place.

All abutting edges of existing pavement shall be painted with Bitumen (RS-1), immediately prior to placement of permanent patch. All trenches shall be maintained at all times from inception until final acceptance of the project.

MATERIAL REMOVED AND STACKED

Material to be stacked, as designated by the Engineer, shall remain the property of the Town of Longmeadow and its disposition will be at the sole discretion of the Director of Public Works.

DISPOSAL OF EXCAVATION MATERIAL

Surplus materials obtained from any type of excavation, and not needed for further use as determined by the Engineer shall become the property of the Contractor and shall be disposed of by him outside the location subject to the regulations and requirements of local authorities governing the disposal of such materials, at no additional compensation.

DISPOSAL OF SURPLUS MATERIALS

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

MATERIAL OPTIONS

In the case of all option items, as listed in the proposal, the Contractor shall inform the Engineer of his option prior to the installation of the material. Once the option is designated, all material for a particular item shall remain the same throughout the job.

ASPHALT BINDER

In order to allow an efficient transition from viscosity-graded Asphalt Cement (AC) specifications to performance graded Superpave Binder (PG) specifications (non-modified binder), the Massachusetts Department of Transportation (MassDOT) is replacing AC graded products with PG binder as follows:

Projects requiring AC-20 will be constructed using PG 64-28.

Projects requiring AC-5 will be constructed using PG 52-34.

The Contractor shall follow existing mix design requirements and produce the hot-mix using the required grade of PG binder. The binder supplier shall provide to the Department with PG test results and a certification of the PG binder grade when PG binder is substituted for AC grade asphalt. This testing and certification shall be based on the existing lot numbering system. The binder supplier shall not mix AC and PG binders in the same tank, unless tested and re-certified to meet the specified grade.

Performance-Graded asphalt shall not have a higher temperature grade than specified without prior approval.

JOINTS (Supplementing Subsection 460.65)

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

MAINTENANCE AND CLEANING OF ROADS

Existing roadways intended to be used for hauling earth and rock excavated materials shall be cleaned and maintained by the Contractor during the length of the Project. The Contractor shall be responsible for providing street sweepers and operators for sweeping of haul road paved surfaces. Sweeping services shall be provided on an hourly basis at the discretion of Engineer. Street sweepers shall be self-propelled, diesel powered units with brushes and a water spray, less than three years old. The Contractor shall remove debris from the work area and deposit sweepings at locations as directed by the Engineer. The Contractor shall also be responsible for repairing roadways and bridges damaged by construction vehicles. Payment for maintenance and cleaning of roads will not be paid for separately but shall be considered incidental to the work of Item 120.1

PRESERVATION OF ROADSIDE GROWTH

The Contractor shall take all necessary care when excavating or working in the vicinity of existing trees so that the root systems, trunks and branches are not damaged. All precautions shall be taken to insure that heavy equipment does not damage any roots, including those that lie below the limits of excavation.

Do not store equipment or stockpile materials within drip line of trees or in areas enclosed by tree protection fencing.

Extreme care shall be exercised during excavation operations beneath the canopy of trees designated to be preserved. All excavation within ten feet of designated trees shall be performed by hand labor to preserve the root system of the tree.

Avoid any direct soil contamination in root zone area by petroleum, petroleum products or solvents, salts or any other pollutant during construction.

All cutting or trimming of trees to be preserved shall be executed by a Massachusetts Certified Arborist. The Contractor shall provide the Engineer with a copy of the certification prior to any work on trees.

Trees that, in the judgment of the Engineer, have been irreparably damaged by the Contractor shall be replaced in kind and in size, or, with a quantity of 2" caliper replacement trees (the quantity of which shall be determined by the Engineer) such that the cumulative caliper of the replacement trees will be up to the equivalent of diameter of the lost tree at breast height. Cost of replacement trees shall be paid by the Contractor.

Cost of removal of destroyed tree, including roots and stump, as well as the cost of replacement trees, shall be paid for by the Contractor.

OIL AND HAZARDOUS MATERIAL SPILL PREVENTION

Measures must be taken by the Contractor to prevent spills and leaks of oils and other hazardous materials to the environment. Such measures include but are not limited to properly maintaining construction equipment, establishing fuel and hazardous material handling areas that are designed to prevent releases to the environment (include containment structures if needed), instructing personnel in proper waste handling procedures and strictly prohibiting disposal into drains, water ways or receptacles, such as dumpsters, designed for non-hazardous waste. Spills or leaks of oil or hazardous materials must be reported to the DEP in accordance with the reportable quantities and criteria for "spills" as designed by the DEP in 310 CMR 40.370. Notification to the Engineer and to DEP must be made as soon as possible, but not more than two (2) hours after a spill or leak occurs.

ENVIRONMENTAL COMPLIANCE

The Contractor is advised that if field conditions and/or Contractor-suggested methodologies

warrant either amending or obtaining environmental permits, the Contractor must notify the Resident Engineer prior to commencement of the proposed activity. The Resident Engineer will coordinate all contact between State or Federal environmental agencies and the Town of Longmeadow, Department of Public Works. The Contractor is further advised that any and all time delays as a result of filing for and obtaining or modifying permits are not subject to a claim. The Contractor may also be required to submit additional information with respect to proposed work subject to environmental regulations.

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). These construction elements shall also be in conformance with ADA requirements of detect ability. Detectable warning surfaces shall be 2 feet wide square-pattern truncated dome surfaces setback 6 inches from the gutter line.

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

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

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.

WORK DONE BY OTHERS

Relocation and/or resetting to new grades of all private utilities made necessary by the construction of this project will be accomplished by the respective utility company.

SUBSECTION 4.04 CHANGED CONDITIONS.

This Subsection is revised by deleting the two sequential paragraphs near the end that begin “The Contractor shall be stopped...” and “Any unit item price determined ...” (1/6/2006).

SUBSECTION 4.06 INCREASED OR DECREASED CONTRACT QUANTITIES

Replace this Subsection with the following: (Revised – 3/23/ 2007)

The quantities contained in the Contract are set forth as a basis for the comparison of bids

only and may not necessarily reflect the actual quantity of work to be performed. The Department reserves the right to increase, decrease or eliminate the quantity of any particular item of work.

Where the actual quantity of a pay item varies more than 25 percent above or below the estimated quantity stated in the Contract, an equitable adjustment in the Contract Price for that pay item shall be negotiated upon demand of either party regardless of the cause of the variation in quantity. No allowances will be made for loss of anticipated overhead costs or profits suffered or claimed by the Contractor resulting directly or indirectly from such increased, decreased or eliminated quantities or from unbalanced allocation among the contract items from any other cause. It is the intention of this provision to preserve the bid basis while limiting the Contractor's risk exposure to 25% of each bid quantity.

In the case of an overrun, the Contractor will be compensated at the Contract Unit Price for a quantity up to 125% of the Contract quantity. The adjusted unit price shall only be applied to that quantity above 125% of the contract quantity.

Neither party shall be required to demonstrate any change in the cost to perform the work based solely on the overrun. The original Contract unit bid price shall have no bearing on determining the adjusted unit price for an overrun. The adjusted unit price shall be based on the estimated cost of performing the added work over 125% of the bid quantity. In the event that an adjusted unit price cannot be agreed upon within 60 days after being requested by either party, a unit price will be established that is deemed to be fair and equitable by the Engineer, whether higher or lower than the unit price bid. Payment will be made at that rate until agreement is reached or until the Contractor chooses to exercise his rights under Section 7.16.

To assist the Engineer in the determination of an equitable adjustment for an overrun, the Contractor shall prepare a submission in the following manner and accept as full payment for work or materials an amount for an equitable adjustment in the Contract Price equal to the following:

1. The actual cost or a reasonable cost estimate for direct labor, material (less value of salvage, if any) and use of equipment, plus 10 percent of this total for overhead;
2. Plus actual cost or a reasonable cost estimate of Worker's Compensation and Liability Insurance, Health, Welfare and Pension Benefits, Social Security deductions and Employment Security Benefits;
3. Plus 10 percent of the total of (1) and (2) for profit and other unallocated costs;
4. Plus the estimated proportionate cost of surety bonds.

No allowance shall be made for general superintendence and the use of small tools and manual equipment.

For work performed by a Subcontractor, the Contractor shall accept as full payment therefore an amount equal to the actual cost or the reasonable cost estimate to the Contractor of such work as determined by the Engineer, plus 10 percent of such cost. The Subcontractor is

bound by the same criteria for the determination of an equitable adjustment as the Contractor.

In the case of an underrun, the unit price for the actual quantity installed, if less than 75% of the bid quantity, shall only be adjusted to account for increased unit costs that result solely from the decreased quantity. The adjusted unit price shall be the bid price plus the demonstrated unit change in the cost of performing the work due solely to the decreased quantity.

The Contractor shall prepare a submission demonstrating actual increased unit costs for review and evaluation by the Engineer. No allowance will be made for loss of anticipated overhead costs or profits suffered or claimed by the Contractor resulting directly or indirectly from such decreased or eliminated quantities.

The Contractor is required to furnish itemized statements of cost and give the Department access to supporting records.

INCREASE OR DECREASE IN CONTRACT QUANTITIES

The Department reserves the right to increase or decrease the quantity of any particular Item of work. When the accepted quantities of work vary from the quantities in the bid schedule, the Contractor shall accept as payment in full, payment at the original contract prices for the accepted quantities of work done. No allowance will be made for any increased expenses, loss of expected reimbursement, loss of anticipated profits suffered or claimed by the Contractor resulting either directly or indirectly from such increased or decreased quantities or from unbalanced allocation among the contract items, loss of overhead expense on the part of the bidder and subsequent loss of expected reimbursement therefore or from any other cause.

FINE TUNING, ADJUSTMENT AND TESTING PERIOD

After the Contractor has finished installing the signal equipment at the intersection and after the Contractor has set the signal equipment to operate as specified in the contract documents, the fine tuning, adjusting and testing period shall begin. The Contractor shall advise the Engineer and Town in writing of the date of the beginning of the fine-tuning and testing period.

During this period, the Contractor, under the direction of the Engineer will make necessary adjustments and tests to ensure safe and efficient operation of the equipment. This period shall not last for more than 30 days. The contract completion date shall take this testing period into consideration. No request for final acceptance will be considered until successful completion of the testing period.

FINAL INSPECTION AND ACCEPTANCE

Upon successful completion of the 30-day testing period wherein the traffic signal

installation has operated for 30 days without failure, the Contractor shall notify the Engineer. The Engineer will make a final inspection of the installation in the presence of the Town and the Contractor. An inspection check will be made to insure that all equipment, materials, installation and operations are in accordance with the construction contract, plans and specifications. Items to be checked will include, but not be limited to, traffic controller operation, controller cabinet equipment, detection equipment type and operation, signal and detector loop wiring, documents (wiring diagrams, as-built plans, instruction manuals, parts lists, warranties, grounding resistivity test report, loop detector test report, etc.), signs, and pavement markings, and street hardware (posts, bases, housings, mast arms, brackets, pull boxes, etc.).

The Engineer will notify the Contractor in writing of any items in which the inspection reveals that the work is incomplete, defective, or does not otherwise meet the project specifications. The Contractor shall perform the corrective actions necessary to achieve final acceptance by the Town. These corrective actions shall be done by and at the expense of the Contractor, and within 15 days of the date of the inspection report, unless otherwise approved in writing by the Department.

**PART 2.00 - SUPPLEMENTAL SPECIFICATIONS: ROADWAY
RECONSTRUCTION AND ASSOCIATED WORK**

Item numbers and item descriptions noted in these Supplemental Specifications refer to MHD Standard Specification items as contained in the "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES", dated 1988 and all Subsequent Supplements, Errata and Addenda. Accordingly, these Standard Specifications are incorporated herein by reference.

<u>ITEM 102.1</u>	<u>TREE TRIMMING</u>	<u>FOOT</u>
<u>ITEM 102.3</u>	<u>SHRUB TRIMMING</u>	<u>FOOT</u>
<u>ITEM 102.5</u>	<u>ROADSIDE TREE PROTECTION</u>	<u>EACH</u>

The work under this item shall conform to the relevant provisions of Sections 101, 644 and 771 and the following:

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

Tree Trimming, Item 102.1, shall be used to trim branches of shrubs to remain that overhang the work area and which cannot otherwise be protected from damage. Trimming shall only be performed if the Arborist deems it necessary. In no circumstance shall any limbs of trees to remain be damaged by construction.

Roadside Tree Protection, Item 102.5 shall be used when construction activities are likely to occur within the canopy of individual trees or where there may be any risk of damage to trees.

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.

Incidental to the cost of this item, the Contractor shall retain the services of a Massachusetts certified arborist, with demonstrated experience in construction protection, 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

determine approved measures. The Arborist shall make recommendations as to appropriate methods to protect trees. The Engineer will have final decision as to trees and methods.

The Contractor is responsible for the 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 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 his office for the length of the Contract.

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

Submit arborists report documenting site walk and summarizing trees protected (species and quantities) as well as recommendations for protection.

MATERIALS

Fencing for individual plants shall be polyethylene fencing or chain link fence (new or used). Staking for individual tree protection fencing shall be steel posts or 2x4 lumber as directed and approved by the Engineer.

Wood chips shall conform to provisions of Wood Chip Mulch under Materials Section M6.04.3.

Trunk protection shall be 2x4 cladding, eight (8) slats per tree, at least 4 feet in length above finish grade. Tie slats to the tree with landscape tape and allow air circulation between the tree trunk and slats. Alternative materials shall be at the approval of the Engineer. Alternative materials shall provide adequate protection from anticipated construction activities and shall not injure or scar trunk. Trunk protection shall include burlap to separate trunk cladding from bark.

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 or as shown on the plans, the Contractor shall provide Individual 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 is unavoidable, the contractor shall tie branches out of the way and place wood chips to a depth of 3inches 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 cladding. Cladding for tree trunks shall extend from the base of the tree to at least 4 feet above finish grade.

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 woodchips shall be maintained throughout the duration of the contract. Protective fencing shall be repaired and woodchip 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.

The Contractor shall retain the services of a Massachusetts State Certified Arborist to perform any cutting of limbs, stem or roots of existing trees. All cuts shall be clean and executed with an approved tool. Under no circumstances shall excavation in the tree protection area be made with mechanical equipment that might damage the existing root systems.

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

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 disposed offsite 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 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 per the requirements of Division I of these Special Provisions. Cost of replacement trees shall be borne by the Contractor.

COMPENSATION

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 102.5 Roadside Tree Protection per each tree protected.

Item 102.1, Tree Trimming, will be paid for at the contract unit price per Foot. This item shall include full compensation for all labor, equipment, materials, and incidentals for the satisfactory completion of the work, including the services of a certified arborist, and the removal and satisfactory disposal of the trimmed branches.

Payment under these items shall be scheduled throughout the length of contract: 30 percent of 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.

Individual Tree Protection will be paid for at the contract unit price per Each under Item 102.5. This item shall include full compensation for all labor, equipment, materials, and incidentals for the satisfactory completion of the work, including the services of a certified arborist, water and fertilizer, and the subsequent removal and satisfactory disposal of the protective materials upon completion of the contract.

Cost of wood chips, as required, shall be incidental to these items.

ITEM 153.

CONTROLLED DENSITY FILL
-EXCAVATABLE

CUBIC YARD

DESCRIPTION

Work under this Item shall conform to the relevant provisions of Section 150 and the following:

Material shall meet the applicable requirements specified in Subsection M4.08.0 - Type 2E. The slump test shall be the "pancake" diameter type.

This item shall be used under the direction of the Engineer.

Work under this item shall consist of furnishing and placing controlled density fill in trenches for drainage and water lines installed in pavement milling and overlay areas where normal backfill cannot be placed and/or as directed by the Engineer. The trench shall be backfilled with Controlled density fill to a depth equal to the top of the subbase of the existing pavement structure. The trench will then be permanently patched to be flush with the existing roadway surface, prior to pavement milling, with Hot Mix Asphalt.

METHOD OF MEASUREMENT

Item 153. Controlled Density Fill will be measured by the cubic yard of material placed within the specified limits as directed by the Resident Engineer.

When calculating the volume of CDF used in backfilling drainage trenches in the roadway, the width of the trench shall be equal to the inside diameter of the pipe plus three (3) feet.

BASIS OF PAYMENT

Item 153. Controlled Density Fill – Excavatable, will be paid for at the contract unit price per cubic yard, which price shall include all labor, equipment, materials, transportation and incidental costs required to complete the work.

ITEM 201.1

OFFSET CATCHBASIN

EACH

The Work under these Items shall be in accordance with the relevant provisions of Section 201 and the following:

This Item is for an offset inlet catch basin for utility clearance with manhole cover and 4' deep sump. Offset Catch Basin shall be constructed in accordance with the detail and as shown on the plans.

Payment for Offset Catch Basin shall be at the contract unit price each for Item 201.1, which shall fully compensate all labor, equipment and material needed for installation. Frames and covers shall be paid under Item 221. Frames and grates shall be paid under Item 222.1.

ITEM 223.1

**FRAME AND GRATE OR COVER
REMOVED AND STACKED**

EACH

The work under this Item shall conform to the relevant provisions of Standard Specifications Section 220, and the following:

Work under this item shall also include the removing and stacking of castings that are within the roadway surface prior to the pavement milling operation and also stacking of existing castings that are to be permanently removed from the project as called out on the plans.

The existing castings on all drainage manholes, sewer manholes and catch basins that are within the designated pavement milling operation area shall be removed and stacked within the project limits. A steel plate, gravel borrow and 3" of hot mix asphalt shall be furnished and placed on the structures so that the existing roadway can be cold planed. The throats of all curb inlets shall be kept open to allow for drainage. Existing castings will not be stored along the edge of the road. The contractor is responsible for the temporary storage of the castings until they are reset. No additional compensation will be allowed for transportation or storage of the castings. This operation shall be payable under Item 223.1 Frame and Grate or Cover Removed and Stacked. The hot mix asphalt shall be payable under item 472.

For rebuilt/remodeled structures within the milled limits, these will have their castings stacked under 223.1 and plated accordingly, and the final placement of a casting be paid under 220. or 220.7 or 221. and 222.1.

The final placing of the existing castings will be included in the payment under Items 220. Drainage Structure Adjusted and 220.7 Sanitary Structure adjusted.

Castings on Town structures called on the plans as **ADJ.** (Adjusted) that are not reusable shall be removed under Item 223.1 and shall remain the property of the City and transported to the Department of Public Works at 31 Pondsides Road and placed per the direction of the Town Engineer without additional compensation. The replacement casting shall be payable under Items 221. and 222.1.

Castings on Town structures called on the plans as **R&S** (Remove and Stack) shall be removed and stacked under Item 223.1 and shall remain the property of the Town and transported to the Department of Public Works at 31 Pondsides Road and placed per the direction of the Town Engineer without additional compensation.

Payment for Frame and Grate or Cover Removed and Stacked shall be at the contract unit price each for Item 223.1, which shall fully compensate all labor, equipment and material needed to remove and stock pile the existing castings within the project limits or transport unusable castings to the Town DPW for recycling. The furnishing, placing and subsequent removal of steel plates and gravel borrow shall also be included under Item 223.1.

ITEM 227.3 **REMOVAL OF DRAINAGE STRUCTURE SEDIMENT**
CUBIC YARD

ITEM 227.31 **REMOVAL OF DRAINAGE PIPE SEDIMENT** **FOOT**

The work to be done under item 227.3 shall include removing the accumulated dirt, and other debris, as directed by the Engineer, as necessary for the Contractor to perform relevant items of work under this Contract, from designated drainage structures, including the gutter mouth of curb inlets, and disposing of materials removed. The cast iron hood shall be removed from all catch basins so equipped, prior to cleaning.

The work to be done under item 227.31 shall consist of removing the accumulated dirt, refuse, and other debris from drainage pipes. Drainage pipes shall be cleaned as directed by the Engineer. Casting shall be removed immediately preceding the work and shall be replaced immediately after the cleaning of the drainage pipes is completed. The uncovered catch basin leading to the designated drainage pipes shall not be left unattended at any time. The provisions of this item are not to be construed that all work be accomplished with equipment. Special conditions such as location, extraordinary shape due to conduits or public utility pipes, or off pavement work, etc., may require hand work.

Hydraulic lift trucks should be used during drainage structure and pipe cleaning operations so that the material can be decanted into the drainage structure. After material from several drainage structures along the same system is loaded onto the truck, the truck should be elevated so any free flowing liquid may drain back into the drainage structure. Material must arrive at the disposal facility sufficiently dry to pass the Paint Filter Liquids Test (or no liquid drips from it when a handful is taken and squeezed).

All material removed from the drainage structures and pipes shall be properly handled and disposed of by the Contractor in accordance with all Department of Environmental Protection (DEP) regulations, policies, and guidance. The Contractor is responsible for the proper handling and disposal of this material.

Material removed from drainage structures and pipes 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.

Drainage structure and pipe cleanings are classified as a solid waste by the 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; in accordance with DEP rules and regulations.

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

Method of Measurement

Material removed and that is to be transported to an approved facility, will be measured in the hydraulic lift truck, after DECANTING.

Basis of Payment

Excavated material will be paid for at the contract unit price per cubic yard for ITEM 227.3 and per foot for ITEM 227.31 which price shall include the cost of removal, delivery and disposal at an approved landfill, disposal facility or recycling facility, the costs for approvals, permits, testing, transportation, and other incidental expenses, by a qualified individual as described above.

ITEM 358.1 GATE BOX REMOVED AND STACKED EACH

The work under this Item shall conform to the relevant provisions of Standard Specifications Section 220, 301 and the following:

Existing gate boxes that are not reusable shall have their castings disposed of under this item. The replacement boxes shall be payable under Item 357.06, 357.10, or 357.12.

Work under this item shall include the removing and stacking of castings that are within the roadway surface prior to the pavement milling operation. The Contractor also has the option of lowering the castings to a minimum depth of 6" below the proposed cold plane grade.

The existing gate boxes within the designated pavement milling operation area shall be removed and stacked within the project limits. A steel plate, gravel borrow and 3" of hot mix asphalt shall be furnished and placed on the structures so that the existing roadway can be cold planed. Existing gate boxes will not be stored along the edge of the road. The contractor

is responsible for the temporary storage of the castings until they are reset. No additional compensation will be allowed for transportation or storage of the castings. This operation shall be payable under Item 358.1 Gate Box Removed and Stacked.

The final placing of the existing castings will be included in the payment under Item 358 Gate Box Adjusted.

Payment for Gate Box Removed and Stacked shall be at the contract unit price each for Item 358.1, which shall include full compensation for all labor, equipment and material needed to remove and stock pile the existing castings within the project limits; the furnishing, placing and subsequent removal of steel plates.

The hot mix asphalt shall be payable under item 472.

ITEM 370.4 **10X6 INCH TAPPING SLEEVE, VALVE AND BOX** **EACH**

The work under these items shall conform to the relevant provisions of Section 301 of the Standard Specifications, other relevant Special Provisions, and the following:

This work includes the furnishing of all plant, labor, equipment, and materials, and performing all operations in connection with the furnishing, installing and testing of valves and appurtenances at the locations indicated and/or as directed, complete in place, in accordance with the Drawings and Specifications.

The Longmeadow Water Department shall be given at least 48-hours advance notice before any work commences that will affect their water mains. The Water Department shall be responsible for shutting down the water main.

