

TOWN OF NATICK MASSACHUSETTS

TO: Natick Board of Selectmen
Melissa A. Malone, Town Administrator
James Errickson, Deputy Town Administrator – Operations
Fuss & O'Neill

FROM: Bryan R. Le Blanc, Procurement Officer

DATE: June 12, 2020

SUBJECT: CONTRACT AWARD
Traffic Signals – West Natick Fire Station Project

On June 2, 2020, sealed bids were received, pursuant to M.G.L. c. 30, §39M, for the Traffic Signal project at the new West Natick Fire Station in the Town of Natick, Massachusetts. Bids were received from three (3) bidders. (See attached.)

Pine Ridge Technologies, Inc., 217R Main Street, North Reading, MA 01864 is the lowest responsible and eligible bidder. We recommend that the Natick Board of Selectmen award the contract to Pine Ridge Technologies, Inc. for the complete main bid work, as provided for in the Town's Invitation for Bids. The amount of the award will be for \$144,099.00, as provided for in Pine Ridge Technologies, Inc.'s bid. We have reviewed the bids received and have checked the references and qualifications of Pine Ridge Technologies, Inc. Fuss and O'Neill, the Town's consulting engineering firm, has also done the same and has recommended award accordingly. See attached. Pine Ridge Technologies, Inc.'s bid is in accordance with our estimate; it has pledged to stand by its number.

As an aside, Pine Ridge has performed well for the Town in the pedestrian improvements project.

Please advise if you have any questions or require additional information.

Bids Received:	06/02/20
Newspaper Advertisement (<u>Metrowest Daily News</u>):	05/11/20
Town Hall Posting:	05/06/20
Website Posting:	05/06/20
Central Register:	05/13/20
COMMBUYS Posting:	05/06/20

Funding: Part of the New West Natick Fire Station Project Budget (\$144,099.00).

Bids Received: See attached.

I understand, as of 6/17/20, that the West Natick Fire Station Building Committee has reviewed the award and has recommended award to the Board.

IIFB Opening Form

Date & Time: June 2, 2020, 9:00 A.M. EDT

1 m - this 2nd day of June 2020 m - 2020
6/25/20

Witness Signature:

SECTION 00400 – CONTRACT AGREEMENT

THIS AGREEMENT made this twenty-fourth day of June in the year 2020, by and between the Town of Natick, Massachusetts, Natick Town Hall, 13 East Central Street, Natick, MA 01760 (hereinafter called OWNER), by the Natick Board of Selectmen, and

Pine Ridge Technologies, Inc.

, having an address of 217 R Main Street

North Reading, MA 01864, doing business as a corporation,
hereinafter called "CONTRACTOR"

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

ARTICLE 1. ARTICLE 1. WORK

- 1.1 CONTRACTOR shall commence the Work as specified or indicated in the Contract Documents as defined in Article 8 herein. The Work is generally described as follows:
- 1.2 The Project under this Contract consists of furnishing all necessary labor, materials and equipment required for The scope of work includes, but is not limited to, providing new emergency signals to support the construction of the West Natick Fire Station 4. The project also includes signage, pavement markings, and other incidental required for the project, as shown on the Contract Drawings entitled "**West Natick Fire Station 4; 268 Speen Street, Natick, Massachusetts; Signal Improvements**" dated May 13, 2020 prepared by Fuss & O'Neill. A separate contract has been awarded to Castagna Construction for the construction of the fire station building and associated site improvements. Coordinate the work with Castagna Construction throughout the duration of the contract.
- 1.3 CONTRACTOR shall furnish all materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the Project described herein.