SUBMITTALS

Submit shop drawings or descriptive literature, or both, showing dimensions and other details for each type and class of valve and tapping sleeve to be furnished for the project. All valves and tapping sleeves furnished under the Contract shall be manufactured in accordance with the Specifications.

MATERIALS

Gate Valves and Boxes

All valves shall be resilient wedge valves, with mechanical joint ends. Valves shall meet or exceed the requirements of AWWA C-515. Resilient wedge valve shall be completely manufactured of lightweight, high-strength ductile iron with a wall thickness which meets or exceeds the requirements of C-153. Wedge shall be constructed of ductile iron, fully encapsulated in EPDM rubber per AWWA C-515 with delrin slides affixed to the wedge. The wedge shall be symmetrical and seal equally well with flow in either direction.

The valves shall be designed for 250 psi working pressure and 500 psi test pressure.

Valves shall have double O-ring stuffing boxes and non-rising stem. Valves shall have a 2-inch operating nut. Valves shall open right.

Valves shall meet AWWA C509.

Valves shall have interior and exterior ferrous surfaces coated with a fusion-bonded epoxy coating. Epoxy coating shall be suitable for potable water service and certified to NSF 61 standards and shall conform to AWWA C550.

Valves shall be manufactured in the United States.

Valve boxes shall be cast iron, tar coated, sliding, heavy pattern type. Valve boxes shall consist of three pieces: a flanged bottom piece; a flanged top piece; and a cover with two lifting holes and the word "WATER" cast on the top. A minimum 6-inch overlap is required between sliding sections. The upper section shall have a bottom flange of sufficient bearing area to prevent

settling. The bottom of the lower section shall enclose the stuffing box and operating nut of the valve. The inside diameter of boxes shall be a minimum 5-1/4 inches. Section lengths shall be as necessary to suit ground elevation. Valve boxes shall be manufactured in the United States. Valve boxes shall be provided for each buried valve.

Valves to be used on hydrant branches shall be connected directly to anchor tees and shall be compatible for use with the anchoring tee.

Valves shall be furnished and installed with restrained mechanical joints as provided in the Specifications.

All valves with more than 6 feet of cover shall be provided with extension stems.

CONSTRUCTION METHODS

All valves and appurtenances shall be installed in the locations shown on the Drawings and as directed by the Engineer, true to alignment and rigidly supported. Any damage to valves shall be

repaired to the satisfaction of the Owner and Engineer before they are installed.

Care shall be taken to prevent damage to valves and appurtenances during handling and installation. All materials shall be carefully inspected for defects in workmanship and materials, all debris and foreign material shall be cleaned out of valve openings, all operating mechanisms shall be operated to check their proper functioning, and all nuts and bolts shall be checked for tightness. Valves and other equipment which do not operate easily, or are

otherwise defective, shall be repaired or replaced to the satisfaction of the Owner and Engineer at no additional cost to the Owner.

Buried valves and boxes shall be set with the operating stem vertically aligned in the center of the valve box. Valves shall be set on a firm foundation and supported by tamping selected excavated material under and at the sides of the valve.

Valve boxes shall be installed vertically and shall be centered over the operating nut. Boxes shall be adequately supported during backfilling to maintain vertical alignment. The top of the valve box shall be flush with the finished grade as shown on the Drawings. When valve boxes are located outside of paved areas, 2-inch thick hot bituminous pavement shall be placed around the valve boxes to form circles with minimum diameters of 4 feet.

Mainline valves shall be installed within 2 feet of tees at water main interconnection locations.

COMPENSATION

Method of Measurement

10x6 inch Tapping Sleeve, Valve and Box shall be measured in place per the unit each.

Basis of Payment

12x0 inch Tapping Sleeve, Valve and Box shall be paid for at the contract unit price per each, complete in place, which price shall include all labor, equipment, materials, and other incidental costs required to complete the work, including locating existing utilities, protection of utilities, repair and/or relocation of any utility lines broken and/or conflicting with construction, clearing and grubbing, protection of trees and plantings, sawcutting, excavation, excavation support systems, disposal of excess excavated material, dewatering, bedding, gate valves and gate boxes, laying and jointing of valves, cleaning and testing of valves, joint accessories and restraint devices, miscellaneous hardware, cement concrete thrust blocks, backfill, grading, compaction, dust control, and site clean-up.

ITEM 384.2

CURB STOP ADJUSTED

EACH

The work shall conform to Section 300 of the Standard Specifications and the following:

This item includes adjusting water shut offs indicated on the drawings and as specified.

The Contractor shall give at least 48 hours advanced written notice to the Longmeadow DPW prior to any work on private water services.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Curb Stop Adjusted will be measured and paid for at the respective Contract unit price per each, which prices shall include all labor, material, equipment and incidental costs required to complete the work per each unit adjusted complete in place.

<u>ITEM 450.90</u>	<u>CONTRACTOR QUALITY CONTROL</u>	<u>TON</u>
<u>ITEM 451.</u>	<u>HMA FOR PATCHING</u>	<u>TON</u>
<u>ITEM 452.</u>	<u>ASPHALT EMULSION FOR TACK COAT</u>	<u>GALLON</u>
<u>ITEM 453.</u>	<u>HMA JOINT SEALANT</u>	<u>FOOT</u>
<u>ITEM 455.22</u>	<u>SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5)</u>	<u>TON</u>
<u>ITEM 455.31</u>	<u>SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5)</u>	<u>TON</u>
<u>ITEM 455.42</u>	<u>SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5)</u>	<u>TON</u>

Work under these Items shall conform to the relevant provisions of Document 00717 SUPERPAVE REQUIREMENTS contained herein and the following:

The Equivalent Single Axle Loads (ESALs) for the design travel lane over a **10-year period** is 1.85 Million 18-kip (80-kn) ESALs.

The PGAB Grade selected for this Contract is PG 64-28.

The emulsion under this specification shall be Grade RS-1H. The emulsion shall meet the requirements of AASHTO M 140 for Grade RS-1, except the 16 penetration of residue shall be at least 50 and no more than 100.

<u>ITEM 590.</u>	<u>CURB REMOVED AND STACKED</u>	<u>FOOT</u>
<u>ITEM 592.</u>	<u>CURB CORNER REMOVED AND STACKED</u>	<u>EACH</u>

Work under these Items shall conform to the relevant provisions of Section 580 of the Standard Specifications and the following:

All curb or edging, removed and stacked shall be delivered and carefully stacked at the Longmeadow Department of Public Works at 31 Pondsides Road and placed per the direction of the Town Engineer.

The Contractor shall be responsible for notifying the Town representative when the curbing will be available.

CONSTRUCTION METHODS

The existing curb or edging shall be removed without damage.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

The quantity of curb or edging removed and stacked to be paid for will be the length actually removed and stacked as measured in place along the face of the curb.

The quantity of curb inlets and curb corners removed and stacked will be considered as one unit.

Curb removed and stacked (Item 590) will be paid for at the Contract unit price bid per foot which payment will be full compensation for all materials, tools, equipment and labor incidental to and necessary for the completion of the work, including the temporary storage, protection, loading, transporting, unloading and stacking of curb as required.

Curb Corner Removed and Stacked (Item 592) will be paid for at the Contract unit price bid for each, which payment will be full compensation for all materials, tools, equipment and labor incidental to and necessary for the completion of the work, including the temporary storage, protection, loading, transporting, unloading and stacking of curb corners as required.

Any curb, edging and curb inlets determined to be unsuitable for stacking shall be discarded without additional compensation.

ITEM 701.2 CEMENT CONCRETE WHEELCHAIR RAMP SQUARE YARD

The work under this Item shall conform to the relevant provisions of Section 701 of the Standard Specifications and the following:

The construction tolerance for primary ramp slope (as shown on the details) shall be $\pm 0.5\%$ except for the following ramps numbers:

Detectable Tactile warning surface shall conform to the requirements of MassDOT Department as shown on the 2017 Massachusetts Department of Transportation Highway Divisions Construction Standard Details, Drawing Number E 107.6.5 and **shall be “yellow” in color.**

ITEM 756.**NPDES STORM WATER POLLUTION
PREVENTION PLAN****LUMP SUM**

This Item addresses the preparation and implementation of a Storm Water Pollution Prevention Plan required by the National Pollutant Discharge Elimination System (NPDES) and applicable Construction General Permit (CGP) issued by the U.S. Environmental Protection Agency (EPA).

Pursuant to the Federal Clean Water Act, construction activities which disturb one acre or more are required to apply to the EPA for coverage under the NPDES General Permit for Storm Water Discharges from Construction Activities. On February 16, 2012 (77 FR 12286), EPA issued the final NPDES Construction General Permit (CGP) for construction activity. The Contractor shall be fully responsible for compliance with the CGP. Should a fine or penalty be assessed against it, or MassDOT, as a result of a local, state, or federal enforcement action due to non-compliance with the CGP, the Contractor shall take full responsibility.

The NPDES CGP requires the submission of a Notice of Intent (NOI) to the EPA prior to the start of construction (defined as any activity which disturbs land, including clearing and grubbing). There is a 14-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 (SWPPP) for review. Work may not commence on the project until final authorization has been granted by EPA. Any additional time required by EPA 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 notification to DEP is required. DEP may also require submission of the Storm Water Pollution Prevention Plan for review and approval. Filing fees associated with the notification to DEP and, if required, the SWPPP filing to DEP shall be paid by the Contractor.

The CGP also requires the preparation and implementation of a SWPPP in accordance with the afore-mentioned statutes and regulations. The Plan will include the CGP conditions and detailed descriptions of controls of erosion and sedimentation to be implemented during construction. It is the responsibility of the Contractor to prepare the SWPPP to meet the requirements of the most recently issued CGP. The Contractor shall submit the Plan to the Engineer for approval at least 4 weeks prior to any site activities. It is the responsibility of the Contractor to comply with the CGP 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 the project and to include in the SWPPP the methods and means necessary to comply with applicable conditions of said permits (reference to Part 9.1.1 of the 2012 CGP).

It is the responsibility of the Contractor to complete the SWPPP in accordance with the EPA CGP, provide all information required, and obtain any and all certifications as required by the CGP. 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 CGP 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 0.25 inches in twenty-four hours. For multi-day storms, EPA requires that an inspection must be performed during or after the first day of the event and after the end of the event. The CGP requires that inspections be performed by a qualified individual. MassDOT requires proof of completion of a 4 hour minimum sedimentation and erosion control training class current to the latest CGP. This individual can be, but not limited to, someone that is either a certified inspector, certified professional, or certified storm water inspector. The documentation shall be included as an appendix in the SWPPP. The Engineer must approve the contractor's inspector. This individual shall be on-site during construction to perform these inspections. 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 Plan, all SWPPP certifications, inspections, reports and any and all corrective actions necessary to comply with the provisions of the CGP. 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. All Control measures must be properly selected, installed, and maintained in accordance with manufacturer specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately or is no longer adequate, it is the responsibility of the Contractor to replace or modify the control for site conditions at no additional cost to the Department. The Contractor must maintain all control measures and other protective measures in effective operating condition and shall consider replacement of erosion controls for each construction season.

This Item addresses acceptable completion of the SWPPP, any revisions/amendments required during construction, and preparation of monthly reports. In addition, any 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 Contractor is advised The CGP provides specific requirements for temporary and final stabilization. This shall be incorporated into the project schedule. The permit defines specific

deadline requirements for Initial Stabilization (“immediately”, i.e., no later than the end of the next work day following the day when earth-disturbing activities have temporarily or permanently ceased) and for Complete Stabilization Activities (no later than 14 calendar days after the initiation of stabilization). Stabilization criteria for vegetative and non-vegetative measures are provided in the CGP.

The CGP requires the submission of a Notice of Termination (NOT) from all operators when final stabilization has been achieved, as well as removal and proper disposal of all construction materials, waste and waste handling devices, removal of all equipment and construction vehicles, removal of all temporary stormwater controls, etcetera. 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. The permittee is required to use EPA’s electronic NOI system or “eNOI system” to prepare and submit NOT. The electronic NOT form can be found at www.epa.gov/npdes/stormwater/cgpenoi. If you are given approval by the EPA Regional Office to use a paper NOT, you must complete the form in Appendix K of the 2012 CGP.

Compensation

Payment for all work under this Item shall be made at the contract unit price, lump sum, which shall include all work detailed above, including plan preparation, required revisions, revisions/addenda during construction, monthly reports and filing fees.

Payment of 50% of the contract price shall be made upon acceptance of the Storm Water Pollution Prevention plan. Payment of 40% of the contract price shall be made in equal installments for implementation of the Stormwater Pollution Prevention plan. Payment of the final 10% of the contract price shall be paid upon satisfactory submissions of a Notice of Termination (NOT) when final stabilization has been achieved.

ITEM 767.12
05/2016

COMPOST FILTER TUBES

FOOT

The work under this item shall conform to the relevant provisions of Sections 751 and 767 of the Standard Specifications and the following:

This work shall include the furnishing and placement of a linear, compost-filled tube for the purpose of slowing the velocity of and filtering suspended sediments from storm water flow.

MATERIALS

Material for the filter tubes shall be compost meeting M1.06.0, except that no manure or bio-solids shall be used. In addition, no kiln-dried wood or construction debris shall be allowed. Particle size analysis: 98% shall pass through a 3 inch (75mm) sieve; 30-50% shall pass 3/8 inches (10mm) sieve.

Tubes for compost filters shall be a minimum of 12 inches (300 mm), a maximum of 18” (450mm) in diameter. Tube material shall be a knitted mesh with 1/8” - 3/8” (3-10 mm) openings and made of 100% biodegradable (cotton, hemp or jute) materials. Additional tubes shall be used at the direction of the Engineer.

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

CONSTRUCTION METHODS

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

The Contractor shall ensure that the filter tubes function as intended at all times. Tubes shall be inspected after each rainfall and at least daily during prolonged rainfall. The Contractor shall immediately correct all deficiencies, including, but not limited, to washout, overtopping, clogging due to sediment, and erosion. The contractor shall review location of tubes in areas where construction activity causes drainage runoff to ensure that the tubes are properly located for effectiveness. Where deficiencies exist, such as overtopping or washout, additional staking or compost material shall be installed as directed by the Engineer. Contractor shall remove sediment deposits as necessary to maintain the filters in working condition. The functional integrity of filter tubes shall be maintained in sound condition at all times. Filter tubes that are decomposing, cut, or otherwise compromised shall be repaired or replaced as directed by the Engineer and be incidental to this item. At specific locations, such as at gully points, steep slopes, or identified failure points in the sediment capture line, compost filter tube may be reinforced by either staked hay bales and/or silt fence at the direction of the Engineer. Such reinforcing shall be incidental to the cost of this item and shall not exceed 10 percent of the overall length of compost filter tube required for the project.

Stakes shall be removed by the Contractor when site conditions are sufficiently stable to prevent surface erosion, and after receiving permission to do so from the Engineer. Biodegradable fabric and material shall be left in place to decompose on-site unless directed otherwise by the Engineer in urban or residential locations. In those instances, the Contractor shall rake out compost so that it blends evenly and is no greater than 1-2 inches in depth on soil substrate. Raked compost shall then be seeded with a mix appropriate to the surrounding vegetation.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Compost Filter Tubes will be measured for payment by the foot, installed, approved and maintained in place for the duration of the contract.

Compost Filter Tubes will be paid for at the Contract unit price per foot which price shall include all labor equipment, materials and incidental costs required to complete the work.

776.500

MAPLE – RED 2-2.5 INCH CALIPER

EACH

DESCRIPTION

The work under these items shall conform to the applicable requirements of Section 771, PLANTING TREES, SHRUBS AND GROUND COVER, of the Standard Specifications, except as amended and supplemented as indicated on the drawings and as specified below.

If any of the above species cannot be obtained, the Contractor shall notify the Engineer for an approved substitution.

ITEM 813.791

INTERCONNECT CABLE SYSTEM

FOOT

GENERAL

The work under this item shall conform to the relevant provisions of the Standard Specifications, and the following:

The work shall include the extension, connection, and/or replacement of existing interconnect cables from the existing controller location to the proposed location to maintain communication between the proposed controller cabinet and adjacent signals at Dwight Road/Converse Street, Dwight Road/Maple Street/Williams Street, and Benton Drive. The contractor shall confirm the presence/extent of these existing cables with the Town.

MATERIAL

Cable shall conform to REA Spec PE-39 and REA Designation BJFA. It shall be a #19 AWG conductor size with twelve twisted pairs. Conductors shall be solid, soft drawn, annealed bare copper. Insulation shall be a solid, virgin high density polyethylene or polypropylene with telephone industry color coding. Shielding shall consist of a .008" thick corrugated aluminum tape shield with a corrosion-resistant ethylene copolymer coating on each side. The outer jacket shall be a black low density, high molecular weight virgin polyethylene compound to withstand sunlight, temperature variations and other environmental conditions including abuse during installation.

CONSTRUCTION METHODS

REA Spec PE-39 cable is intended for use in conduit or direct burial situations. Work under this item shall consist of installation in existing and/or proposed conduit. Splices shall be permitted ONLY as directed by the Engineer.

METHOD OF MEASUREMENT

Interconnect Cable System will be measured per linear foot for all cable complete in place.

BASIS OF PAYMENT

Interconnect Cable System will be paid for at the Contract unit price bid per linear foot, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Conduit and pull boxes for interconnect system shall be paid for separately under their respective items.

<u>ITEM 815.1</u>	<u>TRAFFIC CONTROL SIGNAL</u> <u>LOCATION NO. 1</u>	<u>LUMP SUM</u>
<u>ITEM 816.02</u>	<u>TRAFFIC SIGNAL RECONSTRUCTION</u> <u>LOCATION NO. 2</u>	<u>LUMP SUM</u>

ITEM 816.03

TRAFFIC SIGNAL RECONSTRUCTION
LOCATION NO. 3

LUMP SUM

Work under these items shall be in accordance with the relevant provisions of Sections 800 and 900 of the Standard Specifications, The 2009 Manual On Uniform Traffic Control Devices, Engineering Directive E-16-001, The *Overhead Signal Structure & Foundation Standard Drawings*, dated December 2015, and the following:

The work shall include the installation of new traffic control signals and traffic equipment at the following intersections:

- Location No. 1: Dwight Road and Converse Street (*New Signal*)
- Location No. 2: Dwight Road, Williams and Maple Streets (*Signal Reconstruction*)
- Location No. 3: Benton Drive and Chestnut Street (*Signal Reconstruction*)

Work includes furnishing all necessary labor, materials and equipment required to install, complete in place and ready for operation, a traffic signal system as described herein and as shown on the plans. The intersection traffic signals shall operate as a fully actuated traffic control system, capable of operating as a closed loop system.

NOTE: All traffic signal equipment including but not limited to signal posts, bases, signal heads, visors (outside), backplates, doors, mast arms, controller cabinets (exterior); pushbutton saddles, service meter socket boxes, optical preemption detectors, hardware, rigid mounting brackets, banding used to attach equipment to poles and mast arms, and all other appurtenances shall be factory coated BLACK

Individual items of work shall include furnishing and installing all or part of the following items: NEMA TS-2, Type 1 Controller, cabinet and foundation; signal support foundations with anchor bolts; video vehicle detectors and processors; pull boxes; and housings; accessible pedestrian signals with countdown timers and non-movable push buttons; a complete emergency vehicle priority control system and all necessary wiring, mounting assemblies, equipment grounding and bonding, ground rods, and a new service connection. A list of major items required is included on the contract plans.

Within 30 days following Notice to Proceed, the Contractor shall submit a list of equipment and manufacturer's equipment specifications he proposes to install to the Engineer in accordance with the relevant provisions of Section 815.20. No equipment or accessories will be accepted unless type tested and approved by the MassDOT – Highway Division prior to the date of proposal.

The Contractor shall commence no work until approval of the shop drawings has been received in writing from the Engineer. Approval of these drawings will be general in character and shall not relieve the Contractor from the responsibility of, or the necessity of, furnishing materials and workmanship required by the plans and these specifications.

The Contractor shall deliver to the Engineer a certificate of compliance by manufacturer for all materials purchased.

Local intersection traffic signal cable shall be #14 AWG.

The Contractor shall make all necessary arrangements with the electric utility company for the service connections or for any main power cut off when necessary, and bear all charges incurred hereby.

Foundations

Signal support and controller cabinet foundations shall be constructed in conformance with MassDOT Standard Drawings (*Overhead Signal Structure Standard Drawings*) dated December 2015 and in accordance with the applicable requirements of Section 901. The Contractor shall use the provided soil boring logs provided in the plans and the below chart to select foundation and reinforcement sizes.

MAST ARM LOCATION KEY

NO.	STATION/OFFSET	INTERSECTION	MAST ARM SIZE	SOIL BORING NO.	SOIL TYPE	FOUNDATION DEPTH
1*	5+66.75/51.22' LT	CONVERSE/DWIGHT T	40.00'	B-2	Wet Sand (Dense)	10' 6"
2*	6+35.23/48.29' LT	CONVERSE/DWIGHT T	25.00'	B-3	Wet Sand (Dense)	9' 0"
3*	5+75.29/27.91' RT	CONVERSE/DWIGHT T	25.00'	B-1	Wet Sand (Loose)	11' 6"
4*	6+39.90/31.21' RT	CONVERSE/DWIGHT T	30.00'	B-1	Wet Sand (Loose)	11' 6"
5*	14+38.03/46.00' LT	MAPLE/DWIGHT	40.00'	B-5	Wet Sand (Dense)	10' 6"
6*	15+08.01/45.26' LT	MAPLE/DWIGHT	30.00'	B-6	Wet Sand (Dense)	9' 0"
7*	14+55.70/45.89' RT	WILLIAMS/DWIGHT	40.00'	B-4	Wet Sand (Dense)	10' 6"
8*	15+39.09/42.21' RT	WILLIAMS/DWIGHT	45.00'	B-7	Wet Sand (Dense)	11' 6"
9	17+57.31/46.29', LT	BENTON/CHESTNUT	35.00'	B-4	Wet Sand (Dense)	10' 6"
10	18+07.68/29.04', RT	BENTON/CHESTNUT	30.00'	B-7	Wet Sand (Dense)	9' 0"

*Ornamental

The top forming of cast-in-place units shall extend downward for a minimum of 24" on the side of any foundation. The lower portions of all foundations shall be placed directly against undisturbed earth. Forms or reinforcing for foundations shall neither be set nor shall concrete be placed until the excavation has been inspected by the Engineer and approval to proceed has been given. The Contractor shall request written approval from the Engineer in advance of the placement of any concrete for foundations of traffic signal poles, mast arms and controller cabinets.

Concrete foundations shall be constructed of 4000 psi, 565 Cement Concrete. **The Contractor shall submit shop drawings of any bolt circle details for approval by the Engineer.** Anchor bolts shall be set accurately and tops shall be formed neatly.

Where soil conditions are such that, in the opinion of the Engineer, the typical foundation design is not suitable, the Contractor shall submit a modified foundation design for approval by the Engineer.

Service Connection

It shall be the Contractor's responsibility to contact the utility company. The electric company (refer to utility contacts) will furnish the connection and power at the locations shown on the Contract Drawings. The service connection shown on the plans is only approximate. The electric company will connect and disconnect power as required. No work shall be done in manholes or on power poles without a representative of the electric company being present. The Contractor will be responsible for coordinating work with the electric company.

The utility will provide a stub conduit connection at the underground structure, furnish the wire and make the connection from the power source to the meter socket. The Contractor will install the conduit connecting the stub connection to the controller cabinet foundation.