ARTICLE 2. ARTICLE 2. ENGINEER

- 2.1 The Project has been designed by Fuss & O'Neill, who is hereinafter called ENGINEER and who shall act as OWNER'S representative, who shall assume all duties and responsibilities, and who and shall have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3. CONTRACT TIME

- 3.1 CONTRACTOR shall commence work when authorization by the OWNER or ENGINEER with the provisions of the Notice to Proceed and Contract Documents. The work will be completed and accepted as soon as practicable, but no later than two

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hundred seventy (270) consecutive calendar days after the start date to be indicated on the Notice to Proceed

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

ARTICLE 4. CONTRACT PRICE

- 4.1 In consideration for performance of the work as required by the Contract Documents, the OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents in current funds as follows:

Contractor's Bid is attached to this Agreement as an exhibit.

TOTAL CONTRACT AMOUNT

\$ 144,099.00

As permitted by law, specific items of this Contract may be eliminated, or reduced in quantity to keep within the limits of available funding, at the OWNER'S option.

ARTICLE 5. PAYMENT PROCEDURES

- 5.1 CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions, as modified, if applicable, by the Supplementary Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.
- 5.2 Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER and as provided in Article 14 of the General Conditions, as modified, if applicable, by the Supplementary Conditions. Retainage with respect to any progress payments will be five percent (5%) or, if stipulated, the maximum allowed by Massachusetts General Laws. ENGINEER shall establish with the CONTRACTOR an acceptable format for submittal and for the processing of progress payments, prior to the first such request as will be submitted by the CONTRACTOR.
- 5.3 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, as modified, if applicable, by the

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Supplementary Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.13.

ARTICLE 6. TERMS

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

ARTICLE 7. CONTRACTOR'S REPRESENTATIONS

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

- 7.1 CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 7.2 CONTRACTOR has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in the Supplementary Conditions as provided in paragraph 4.2 of the General Conditions, and accepts the determination set forth in paragraph SC-4.2 of the Supplementary Conditions of the extent of the technical data contained in such reports and drawings upon which CONTRACTOR is entitled to rely.
- 7.3 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies (in addition to or to supplement those referred to in paragraph 7.2 above) which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.2 of the General Conditions, as modified, if applicable, by the Supplementary Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.
- 7.4 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms

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and conditions of the Contract Documents, including specifically the provisions of paragraph 4.03 of the General Conditions, as modified, if applicable, by the Supplementary Conditions.

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

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

ARTICLE 8. CONTRACT DOCUMENTS

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

- 8.1 Invitation for Bids
- 8.2 Instructions to Bidders
- 8.3 Contractor's Bid
- 8.4 This Agreement ("Agreement")
- 8.5 Exhibits to this Agreement
- 8.6 General Conditions
- 8.7 Supplementary Conditions
- 8.8 Contractor's Performance and Payment Bonds, and insurance certificates
- 8.9 Notice of Award
- 8.10 Notice to Proceed
- 8.11 Specifications as listed in table of contents
- 8.12 Construction Drawings.
- 8.13 Addenda numbers 1 to 2, inclusive.
- 8.14 Change Order

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There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.04 and 3.05 of the General Conditions.

ARTICLE 9. INDEMNIFICATION

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

ARTICLE 10. INSURANCE

- 10.1 The CONTRACTOR shall provide insurance that satisfies the categories and amounts specified in Article 5 of the General Conditions, as modified by Article 5 of the Supplementary Conditions.
- 10.2 Each certificate and policy of insurance required by this Agreement shall contain a cancellation provision as indicated below with no variations.

"Should any of the above described policies be canceled or materially amended before the expiration date thereof, the issuing insurer will mail within thirty (30) days written notice to the certificate holder named to the left".
- 10.3 The Town of Natick and ENGINEER shall be named as an additional insured on each policy of insurance required by this agreement other than worker's compensation.

ARTICLE 11. MISCELLANEOUS PROVISIONS

- 11.1 No assignment by CONTRACTOR of any rights under or interests in the Contract Documents will be binding on OWNER without the written consent of OWNER; and specifically but without limitation moneys that may become due and moneys that are due may not be assigned without such consent, and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the CONTRACTOR from any duty or responsibility under the Contract Documents.
- 11.2 This Agreement shall be binding upon the OWNER and CONTRACTOR, their respective heirs, executors, administrators, successors, or assigns and legal representative to the other party hereto, its partners, heirs, executors, successors,

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assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

- 11.3 If any provision of this Agreement shall be determined to be invalid or unenforceable by final judgment of a court of competent jurisdiction, the remaining provisions shall continue in effect to the extent permitted by law.
- 11.4 This Agreement may be amended only by a written instrument signed by the parties.
- 11.5 This Agreement shall be governed by and construed in accordance with the Massachusetts law, without respect to choice of law principles.
- 11.6 The CONTRACTOR shall provide to the satisfaction of the OWNER, adequate supervision of all work performed under this Agreement.
- 11.7 This Agreement shall be subject to the Natick Non-Discrimination in the Workforce provision included in Part I Supplementary Conditions.
- 11.8 The CONTRACTOR shall comply with all provisions of law applicable to his work including without limitation statutes, by-laws rules, regulations, orders and directives. This Contract shall be considered to include in their entirety all terms respecting workers' compensation insurance and other terms required to be included in it by Chapter 152 of the Massachusetts General Laws, as amended, and any other laws, as though such terms were set forth in their entirety herein. The CONTRACTOR shall comply with all applicable provisions of law and regulation as specified by the Williams-Steiger Occupational Safety and Health Act of 1970, as amended.
- 11.9 The CONTRACTOR has made this Contract in reliance on his own examinations and estimates as to the amount and character of his work, and conditions which may be encountered in the performance thereof, and shall assume all risks and bear all losses pertaining thereto.
- 11.10 The CONTRACTOR shall compensate the Town of Natick for all damages to the Town property of any nature arising out of the CONTRACTOR'S work.
- 11.11 The Town of Natick may defer payment to the CONTRACTOR of such sums otherwise due him under this Contract for such period of time as the Director of Public Works may deem required by law or expedient for protection of the Town or others against his noncompliance with the provisions thereof; and the Town may reimburse itself, by deduction from the money so retained, for all expense and loss resulting to it from his noncompliance.
- 11.12 No payment by the Town of Natick to the CONTRACTOR shall be deemed to be a waiver of any right of the Town of Natick under this Contract or ratification by the Town of Natick any breach hereof by him.

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- 11.13 The CONTRACTOR shall provide services under this Agreement as an independent CONTRACTOR with the town of Natick and the CONTRACTOR and its employees shall not be entitled to receive any benefits of employment with the Town of Natick, including without limitation salary, overtime, vacation pay, holiday pay, health insurance, life insurance, pension or deferred compensation.
- 11.14 If any assignment shall be made by the CONTRACTOR or by any guarantor of the CONTRACTOR for the benefit of creditors, or if a petition is filed by the CONTRACTOR or by any guarantor of the CONTRACTOR for adjudication as a bankrupt, or for reorganization or an arrangement under any provision of the Bankruptcy Act as then in force and effect, or if an involuntary petition under any of the provisions of the Bankruptcy Act is filed against the CONTRACTOR and such involuntary petition is not discharged within ninety (90) days thereafter, in any event the Town may terminate this Contract upon written notice to the CONTRACTOR.
- 11.15 The award of this Contract and the continued operation of this Contract are subject to appropriation by Natick Town Meeting of sufficient money to fund the Contract.
- 11.16 The Owner may terminate this Contract upon written notice to the CONTRACTOR if a source of money to fund the Contract is lost during any year of the Contract term. In the alternative, the parties may agree in writing to amend the Contract to provide for a Contract price which represents the reduced appropriation for a contract year.
- 11.17 In the event of termination, the CONTRACTOR shall be entitled to be paid for services rendered in accordance with this Contract prior to termination.

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

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

OWNER:

Town of Natick, Massachusetts

The Natick Board of Selectmen

Michael J. Hickey, Jr.

Susan G. Salamoff

Jonathan H. Freedman

, Chair

Karen Adelman-Foster

, Vice Chair

Richard P. Jennett, Jr.