The Contractor shall furnish and install, or cause to be installed, all service equipment to the satisfaction of the electric utility company. It shall also be the Contractor's responsibility to pay all charges to the utility company for performing the work previously described.

Openings where cables enter the bottom of the controller cabinet and each pull box shall be sealed with approved elastic sealing compound.

No direct reimbursement will be made under this contract to the Contractor for payments made to electric company, it being understood that full compensation for any payment made by the Contractor to the utility company will be included in the contract prices bid.

Grounding Cable - Grounding cable shall be bare copper No. 8 AWG wires.

Actuated Controller

The actuated controller and all necessary traffic signal system components shall be capable of interconnection with the equipment at other nearby signalized intersections in this corridor.

The traffic signal controller installed shall conform to Section 815 of the MassDOT Standard Specifications for Highways and Bridges except as noted in these Special Provisions. The requirement for full eight-phase loading of load switches and flasher relays is retained.

The keyboard entry controller unit shall meet all applicable requirements of the NEMA

standard publication TS-2, the Commonwealth of Massachusetts, 1988 standard specifications.

The supplemental specifications dated July 1, 2015 and include the following as minimum requirements for the “Keyboard Entry Controller Unit”.

The Traffic Controller Unit shall be Type 8 cabinet assembly with a Type 8 TS-2 Type 1 controller unit. All controller cabinet assemblies, including but not limited to controller units, backpanels, flasher relays, terminal strips and the cabinet, provided under this contract shall be matched sets of the same manufacturer assembled as a system by the manufacturer.

Control unit shall be TS-2 controller and must be type tested and approved by the Commonwealth of Massachusetts and the Town of Longmeadow. The controller shall conform to Section 3, Controller Units of NEMA No. TS-2, traffic control assemblies. The controller unit shall utilize an input/output interface conforming to Section 3.3.1 of the NEMA TS-2 standard for all input/output functions with the backpanel terminals and facilities, including the malfunction management unit, detector rack assemblies and auxiliary devices.

Controller unit shall retain intersection data and controller unit programming in non-volatile EEPROM memory. The real time clock shall be maintained by a battery backup during power outages and shall include automatic accommodations for daylight savings time.

Controller unit shall be capable of two through 16-phase operation and 16 keyboard-programmable overlaps and shall meet or exceed NEMA TS-2 Type 1 standards for fully actuated traffic controller units.

Controller unit shall be capable of operating with one to four concurrent timing rings on a user programmable ring structure.

Controller unit shall be capable of operating as a volume density controller and shall be capable of functioning in every respect as an integrated part of a closed loop traffic control system with internal communication capability and direct access to the data memory.

Controller unit shall have internal Time Base Coordination (TBC) logic. The coordination control shall have the capabilities to operate as described under the Section 815.411 of the Commonwealth of Massachusetts Standard Specifications.

Controller unit shall use a standard RS232 port provided in or with the local controller to allow for local printing of reports and for interconnecting to a remote master controller through the modem.

Controller unit shall have a security code function.

Controller unit shall have internal preemption with the capability of size unique preemption sequences. Each preempt sequence shall be fully user programmable for timing and signal

display in response to an individual preempt command input. Controller unit shall be provided with all necessary hardware, including cables and internal system modem to operate a closed loop system.

Controller Cabinet

The local controller cabinet shall be a Massachusetts Specification Type 8 TS-2 Type I, ground-mounted, size 6 aluminum cabinet painted with gloss or satin black finish.

SDLS Serial Bus

Per section TS-2 Section 3.3.1 a SDLC (Synchronous Data Link Control) to allow communications between the controller unit, MMU and BIUs shall be provided.

Malfunction Management Unit (MMU)

The MMU shall be capable of providing enhanced memory and remote retrieval of data, by means of a direct connection to the controller and shall be set-up such that remote monitoring of the conflict monitor shall be possible.

The MMU shall comply with Section 4 of the NEMA TS 2 standard. It shall be capable of being operated as either a Type 16 with 16 channels (8 vehicle, 4 pedestrian and 4 overlap) or a Type 12 with 12 channels (8 vehicle, 4 overlap). Each MMU shall be initially configured as a Type 16 unit.

Bus Interface Unit (BIU)

The controller cabinet will be equipped with a Bus Interface Unit (BIU). The BIU shall comply with Section 8 of the NEMA TS 2 Standard.

BIU shall be fully interchangeable with any other manufacturer's unit and interchangeable in a NEMA TS 2 Type 1 cabinet assembly.

The BIU shall perform the interface function port 1 at the controller unit, the malfunction management unit, the loop detector rack assembly and the backpanel terminal and facilities.

At a minimum, two LED indicators shall be provided on the BIU front panel. One indicator shall serve a dual use as a power on indication and as a diagnostic indicator for proper operation of the device. The second indicator shall serve as a transmit indicator illuminating each time data is transmitted.

Standard Module Functions

Controller shall be capable of functioning with both incoming and outgoing coordination.

The controller shall be equipped with a separate emergency flashing mechanism capable of providing flashing operation at the rate of 50 to 60 flashes per minute. This mechanism shall

be so wired and so mounted within the cabinet that it will continue to cause the signals to flash even when the basic controller is removed from the cabinet.

The controller shall be capable of changing from stop-and-go operation to flashing operation in accordance with the Manual on Uniform Traffic Control Devices.

Load Switches

Load switches shall be provided with LED indicators wired to the input and output of each circuit.

Controller Backpanel and Terminal Facilities

The Controller shall be supplied complete with all load switches and flash transfer relays and appurtenances required for operation as a complete eight-phase unit regardless of the number of phases placed in operation at the time of installation.

Manual Override

Provisions shall be made for manual override of the traffic controller. Manual override equipment shall include an automatic-manual switch and interval advance hand-push button switch, both located within the auxiliary police door.

Hand-push button switch shall have flexible cord of sufficient length to allow movement by the operator to observe the operation of the intersection from the controller cabinet.

Wiring and Service Connections

All conduit runs shall be sealed with an approved sealing compound at all manholes, handholes, pullboxes, junction boxes, cabinets and foundations to form a complete duct system. Sealing foam materials shall not be accepted on this contract.

Fine Tuning, Adjustment and Testing Period

After the Contractor has finished installing the controllers and all other associated signal equipment and after the Contractor has set the signal equipment to operate as specified in the contract documents, the fine tuning, adjusting and testing period shall begin. During this period, the Contractor under the direction of the Engineer will make necessary adjustments and tests to

ensure safe and efficient operation of the equipment. This period shall be not less than 30 days. No request for final acceptance will be considered until successful completion of the testing period.

The cost of electrical energy consumed by the operation of the traffic signal during the construction, fine-tuning and testing until final acceptance of the signal shall be borne by the Contractor.

As-built Plans

As-built AutoCAD drawings shall be supplied to MassDOT, the Town of Longmeadow and the Town of East Longmeadow before acceptance of the traffic signals.

Guarantee After Final Acceptance

The Contractor shall diagnose (trouble-shoot) the system and, at his own expense, replace any part of the traffic signal control equipment found to be defective in workmanship, material or manner of functioning within six months from the date of final acceptance of the installations under this Contract. This requirement does not affect the one-year warranty period on equipment specified in Subsection 815.20 of the Standard Specifications.

Upon the date of acceptance of the project by the Department, the Contractor shall turn over all guarantees and warranties to the Department.

Vehicle Detector

Description:

The work under this item shall consist of furnishing and installing Video Vehicle Detection System of type as shown on the plans or as directed and in accordance with these specifications:

Required Submittals:

Shop Drawings:

Submit 3 copies of shop drawings for the Video Vehicle Detection System and all hardware accessories in accordance with these specifications and the contract general requirements.

Materials:

All items and materials furnished shall be new, unused, current production models installed and operational in a user environment and shall be items currently in distribution.

The video vehicle detection system shall use a single fisheye camera to monitor all approaches.

This system shall include two (2) sets of the following equipment:

- All the detection system components such as the camera dome, processor unit, input/output cables, bishop's crook arm and self-leveling bracket and other hardware to install the camera and control units
- Data collection modules to collect Vehicle and Pedestrian data
- Each of the bishop's crook brackets shall be supplied with 2 rigid mounting brackets with triple cable clamps.
- An outdoor rated TFT-LCD display unit with VGA connector, VGA cable, shelf mount stand, and power supply
- A wireless router and a USB mouse

Warranty and Training:

All the components shall be warranted for three (3) years from the date of final acceptance and all the software (including detection, pedestrian data collection, and turning movement data collection) shall be upgraded for 3 years at no additional cost.

The video detection system shall be warranted against manufacturing defects in materials and workmanship. It shall also be warranted for any manufacturer's hardware upgrades during this period irrespective of the functionality during this period. A written warranty shall be provided by the vendor for repair and/or replacement of all the components in this item. The video detection supplier shall provide all documentation necessary to maintain and operate the system.

Construction Methods:

The product manufacturer or supplier of the video detection system shall supervise the installation and the testing of the video equipment. The contractor shall install, make fully operational, and test the video vehicle detection system to operate the intersection drawings and this specification. The detection equipment shall be installed either in an existing or in a new controller cabinet. In TS1 cabinets the processor unit shall be wired to receive all the required inputs and outputs. All the equipment shall be wired in the cabinet in a neat manner.

The camera position should be carefully adjusted to accommodate the field conditions such as any existing utility lines and other hardware blocking the view or any sun or lighting related issues. The camera mounting location and position shall accommodate error free detection under all lighting conditions. When required based on the intersection geometry, sun shade due to buildings, any trees or items blocking the view of one of the approaches the second camera installation may be needed and will be decided at the time of installation by the Engineer. Any unused components shall be returned to the supplier in original boxes.

Accessible Pedestrian Signals

Accessible pedestrian signals shall combine an ADA compliant push button with an audible pedestrian signal in one unit. The push button shall provide tactile and audible indication of the WALK interval and emit a locating tone during the WALK and DON'T WALK intervals. A sunlight-visible LED shall confirm when the button is pushed and remain on until the WALK phase goes into effect.

Accessible pedestrian signals shall include frame with standard sign, ADA compliant push button, mounting hardware, and control unit with the following field selectable options:

- Locating Tone
- Extended Push Activation
- Audible rapid "TICKS" (default), "CUCKOO", "CHIRP", or "WALK SIGN IS ON" voice message during the walk cycle
- Selectable times for duration of walk cycle sound
- Fixed or automatic volume adjustment of all sounds.

Under automatic adjustment the volume of the locating tone and audible sounds automatically adjust in relation to ambient noise levels. The volume of the locating tone and audible sounds are to be field adjusted prior testing and final acceptance.

Wiring Diagrams (Permanent Signal Control Installation)

Five sets of wiring diagrams for each control cabinet and all accessories shall be furnished including one Mylar reproducible copy and an electronic CADD file for each control cabinet when installed. All actual and potential terminal strip connections shall be shown. Accessory equipment includes flashers, switches, relays, detectors, etc.

All identification on the diagrams shall be as installed, and all field labeling shall be consistent with the diagrams. Furthermore, the format symbols, identifications, operating sequence, etc. common to all the intersection wiring diagrams shall be standardized and consistent with industry standards. Before acceptance of the job, the five copies of all operating and maintenance manuals and complete and accurate parts lists shall be supplied.

Traffic Signal Led Module

All signal and pedestrian displays shall be equipped with LED signal modules. All red, amber, green, and pedestrian signal housings with the exception of optically programmed and fiber optic housings and shall conform to the following where applicable:

- ITE's Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Arrow Traffic Signal Supplement, Dated January 2008
- ITE's Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Circular Signal Supplement, Dated June 27, 2005.
- ITE's Pedestrian and Countdown Signal Modules Compliant to PTCSI - Part 2 Light Emitting Diode (LED), Dated, February 2011
- On the MassDOT List of Qualified Traffic Control Equipment, Section 815: Traffic Control Signals

For an LED module to installed on this project, the LED module shall have approval from the MassDOT Traffic Control Products Approved Equipment Committee and be included on the Qualified Traffic Control Equipment List prior to the date of this proposal

To prevent the LED module warranty from being voided, the connecting leads on the module shall not be cut. The original LED module leads shall be connected to the signal head terminal block as continuous wire without splices.

The LED signal module will be replaced or repaired by the manufacturer if it exhibits one of the following:

- A failure due to workmanship or material defects within the first 60 months of field operation.
- A greater than 40 percent light output degradation or a fall below the minimum intensity levels (as defined by the latest ITE performance specifications) within the

first 36 months of field operation

Emergency Vehicle Pre-emption

All new controller units furnished under this contract shall be capable of providing transit vehicle priority in addition to emergency vehicle preemption. Full priority logic will be integrated with coordination so that transit priority will not disrupt coordination. The controller units will have the capability of interfacing with and accepting input from the optical emergency preemption systems at each location.

Contractor shall check with the Longmeadow and East Longmeadow Fire Departments prior ordering the equipment.

When optical energy impulses are received at the intersection, control of the signals shall transfer to the controller's internal pre-emption logic which shall cause the signal controller to show a selected display identical to one of the color interval displays normally available as specified, which will indicate a red signal to all conflicting movements to grant the emergency vehicle exclusive right of way through the intersection without cross street conflict. After the vehicle has passed through the intersection, control of the signals shall then return to normal operation which shall restore the appropriate timings that were in effect prior to pre-emption.

The following description of work specifies the responsibilities involved in the installation of optical emergency vehicle pre-emption.

The Contractor is required to supply material and labor required or shown for the complete installation of optical pre-emption equipment at this project. Intersection pre-emption equipment required includes optical detectors, cable, interfacing equipment to the controller, making electrical connections and all required incidentals.

The following are the operational requirements of the optical emergency vehicle pre-emption system:

Emergency Vehicle Design Speed for pre-emption controlled approaches shall be 30 mph.

Operating sequence as specified shall be initiated when the optical detector receives optical energy of the required repetition rate from an emitter.

Detector shall transform the optical energy signals into electrical signals and transmit the electrical signals to the controller for processing.

Controller shall not respond to optical energy signals from another authorized vehicle.

The optical detector cable shall meet the specifications of the system manufacturer.

The Contractor shall bear responsibility for performing the following field supervision and

turn-on services:

The Contractor shall select the proper quantity and place and method of installing all components to comply with the operational requirements shown in the pre-emption schedule included in these special provisions.

The Contractor shall instruct personnel in the procedures of installation.

The Contractor shall be available to assist, supervise and check all wiring to insure proper operation.

The Contractor shall perform a final check out to include initial adjustment of range and timing to acceptable standards.

The Contractor shall initiate documentation for as-built drawings.

The Contractor shall demonstrate the system and instruct the drivers of emergency vehicles and other authorities in the operation of the system.

The representative shall instruct maintenance personnel in routine maintenance and minor troubleshooting of the system.

Any operation problems occurring within the next 30 days shall be corrected by the Contractor or by a Field Service representative if the Contractor cannot do so.

The cost of these field supervision and turn-on services shall be included in the Lump Sum Bid Price, and no additional payment shall be made therefore.

Pre-emption System Design and Documentation shall include the following:

Provide the installing agency with location for detector installation.

Provide the controller manufacturer, Engineer and owner with electrical diagrams.

The installer shall install the equipment consistent with the pre-emption equipment, the manufacturer's recommended installation procedures and electrical diagrams in a neat and workmanlike manner.

The pre-emption equipment manufacturer shall be responsible for operational checkouts of the specified pre-emption functions prior to final acceptance and approval by the Engineer.

Operating checkouts include the following:

Verify that priority system timing and range are properly set.

Pre-emption equipment warranties are put into effect.

Signal Housings

Vehicular Signal Heads - All indications shall be equipped with a standard **tunnel** visor and black 5" louvered backplates with 2" yellow reflective tape borders. The reflective tape shall not extend into or cover any part of the louvered area.

Vehicular Signal Heads - Mounting hardware for side-of-shaft mounting shall be heavy-duty blind shaft clamps with couplings. The final adjustment of the facing of signals shall be made as directed by the Engineer after all the signals are operating, but prior to installing the through bolt above.

Pedestrian Signal Heads and Indications

This specification refers to definitions and practices described in "Pedestrian Traffic Control Signal Indications" published in the Equipment and Materials Standards of the Institute of Transportation Engineers, referred to in this document as "PTCSI."

Module Installation: Installation of a module into existing signal housing shall not require the use of special tools. The module shall connect directly to existing electrical wiring system.

Minimum Message Bearing Surface Size: The minimum size of the message bearing surface of a module shall be 12 in x 12 in.

LED Signal Module

Module Installation: A module shall be capable of replacing the existing optical components or signal module in a signal housing, or shall provide a complete replacement of the signal head.

Hard Coat (Optional): The module lens may be hard coated or otherwise made to comply with the UV material exposure and weathering effects requirements of the Society of Automotive Engineers (SAE) J576.

Unlit Illumination: When not energized, the WALKING PERSON (symbolizing WALK) and UPRAISED HAND (symbolizing DONT WALK) symbols shall not be readily visible to pedestrians at the far end of the crosswalk that the pedestrian signal head indications control.

Replaceable Lens: The module lens may be a replaceable part, without the need to replace the complete LED signal module.

Countdown Display (For Modules with Countdown): The countdown pedestrian signal module shall be made up of two digits and shall be located next to the associated upraised hand symbol.

Pedestrian Change Interval: The countdown pedestrian signal shall display the time remaining, in seconds, beginning at the start of the pedestrian change interval and ending at

the termination of the pedestrian change interval. Countdown displays shall not be used during the walk interval. After the countdown displays zero, the display shall remain dark until the beginning of the next pedestrian change interval.

Countdown Range: The countdown display shall be capable of counting down from 99 to 0. Leading zeros on numbers less than 10 shall be blanked (i.e. Displaying 09, 08, 07 ... 01, 00 is unacceptable). Numbers less than 10 shall be displayed in the right hand digit of the countdown display.

Display of the “1” Digit: The display of the digit “1” must be displayed in the right hand portion of the digit segment.

Learning Cycle: The countdown learning cycle may only be initiated after the initial installation; a return from a power failure greater than 2 seconds; a repeated demand to change programming; or after preemption. During the learning cycle, the countdown display shall remain blank. The learning cycle shall not last more than two complete cycles.

Countdown Timer: During the pedestrian change interval, the display of each number in the countdown sequence; the interval from the display of one number to the display of the subsequent number in the sequence; and the display of the “0” at the end of the countdown cycle (before going blank) shall be 1 second \pm 0.04 seconds. At no point in time during the countdown interval shall the digit display go entirely blank.

Preemption: If the pedestrian change interval is interrupted or shortened as a part of a transition into a preemption sequence (Re: Section 4E.10 MUTCD 2009), the countdown pedestrian signal display should be discontinued and go dark upon activation of the preemption transition.

The stored countdown timing value that represents duration of the Pedestrian Change Interval shall be determined by measuring the time in seconds between the end of the WALK indication and the start of the solid DONT WALK indication.

Symbol Configurations: The configurations of the walking person icon, the upraised hand icon and numeric digits are illustrated on the plans.

Environmental Resistance: All exposed components of a module shall be suitable for prolonged exposure to the environment, without appreciable degradation that would interfere with function or appearance. As a minimum, selected materials shall be rated for service for a period of a minimum of 60 months in a south-facing Arizona Desert installation.

Operating Temperature Range: A module shall be rated for use throughout an ambient operating temperature range, measured at the exposed rear of the module, of -40°C (-40°F) to +74°C (+165°F).

Moisture Intrusion: A module shall be protected against dust and moisture intrusion, including rain and blowing rain.

UV Resistance: The module lens shall not crack, craze, or yellow due to solar UV irradiation

typical for a south-facing Arizona Desert installation after a minimum of 60 months in service.

Construction

Configuration: A module shall be a self-contained device, not requiring on-site assembly for installation into existing signal housing. The power supply for the module may be either integral or packaged as a separate component.

Shock and Vibration Resistance: Assembly and manufacturing processes for the module shall be designed to assure all internal LED and electronic components are adequately supported to withstand mechanical shock and vibration due to high winds and other sources.

Materials

Materials: Materials used for the lens and module construction shall conform to ASTM specifications for the materials where applicable.

Flammability Resistance: Enclosures containing either the power supply or electronic components of the module shall be made of UL94V0 flame retardant materials. The module lens is excluded from this requirement.

Module Identification

Identification Label: Each module shall be identified on the backside with the manufacturer's name, model, operating characteristics and serial number. The operating characteristics of each symbol shall be identified and shall include the nominal operating voltage and stabilized power consumption as defined in Section 6.3.5 in watts and volt-amperes. The operating characteristics of the countdown shall be for the countdown displaying the "88" digits. The identification labels shall be permanent in nature and must last and be legible through the operating life of the module(s) through its normal operating conditions and environment.

PTCSI Conformance Label: Modules conforming to all non-optional requirements of this specification may have the following statement on an attached label: "Manufactured in Conformance with the ITE Pedestrian Traffic Control Signal Indicators - Light Emitting Diode (LED) Signal Modules Date of Latest Publication". Work under this item shall be in accordance with the relevant provisions of Sections 800 and 900 of the Standard Specifications and the following:

The work under Item 816.80 includes removing existing traffic control signals, traffic control box, pull boxes foundations and appurtenances at the locations designated on the Plans and as required by the Engineer. The existing traffic control signals and appurtenances, if determined to be in suitable condition, shall remain the property of the Town of Longmeadow. The Contractor shall advise the owner that the material is available and arrange for transport. Traffic control signals to be removed and transported shall be removed and transported to the Town DPW yard at 31 Pondview Road and off-loaded and placed per the direction of the Town Engineer without additional compensation.

The work under this Item 816.81 includes removing existing traffic control signals, traffic control box, pull boxes foundations and appurtenances at the locations designated on the Plans and as required by the Engineer. The existing traffic control signals and appurtenances, if

determined to be in suitable condition, shall remain the property of the Town of East Longmeadow. The Contractor shall advise the owner that the material is available and arrange for transport. Traffic control signals to be removed and transported shall be removed and transported to the Town DPW yard at 60 Center Square and off-loaded and placed per the direction of the Town Engineer without additional compensation

The work shall include the traffic control signals and appurtenances to be removed and transported at the following intersections:

Item 816.80: Location No. 2: Maple Street, Williams Street and Dwight Road

Item 816.81: Location No. 3: Benton Drive and Chestnut Street

If the Engineer determines that any part of the traffic control signals and appurtenances are unsuitable for reuse, or if the owner decides to abandon part or all of such materials, said materials shall become the property of the Contractor, and he shall dispose of them away from the site. Compensation for the removal and disposal of unsuitable or abandoned material shall be included under this Item.

Existing traffic control signals and appurtenances shall only be removed once the proposed traffic control signal is operational and accepted, or provision made for temporary traffic control and the Engineer has given approval for their removal.

MEASUREMENT AND PAYMENT

Measurement and payment for Item 816.80 will be made at the Contract Unit Price Bid per Lump Sum for the existing traffic control signals equipment to be removed and transported to the City as specified herein. The Contract Unit Price Bid shall include all materials, excavation, gravel backfill labor, equipment and incidentals required to complete the work.

ITEM 816.90

**TRAFFIC CONTROL SIGNAL
REMOVED AND TRANSPORTED**

LUMP SUM

Work under this item shall be in accordance with the provisions of Section 800 and 900 of the STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES and the following.

Refer to the section entitled “Materials and Equipment to Be Removed and Stacked” near the beginning of these Special Provisions for information regarding storage and transportation/disposal of the system components.

The work under this Item includes removing existing traffic control signals and appurtenances at the locations designated on the Plans and as required by the Engineer. The existing traffic control signals and appurtenances, if determined to be in suitable condition by the Town of Longmeadow, shall remain the property of the Town of Longmeadow. The Contractor shall advise the owner that the material is available and arrange for transport. Traffic control signals to be removed and transported shall be removed and transported to the Town DPW yard and placed per the direction of the Town Engineer without additional compensation. Extra caution shall be used when handling sensitive electronic equipment such as signal controllers, detector amplifiers, etc.

The work shall include the Traffic control signals and appurtenances to be removed and transported at the following intersections:

- Location No. 2: Dwight Road, Williams and Maple Streets
- Location No. 3: Benton Drive and Chestnut Street

If the Engineer determines that any part of the traffic control signals and appurtenances are unsuitable for reuse, or if the owner decides to abandon part or all of such materials, said materials shall become the property of the Contractor, and he shall dispose of them away from the site. Compensation for the removal and disposal of unsuitable or abandoned material shall be included under this Item.

Existing traffic control signals and appurtenances shall only be removed once the proposed traffic control signal is operational, or provision made for temporary traffic control and the Engineer has given approval for their removal.

MEASUREMENT AND PAYMENT

Measurement and payment for this Item shall be made at the Contract Unit Price Bid per Lump

Sum for the two traffic control signals to be removed and transported. The Contract Unit Price

Bid shall include all materials, excavation, labor, equipment, and incidentals required to

complete the work

ITEM 817.8 ORNAMENTAL TRAFFIC SIGNAL SUPPORTS **LUMP SUM**

The work of this item shall be to furnish the ornamental mast arm poles, fittings, clamps and required accessories in accordance with the Standard Specifications and design criteria. The quantity of ornamental traffic signal supports furnished shall be as shown on the traffic control signal major item list.

The Contractor shall be responsible for the design of each mast arm pole including anchor bolts and their embedment lengths, base plates, connection between the mast arm poles and base plates, clamps, and related hardware. All design work shall bear the seal and signature of a Professional Structural Engineer registered in Massachusetts. Erection and shop drawings shall be submitted to the Design Engineer for approval. Submittals shall include all rigid mounting signal and sign mounting hardware.

The traffic signal system decorative supports shall be of a design and type to match Valmont Industries fluted poles and mast arms with 16 sharp flutes, or approved equivalent.

The poles shall conform to the latest edition of the AASHTO (American Association of State Highway and Transportation Officials) Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals criteria for a wind zone of 130 mph with a 50 year Design Life using Fatigue Category No. 2 and in accordance with the Massachusetts Department of Transportation - Highway Division Overhead Signal Structure Standard Drawings, dated December 2015. Design calculations and drawings bearing a registered Massachusetts professional engineering stamp shall be provided by the manufacturer certifying that these designs meet these requirements.

The pole shaft shall be fabricated from commercial quality hot rolled steel. The shaft shall have only one (1) longitudinal, automatically, electrically welded joint and shall have no intermediate horizontal joints or welds. Only one (1) length of steel sheet shall be used, which shall be formed into a continuously tapered shaft, having a taper of approximately .14" per foot.

After forming and welding, the tapered shaft shall be longitudinally cold rolled over a hardened steel mandrel under sufficient hydraulic pressure to flatten the weld and increase the physical characteristics of the shaft. The shaft shall meet the chemical and physical properties of ASTM A595 Grade A, having minimum yield strength of 55,000 psi. The cold rolling process shall form a 16 flute cross section for the pole upright shaft. The 16 fluted strain poles shall have 16 equally spaced Doric flutes, sharp and clear-cut throughout the entire length of the shaft.

The base plate shall conform to ASTM A36. It shall telescope the shaft and be attached by means of two continuous welds, one on the inside of the base at the end of the shaft, the other one on the outside at the top of the base.

Included with each pole shall be steel anchor bolts, complete with double hex nuts and washers. Nuts, washers and threaded areas of anchor bolts shall be fully hot-dipped galvanized to ASTM A153. Anchor bolts shall have minimum yield strength of 55,000 psi.

The pole shaft shall be furnished with a 4"x8" reinforcing handhole frame and a 1/2" – 13 UNC grounding provision.

Each pole shall be provided with an ornamental pole top. The pole top shall be mechanically attached to the top of the shaft to provide access for wiring signals secured by a J-hook wire support; also provided. Material shall conform to the requirements of AA-319 aluminum.

Couplings shall be welded into the pole for supporting pole side mounted banners, signs, and traffic or pedestrian signals as required. The installer shall supply angular orientations and vertical spacing of the couplings. No stainless steel banding shall be used.

All welding is to be performed in accordance with the requirements of AWS D1.1 in a shop certified to the American Institute of Steel Construction (AISC) Category SBR. The shop performing the work shall also be an approved fabricator of steel traffic poles for the Commonwealth of Massachusetts.

Poles, arms and other structural steel items shall be hot dipped galvanized to the requirements of ASTM A123. After galvanizing, the poles shall be baked at 375 degrees for two hours to remove entrapped hydrogen gas. The galvanized surfaces will then be solvent wiped to an SSPC-SP-1. After wiping, the galvanized exterior surfaces will be brush blasted to an SSPC-SP-7. Apply one coat of polyamide epoxy primer similar to Sherwin Williams DFT of 4-6 mils to all exterior surfaces. Finish paint with one coat of polyurethane enamel corothane, similar to Sherwin Williams polane 2.8 plus or hi-solids polyurethane to a DFT of 2-3 mils. After finish painting, each pole shall be wrapped in ripple kraft paper and packaged in corrugated cardboard prior to shipment.

Finish painted color of all signal supports shall be gloss black.

COMPENSATION

The Lump Sum price paid under this item shall include full compensation for furnishing all labor, materials, tools and equipment required to fabricate and transport the ornamental mast arm poles and matching pedestrian poles to the job site.

The cost for installation of these items including their foundations shall be included under the lump sum Item 816.01, Traffic Signal Location No. 1, lump sum Item 816.02, Traffic Signal Reconstruction Location No. 2, or lump sum Item 816.03 Traffic Signal Reconstruction Location No. 3.

ITEM 874.2
ITEM 874.4

TRAFFIC SIGN REMOVED AND RESET
TRAFFIC SIGN REMOVED AND STACKED

EACH
EACH

The work to be done under these items shall consist of the dismantling, removing, transporting and stacking of all existing street, warning, regulatory and guide, and miscellaneous signs and their supports, as directed by the Engineer.

Also included is the excavation of the existing foundations. If in the opinion of the Engineer, the existing foundation will not interfere with new construction, it may be removed to a depth of 6 inches below the existing ground, the hole backfilled with gravel and compacted, and the existing surfaces restored or replaced in kind.

All re-usable sign material within the Town of Longmeadow Layout, in the opinion of the Engineer, shall be delivered to the Longmeadow Department of Public Works.

All re-usable sign material within the Town of East Longmeadow Layouts, in the opinion of the Engineer, shall be delivered to the East Longmeadow Department of Public Works.

The existing signs shall not be removed until the new signs and structures replacing them are ready for traffic unless otherwise directed by the Engineer.

Payment for work under Item 874.4 - Traffic Signs Removed and Stacked, will be measured by each traffic sign removed and stacked which price shall be full compensation for dismantling, removing, transporting and stacking of the signs and their supports, excavation and disposal of the existing foundation, supplying and placing of gravel backfill and compaction, and the restoration or replacement in kind of disturbed surfaces.

ITEM 999.01**UNIFORMED TRAFFIC OFFICER CONTROL****EACH**

This item is a fixed Allowance of \$150,000 to be included in the total contract bid amount to be used by the contractor for police details for this project. Procedures for submittal, verification, processing and payment of Police invoices will be established by the Town and discussed at the pre-construction conference. There will be no compensation for Contractor's mark up, profit, or overhead for this Item.

If the final amount of the Allowance work exceeds the line item Allowance amount in the Agreement, the difference between the final amount and the line item Allowance amount stated in the Agreement will be treated as Additional Work. If the final amount of the Allowance work is less than the Allowance line item amount listed in the Agreement, a credit will be issued to Owner after all billings related to this particular line item Allowance work have been received by Contractor. This credit will be applied toward the final payment owing under the Agreement.

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SECTION C
STATE MANDATORY FORMS

SUBSECTION C-1
STATE MINIMUM WAGE RATES



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

Prevailing Wage Rates

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

CHARLES D. BAKER
Governor

ROSALIN ACOSTA
Secretary

KARYN E. POLITO
Lt. Governor

WILLIAM D MCKINNEY
Director

Awarding Authority: Town of Longmeadow
Contract Number: **City/Town:** LONGMEADOW
Description of Work: Improving road corridor including road construction paving, underground water & sewer improvements, electrical, plumbing, sidewalk, traffic signal upgrades, street light improvements, etc.
Job Location: Dwight Rd, Williams St, Maple Rd, Converse st

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
Construction						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.15	\$10.91	\$10.89	\$0.00	\$53.95
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.22	\$10.91	\$10.89	\$0.00	\$54.02
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.34	\$10.91	\$10.89	\$0.00	\$54.14
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2017	\$92.97	\$9.90	\$21.15	\$0.00	\$124.02
	08/01/2018	\$97.80	\$9.90	\$21.15	\$0.00	\$128.85
	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$31.25	\$7.70	\$13.01	\$0.00	\$51.96
	06/04/2018	\$32.03	\$7.70	\$13.01	\$0.00	\$52.74
	12/03/2018	\$32.80	\$7.70	\$13.01	\$0.00	\$53.51
	06/03/2019	\$33.61	\$7.70	\$13.01	\$0.00	\$54.32
	12/02/2019	\$34.42	\$7.70	\$13.01	\$0.00	\$55.13
For apprentice rates see "Apprentice- LABORER"						
AIR TRACK OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$31.25	\$7.70	\$11.01	\$0.00	\$49.96
	06/01/2018	\$32.02	\$7.70	\$11.01	\$0.00	\$50.73
	12/01/2018	\$32.78	\$7.70	\$11.01	\$0.00	\$51.49
	06/01/2019	\$33.57	\$7.70	\$11.01	\$0.00	\$52.28
	12/01/2019	\$34.36	\$7.70	\$11.01	\$0.00	\$53.07
	06/01/2020	\$35.17	\$7.70	\$11.01	\$0.00	\$53.88
	12/01/2020	\$35.98	\$7.70	\$11.01	\$0.00	\$54.69
	06/01/2021	\$36.82	\$7.70	\$11.01	\$0.00	\$55.53
	12/01/2021	\$37.65	\$7.70	\$11.01	\$0.00	\$56.36
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
ASBESTOS WORKER (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)</i>	12/01/2017	\$32.31	\$11.50	\$6.60	\$0.00	\$50.41
	06/01/2018	\$33.21	\$11.50	\$6.60	\$0.00	\$51.31
	12/01/2018	\$34.11	\$11.50	\$6.60	\$0.00	\$52.21
	06/01/2019	\$35.01	\$11.50	\$6.60	\$0.00	\$53.11
	12/01/2019	\$35.91	\$11.50	\$6.60	\$0.00	\$54.01
	06/01/2020	\$36.81	\$11.50	\$6.60	\$0.00	\$54.91
	12/01/2020	\$37.71	\$11.50	\$6.60	\$0.00	\$55.81
ASPHALT RAKER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ASPHALT RAKER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$30.75	\$7.70	\$11.01	\$0.00	\$49.46
	06/01/2018	\$31.52	\$7.70	\$11.01	\$0.00	\$50.23
	12/01/2018	\$32.28	\$7.70	\$11.01	\$0.00	\$50.99
	06/01/2019	\$33.07	\$7.70	\$11.01	\$0.00	\$51.78
	12/01/2019	\$33.86	\$7.70	\$11.01	\$0.00	\$52.57
	06/01/2020	\$34.67	\$7.70	\$11.01	\$0.00	\$53.38
	12/01/2020	\$35.48	\$7.70	\$11.01	\$0.00	\$54.19
	06/01/2021	\$36.32	\$7.70	\$11.01	\$0.00	\$55.03
	12/01/2021	\$37.15	\$7.70	\$11.01	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$34.18	\$10.99	\$13.12	\$0.00	\$58.29
	06/01/2018	\$34.79	\$10.99	\$13.39	\$0.00	\$59.17
	12/01/2018	\$35.39	\$10.99	\$13.66	\$0.00	\$60.04
	06/01/2019	\$35.90	\$10.99	\$13.93	\$0.00	\$60.82
	12/01/2019	\$36.50	\$10.99	\$14.20	\$0.00	\$61.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER OPERATOR <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$34.18	\$10.99	\$13.12	\$0.00	\$58.29
	06/01/2018	\$34.79	\$10.99	\$13.39	\$0.00	\$59.17
	12/01/2018	\$35.39	\$10.99	\$13.66	\$0.00	\$60.04
	06/01/2019	\$35.90	\$10.99	\$13.93	\$0.00	\$60.82
	12/01/2019	\$36.50	\$10.99	\$14.20	\$0.00	\$61.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
BATCH/CEMENT PLANT - ON SITE <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$33.65	\$10.99	\$13.12	\$0.00	\$57.76
	06/01/2018	\$34.26	\$10.99	\$13.39	\$0.00	\$58.64
	12/01/2018	\$34.86	\$10.99	\$13.66	\$0.00	\$59.51
	06/01/2019	\$35.37	\$10.99	\$13.93	\$0.00	\$60.29
	12/01/2019	\$35.97	\$10.99	\$14.20	\$0.00	\$61.16
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$31.25	\$7.70	\$13.01	\$0.00	\$51.96
	06/04/2018	\$32.03	\$7.70	\$13.01	\$0.00	\$52.74
	12/03/2018	\$32.80	\$7.70	\$13.01	\$0.00	\$53.51
	06/03/2019	\$33.61	\$7.70	\$13.01	\$0.00	\$54.32
	12/02/2019	\$34.42	\$7.70	\$13.01	\$0.00	\$55.13
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$31.25	\$7.70	\$11.01	\$0.00	\$49.96
	06/01/2018	\$32.02	\$7.70	\$11.01	\$0.00	\$50.73
	12/01/2018	\$32.78	\$7.70	\$11.01	\$0.00	\$51.49
	06/01/2019	\$33.57	\$7.70	\$11.01	\$0.00	\$52.28
	12/01/2019	\$34.36	\$7.70	\$11.01	\$0.00	\$53.07
	06/01/2020	\$35.17	\$7.70	\$11.01	\$0.00	\$53.88
	12/01/2020	\$35.98	\$7.70	\$11.01	\$0.00	\$54.69
	06/01/2021	\$36.82	\$7.70	\$11.01	\$0.00	\$55.53
	12/01/2021	\$37.65	\$7.70	\$11.01	\$0.00	\$56.36

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

BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2017	\$42.92	\$6.97	\$16.21	\$0.00	\$66.10
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Apprentice - BOILERMAKER - Local 29

Effective Date - 01/01/2017

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

Notes:

Apprentice to Journeyworker Ratio:1:5

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) <i>BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)</i>	03/01/2018	\$40.56	\$10.75	\$18.14	\$0.00	\$69.45
	08/01/2018	\$41.91	\$10.75	\$18.27	\$0.00	\$70.93
	02/01/2019	\$42.46	\$10.75	\$18.27	\$0.00	\$71.48
	08/01/2019	\$43.81	\$10.75	\$18.41	\$0.00	\$72.97
	02/01/2020	\$44.36	\$10.75	\$18.41	\$0.00	\$73.52
	08/01/2020	\$45.71	\$10.75	\$18.56	\$0.00	\$75.02
	02/01/2021	\$46.26	\$10.75	\$18.56	\$0.00	\$75.57
	08/01/2021	\$47.66	\$10.75	\$18.72	\$0.00	\$77.13
	02/01/2022	\$48.19	\$10.75	\$18.72	\$0.00	\$77.66

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2017	\$37.45	\$7.70	\$14.95	\$0.00	\$60.10
	06/01/2018	\$38.40	\$7.70	\$14.95	\$0.00	\$61.05
	12/01/2018	\$39.35	\$7.70	\$14.95	\$0.00	\$62.00
	06/01/2019	\$40.35	\$7.70	\$14.95	\$0.00	\$63.00
	12/01/2019	\$41.35	\$7.70	\$14.95	\$0.00	\$64.00
	06/01/2020	\$42.34	\$7.70	\$14.95	\$0.00	\$64.99
	12/01/2020	\$43.32	\$7.70	\$14.95	\$0.00	\$65.97
	06/01/2021	\$44.34	\$7.70	\$14.95	\$0.00	\$66.99
	12/01/2021	\$45.35	\$7.70	\$14.95	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2017	\$37.45	\$7.70	\$14.95	\$0.00	\$60.10
	06/01/2018	\$38.40	\$7.70	\$14.95	\$0.00	\$61.05
	12/01/2018	\$39.35	\$7.70	\$14.95	\$0.00	\$62.00
	06/01/2019	\$40.35	\$7.70	\$14.95	\$0.00	\$63.00
	12/01/2019	\$41.35	\$7.70	\$14.95	\$0.00	\$64.00
	06/01/2020	\$42.34	\$7.70	\$14.95	\$0.00	\$64.99
	12/01/2020	\$43.32	\$7.70	\$14.95	\$0.00	\$65.97
	06/01/2021	\$44.34	\$7.70	\$14.95	\$0.00	\$66.99
	12/01/2021	\$45.35	\$7.70	\$14.95	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS LOCAL 108 - HAMPDEN HAMPSHIRE FRANKLIN</i>	03/05/2018	\$36.56	\$8.26	\$15.00	\$0.00	\$59.82
	09/05/2018	\$37.60	\$8.26	\$15.00	\$0.00	\$60.86
	03/04/2019	\$38.64	\$8.26	\$15.00	\$0.00	\$61.90

Apprentice - CARPENTER - Local 108 Hampden Hampshire Franklin

Effective Date - 03/05/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.28	\$8.26	\$1.22	\$0.00	\$27.76
2	60	\$21.94	\$8.26	\$1.22	\$0.00	\$31.42
3	70	\$25.59	\$8.26	\$11.34	\$0.00	\$45.19
4	75	\$27.42	\$8.26	\$11.34	\$0.00	\$47.02
5	80	\$29.25	\$8.26	\$12.56	\$0.00	\$50.07
6	80	\$29.25	\$8.26	\$12.56	\$0.00	\$50.07
7	90	\$32.90	\$8.26	\$13.78	\$0.00	\$54.94
8	90	\$32.90	\$8.26	\$13.78	\$0.00	\$54.94

Effective Date - 09/05/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.80	\$8.26	\$1.22	\$0.00	\$28.28
2	60	\$22.56	\$8.26	\$1.22	\$0.00	\$32.04
3	70	\$26.32	\$8.26	\$11.34	\$0.00	\$45.92
4	75	\$28.20	\$8.26	\$11.34	\$0.00	\$47.80
5	80	\$30.08	\$8.26	\$12.56	\$0.00	\$50.90
6	80	\$30.08	\$8.26	\$12.56	\$0.00	\$50.90
7	90	\$33.84	\$8.26	\$13.78	\$0.00	\$55.88
8	90	\$33.84	\$8.26	\$13.78	\$0.00	\$55.88

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$25.93/ 3&4 \$30.77/ 5&6 \$46.41/ 7&8 \$51.29

Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME	10/01/2017	\$21.95	\$7.07	\$7.86	\$0.00	\$36.88
CARPENTERS LOCAL 108 - HAMPDEN HAMPSHIRE FRANKLIN	04/01/2018	\$22.33	\$7.07	\$7.86	\$0.00	\$37.26
	10/01/2018	\$22.71	\$7.07	\$7.86	\$0.00	\$37.64
	04/01/2019	\$23.10	\$7.07	\$7.86	\$0.00	\$38.03
	10/01/2019	\$23.49	\$7.07	\$7.86	\$0.00	\$38.42

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

Apprentice - CARPENTER (Wood Frame) - 108 Hampden Hampshire

Effective Date - 10/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$13.17	\$7.07	\$0.00	\$0.00	\$20.24
2	60	\$13.17	\$7.07	\$0.00	\$0.00	\$20.24
3	65	\$14.27	\$7.07	\$7.86	\$0.00	\$29.20
4	70	\$15.37	\$7.07	\$7.86	\$0.00	\$30.30
5	75	\$16.46	\$7.07	\$7.86	\$0.00	\$31.39
6	80	\$17.56	\$7.07	\$7.86	\$0.00	\$32.49
7	85	\$18.66	\$7.07	\$7.86	\$0.00	\$33.59
8	90	\$19.76	\$7.07	\$7.86	\$0.00	\$34.69

Effective Date - 04/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$13.40	\$7.07	\$0.00	\$0.00	\$20.47
2	60	\$13.40	\$7.07	\$0.00	\$0.00	\$20.47
3	65	\$14.51	\$7.07	\$7.86	\$0.00	\$29.44
4	70	\$15.63	\$7.07	\$7.86	\$0.00	\$30.56
5	75	\$16.75	\$7.07	\$7.86	\$0.00	\$31.68
6	80	\$17.86	\$7.07	\$7.86	\$0.00	\$32.79
7	85	\$18.98	\$7.07	\$7.86	\$0.00	\$33.91
8	90	\$20.10	\$7.07	\$7.86	\$0.00	\$35.03

Notes:
 % Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$16.95/ 3&4 \$23.89/ 5&6 \$30.30/ 7&8 \$32.49

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	01/01/2018	\$39.11	\$12.30	\$17.64	\$0.30	\$69.35
	07/01/2018	\$40.57	\$12.30	\$17.64	\$0.30	\$70.81
	01/01/2019	\$41.15	\$12.30	\$17.64	\$0.30	\$71.39
	07/01/2019	\$42.62	\$12.30	\$17.64	\$0.30	\$72.86
	01/01/2020	\$43.19	\$12.30	\$17.64	\$0.30	\$73.43

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CEMENT MASONRY/PLASTERING - Springfield/Pittsfield

Effective Date - 01/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.56	\$12.30	\$15.41	\$0.00	\$47.27
2	60	\$23.47	\$12.30	\$17.64	\$0.30	\$53.71
3	65	\$25.42	\$12.30	\$17.64	\$0.30	\$55.66
4	70	\$27.38	\$12.30	\$17.64	\$0.30	\$57.62
5	75	\$29.33	\$12.30	\$17.64	\$0.30	\$59.57
6	80	\$31.29	\$12.30	\$17.64	\$0.30	\$61.53
7	90	\$35.20	\$12.30	\$17.64	\$0.30	\$65.44

Effective Date - 07/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.29	\$12.30	\$15.41	\$0.00	\$48.00
2	60	\$24.34	\$12.30	\$17.64	\$0.30	\$54.58
3	65	\$26.37	\$12.30	\$17.64	\$0.30	\$56.61
4	70	\$28.40	\$12.30	\$17.64	\$0.30	\$58.64
5	75	\$30.43	\$12.30	\$17.64	\$0.30	\$60.67
6	80	\$32.46	\$12.30	\$17.64	\$0.30	\$62.70
7	90	\$36.51	\$12.30	\$17.64	\$0.30	\$66.75

Notes:

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

Apprentice to Journeyworker Ratio:1:3

CHAIN SAW OPERATOR LABORERS - ZONE 3 (BUILDING & SITE)	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63

For apprentice rates see "Apprentice- LABORER"

COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 98	12/01/2017	\$33.65	\$10.99	\$13.12	\$0.00	\$57.76
	06/01/2018	\$34.26	\$10.99	\$13.39	\$0.00	\$58.64
	12/01/2018	\$34.86	\$10.99	\$13.66	\$0.00	\$59.51
	06/01/2019	\$35.37	\$10.99	\$13.93	\$0.00	\$60.29
	12/01/2019	\$35.97	\$10.99	\$14.20	\$0.00	\$61.16

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CRANE OPERATOR OPERATING ENGINEERS LOCAL 98	12/01/2017	\$37.68	\$10.99	\$13.12	\$0.00	\$61.79
	06/01/2018	\$38.29	\$10.99	\$13.39	\$0.00	\$62.67
	12/01/2018	\$38.89	\$10.99	\$13.66	\$0.00	\$63.54
	06/01/2019	\$39.40	\$10.99	\$13.93	\$0.00	\$64.32
	12/01/2019	\$40.00	\$10.99	\$14.20	\$0.00	\$65.19

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE) PAINTERS LOCAL 35 - ZONE 3	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36
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Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2017

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

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN LABORERS - ZONE 3 (BUILDING & SITE)	12/01/2017	\$37.65	\$7.70	\$14.75	\$0.00	\$60.10
	06/01/2018	\$38.60	\$7.70	\$14.75	\$0.00	\$61.05
	12/01/2018	\$39.55	\$7.70	\$14.75	\$0.00	\$62.00
	06/01/2019	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	12/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 3 (BUILDING & SITE)	12/01/2017	\$38.65	\$7.70	\$14.75	\$0.00	\$61.10
	06/01/2018	\$39.60	\$7.70	\$14.75	\$0.00	\$62.05
	12/01/2018	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	06/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
	12/01/2019	\$42.55	\$7.70	\$14.75	\$0.00	\$65.00

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS LABORERS - ZONE 3 (BUILDING & SITE)	12/01/2017	\$38.40	\$7.70	\$14.75	\$0.00	\$60.85
	06/01/2018	\$39.35	\$7.70	\$14.75	\$0.00	\$61.80
	12/01/2018	\$40.30	\$7.70	\$14.75	\$0.00	\$62.75
	06/01/2019	\$41.30	\$7.70	\$14.75	\$0.00	\$63.75
	12/01/2019	\$42.30	\$7.70	\$14.75	\$0.00	\$64.75

For apprentice rates see "Apprentice- LABORER"

DEMO: CONCRETE CUTTER/SAWYER LABORERS - ZONE 3 (BUILDING & SITE)	12/01/2017	\$38.65	\$7.70	\$14.75	\$0.00	\$61.10
	06/01/2018	\$39.60	\$7.70	\$14.75	\$0.00	\$62.05
	12/01/2018	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	06/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
	12/01/2019	\$42.55	\$7.70	\$14.75	\$0.00	\$65.00

For apprentice rates see "Apprentice- LABORER"

DEMO: JACKHAMMER OPERATOR LABORERS - ZONE 3 (BUILDING & SITE)	12/01/2017	\$38.40	\$7.70	\$14.75	\$0.00	\$60.85
	06/01/2018	\$39.35	\$7.70	\$14.75	\$0.00	\$61.80
	12/01/2018	\$40.30	\$7.70	\$14.75	\$0.00	\$62.75
	06/01/2019	\$41.30	\$7.70	\$14.75	\$0.00	\$63.75
	12/01/2019	\$42.30	\$7.70	\$14.75	\$0.00	\$64.75

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/01/2017	\$37.65	\$7.70	\$14.75	\$0.00	\$60.10
	06/01/2018	\$38.60	\$7.70	\$14.75	\$0.00	\$61.05
	12/01/2018	\$39.55	\$7.70	\$14.75	\$0.00	\$62.00
	06/01/2019	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	12/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2017	\$61.98	\$9.90	\$21.15	\$0.00	\$93.03
	08/01/2018	\$65.20	\$9.90	\$21.15	\$0.00	\$96.25
	08/01/2019	\$68.52	\$9.90	\$21.15	\$0.00	\$99.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2017	\$44.27	\$9.90	\$21.15	\$0.00	\$75.32
	08/01/2018	\$46.57	\$9.90	\$21.15	\$0.00	\$77.62
	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2017	\$66.41	\$9.90	\$21.15	\$0.00	\$97.46
	08/01/2018	\$69.86	\$9.90	\$21.15	\$0.00	\$100.91
	08/01/2019	\$73.41	\$9.90	\$21.15	\$0.00	\$104.46
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2017	\$92.97	\$9.90	\$21.15	\$0.00	\$124.02
	08/01/2018	\$97.80	\$9.90	\$21.15	\$0.00	\$128.85
	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
ELECTRICIAN (Including Core Drilling) <i>ELECTRICIANS LOCAL 7</i>	12/31/2017	\$40.51	\$10.00	\$11.42	\$0.00	\$61.93
	07/01/2018	\$41.21	\$10.25	\$11.74	\$0.00	\$63.20
	12/30/2018	\$41.91	\$10.50	\$12.06	\$0.00	\$64.47
	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ELECTRICIAN - Local 7

Effective Date - 12/31/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$16.20	\$5.40	\$0.49	\$0.00	\$22.09
2	45	\$18.23	\$5.40	\$0.55	\$0.00	\$24.18
3	50	\$20.26	\$10.00	\$6.91	\$0.00	\$37.17
4	55	\$22.28	\$10.00	\$6.97	\$0.00	\$39.25
5	65	\$26.33	\$10.00	\$8.09	\$0.00	\$44.42
6	70	\$28.36	\$10.00	\$9.15	\$0.00	\$47.51

Effective Date - 07/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$16.48	\$5.55	\$0.49	\$0.00	\$22.52
2	45	\$18.54	\$5.55	\$0.56	\$0.00	\$24.65
3	50	\$20.61	\$10.25	\$6.92	\$0.00	\$37.78
4	55	\$22.67	\$10.25	\$6.98	\$0.00	\$39.90
5	65	\$26.79	\$10.25	\$8.10	\$0.00	\$45.14
6	70	\$28.85	\$10.25	\$9.17	\$0.00	\$48.27

Notes:

Steps 1-2 are 1000 hrs; Steps 3-6 are 1500 hrs.

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

ELEVATOR CONSTRUCTOR	01/01/2017	\$49.90	\$15.28	\$15.71	\$0.00	\$80.89
ELEVATOR CONSTRUCTORS LOCAL 41						

Apprentice - ELEVATOR CONSTRUCTOR - Local 41

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.95	\$15.28	\$15.71	\$0.00	\$55.94
2	55	\$27.45	\$15.28	\$15.71	\$0.00	\$58.44
3	65	\$32.44	\$15.28	\$15.71	\$0.00	\$63.43
4	70	\$34.93	\$15.28	\$15.71	\$0.00	\$65.92
5	80	\$39.92	\$15.28	\$15.71	\$0.00	\$70.91

Notes:

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

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER	01/01/2017	\$34.93	\$15.28	\$15.71	\$0.00	\$65.92
ELEVATOR CONSTRUCTORS LOCAL 41						

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$30.75	\$7.70	\$11.01	\$0.00	\$49.46
	06/01/2018	\$31.52	\$7.70	\$11.01	\$0.00	\$50.23
	12/01/2018	\$32.28	\$7.70	\$11.01	\$0.00	\$50.99
	06/01/2019	\$33.07	\$7.70	\$11.01	\$0.00	\$51.78
	12/01/2019	\$33.86	\$7.70	\$11.01	\$0.00	\$52.57
	06/01/2020	\$34.67	\$7.70	\$11.01	\$0.00	\$53.38
	12/01/2020	\$35.48	\$7.70	\$11.01	\$0.00	\$54.19
	06/01/2021	\$36.32	\$7.70	\$11.01	\$0.00	\$55.03
	12/01/2021	\$37.15	\$7.70	\$11.01	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 98</i>	06/01/1999	\$18.84	\$4.80	\$4.10	\$0.00	\$27.74
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 98</i>	06/01/1999	\$21.33	\$4.80	\$4.10	\$0.00	\$30.23
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 98</i>	06/01/1999	\$22.33	\$4.80	\$4.10	\$0.00	\$31.23
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 7</i>	12/31/2017	\$40.51	\$10.00	\$11.42	\$0.00	\$61.93
	07/01/2018	\$41.21	\$10.25	\$11.74	\$0.00	\$63.20
	12/30/2018	\$41.91	\$10.50	\$12.06	\$0.00	\$64.47
	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING <i>ELECTRICIANS LOCAL 7</i>	12/31/2017	\$40.51	\$10.00	\$11.42	\$0.00	\$61.93
	07/01/2018	\$41.21	\$10.25	\$11.74	\$0.00	\$63.20
	12/30/2018	\$41.91	\$10.50	\$12.06	\$0.00	\$64.47
	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$33.65	\$10.99	\$13.12	\$0.00	\$57.76
	06/01/2018	\$34.26	\$10.99	\$13.39	\$0.00	\$58.64
	12/01/2018	\$34.86	\$10.99	\$13.66	\$0.00	\$59.51
	06/01/2019	\$35.37	\$10.99	\$13.93	\$0.00	\$60.29
	12/01/2019	\$35.97	\$10.99	\$14.20	\$0.00	\$61.16

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - OPERATING ENGINEERS - Local 98 Class 3

Effective Date - 12/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.19	\$10.99	\$13.12	\$0.00	\$44.30
2	70	\$23.56	\$10.99	\$13.12	\$0.00	\$47.67
3	80	\$26.92	\$10.99	\$13.12	\$0.00	\$51.03
4	90	\$30.29	\$10.99	\$13.12	\$0.00	\$54.40

Effective Date - 06/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.56	\$10.99	\$13.39	\$0.00	\$44.94
2	70	\$23.98	\$10.99	\$13.39	\$0.00	\$48.36
3	80	\$27.41	\$10.99	\$13.39	\$0.00	\$51.79
4	90	\$30.83	\$10.99	\$13.39	\$0.00	\$55.21

Notes:

Steps 1-2 are 1000 hrs.; Steps 3-4 are 2000 hrs.

Apprentice to Journeyworker Ratio:1:6

FLAGGER & SIGNALER (HEAVY & HIGHWAY)	12/01/2017	\$21.50	\$7.70	\$11.01	\$0.00	\$40.21
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	06/01/2018	\$21.50	\$7.70	\$11.01	\$0.00	\$40.21
	12/01/2018	\$22.50	\$7.70	\$11.01	\$0.00	\$41.21
	06/01/2019	\$22.50	\$7.70	\$11.01	\$0.00	\$41.21
	12/01/2019	\$23.50	\$7.70	\$11.01	\$0.00	\$42.21
	06/01/2020	\$23.50	\$7.70	\$11.01	\$0.00	\$42.21
	12/01/2020	\$24.50	\$7.70	\$11.01	\$0.00	\$43.21
	06/01/2021	\$24.50	\$7.70	\$11.01	\$0.00	\$43.21
	12/01/2021	\$24.50	\$7.70	\$11.01	\$0.00	\$43.21

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

FLOORCOVERER	03/01/2016	\$32.60	\$8.55	\$14.42	\$0.00	\$55.57
FLOORCOVERERS LOCAL 2168 ZONE III						

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - FLOORCOVERER - Local 2168 Zone III

Effective Date - 03/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.30	\$8.55	\$1.20	\$0.00	\$26.05
2	55	\$17.93	\$8.55	\$1.20	\$0.00	\$27.68
3	60	\$19.56	\$8.55	\$10.82	\$0.00	\$38.93
4	65	\$21.19	\$8.55	\$10.82	\$0.00	\$40.56
5	70	\$22.82	\$8.55	\$12.02	\$0.00	\$43.39
6	75	\$24.45	\$8.55	\$12.02	\$0.00	\$45.02
7	80	\$26.08	\$8.55	\$13.22	\$0.00	\$47.85
8	85	\$27.71	\$8.55	\$13.22	\$0.00	\$49.48

Notes: Steps are 750 hrs.
 % After 09/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)
 Step 1&2 \$24.42/ 3&4 \$28.84/ 5&6 \$43.39/ 7&8 \$47.85

Apprentice to Journeyworker Ratio:1:1

FORK LIFT <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$33.87	\$10.99	\$13.12	\$0.00	\$57.98
	06/01/2018	\$34.48	\$10.99	\$13.39	\$0.00	\$58.86
	12/01/2018	\$35.08	\$10.99	\$13.66	\$0.00	\$59.73
	06/01/2019	\$35.59	\$10.99	\$13.93	\$0.00	\$60.51
	12/01/2019	\$36.19	\$10.99	\$14.20	\$0.00	\$61.38
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATORS/LIGHTING PLANTS <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$30.42	\$10.99	\$13.12	\$0.00	\$54.53
	06/01/2018	\$31.03	\$10.99	\$13.39	\$0.00	\$55.41
	12/01/2018	\$31.63	\$10.99	\$13.66	\$0.00	\$56.28
	06/01/2019	\$32.14	\$10.99	\$13.93	\$0.00	\$57.06
	12/01/2019	\$32.74	\$10.99	\$14.20	\$0.00	\$57.93
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 1333</i>	06/01/2017	\$36.28	\$10.25	\$8.95	\$0.00	\$55.48
	06/01/2018	\$37.18	\$10.40	\$9.35	\$0.00	\$56.93
	06/01/2019	\$38.18	\$10.60	\$9.90	\$0.00	\$58.68
	06/01/2020	\$39.18	\$10.80	\$10.45	\$0.00	\$60.43

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - GLAZIER - Local 1333

Effective Date - 06/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.14	\$10.25	\$1.45	\$0.00	\$29.84
2	56	\$20.41	\$10.25	\$1.45	\$0.00	\$32.11
3	63	\$22.68	\$10.25	\$1.95	\$0.00	\$34.88
4	69	\$24.94	\$10.25	\$1.95	\$0.00	\$37.14
5	75	\$27.21	\$10.25	\$2.45	\$0.00	\$39.91
6	81	\$29.48	\$10.25	\$2.45	\$0.00	\$42.18
7	88	\$31.75	\$10.25	\$8.95	\$0.00	\$50.95
8	94	\$34.01	\$10.25	\$8.95	\$0.00	\$53.21

Effective Date - 06/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.59	\$10.40	\$1.60	\$0.00	\$30.59
2	56	\$20.91	\$10.40	\$1.60	\$0.00	\$32.91
3	63	\$23.24	\$10.40	\$2.10	\$0.00	\$35.74
4	69	\$25.56	\$10.40	\$2.10	\$0.00	\$38.06
5	75	\$27.89	\$10.40	\$2.60	\$0.00	\$40.89
6	81	\$30.21	\$10.40	\$2.60	\$0.00	\$43.21
7	88	\$32.53	\$10.40	\$9.35	\$0.00	\$52.28
8	94	\$34.86	\$10.40	\$9.35	\$0.00	\$54.61

Notes:

Apprentice to Journeyworker Ratio:1:3

GRADER/TRENCHING MACHINE/DERRICK <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$34.18	\$10.99	\$13.12	\$0.00	\$58.29
	06/01/2018	\$34.79	\$10.99	\$13.39	\$0.00	\$59.17
	12/01/2018	\$35.39	\$10.99	\$13.66	\$0.00	\$60.04
	06/01/2019	\$35.90	\$10.99	\$13.93	\$0.00	\$60.82
	12/01/2019	\$36.50	\$10.99	\$14.20	\$0.00	\$61.69

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 63</i>	01/01/2018	\$32.99	\$10.64	\$16.22	\$1.77	\$61.62
	07/01/2018	\$33.74	\$10.64	\$16.22	\$1.77	\$62.37
	01/01/2019	\$34.74	\$10.64	\$16.22	\$1.77	\$63.37
	07/01/2019	\$35.74	\$10.64	\$16.22	\$1.77	\$64.37
	01/01/2020	\$36.99	\$10.64	\$16.22	\$1.77	\$65.62

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 7</i>	12/31/2017	\$40.51	\$10.00	\$11.42	\$0.00	\$61.93
	07/01/2018	\$41.21	\$10.25	\$11.74	\$0.00	\$63.20
	12/30/2018	\$41.91	\$10.50	\$12.06	\$0.00	\$64.47
	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01

For apprentice rates see "Apprentice- ELECTRICIAN"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 63</i>	01/01/2018	\$32.99	\$10.64	\$16.22	\$1.77	\$61.62
	07/01/2018	\$33.74	\$10.64	\$16.22	\$1.77	\$62.37
	01/01/2019	\$34.74	\$10.64	\$16.22	\$1.77	\$63.37
	07/01/2019	\$35.74	\$10.64	\$16.22	\$1.77	\$64.37
	01/01/2020	\$36.99	\$10.64	\$16.22	\$1.77	\$65.62
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING -WATER) <i>PLUMBERS & PIPEFITTERS LOCAL 104</i>	09/17/2017	\$39.26	\$8.50	\$15.30	\$0.00	\$63.06
	03/17/2018	\$39.51	\$8.50	\$15.80	\$0.00	\$63.81
	09/17/2018	\$40.26	\$8.50	\$15.80	\$0.00	\$64.56
	03/17/2019	\$41.01	\$8.50	\$15.80	\$0.00	\$65.31
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PLUMBERS & PIPEFITTERS LOCAL 104</i>	09/17/2017	\$39.26	\$8.50	\$15.30	\$0.00	\$63.06
	03/17/2018	\$39.51	\$8.50	\$15.80	\$0.00	\$63.81
	09/17/2018	\$40.26	\$8.50	\$15.80	\$0.00	\$64.56
	03/17/2019	\$41.01	\$8.50	\$15.80	\$0.00	\$65.31
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$31.25	\$7.70	\$11.01	\$0.00	\$49.96
	06/01/2018	\$32.02	\$7.70	\$11.01	\$0.00	\$50.73
	12/01/2018	\$32.78	\$7.70	\$11.01	\$0.00	\$51.49
	06/01/2019	\$33.57	\$7.70	\$11.01	\$0.00	\$52.28
	12/01/2019	\$34.36	\$7.70	\$11.01	\$0.00	\$53.07
	06/01/2020	\$35.17	\$7.70	\$11.01	\$0.00	\$53.88
	12/01/2020	\$35.98	\$7.70	\$11.01	\$0.00	\$54.69
	06/01/2021	\$36.82	\$7.70	\$11.01	\$0.00	\$55.53
12/01/2021	\$37.65	\$7.70	\$11.01	\$0.00	\$56.36	
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
INSULATOR (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)</i>	09/01/2017	\$37.67	\$11.75	\$14.20	\$0.00	\$63.62
	09/01/2018	\$39.47	\$11.75	\$14.20	\$0.00	\$65.42
	09/01/2019	\$41.47	\$11.75	\$14.20	\$0.00	\$67.42

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 09/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.84	\$11.75	\$10.45	\$0.00	\$41.04
2	60	\$22.60	\$11.75	\$11.20	\$0.00	\$45.55
3	70	\$26.37	\$11.75	\$11.95	\$0.00	\$50.07
4	80	\$30.14	\$11.75	\$12.70	\$0.00	\$54.59

Effective Date - 09/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.74	\$11.75	\$10.45	\$0.00	\$41.94
2	60	\$23.68	\$11.75	\$11.20	\$0.00	\$46.63
3	70	\$27.63	\$11.75	\$11.95	\$0.00	\$51.33
4	80	\$31.58	\$11.75	\$12.70	\$0.00	\$56.03

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (SPRINGFIELD AREA)</i>	03/16/2017	\$32.39	\$7.80	\$19.60	\$0.00	\$59.79
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Apprentice - IRONWORKER - Local 7 Springfield

Effective Date - 03/16/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$19.43	\$7.80	\$19.60	\$0.00	\$46.83
2	70	\$22.67	\$7.80	\$19.60	\$0.00	\$50.07
3	75	\$24.29	\$7.80	\$19.60	\$0.00	\$51.69
4	80	\$25.91	\$7.80	\$19.60	\$0.00	\$53.31
5	85	\$27.53	\$7.80	\$19.60	\$0.00	\$54.93
6	90	\$29.15	\$7.80	\$19.60	\$0.00	\$56.55

Notes:

Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:

JACKHAMMER & PAVING BREAKER OPERATOR <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER	12/04/2017	\$30.50	\$7.70	\$13.01	\$0.00	\$51.21
LABORERS - ZONE 3 (BUILDING & SITE)	06/04/2018	\$31.28	\$7.70	\$13.01	\$0.00	\$51.99
	12/03/2018	\$32.05	\$7.70	\$13.01	\$0.00	\$52.76
	06/03/2019	\$32.86	\$7.70	\$13.01	\$0.00	\$53.57
	12/02/2019	\$33.67	\$7.70	\$13.01	\$0.00	\$54.38

Apprentice - LABORER - Zone 3 Building & Site

Effective Date - 12/04/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.30	\$7.70	\$13.01	\$0.00	\$39.01
2	70	\$21.35	\$7.70	\$13.01	\$0.00	\$42.06
3	80	\$24.40	\$7.70	\$13.01	\$0.00	\$45.11
4	90	\$27.45	\$7.70	\$13.01	\$0.00	\$48.16

Effective Date - 06/04/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.77	\$7.70	\$13.01	\$0.00	\$39.48
2	70	\$21.90	\$7.70	\$13.01	\$0.00	\$42.61
3	80	\$25.02	\$7.70	\$13.01	\$0.00	\$45.73
4	90	\$28.15	\$7.70	\$13.01	\$0.00	\$48.86

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER (HEAVY & HIGHWAY)	12/01/2017	\$30.50	\$7.70	\$11.01	\$0.00	\$49.21
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	06/01/2018	\$31.27	\$7.70	\$11.01	\$0.00	\$49.98
	12/01/2018	\$32.03	\$7.70	\$11.01	\$0.00	\$50.74
	06/01/2019	\$32.82	\$7.70	\$11.01	\$0.00	\$51.53
	12/01/2019	\$33.61	\$7.70	\$11.01	\$0.00	\$52.32
	06/01/2020	\$34.42	\$7.70	\$11.01	\$0.00	\$53.13
	12/01/2020	\$35.23	\$7.70	\$11.01	\$0.00	\$53.94
	06/01/2021	\$36.07	\$7.70	\$11.01	\$0.00	\$54.78
	12/01/2021	\$36.90	\$7.70	\$11.01	\$0.00	\$55.61

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - LABORER (Heavy & Highway) - Zone 3

Effective Date - 12/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.30	\$7.70	\$11.01	\$0.00	\$37.01
2	70	\$21.35	\$7.70	\$11.01	\$0.00	\$40.06
3	80	\$24.40	\$7.70	\$11.01	\$0.00	\$43.11
4	90	\$27.45	\$7.70	\$11.01	\$0.00	\$46.16

Effective Date - 06/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.76	\$7.70	\$11.01	\$0.00	\$37.47
2	70	\$21.89	\$7.70	\$11.01	\$0.00	\$40.60
3	80	\$25.02	\$7.70	\$11.01	\$0.00	\$43.73
4	90	\$28.14	\$7.70	\$11.01	\$0.00	\$46.85

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.50	\$7.70	\$13.01	\$0.00	\$51.21
	06/04/2018	\$31.28	\$7.70	\$13.01	\$0.00	\$51.99
	12/03/2018	\$32.05	\$7.70	\$13.01	\$0.00	\$52.76
	06/03/2019	\$32.86	\$7.70	\$13.01	\$0.00	\$53.57
	12/02/2019	\$33.67	\$7.70	\$13.01	\$0.00	\$54.38

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/01/2017	\$30.60	\$7.70	\$13.01	\$0.00	\$51.31
	06/01/2018	\$31.38	\$7.70	\$13.01	\$0.00	\$52.09
	12/01/2018	\$32.15	\$7.70	\$13.01	\$0.00	\$52.86
	06/01/2019	\$32.96	\$7.70	\$13.01	\$0.00	\$53.67
	12/01/2019	\$33.77	\$7.70	\$13.01	\$0.00	\$54.48

For apprentice rates see "Apprentice- LABORER"

LABORER: MASON TENDER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$31.50	\$7.70	\$13.01	\$0.00	\$52.21
	06/04/2018	\$32.28	\$7.70	\$13.01	\$0.00	\$52.99
	12/03/2018	\$33.05	\$7.70	\$13.01	\$0.00	\$53.76
	06/03/2019	\$33.86	\$7.70	\$13.01	\$0.00	\$54.57
	12/02/2019	\$34.67	\$7.70	\$13.01	\$0.00	\$55.38

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MASON TENDER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$30.75	\$7.70	\$11.01	\$0.00	\$49.46
	06/01/2018	\$31.52	\$7.70	\$11.01	\$0.00	\$50.23
	12/01/2018	\$32.28	\$7.70	\$11.01	\$0.00	\$50.99
	06/01/2019	\$33.07	\$7.70	\$11.01	\$0.00	\$51.78
	12/01/2019	\$33.86	\$7.70	\$11.01	\$0.00	\$52.57
	06/01/2020	\$34.67	\$7.70	\$11.01	\$0.00	\$53.38
	12/01/2020	\$35.48	\$7.70	\$11.01	\$0.00	\$54.19
	06/01/2021	\$36.32	\$7.70	\$11.01	\$0.00	\$55.03
	12/01/2021	\$37.15	\$7.70	\$11.01	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.50	\$7.70	\$13.01	\$0.00	\$51.21
	06/04/2018	\$31.28	\$7.70	\$13.01	\$0.00	\$51.99
	12/03/2018	\$32.05	\$7.70	\$13.01	\$0.00	\$52.76
	06/03/2019	\$32.86	\$7.70	\$13.01	\$0.00	\$53.57
	12/02/2019	\$33.67	\$7.70	\$13.01	\$0.00	\$54.38
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.50	\$7.70	\$13.01	\$0.00	\$51.21
	06/04/2018	\$31.28	\$7.70	\$13.01	\$0.00	\$51.99
	12/03/2018	\$32.05	\$7.70	\$13.01	\$0.00	\$52.76
	06/03/2019	\$32.86	\$7.70	\$13.01	\$0.00	\$53.57
	12/02/2019	\$33.67	\$7.70	\$13.01	\$0.00	\$54.38
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 3 (BUILDING & SITE)</i>	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$30.75	\$7.70	\$11.01	\$0.00	\$49.46
	06/01/2018	\$31.52	\$7.70	\$11.01	\$0.00	\$50.23
	12/01/2018	\$32.28	\$7.70	\$11.01	\$0.00	\$50.99
	06/01/2019	\$33.07	\$7.70	\$11.01	\$0.00	\$51.78
	12/01/2019	\$33.86	\$7.70	\$11.01	\$0.00	\$52.57
	06/01/2020	\$34.67	\$7.70	\$11.01	\$0.00	\$53.38
	12/01/2020	\$35.48	\$7.70	\$11.01	\$0.00	\$54.19
	06/01/2021	\$36.32	\$7.70	\$11.01	\$0.00	\$55.03
	12/01/2021	\$37.15	\$7.70	\$11.01	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE</i>	03/01/2018	\$33.67	\$10.75	\$17.65	\$0.00	\$62.07
	08/01/2018	\$34.67	\$10.75	\$17.76	\$0.00	\$63.18
	02/01/2019	\$35.17	\$10.75	\$17.76	\$0.00	\$63.68
	08/01/2019	\$36.17	\$10.75	\$17.87	\$0.00	\$64.79
	02/01/2020	\$36.67	\$10.75	\$17.87	\$0.00	\$65.29
	08/01/2020	\$37.67	\$10.75	\$17.99	\$0.00	\$66.41
	02/01/2021	\$38.17	\$10.75	\$17.99	\$0.00	\$66.91
	08/01/2021	\$39.17	\$10.75	\$18.12	\$0.00	\$68.04
	02/01/2022	\$39.62	\$10.75	\$18.12	\$0.00	\$68.49

Apprentice - MARBLE-TILE FINISHER-Local 3 Marble/Tile (Spr/Pitt)

Effective Date - 03/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.84	\$10.75	\$17.65	\$0.00	\$45.24
2	60	\$20.20	\$10.75	\$17.65	\$0.00	\$48.60
3	70	\$23.57	\$10.75	\$17.65	\$0.00	\$51.97
4	80	\$26.94	\$10.75	\$17.65	\$0.00	\$55.34
5	90	\$30.30	\$10.75	\$17.65	\$0.00	\$58.70

Notes:

Apprentice to Journeyworker Ratio:1:5

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

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MARBLE-TILE-TERRAZZO MECH - Local 3 Marble/Tile (Spr/Pitt)

Effective Date - 02/01/2018

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

Effective Date - 08/01/2018

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

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$34.18	\$10.99	\$13.12	\$0.00	\$58.29
	06/01/2018	\$34.79	\$10.99	\$13.39	\$0.00	\$59.17
	12/01/2018	\$35.39	\$10.99	\$13.66	\$0.00	\$60.04
	06/01/2019	\$35.90	\$10.99	\$13.93	\$0.00	\$60.82
	12/01/2019	\$36.50	\$10.99	\$14.20	\$0.00	\$61.69

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANIC/WELDER/BOOM TRUCK <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$33.65	\$10.99	\$13.12	\$0.00	\$57.76
	06/01/2018	\$34.26	\$10.99	\$13.39	\$0.00	\$58.64
	12/01/2018	\$34.86	\$10.99	\$13.66	\$0.00	\$59.51
	06/01/2019	\$35.37	\$10.99	\$13.93	\$0.00	\$60.29
	12/01/2019	\$35.97	\$10.99	\$14.20	\$0.00	\$61.16

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 3) <i>MILLWRIGHTS LOCAL 1121 - Zone 3</i>	10/01/2017	\$34.64	\$9.90	\$18.50	\$0.00	\$63.04
	04/01/2018	\$35.46	\$9.90	\$18.50	\$0.00	\$63.86
	10/01/2018	\$36.29	\$9.90	\$18.50	\$0.00	\$64.69
	04/01/2019	\$37.11	\$9.90	\$18.50	\$0.00	\$65.51

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MILLWRIGHT - Local 1121 Zone 3

Effective Date - 10/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$19.05	\$9.90	\$5.31	\$0.00	\$34.26
2	65	\$22.52	\$9.90	\$15.13	\$0.00	\$47.55
3	75	\$25.98	\$9.90	\$16.10	\$0.00	\$51.98
4	85	\$29.44	\$9.90	\$17.06	\$0.00	\$56.40

Effective Date - 04/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$19.50	\$9.90	\$5.31	\$0.00	\$34.71
2	65	\$23.05	\$9.90	\$15.13	\$0.00	\$48.08
3	75	\$26.60	\$9.90	\$16.10	\$0.00	\$52.60
4	85	\$30.14	\$9.90	\$17.06	\$0.00	\$57.10

Notes:

Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
<i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63

For apprentice rates see "Apprentice- LABORER"

OILER	12/01/2017	\$29.34	\$10.99	\$13.12	\$0.00	\$53.45
<i>OPERATING ENGINEERS LOCAL 98</i>	06/01/2018	\$29.95	\$10.99	\$13.39	\$0.00	\$54.33
	12/01/2018	\$30.55	\$10.99	\$13.66	\$0.00	\$55.20
	06/01/2019	\$31.06	\$10.99	\$13.93	\$0.00	\$55.98
	12/01/2019	\$31.66	\$10.99	\$14.20	\$0.00	\$56.85

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OTHER POWER DRIVEN EQUIPMENT - CLASS VI	12/01/2017	\$27.36	\$10.99	\$13.12	\$0.00	\$51.47
<i>OPERATING ENGINEERS LOCAL 98</i>	06/01/2018	\$27.97	\$10.99	\$13.39	\$0.00	\$52.35
	12/01/2018	\$28.57	\$10.99	\$13.66	\$0.00	\$53.22
	06/01/2019	\$29.08	\$10.99	\$13.93	\$0.00	\$54.00
	12/01/2019	\$29.68	\$10.99	\$14.20	\$0.00	\$54.87

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS)	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36
<i>PAINTERS LOCAL 35 - ZONE 3</i>						

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 3 - BRUSH REPAINT

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$15.30	\$7.85	\$0.00	\$0.00	\$23.15
2	55	\$16.83	\$7.85	\$1.57	\$0.00	\$26.25
3	60	\$18.36	\$7.85	\$1.71	\$0.00	\$27.92
4	65	\$19.89	\$7.85	\$1.85	\$0.00	\$29.59
5	70	\$21.42	\$7.85	\$11.45	\$0.00	\$40.72
6	75	\$22.95	\$7.85	\$11.59	\$0.00	\$42.39
7	80	\$24.48	\$7.85	\$11.73	\$0.00	\$44.06
8	90	\$27.54	\$7.85	\$12.02	\$0.00	\$47.41

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/01/2017	\$30.50	\$7.70	\$11.01	\$0.00	\$49.21
	06/01/2018	\$31.27	\$7.70	\$11.01	\$0.00	\$49.98
	12/01/2018	\$32.03	\$7.70	\$11.01	\$0.00	\$50.74
	06/01/2019	\$32.82	\$7.70	\$11.01	\$0.00	\$51.53
	12/01/2019	\$33.61	\$7.70	\$11.01	\$0.00	\$52.32
	06/01/2020	\$34.42	\$7.70	\$11.01	\$0.00	\$53.13
	12/01/2020	\$35.23	\$7.70	\$11.01	\$0.00	\$53.94
	06/01/2021	\$36.07	\$7.70	\$11.01	\$0.00	\$54.78
	12/01/2021	\$36.90	\$7.70	\$11.01	\$0.00	\$55.61

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

PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2012	\$30.28	\$9.07	\$8.00	\$0.00	\$47.35
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 (ZONE 3)	08/01/2017	\$39.42	\$9.90	\$21.15	\$0.00	\$70.47
	08/01/2018	\$41.57	\$9.90	\$21.15	\$0.00	\$72.62
	08/01/2019	\$43.79	\$9.90	\$21.15	\$0.00	\$74.84

For apprentice rates see "Apprentice- PILE DRIVER"

PILE DRIVER PILE DRIVER LOCAL 56 (ZONE 3)	08/01/2017	\$39.42	\$9.90	\$21.15	\$0.00	\$70.47
	08/01/2018	\$41.57	\$9.90	\$21.15	\$0.00	\$72.62
	08/01/2019	\$43.79	\$9.90	\$21.15	\$0.00	\$74.84

Apprentice - PILE DRIVER - Local 56 Zone 3

Effective Date - 08/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Notes: Apprentice wages shall be no less than the following Steps;
(Same as set in Zone 1)

1\$53.19/2\$57.61/3\$62.04/4\$64.25/5\$66.47/6\$66.47/7\$70.89/8\$70.89

Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIPELAYER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
PIPELAYER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$30.75	\$7.70	\$11.01	\$0.00	\$49.46
	06/01/2018	\$31.52	\$7.70	\$11.01	\$0.00	\$50.23
	12/01/2018	\$32.28	\$7.70	\$11.01	\$0.00	\$50.99
	06/01/2019	\$33.07	\$7.70	\$11.01	\$0.00	\$51.78
	12/01/2019	\$33.86	\$7.70	\$11.01	\$0.00	\$52.57
	06/01/2020	\$34.67	\$7.70	\$11.01	\$0.00	\$53.38
	12/01/2020	\$35.48	\$7.70	\$11.01	\$0.00	\$54.19
	06/01/2021	\$36.32	\$7.70	\$11.01	\$0.00	\$55.03
	12/01/2021	\$37.15	\$7.70	\$11.01	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
PLUMBER & PIPEFITTER <i>PLUMBERS & PIPEFITTERS LOCAL 104</i>	09/17/2017	\$39.26	\$8.50	\$15.30	\$0.00	\$63.06
	03/17/2018	\$39.51	\$8.50	\$15.80	\$0.00	\$63.81
	09/17/2018	\$40.26	\$8.50	\$15.80	\$0.00	\$64.56
	03/17/2019	\$41.01	\$8.50	\$15.80	\$0.00	\$65.31

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PLUMBER/PIPEFITTER - Local 104

Effective Date - 09/17/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$17.67	\$8.50	\$9.05	\$0.00	\$35.22
2	50	\$19.63	\$8.50	\$9.05	\$0.00	\$37.18
3	55	\$21.59	\$8.50	\$9.05	\$0.00	\$39.14
4	60	\$23.56	\$8.50	\$9.05	\$0.00	\$41.11
5	65	\$25.52	\$8.50	\$9.05	\$0.00	\$43.07
6	70	\$27.48	\$8.50	\$9.05	\$0.00	\$45.03
7	75	\$29.45	\$8.50	\$9.05	\$0.00	\$47.00
8	80	\$31.41	\$8.50	\$9.05	\$0.00	\$48.96
9	80	\$31.41	\$8.50	\$15.30	\$0.00	\$55.21
10	80	\$31.41	\$8.50	\$15.30	\$0.00	\$55.21

Effective Date - 03/17/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$17.78	\$8.50	\$9.30	\$0.00	\$35.58
2	50	\$19.76	\$8.50	\$9.30	\$0.00	\$37.56
3	55	\$21.73	\$8.50	\$9.30	\$0.00	\$39.53
4	60	\$23.71	\$8.50	\$9.30	\$0.00	\$41.51
5	65	\$25.68	\$8.50	\$9.30	\$0.00	\$43.48
6	70	\$27.66	\$8.50	\$9.30	\$0.00	\$45.46
7	75	\$29.63	\$8.50	\$9.30	\$0.00	\$47.43
8	80	\$31.61	\$8.50	\$9.30	\$0.00	\$49.41
9	80	\$31.61	\$8.50	\$15.80	\$0.00	\$55.91
10	80	\$31.61	\$8.50	\$15.80	\$0.00	\$55.91

Notes: **1:1,2:5,3:9,4:12

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 104	09/17/2017	\$39.26	\$8.50	\$15.30	\$0.00	\$63.06
	03/17/2018	\$39.51	\$8.50	\$15.80	\$0.00	\$63.81
	09/17/2018	\$40.26	\$8.50	\$15.80	\$0.00	\$64.56
	03/17/2019	\$41.01	\$8.50	\$15.80	\$0.00	\$65.31

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS - ZONE 3 (HEAVY & HIGHWAY)	12/01/2017	\$30.75	\$7.70	\$11.01	\$0.00	\$49.46
	06/01/2018	\$31.52	\$7.70	\$11.01	\$0.00	\$50.23
	12/01/2018	\$32.28	\$7.70	\$11.01	\$0.00	\$50.99
	06/01/2019	\$33.07	\$7.70	\$11.01	\$0.00	\$51.78
	12/01/2019	\$33.86	\$7.70	\$11.01	\$0.00	\$52.57
	06/01/2020	\$34.67	\$7.70	\$11.01	\$0.00	\$53.38
	12/01/2020	\$35.48	\$7.70	\$11.01	\$0.00	\$54.19
	06/01/2021	\$36.32	\$7.70	\$11.01	\$0.00	\$55.03
	12/01/2021	\$37.15	\$7.70	\$11.01	\$0.00	\$55.86

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
POWDERMAN & BLASTER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$31.50	\$7.70	\$13.01	\$0.00	\$52.21
	06/04/2018	\$32.28	\$7.70	\$13.01	\$0.00	\$52.99
	12/03/2018	\$33.05	\$7.70	\$13.01	\$0.00	\$53.76
	06/03/2019	\$33.86	\$7.70	\$13.01	\$0.00	\$54.57
	12/02/2019	\$34.67	\$7.70	\$13.01	\$0.00	\$55.38
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$31.50	\$7.70	\$11.01	\$0.00	\$50.21
	06/01/2018	\$32.27	\$7.70	\$11.01	\$0.00	\$50.98
	12/01/2018	\$33.03	\$7.70	\$11.01	\$0.00	\$51.74
	06/01/2019	\$33.82	\$7.70	\$11.01	\$0.00	\$52.53
	12/01/2019	\$34.61	\$7.70	\$11.01	\$0.00	\$53.32
	06/01/2020	\$35.42	\$7.70	\$11.01	\$0.00	\$54.13
	12/01/2020	\$36.23	\$7.70	\$11.01	\$0.00	\$54.94
	06/01/2021	\$37.07	\$7.70	\$11.01	\$0.00	\$55.78
	12/01/2021	\$37.90	\$7.70	\$11.01	\$0.00	\$56.61
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$34.18	\$10.99	\$13.12	\$0.00	\$58.29
	06/01/2018	\$34.79	\$10.99	\$13.39	\$0.00	\$59.17
	12/01/2018	\$35.39	\$10.99	\$13.66	\$0.00	\$60.04
	06/01/2019	\$35.90	\$10.99	\$13.93	\$0.00	\$60.82
	12/01/2019	\$36.50	\$10.99	\$14.20	\$0.00	\$61.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$33.65	\$10.99	\$13.12	\$0.00	\$57.76
	06/01/2018	\$34.26	\$10.99	\$13.39	\$0.00	\$58.64
	12/01/2018	\$34.86	\$10.99	\$13.66	\$0.00	\$59.51
	06/01/2019	\$35.37	\$10.99	\$13.93	\$0.00	\$60.29
	12/01/2019	\$35.97	\$10.99	\$14.20	\$0.00	\$61.16
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 404</i>	05/01/2016	\$21.01	\$10.23	\$9.40	\$0.00	\$40.64
For apprentice rates see "Apprentice- LABORER"						
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
ROLLER OPERATOR <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$33.04	\$10.99	\$13.12	\$0.00	\$57.15
	06/01/2018	\$33.65	\$10.99	\$13.39	\$0.00	\$58.03
	12/01/2018	\$34.25	\$10.99	\$13.66	\$0.00	\$58.90
	06/01/2019	\$34.76	\$10.99	\$13.93	\$0.00	\$59.68
	12/01/2019	\$35.36	\$10.99	\$14.20	\$0.00	\$60.55
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Coal tar pitch) <i>ROOFERS LOCAL 248</i>	07/16/2017	\$32.25	\$10.00	\$13.91	\$0.00	\$56.16
	07/16/2018	\$33.65	\$10.00	\$14.01	\$0.00	\$57.66
	07/16/2019	\$35.30	\$10.00	\$14.11	\$0.00	\$59.41
For apprentice rates see "Apprentice- ROOFER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg) ROOFERS LOCAL 248	07/16/2017	\$31.75	\$10.00	\$13.41	\$0.00	\$55.16
	07/16/2018	\$33.15	\$10.00	\$13.51	\$0.00	\$56.66
	07/16/2019	\$34.80	\$10.00	\$13.61	\$0.00	\$58.41

Apprentice - ROOFER - Local 248

Effective Date - 07/16/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$19.05	\$10.00	\$0.00	\$0.00	\$29.05
2	65	\$20.64	\$10.00	\$13.41	\$0.00	\$44.05
3	70	\$22.23	\$10.00	\$13.41	\$0.00	\$45.64
4	75	\$23.81	\$10.00	\$13.41	\$0.00	\$47.22
5	80	\$25.40	\$10.00	\$13.41	\$0.00	\$48.81
6	85	\$26.99	\$10.00	\$13.41	\$0.00	\$50.40
7	90	\$28.58	\$10.00	\$13.41	\$0.00	\$51.99
8	95	\$30.16	\$10.00	\$13.41	\$0.00	\$53.57

Effective Date - 07/16/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$19.89	\$10.00	\$0.00	\$0.00	\$29.89
2	65	\$21.55	\$10.00	\$13.51	\$0.00	\$45.06
3	70	\$23.21	\$10.00	\$13.51	\$0.00	\$46.72
4	75	\$24.86	\$10.00	\$13.51	\$0.00	\$48.37
5	80	\$26.52	\$10.00	\$13.51	\$0.00	\$50.03
6	85	\$28.18	\$10.00	\$13.51	\$0.00	\$51.69
7	90	\$29.84	\$10.00	\$13.51	\$0.00	\$53.35
8	95	\$31.49	\$10.00	\$13.51	\$0.00	\$55.00

Notes:

Steps are 750 hrs.Roofers(Tear Off)1:1; Same as above

Apprentice to Journeyworker Ratio:1:3

ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 248	07/16/2017	\$32.25	\$10.00	\$13.91	\$0.00	\$56.16
	07/16/2018	\$33.65	\$10.00	\$14.01	\$0.00	\$57.66
	07/16/2019	\$35.30	\$10.00	\$14.11	\$0.00	\$59.41

For apprentice rates see "Apprentice- ROOFER"

SCRAPER OPERATING ENGINEERS LOCAL 98	12/01/2017	\$33.65	\$10.99	\$13.12	\$0.00	\$57.76
	06/01/2018	\$34.26	\$10.99	\$13.39	\$0.00	\$58.64
	12/01/2018	\$34.86	\$10.99	\$13.66	\$0.00	\$59.51
	06/01/2019	\$35.37	\$10.99	\$13.93	\$0.00	\$60.29
	12/01/2019	\$35.97	\$10.99	\$14.20	\$0.00	\$61.16

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS) OPERATING ENGINEERS LOCAL 98	12/01/2017	\$33.04	\$10.99	\$13.12	\$0.00	\$57.15
	06/01/2018	\$33.65	\$10.99	\$13.39	\$0.00	\$58.03
	12/01/2018	\$34.25	\$10.99	\$13.66	\$0.00	\$58.90
	06/01/2019	\$34.76	\$10.99	\$13.93	\$0.00	\$59.68
	12/01/2019	\$35.36	\$10.99	\$14.20	\$0.00	\$60.55

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
SELF-PROPELLED POWER BROOM <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$30.42	\$10.99	\$13.12	\$0.00	\$54.53
	06/01/2018	\$31.03	\$10.99	\$13.39	\$0.00	\$55.41
	12/01/2018	\$31.63	\$10.99	\$13.66	\$0.00	\$56.28
	06/01/2019	\$32.14	\$10.99	\$13.93	\$0.00	\$57.06
	12/01/2019	\$32.74	\$10.99	\$14.20	\$0.00	\$57.93

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
SHEETMETAL WORKER <i>SHEETMETAL WORKERS LOCAL 63</i>	01/01/2018	\$32.99	\$10.64	\$16.22	\$1.77	\$61.62
	07/01/2018	\$33.74	\$10.64	\$16.22	\$1.77	\$62.37
	01/01/2019	\$34.74	\$10.64	\$16.22	\$1.77	\$63.37
	07/01/2019	\$35.74	\$10.64	\$16.22	\$1.77	\$64.37
	01/01/2020	\$36.99	\$10.64	\$16.22	\$1.77	\$65.62

Apprentice - SHEET METAL WORKER - Local 63

Effective Date - 01/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$14.85	\$6.21	\$4.67	\$0.00	\$25.73
2	50	\$16.50	\$6.55	\$5.19	\$0.00	\$28.24
3	55	\$18.14	\$6.88	\$9.33	\$1.03	\$35.38
4	60	\$19.79	\$7.22	\$9.33	\$1.09	\$37.43
5	65	\$21.44	\$7.55	\$9.33	\$1.15	\$39.47
6	70	\$23.09	\$7.88	\$9.33	\$1.21	\$41.51
7	75	\$24.74	\$8.22	\$9.33	\$1.27	\$43.56
8	80	\$26.39	\$9.30	\$15.18	\$1.53	\$52.40
9	85	\$28.04	\$9.64	\$15.18	\$1.59	\$54.45
10	90	\$29.69	\$9.98	\$15.18	\$1.65	\$56.50

Effective Date - 07/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$15.18	\$6.21	\$4.67	\$0.00	\$26.06
2	50	\$16.87	\$6.55	\$5.19	\$0.00	\$28.61
3	55	\$18.56	\$6.88	\$9.33	\$1.04	\$35.81
4	60	\$20.24	\$7.22	\$9.33	\$1.10	\$37.89
5	65	\$21.93	\$7.55	\$9.33	\$1.16	\$39.97
6	70	\$23.62	\$7.88	\$9.33	\$1.22	\$42.05
7	75	\$25.31	\$8.22	\$9.33	\$1.29	\$44.15
8	80	\$26.99	\$9.30	\$15.18	\$1.54	\$53.01
9	85	\$28.68	\$9.64	\$15.18	\$1.61	\$55.11
10	90	\$30.37	\$9.98	\$15.18	\$1.67	\$57.20

Notes:

Apprentice to Journeyworker Ratio:1:3

SIGN ERECTOR <i>PAINTERS LOCAL 35 - ZONE 3</i>	06/01/2013	\$25.81	\$7.07	\$7.05	\$0.00	\$39.93
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Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SIGN ERECTOR - Local 35 Zone 3

Effective Date - 06/01/2013

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

Notes:
Steps are 4 mos.

Apprentice to Journeyworker Ratio:1:1

SPECIALIZED EARTH MOVING EQUIP < 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.73	\$10.91	\$10.89	\$0.00	\$54.53
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 669</i>	01/01/2018	\$40.26	\$9.67	\$12.63	\$0.00	\$62.56
	04/01/2018	\$41.51	\$9.67	\$12.88	\$0.00	\$64.06
	01/01/2019	\$41.51	\$10.02	\$13.08	\$0.00	\$64.61

Apprentice - SPRINKLER FITTER - Local 669

Effective Date - 01/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.12	\$7.75	\$0.00	\$0.00	\$25.87
2	50	\$20.13	\$7.75	\$0.00	\$0.00	\$27.88
3	55	\$22.14	\$9.67	\$6.80	\$0.00	\$38.61
4	60	\$24.16	\$9.67	\$6.80	\$0.00	\$40.63
5	65	\$26.17	\$9.67	\$7.05	\$0.00	\$42.89
6	70	\$28.18	\$9.67	\$7.05	\$0.00	\$44.90
7	75	\$30.20	\$9.67	\$7.05	\$0.00	\$46.92
8	80	\$32.21	\$9.67	\$7.05	\$0.00	\$48.93
9	85	\$34.22	\$9.67	\$7.05	\$0.00	\$50.94
10	90	\$36.23	\$9.67	\$7.05	\$0.00	\$52.95

Effective Date - 04/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.68	\$7.75	\$0.00	\$0.00	\$26.43
2	50	\$20.76	\$7.75	\$0.00	\$0.00	\$28.51
3	55	\$22.83	\$9.67	\$7.05	\$0.00	\$39.55
4	60	\$24.91	\$9.67	\$7.05	\$0.00	\$41.63
5	65	\$26.98	\$9.67	\$7.30	\$0.00	\$43.95
6	70	\$29.06	\$9.67	\$7.30	\$0.00	\$46.03
7	75	\$31.13	\$9.67	\$7.30	\$0.00	\$48.10
8	80	\$33.21	\$9.67	\$7.30	\$0.00	\$50.18
9	85	\$35.28	\$9.67	\$7.30	\$0.00	\$52.25
10	90	\$37.36	\$9.67	\$7.30	\$0.00	\$54.33

Notes:

Apprentice to Journeyworker Ratio:1:1

TELECOMMUNICATION TECHNICIAN	12/31/2017	\$40.51	\$10.00	\$11.42	\$0.00	\$61.93
ELECTRICIANS LOCAL 7	07/01/2018	\$41.21	\$10.25	\$11.74	\$0.00	\$63.20
	12/30/2018	\$41.91	\$10.50	\$12.06	\$0.00	\$64.47
	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - TELECOMMUNICATION TECHNICIAN - Local 7

Effective Date - 12/31/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$16.20	\$5.40	\$0.49	\$0.00	\$22.09
2	45	\$18.23	\$5.40	\$0.55	\$0.00	\$24.18
3	50	\$20.26	\$10.00	\$6.91	\$0.00	\$37.17
4	55	\$22.28	\$10.00	\$6.97	\$0.00	\$39.25
5	65	\$26.33	\$10.00	\$8.09	\$0.00	\$44.42
6	70	\$28.36	\$10.00	\$9.15	\$0.00	\$47.51

Effective Date - 07/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$16.48	\$5.55	\$0.49	\$0.00	\$22.52
2	45	\$18.54	\$5.55	\$0.56	\$0.00	\$24.65
3	50	\$20.61	\$10.25	\$6.92	\$0.00	\$37.78
4	55	\$22.67	\$10.25	\$6.98	\$0.00	\$39.90
5	65	\$26.79	\$10.25	\$8.10	\$0.00	\$45.14
6	70	\$28.85	\$10.25	\$9.17	\$0.00	\$48.27

Notes:

Steps are 800 hours

Apprentice to Journeyworker Ratio:1:1

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

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - TERRAZZO FINISHER-Local 3 Marble/Tile (Spr/Ptt)

Effective Date - 02/01/2018

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

Effective Date - 08/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.18	\$10.75	\$20.16	\$0.00	\$57.09
2	60	\$31.41	\$10.75	\$20.16	\$0.00	\$62.32
3	70	\$36.65	\$10.75	\$20.16	\$0.00	\$67.56
4	80	\$41.88	\$10.75	\$20.16	\$0.00	\$72.79
5	90	\$47.12	\$10.75	\$20.16	\$0.00	\$78.03

Notes:

Apprentice to Journeyworker Ratio:1:5

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

For apprentice rates see "Apprentice- LABORER"

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

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2017	\$37.45	\$7.70	\$14.95	\$0.00	\$60.10
	06/01/2018	\$38.40	\$7.70	\$14.95	\$0.00	\$61.05
	12/01/2018	\$39.35	\$7.70	\$14.95	\$0.00	\$62.00
	06/01/2019	\$40.35	\$7.70	\$14.95	\$0.00	\$63.00
	12/01/2019	\$41.35	\$7.70	\$14.95	\$0.00	\$64.00
	06/01/2020	\$42.34	\$7.70	\$14.95	\$0.00	\$64.99
	12/01/2020	\$43.32	\$7.70	\$14.95	\$0.00	\$65.97
	06/01/2021	\$44.34	\$7.70	\$14.95	\$0.00	\$66.99
	12/01/2021	\$45.35	\$7.70	\$14.95	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
TRACTORS <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2017	\$33.04	\$10.99	\$13.12	\$0.00	\$57.15
	06/01/2018	\$33.65	\$10.99	\$13.39	\$0.00	\$58.03
	12/01/2018	\$34.25	\$10.99	\$13.66	\$0.00	\$58.90
	06/01/2019	\$34.76	\$10.99	\$13.93	\$0.00	\$59.68
	12/01/2019	\$35.36	\$10.99	\$14.20	\$0.00	\$60.55
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$33.02	\$10.91	\$10.89	\$0.00	\$54.82
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2017	\$49.73	\$7.70	\$15.35	\$0.00	\$72.78
	06/01/2018	\$50.68	\$7.70	\$15.35	\$0.00	\$73.73
	12/01/2018	\$51.63	\$7.70	\$15.35	\$0.00	\$74.68
	06/01/2019	\$52.63	\$7.70	\$15.35	\$0.00	\$75.68
	12/01/2019	\$53.63	\$7.70	\$15.35	\$0.00	\$76.68
	06/01/2020	\$54.62	\$7.70	\$15.35	\$0.00	\$77.67
	12/01/2020	\$55.60	\$7.70	\$15.35	\$0.00	\$78.65
	06/01/2021	\$56.62	\$7.70	\$15.35	\$0.00	\$79.67
	12/01/2021	\$57.63	\$7.70	\$15.35	\$0.00	\$80.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2017	\$51.73	\$7.70	\$15.35	\$0.00	\$74.78
	06/01/2018	\$52.68	\$7.70	\$15.35	\$0.00	\$75.73
	12/01/2018	\$53.63	\$7.70	\$15.35	\$0.00	\$76.68
	06/01/2019	\$54.63	\$7.70	\$15.35	\$0.00	\$77.68
	12/01/2019	\$55.63	\$7.70	\$15.35	\$0.00	\$78.68
	06/01/2020	\$56.62	\$7.70	\$15.35	\$0.00	\$79.67
	12/01/2020	\$57.60	\$7.70	\$15.35	\$0.00	\$80.65
	06/01/2021	\$58.62	\$7.70	\$15.35	\$0.00	\$81.67
	12/01/2021	\$59.63	\$7.70	\$15.35	\$0.00	\$82.68
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2017	\$41.80	\$7.70	\$15.35	\$0.00	\$64.85
	06/01/2018	\$42.75	\$7.70	\$15.35	\$0.00	\$65.80
	12/01/2018	\$43.70	\$7.70	\$15.35	\$0.00	\$66.75
	06/01/2019	\$44.70	\$7.70	\$15.35	\$0.00	\$67.75
	12/01/2019	\$45.70	\$7.70	\$15.35	\$0.00	\$68.75
	06/01/2020	\$46.69	\$7.70	\$15.35	\$0.00	\$69.74
	12/01/2020	\$47.67	\$7.70	\$15.35	\$0.00	\$70.72
	06/01/2021	\$48.69	\$7.70	\$15.35	\$0.00	\$71.74
	12/01/2021	\$49.70	\$7.70	\$15.35	\$0.00	\$72.75
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2017	\$43.80	\$7.70	\$15.35	\$0.00	\$66.85
	06/01/2018	\$44.75	\$7.70	\$15.35	\$0.00	\$67.80
	12/01/2018	\$45.70	\$7.70	\$15.35	\$0.00	\$68.75
	06/01/2019	\$46.70	\$7.70	\$15.35	\$0.00	\$69.75
	12/01/2019	\$47.70	\$7.70	\$15.35	\$0.00	\$70.75
	06/01/2020	\$48.69	\$7.70	\$15.35	\$0.00	\$71.74
	12/01/2020	\$49.67	\$7.70	\$15.35	\$0.00	\$72.72
	06/01/2021	\$50.69	\$7.70	\$15.35	\$0.00	\$73.74
	12/01/2021	\$51.70	\$7.70	\$15.35	\$0.00	\$74.75
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
WAGON DRILL OPERATOR <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/04/2017	\$30.75	\$7.70	\$13.01	\$0.00	\$51.46
	06/04/2018	\$31.53	\$7.70	\$13.01	\$0.00	\$52.24
	12/03/2018	\$32.30	\$7.70	\$13.01	\$0.00	\$53.01
	06/03/2019	\$33.11	\$7.70	\$13.01	\$0.00	\$53.82
	12/02/2019	\$33.92	\$7.70	\$13.01	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2017	\$30.75	\$7.70	\$11.01	\$0.00	\$49.46
	06/01/2018	\$31.52	\$7.70	\$11.01	\$0.00	\$50.23
	12/01/2018	\$32.28	\$7.70	\$11.01	\$0.00	\$50.99
	06/01/2019	\$33.07	\$7.70	\$11.01	\$0.00	\$51.78
	12/01/2019	\$33.86	\$7.70	\$11.01	\$0.00	\$52.57
	06/01/2020	\$34.67	\$7.70	\$11.01	\$0.00	\$53.38
	12/01/2020	\$35.48	\$7.70	\$11.01	\$0.00	\$54.19
	06/01/2021	\$36.32	\$7.70	\$11.01	\$0.00	\$55.03
	12/01/2021	\$37.15	\$7.70	\$11.01	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
WATER METER INSTALLER <i>PLUMBERS & PIPEFITTERS LOCAL 104</i>	09/17/2017	\$39.26	\$8.50	\$15.30	\$0.00	\$63.06
	03/17/2018	\$39.51	\$8.50	\$15.80	\$0.00	\$63.81
	09/17/2018	\$40.26	\$8.50	\$15.80	\$0.00	\$64.56
	03/17/2019	\$41.01	\$8.50	\$15.80	\$0.00	\$65.31
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
Outside Electrical - West						
EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</i>	09/03/2017	\$39.92	\$8.00	\$12.41	\$0.00	\$60.33
	09/02/2018	\$42.26	\$8.00	\$12.50	\$0.00	\$62.76
	09/01/2019	\$44.67	\$8.00	\$12.55	\$0.00	\$65.22

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</i>	09/03/2017	\$25.83	\$8.00	\$5.33	\$0.00	\$39.16
	09/02/2018	\$28.17	\$8.00	\$5.41	\$0.00	\$41.58
	09/01/2019	\$30.58	\$8.00	\$5.48	\$0.00	\$44.06
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN / TRUCK DRIVER <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</i>	09/03/2017	\$35.22	\$8.00	\$10.82	\$0.00	\$54.04
	09/02/2018	\$37.56	\$8.00	\$10.89	\$0.00	\$56.45
	09/01/2019	\$39.97	\$8.00	\$10.96	\$0.00	\$58.93
For apprentice rates see "Apprentice- LINEMAN"						
HEAVY EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</i>	09/03/2017	\$42.26	\$8.00	\$13.08	\$0.00	\$63.34
	09/02/2018	\$44.60	\$8.00	\$13.15	\$0.00	\$65.75
	09/01/2019	\$47.01	\$8.00	\$13.22	\$0.00	\$68.23
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</i>	09/03/2017	\$46.96	\$8.00	\$15.41	\$0.00	\$70.37
	09/02/2018	\$49.30	\$8.00	\$15.48	\$0.00	\$72.78
	09/01/2019	\$51.71	\$8.00	\$15.55	\$0.00	\$75.26

Apprentice - LINEMAN (Outside Electrical) - West Local 42

Effective Date - 09/03/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$28.18	\$8.00	\$3.35	\$0.00	\$39.53
2	65	\$30.52	\$8.00	\$3.42	\$0.00	\$41.94
3	70	\$32.87	\$8.00	\$3.49	\$0.00	\$44.36
4	75	\$35.22	\$8.00	\$5.06	\$0.00	\$48.28
5	80	\$37.57	\$8.00	\$5.13	\$0.00	\$50.70
6	85	\$39.92	\$8.00	\$5.20	\$0.00	\$53.12
7	90	\$42.26	\$8.00	\$7.28	\$0.00	\$57.54

Effective Date - 09/02/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$29.58	\$8.00	\$3.39	\$0.00	\$40.97
2	65	\$32.05	\$8.00	\$3.46	\$0.00	\$43.51
3	70	\$34.51	\$8.00	\$3.54	\$0.00	\$46.05
4	75	\$36.98	\$8.00	\$5.11	\$0.00	\$50.09
5	80	\$39.44	\$8.00	\$5.18	\$0.00	\$52.62
6	85	\$41.91	\$8.00	\$5.26	\$0.00	\$55.17
7	90	\$44.37	\$8.00	\$7.33	\$0.00	\$59.70

Notes:

Apprentice to Journeyworker Ratio:1:2

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</i>	01/01/2016	\$28.98	\$4.25	\$3.12	\$0.00	\$36.35
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</i>	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</i>	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63
TRACTOR-TRAILER DRIVER <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</i>	09/03/2017	\$39.92	\$8.00	\$12.41	\$0.00	\$60.33
	09/02/2018	\$42.26	\$8.00	\$12.50	\$0.00	\$62.76
	09/01/2019	\$44.67	\$8.00	\$12.55	\$0.00	\$65.22
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42</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 - WEST LOCAL 42</i>	01/31/2016	\$16.32	\$3.55	\$0.00	\$0.00	\$19.87
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is on the ground. This classification does not apply to wholesale tree removal.						

Additional 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. Apprentices 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.

SUBSECTION C-2

WEEKLY PAYROLL RECORDS & STATEMENT OF COMPLIANCE

WEEKLY PAYROLL RECORDS REPORT
& STATEMENT OF COMPLIANCE

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

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

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

<p style="margin: 0;">STATEMENT OF COMPLIANCE</p> <p style="text-align: right; margin: 0;">_____, 20____</p>	
I, _____ <small>(Name of signatory party)</small>	_____ <small>(Title)</small>
do hereby state: That I pay or supervise the payment of the persons employed by	
_____ <small>(Contractor, subcontractor or public body)</small>	on the _____ <small>(Building or project)</small>
and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws.	
Signature _____	
Title _____	

DEPARTMENT OF LABOR & INDUSTRIES, 100 CAMBRIDGE STREET, 11TH FL., BOSTON, MA 02202

SECTION D
BOND DESCRIPTIONS

SUBSECTION D-1
BID BOND DESCRIPTION

TOWN OF LONGMEADOW
DEPARTMENT OF PUBLIC WORKS

BID BOND DESCRIPTION

This Bid Bond (Proposal Guaranty) shall conform to the conditions and stipulations described in Articles 7 and 16 of the General Conditions of the Specifications plus the following: it shall be in the amount of five percent (5%) of the bidder's proposed bid amount, shall accompany the bidder's proposal, and shall be in a form satisfactory to the Town of Longmeadow. This bond shall be furnished by a surety company incorporated pursuant to Chapter 175, Section 105 of the General Laws of Massachusetts or authorized to do business in the Commonwealth of Massachusetts under Chapter 175, Section 106 of said General Laws, and which is satisfactory to the Town of Longmeadow. Otherwise, this bond may be provided in the form of United States currency; or a certified, treasurer's or cashier's check made payable to the Town of Longmeadow and drawn on a responsible and reputable bank or trust company which is satisfactory to the Town of Longmeadow.

The Bid Bond (Proposal Guaranty) shall be sealed with the bid submission and recorded at the opening, where it shall be recorded and the bidder given a receipt for such. *Any bidder who fails to provide the Guaranty as described above shall not be eligible for the contract award.*

SUBSECTION D-2

PAYMENT AND PERFORMANCE BOND DESCRIPTION

**TOWN OF LONGMEADOW
DEPARTMENT OF PUBLIC WORKS**

PAYMENT BOND DESCRIPTION

This Payment Bond shall conform to the conditions and stipulations described in Article 17 of the General Conditions of the Specifications plus the following: it shall be in the amount of one hundred percent (100%) of the proposed bid amount and shall be in a form satisfactory to the Town of Longmeadow. This bond shall be furnished by a surety company incorporated pursuant to Chapter 175, Section 105 of the General Laws of Massachusetts or authorized to do business in the Commonwealth of Massachusetts under Chapter 175, Section 106 of said General Laws, and which is satisfactory to the Town of Longmeadow. Otherwise, this bond may be provided in the form of United States currency; or a certified, treasurer's or cashier's check made payable to the Town of Longmeadow and drawn on a responsible and reputable bank or trust company which is satisfactory to the Town of Longmeadow.

**TOWN OF LONGMEADOW
DEPARTMENT OF PUBLIC WORKS**

PERFORMANCE BOND DESCRIPTION

This Performance Bond shall conform to the conditions and stipulations described in Article 17 of the General Conditions of the Specifications plus the following: it shall be in the amount of one hundred percent (100%) of the proposed bid amount and shall be in a form satisfactory to the Town of Longmeadow. This bond shall be furnished by a surety company incorporated pursuant to Chapter 175, Section 105 of the General Laws of Massachusetts or authorized to do business in the Commonwealth of Massachusetts under Chapter 175, Section 106 of said General Laws, and which is satisfactory to the Town of Longmeadow. Otherwise, this bond may be provided in the form of United States currency; or a certified, treasurer's or cashier's check made payable to the Town of Longmeadow and drawn on a responsible and reputable bank or trust company which is satisfactory to the Town of Longmeadow.

SECTION E
BID SUBMISSION FORMS AND CONTRACT FORMS

SUBSECTION E-1
BID SUBMISSION FORMS

BID SUBMISSION FORMS
DWIGHT ROAD CORRIDOR IMPROVEMENTS
TOWN OF LONGMEADOW, MASSACHUSETTS

The undersigned, as Bidder, declares that the only person or parties, as principals, interested in this Proposal, are named below; that he/she has carefully examined the location of the proposed work, has taken into consideration all of the difficulties likely to be met within the doing of the work, that he/she also has carefully examined the annexed form of the contract and the plans therein referred to; and he/she proposes that he/she will Contract with the Town of Longmeadow, Massachusetts, in the form of the Contract annexed, to provide all the labor, machinery, tools, apparatus, and other means of construction and to do all of the work and furnish all the materials specified in the Contract in the manner and time therein prescribed and in accordance with the requirements of the Engineer as herein set forth, and that he/she will take in full payment therefore the following sums to wit: (The item numbers listed on the attached Bid Proposal Worksheet refer to items from the Commonwealth of Massachusetts, MassHighway, Standard Specifications for Highways and Bridges)

Time for Completion:

If this Proposal shall be accepted by the Town of Longmeadow, Massachusetts, the undersigned bidder agrees to meet the requirements regarding the beginning of the work and he/she further agrees that all work must be completed by **November 30, 2018**, the Substantial Completion Date.

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

DATE _____

SIGNATURE OF BIDDER: _____

NAME OF BIDDER (print): _____

BUSINESS ADDRESS: _____

PHONE: _____

FAX: _____

EMAIL: _____

BID SUBMISSION FORMS
DWIGHT ROAD CORRIDOR IMPROVEMENTS
TOWN OF LONGMEADOW, MASSACHUSETTS

FEDERAL ID/OR SOCIAL SECURITY: _____

In compliance with Article 5, Paragraph C of the General Conditions of the Specifications, the bidder, if this bid is submitted by firm, partnership, or corporation, shall list required information below:

Name: _____

Address of Home Office: _____

BID SUBMISSION FORMS
DWIGHT ROAD CORRIDOR IMPROVEMENTS
TOWN OF LONGMEADOW, MASSACHUSETTS

CERTIFICATE OF NON-COLLUSION

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

Name of Person Signing Bid or Proposal

Name of Business

Date

ACKNOWLEDGEMENT OF ISSUED ADDENDA

The Bidder acknowledges the receipt of the following issued addenda numbers:

_____, _____, _____, _____, _____, _____, _____

BID SUBMISSION FORMS
DWIGHT ROAD CORRIDOR IMPROVEMENTS
TOWN OF LONGMEADOW, MASSACHUSETTS

NAME OF BIDDER: _____

Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

BID FORM

Dwight Road Corridor Improvements					
Longmeadow/East Longmeadow, MA					
BASE BID					
ITEM	QTY.	Item with Unit Bid Price Written in Words	In Figures	UNIT	TOTAL
<u>101.</u>	<u>0.14</u>	<u>CLEARING AND GRUBBING</u>		A	
<u>102.1</u>	<u>250</u>	<u>TREE TRIMMING</u>		FT	
<u>102.3*</u>	<u>100</u>	<u>SHRUB TRIMMING</u>		FT	
<u>102.5*</u>	<u>7</u>	<u>ROADSIDE TREE PROTECTION</u>		EA	
<u>103.</u>	<u>10</u>	<u>TREE REMOVED - DIAMETER UNDER 24 INCHES</u>		EA	

<u>120.</u>	<u>5,300</u>	<u>EARTH EXCAVATION</u>		CY	
<u>121.</u>	<u>140</u>	<u>CLASS A ROCK EXCAVATION</u>		CY	
<u>129.</u>	<u>11,550</u>	<u>PAVEMENT MILLING</u>		SY	
<u>141.1</u>	<u>50</u>	<u>TEST PIT FOR EXPLORATION</u>		CY	
<u>144.</u>	<u>5</u>	<u>CLASS B ROCK EXCAVATION</u>		CY	
<u>146.</u>	<u>8</u>	<u>DRAINAGE STRUCTURE REMOVED</u>		EA	
<u>151.</u>	<u>2,400</u>	<u>GRAVEL BORROW</u>		CY	
<u>153.*</u>	<u>140</u>	<u>CONTROLLED DENSITY FILL - EXCAVATABLE</u>		CY	
<u>156.</u>	<u>80</u>	<u>CRUSHED STONE</u>		TON	
<u>170.</u>	<u>8,500</u>	<u>FINE GRADING AND COMPACTING</u>		SY	
<u>201.</u>	<u>23</u>	<u>CATCH BASIN</u>		EA	

<u>201.1</u>	<u>1</u>	<u>OFFSET CATCH BASIN</u>		EA	
<u>202.</u>	<u>4</u>	<u>MANHOLE</u>		EA	
<u>204.</u>	<u>2</u>	<u>GUTTER INLET</u>		EA	
<u>220.</u>	<u>9</u>	<u>DRAINAGE STRUCTURE ADJUSTED</u>		EA	
<u>220.3</u>	<u>6</u>	<u>DRAINAGE STRUCTURE CHANGE IN TYPE</u>		EA	
<u>220.5</u>	<u>1</u>	<u>DRAINAGE STRUCTURE REMODELED</u>		EA	
<u>220.7</u>	<u>9</u>	<u>SANITARY STRUCTURE ADJUSTED</u>		EA	
<u>221.</u>	<u>13</u>	<u>FRAME AND COVER</u>		EA	
<u>222.1</u>	<u>25</u>	<u>FRAME AND GRATE - MASSDOT CASCADE TYPE</u>		EA	
<u>223.1*</u>	<u>21</u>	<u>FRAME AND GRATE (OR COVER) REMOVED AND STACKED</u>		EA	
<u>227.3*</u>	<u>10</u>	<u>REMOVAL OF DRAINAGE STRUCTURE SEDIMENT</u>		CY	

<u>227.31*</u>	<u>100</u>	<u>REMOVAL OF DRAINAGE PIPE SEDIMENT</u>		FT	
<u>241.12</u>	<u>470</u>	<u>12 INCH REINFORCED CONCRETE PIPE</u>		FT	
<u>303.06</u>	<u>20</u>	<u>6 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)</u>		FT	
<u>309.</u>	<u>200</u>	<u>DUCTILE IRON FITTINGS FOR WATER PIPE</u>		LB	
<u>347.075</u>	<u>40</u>	<u>3/4 INCH COPPER TUBING TYPE K</u>		FT	
<u>347.1</u>	<u>20</u>	<u>1 INCH COPPER TUBING TYPE K</u>		FT	
<u>350.06</u>	<u>1</u>	<u>6 INCH GATE AND GATE BOX</u>		EA	
<u>358.</u>	<u>10</u>	<u>GATE BOX ADJUSTED</u>		EA	
<u>358.1*</u>	<u>1</u>	<u>GATE BOX REMOVED AND STACKED</u>		EA	
<u>363.075</u>	<u>1</u>	<u>3/4 INCH CORPORATION COCK</u>		EA	
<u>363.1</u>	<u>1</u>	<u>1 INCH CORPORATION COCK</u>		EA	

<u>370.4*</u>	<u>1</u>	<u>12 X 6 INCH TAPPING SLEEVE, VALVE AND BOX</u>		EA	
<u>376.2</u>	<u>2</u>	<u>HYDRANT - REMOVED AND RESET</u>		EA	
<u>384.2*</u>	<u>2</u>	<u>CURB STOP ADJUSTED</u>		EA	
<u>402.</u>	<u>720</u>	<u>DENSE GRADED CRUSHED STONE FOR SUB-BASE</u>		CY	
<u>430.</u>	<u>380</u>	<u>CEMENT CONCRETE BASE COURSE</u>		SY	
<u>440.</u>	<u>26.970</u>	<u>CALCIUM CHLORIDE FOR ROADWAY DUST CONTROL</u>		LB	
<u>443.</u>	<u>27</u>	<u>WATER FOR ROADWAY DUST CONTROL</u>		MGL	
<u>450.90*</u>	<u>4,740</u>	<u>CONTRACTOR QUALITY CONTROL</u>		TON	
<u>451.*</u>	<u>90</u>	<u>HMA FOR PATCHING</u>		TON	
<u>452.*</u>	<u>2,300</u>	<u>ASPHALT EMULSION FOR TACK COAT</u>		GAL	
<u>453.*</u>	<u>8,050</u>	<u>HMA JOINT SEALANT</u>		FT	

<u>455.22*</u>	<u>1,540</u>	<u>SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5)</u>		TON	
<u>455.31*</u>	<u>2,060</u>	<u>SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5)</u>		TON	
<u>455.42*</u>	<u>1,160</u>	<u>SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5)</u>		TON	
<u>472.</u>	<u>105</u>	<u>HOT MIX ASPHALT FOR MISCELLANEOUS WORK</u>		TON	
<u>506.</u>	<u>2,300</u>	<u>GRANITE CURB TYPE VB - STRAIGHT</u>		FT	
<u>506.1</u>	<u>825</u>	<u>GRANITE CURB TYPE VB - CURVED</u>		FT	
<u>509.</u>	<u>40</u>	<u>GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS - STRAIGHT</u>		FT	
<u>509.1</u>	<u>100</u>	<u>GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS - CURVED</u>		FT	
<u>514.</u>	<u>12</u>	<u>GRANITE CURB INLET - STRAIGHT</u>		EA	
<u>515.</u>	<u>7</u>	<u>GRANITE CURB INLET - CURVED</u>		EA	
<u>517.</u>	<u>8</u>	<u>GRANITE CURB CORNER TYPE C</u>		EA	

<u>570.2</u>	<u>1,600</u>	<u>HOT MIX ASPHALT CURB TYPE 2</u>		FT	
<u>590.*</u>	<u>500</u>	<u>CURB REMOVED AND STACKED</u>		FT	
<u>592.*</u>	<u>2</u>	<u>CURB CORNER REMOVED AND STACKED</u>		EA	
<u>669.</u>	<u>60</u>	<u>FENCE REMOVED AND STACKED</u>		FT	
<u>697.</u>	<u>550</u>	<u>SEDIMENTATION FENCE</u>		FT	
<u>701.</u>	<u>1,380</u>	<u>CEMENT CONCRETE SIDEWALK</u>		SY	
<u>701.1</u>	<u>40</u>	<u>CEMENT CONCRETE SIDEWALK AT DRIVEWAY</u>		SY	
<u>701.2*</u>	<u>130</u>	<u>CEMENT CONCRETE WHEELCHAIR RAMP</u>		SY	
<u>703.</u>	<u>50</u>	<u>HOT MIX ASPHALT DRIVEWAY</u>		TON	
<u>710.4</u>	<u>5</u>	<u>BOUND - PLAIN GRANITE</u>		EA	
<u>711.</u>	<u>3</u>	<u>BOUND REMOVED & RESET</u>		EA	

<u>748.</u>	<u>1</u>	<u>MOBILIZATION</u>		LS	
<u>751.</u>	<u>400</u>	<u>LOAM BORROW</u>		CY	
<u>756.*</u>	<u>1</u>	<u>NPDES STORMWATER POLLUTION PREVENTION PLAN</u>		LS	
<u>765.</u>	<u>2,700</u>	<u>SEEDING</u>		SY	
<u>767.12*</u>	<u>240</u>	<u>COMPOST FILTER TUBES</u>		FT	
<u>767.8</u>	<u>160</u>	<u>BALES OF HAY FOR EROSION CONTROL</u>		EA	
<u>776.500</u> * -	<u>9</u>	<u>MAPLE - RED 2-2.5 INCH CALIPER</u>		EA	
<u>804.3</u>	<u>1,860</u>	<u>3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC -(UL)</u>		FT	
<u>811.31</u>	<u>4</u>	<u>PULL BOX 12 X 12 INCHES - SD2.031</u>		EA	
<u>813.791</u> * -	<u>1,943</u>	<u>INTERCONNECT CABLE SYSTEM</u>		FT	
<u>815.1</u>	<u>1</u>	<u>TRAFFIC CONTROL SIGNAL LOCATION NO. 1</u>		LS	

<u>816.02*</u>	<u>1</u>	<u>TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 2</u>		LS	
<u>816.03*</u>	<u>1</u>	<u>TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 3</u>		LS	
<u>816.90*</u>	<u>1</u>	<u>TRAFFIC SIGNAL REMOVED AND TRANSPORTED</u>		LS	
<u>817.8*</u>	<u>1</u>	<u>ORNAMENTAL TRAFFIC SIGNAL SUPPORTS</u>		LS	
<u>832.</u>	<u>145</u>	<u>WARNING- REGULATORY AND ROUTE MARKER - ALUM. PANEL (TYPE A)</u>		SF	
<u>847.1</u>	<u>42</u>	<u>SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL (BLACK)</u>		EA	
<u>848.11</u>	<u>16</u>	<u>SIGN SUPPORT OVERHEAD ASSEMBLY</u>		EA	
<u>851.1</u>	<u>220</u>	<u>TRAFFIC CONES FOR TRAFFIC MANAGEMENT</u>		UD	
<u>852.</u>	<u>300</u>	<u>SAFETY SIGNING FOR TRAFFIC MANAGEMENT</u>		SF	
<u>853.1</u>	<u>8</u>	<u>PORTABLE BREAKAWAY BARRICADE TYPE III</u>		EA	
<u>854.016</u>	<u>15,420</u>	<u>TEMPORARY PAVING MARKINGS - 6 IN. (PAINTED)</u>		FT	

<u>854.1</u>	<u>500</u>	<u>PAVEMENT MARKING REMOVAL - PAINT</u>		SF	
<u>856.</u>	<u>420</u>	<u>ARROW BOARD</u>		UD	
<u>856.12</u>	<u>120</u>	<u>PORTABLE CHANGEABLE MESSAGE SIGN</u>		UD	
<u>859.</u>	<u>39,900</u>	<u>REFLECTORIZED DRUM</u>		DD	
<u>864.04</u>	<u>1,320</u>	<u>PAVEMENT ARROWS AND LEGENDS REFL. WHITE (THERMOPLASTIC)</u>		SF	
<u>865.1</u>	<u>1,650</u>	<u>CROSS WALKS AND STOP LINES REFL. WHITE (THERMOPLASTIC)</u>		SF	
<u>866.06</u>	<u>8,660</u>	<u>6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)</u>		FT	
<u>867.06</u>	<u>6,760</u>	<u>6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)</u>		FT	
<u>867.12</u>	<u>100</u>	<u>12 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)</u>		FT	
<u>874.</u>	<u>7</u>	<u>STREET NAME SIGN</u>		EA	
<u>874.2*</u>	<u>9</u>	<u>TRAFFIC SIGN REMOVED AND RESET</u>		EA	

<u>874.4*</u>	<u>20</u>	<u>TRAFFIC SIGN REMOVED AND STACKED</u>		EA	
<u>903.</u>	<u>2</u>	<u>3000 PSI, 1.5 IN., 470 CEMENT CONCRETE</u>		CY	
<u>999.01</u>	<u>1</u>	<u>UNIFORMED TRAFFIC OFFICER CONTROL</u>	\$150,000.0 0	LS	\$150,000.00
		Dwight Road Corridor Improvements TOTAL BASE BID =			

(Base Bid = Sum of the 'Total' column, Item 101 through Item 999.01 listed under the Base Bid section)

BIDDERS NAME: _____

BID ALTERNATE #1

Dwight Road Corridor Improvements					
Longmeadow/East Longmeadow, MA					
Bid Alternate #1 (Sidewalk North side of Williams Street)					
ITEM	QTY.	Item with Unit Bid Price Written in Words	In Figures	UNIT	TOTAL
<u>101.</u>	0.10	<u>CLEARING AND GRUBBING</u>		A	
<u>103.</u>	4	<u>TREE REMOVED - DIAMETER UNDER 24 INCHES</u>		EA	
<u>120.</u>	300	<u>EARTH EXCAVATION</u>		CY	
<u>151.</u>	160	<u>GRAVEL BORROW</u>		CY	
<u>170.</u>	710	<u>FINE GRADING AND COMPACTING</u>		SY	
<u>472.</u>	2	<u>HOT MIX ASPHALT FOR MISCELLANEOUS WORK</u>		TON	
<u>482.3</u>	250	<u>SAWCUTTING ASPHALT PAVEMENT</u>		FT	

<u>509.1</u>	20	<u>GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS - CURVED</u>		FT	
<u>590.*</u>	20	<u>CURB REMOVED AND STACKED</u>		FT	
<u>701.</u>	530	<u>CEMENT CONCRETE SIDEWALK</u>		SY	
<u>701.1</u>	50	<u>CEMENT CONCRETE SIDEWALK AT DRIVEWAY</u>		SY	
<u>701.2*</u>	20	<u>CEMENT CONCRETE WHEELCHAIR RAMP</u>		SY	
<u>703.</u>	40	<u>HOT MIX ASPHALT DRIVEWAY</u>		TON	
<u>751.</u>	50	<u>LOAM BORROW</u>		CY	
<u>765.</u>	700	<u>SEEDING</u>		SY	
<u>874.2*</u>	1	<u>TRAFFIC SIGN REMOVED AND RESET</u>		EA	
		Dwight Road Corridor Improvements TOTAL BID ALTERNATE #1=			

(Bid Alternate No. 1 = Sum of the 'Total' column, Item 101 through Item 874.2 listed under the Bid Alternate #1 section)

BIDDERS NAME: _____

BID ALTERNATE #2

Dwight Road Corridor Improvements					
Longmeadow/East Longmeadow, MA					
Bid Alternate #2 (Sidewalk south side of Williams Street, crosswalk, pedestrian signals, wheelchair ramps)					
ITEM	QTY.	Item with Unit Bid Price Written in Words	In Figures	UNIT	TOTAL
<u>101.</u>	0.10	<u>CLEARING AND GRUBBING</u>		A	
<u>120.</u>	185	<u>EARTH EXCAVATION</u>		CY	
<u>151.</u>	95	<u>GRAVEL BORROW</u>		CY	
<u>170.</u>	420	<u>FINE GRADING AND COMPACTING</u>		SY	
<u>472.</u>	2	<u>HOT MIX ASPHALT FOR MISCELLANEOUS WORK</u>		TON	
<u>482.3</u>	210	<u>SAWCUTTING ASPHALT PAVEMENT</u>		FT	
<u>509.1</u>	15	<u>GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS - CURVED</u>		FT	
<u>590.*</u>	10	<u>CURB REMOVED AND STACKED</u>		FT	

<u>701.</u>	310	<u>CEMENT CONCRETE SIDEWALK</u>		SY	
<u>701.1</u>	60	<u>CEMENT CONCRETE SIDEWALK AT DRIVEWAY</u>		SY	
<u>701.2*</u>	30	<u>CEMENT CONCRETE WHEELCHAIR RAMP</u>		SY	
<u>703.</u>	25	<u>HOT MIX ASPHALT DRIVEWAY</u>		TON	
<u>751.</u>	30	<u>LOAM BORROW</u>		CY	
<u>765.</u>	350	<u>SEEDING</u>		SY	
<u>818.43</u>	2	<u>16-INCH PEDESTRIAN SIGNAL HEAD- INTERNATIONAL SYMBOLS</u>		EA	
<u>819.85 1</u>	2	<u>ACCESSIBLE PEDESTRIAN SIGNAL WITH SIGN AND SADDLE</u>		EA	
<u>865.1</u>	280	<u>CROSS WALKS AND STOP LINES REFL. WHITE (THERMOPLASTIC)</u>		SF	
<u>874.2*</u>	3	<u>TRAFFIC SIGN REMOVED AND RESET</u>		EA	
		Dwight Road Corridor Improvements TOTAL BID ALTERNATE #2=			

(Bid Alternate No. 2 = Sum of the 'Total' column, Item 101 through Item 874.2 listed under the Bid Alternate #2 section)

TOTAL BID PRICE = \$ _____

(Sum of the Base Bid Total, Bid Alternate #1 Total, and Bid Alternate # 2 Total)

BIDDERS NAME: _____

SUBSECTION E-2
CONTRACT DOCUMENTS

AGREEMENT TERMS AND CONDITIONS

This Agreement, made the XX day of XX in the year two thousand and eighteen (the Effective Date) between the Town of Longmeadow, acting by and through its Town Manager and/or Select Board, hereinafter, hereinafter called OWNER and VENDOR with an address of TBD hereinafter called CONTRACTOR.

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

WORK

1.1 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents.

ENGINEER

1.2 The Project has been designed by Town of Longmeadow Engineering Department, who is hereinafter called ENGINEER. ENGINEER will act as OWNER's representative, assuming all duties and responsibilities, rights and authority assigned to ENGINEER in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

CONTRACT TIMES

1.3 Dates for Substantial Completion and Final Completion

A. All work shall be completed by the following Substantial Completion dates. The Substantial Completion date is **November 30, 2018**.

1.4 Liquidated Damages

B. CONTRACTOR and OWNER recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration 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 \$500 for each day that expires after the 'Substantial Completion' date(s) specified in paragraph 1.3.

1.2 Contract Term Extension

A. The contract may be extended beyond the Substantial Completion date at the sole discretion of the Town for a term not to exceed one year from the Effective Date of this contract.

CONTRACT PRICE

1.5 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents **based on actual 'Unit Price'** for units utilized in the supply and services provided under this contract. The amount in current funds equal to the prices stated in CONTRACTOR'S Bid, attached hereto as an exhibit.

- 1.6 The total construction bid based on Unit Price is \$ TBD, the Bid Total. The total amount will be adjusted by measurement of actual installed quantities in strict conformity with the provisions contained herein. The contract shall not exceed the Bid Total without authorization from the Town of Longmeadow by way of completed contract amendment.
- 1.7 The Monthly Price Adjustment for Hot Mix Asphalt (HMA) Mixtures applies to all projects using greater than 100 tons of hot mix asphalt (HMA) mixtures containing liquid asphalt cement.

PROGRESS PAYMENTS

- 1.8 Applications for Payment shall be processed in accordance with Article 14 of the General Conditions and in accordance with Massachusetts General Law.
- 1.9 OWNER shall make progress payments on account of the Contract Price on the basis of processed Applications for Payment monthly during construction.
- 1.10 OWNER shall retain from progress payments 5 percent of the value of Work completed.

AFFIRMATIVE ACTION

- 1.11 The CONTRACTOR shall not discriminate against or exclude any person from participation herein on the grounds of race, religion, color, sex, age, or national origin; and that it shall take affirmative actions to ensure that applicants are employed, and that employers are treated during their employment, without regard to race, religion, color, sex, age, handicapped status, or national origin.
- 1.12 The CONTRACTOR shall not participate in or cooperate with an international boycott, as defined in Section 999 (b)(3) and (4) of the Internal Revenue Code 1986, as amended, or engage in conduct declared to be unlawful by Section 2 of Chapter 151E of the Massachusetts General Laws.

CONTRACTOR'S REPRESENTATIONS

- 1.13 CONTRACTOR makes the following representations:
 - B. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - C. CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - D. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - A. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto.

- B. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- C. CONTRACTOR is aware of the general nature of Work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- D. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- E. CONTRACTOR has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by OWNER is acceptable to CONTRACTOR.
- F. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

CONTRACT DOCUMENTS

1.14 Contents

- E. The Contract Documents consist of the following:
 - 1. This Agreement (Section E, inclusive);
 - 2. 100% Performance Bond in the amount of \$_____;
 - 3. 100% Payment Bond in the amount of \$_____;
 - 4. Certificate of Insurance;
 - 5. General Conditions;
 - 6. Special Provisions;
 - 7. Drawings titled: Dwight Road Corridor Improvements, prepared by Fuss & O'Neill, Inc.;
 - 8. Addendum No...._____;
 - 9. Exhibits to this Agreement (enumerated as follows):
 - a. CONTRACTOR's Bid (Section E, inclusive);
 - b. Documentation submitted by CONTRACTOR prior to Notice of Award;
 - 10. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed;

- b. Written Amendments;
 - c. Work Change Directives;
 - d. Change Order(s).
- B. The documents listed in paragraph 8.1.A are attached to this Agreement (except as expressly noted otherwise above).
 - C. There are no Contract Documents other than those listed above in this Article 8.
 - D. The Contract Documents may only be amended, modified, or supplemented as provided in paragraph 3.05 of the General Conditions.

MISCELLANEOUS

1.15 Terms

- F. Terms used in this Agreement will have the meanings indicated in the General Conditions.

1.16 Assignment of Contract

- G. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

1.17 Successors and Assigns

- H. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

1.18 Severability

- I. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

1.3 Wage Rates

Prevailing Wage Rates as determined by the Commissioner of the Department of Labor and Workforce Development under the provisions of Massachusetts General Laws, Chapter 149, Section 26 to 27H, as amended, apply to this project. It is the responsibility of the Contractor to provide the Town with certified payrolls and to comply with all requirements of the above-cited statutes. The Schedules of prevailing

wage rates are included in the Contract Document.

1.4 OSHA

The Contractor shall comply with applicable OSHA, State and municipal regulations and requirements for services and facilities in the performance of all requirements of this contract. OSHA safety requirements shall be adhered to for all personnel performing construction, reconstruction, alteration, remodeling or repair of any building or public works project.

1.5 Indemnification

The Contractor shall indemnify and hold harmless the Owner from and against any and all claims, damages, losses, and expenses, including attorney's fees, arising out of the performance of this Agreement when such claims, damages, losses, and expenses are caused, in whole or in part, by the acts, errors, or omissions of the Contractor or his employees, agents, subcontractors or representatives.

For Change Orders work performed by the CONTRACTOR on this project, payment shall be based on Unit of Measure pricing as documented in the CONTRACTOR'S bid submission form, where items are not addressed on the bid submission form the mark-up shall be 15 percent. Also, the CONTRACTOR's markup for Change Order work by CONTRACTOR's sub-contractor(s) shall be limited to 15 percent.

SECTION F
PLANS & MAPS

Dwight Road Corridor Improvements
PS&E Submittal
February 2018
Prepared by Fuss & O'Neill
Sheets GI-001 through CX-141

Bid Alternate #1 Plan, Longmeadow MA, Sheet 1 of 1
Prepared by- Town of Longmeadow Engineering Department,
Dwight Road Corridor Improvements

Bid Alternate #2 Plan, Longmeadow, MA, Sheet 1 of 1
Prepared by- Town of Longmeadow Engineering Department,
Dwight Road Corridor Improvements

**EMAIL CTHOMPSON@LONGMEADOW.ORG TO REQUEST COPIES OF THE PLANS AND
THEY WILL BE EMAILED TO YOU.**