, Clerk

Date

CONTRACTOR:

Printed Name of CONTRACTOR

Signature

Printed Name

Printed Title

Date

CORPORATE SEAL

Attest

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Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

Owner Address for giving notices:

Board of Selectmen
Natick Town Hall
13 East Central Street
Natick, MA 01760

With Copies to:

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

Contractor Address for giving notices:

Andrew T. Rist, Vice President
Pine Ridge Technologies, Inc.
217 R Main Street
North Reading, MA 01864

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CERTIFICATE OF APPROPRIATION

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

Arti P. Mehta
Comptroller, Town of Natick

Date

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

Karis L. North, Esq.

Date

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CERTIFICATE OF CORPORATE AUTHORIZATION

I, _____, Clerk of _____, a _____
corporation organized pursuant to _____ state law, which maintains its principal office at
_____ hereby certify that at a meeting of the Board of Directors of
_____ (the "Corporation") duly held on _____, _____, at
_____ (Date must be earlier than Agreement)
which

A quorum was present and voting throughout, the following vote was duly passed and is now in full
force and effect:

"VOTED: That _____ be and hereby is authorized, directed and
(Name of Officer authorized to sign for Corporation)

empowered for, in the name and on behalf of this Corporation to sign seal with the corporate seal,
execute, acknowledge and deliver all contracts, bonds and other obligations of the Corporation, with the
Town of Natick, acting by and through the Town of Natick, Massachusetts, 13 East Central Street,
Natick, MA 01760; the execution of any such contract, lease, bond or obligation by such

_____ to be valid and binding upon this Corporation for all
(Name of Officer)
purposes, and that a certificate of the Clerk of this Corporation setting forth this vote shall be delivered
to the Town of Natick.

I further certify that

(Name of Officer)

is duly elected _____ of said Corporation.
(Title)

Signed: _____

Printed Name: _____

Printed Title: (Clerk- Secretary)

Date: _____

Place of Business: _____

AFFIX CORPORATE SEAL

COUNTERSIGNATURE: _____

(Name and Title of Officer)

Date: _____

*In the event that the clerk or Secretary is the same person as the Officer authorized to sign that contract or other instrument
for the Corporation, this certificate must be countersigned by another officer of the Corporation.*

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Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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CONTRACTORS CERTIFICATION

NATICK, MASSACHUSETTS
BOARD OF SELECTMEN

Name of Project _____

A contractor will not be eligible for award of a contract unless such contractor has submitted the following certification, which is deemed a part of the resulting contract:

CONTRACTOR'S CERTIFICATION

_____ certifies that

1. it intends to use the following listed construction trades in the work under the contract

_____;
and

2. will comply with the minority manpower ratio and specific affirmative action steps contained herein;
and

3. will obtain from each of its Subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the Subcontractor certification required by these bid conditions.

(Signature of authorized representative of Contractor)

Printed Name

Printed Title

Date

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Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

SUBCONTRACTOR'S CERTIFICATION

NATICK, MASSACHUSETTS
BOARD OF SELECTMEN

West Natick Fire Station 4 Signal Improvements Project

Name of Project _____

Prior to the award of any subcontract, regardless of tier, the prospective Subcontractor must execute and submit to the contractor the following certification, which is deemed a part of the resulting contract:

_____ certifies that

1. it intends to use the following listed construction trades in the work under the contract

_____;

and

2. will comply with the minority manpower ratio and specific affirmative action steps contained herein;
- and
3. will obtain from each of its Subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the Subcontractor certification required by these bid conditions.

(Signature of authorized representative of Subcontractor)

Printed Name

Printed Title

Date

In order to ensure that the said Subcontractor's certification becomes a part of all subcontracts under the contract, no subcontract shall be executed until an authorized representative of the Town agency (or agencies) administering this project has determined, in writing, that the said certification has been incorporated in such subcontract, regardless of tier. Any subcontract executed without such written approval shall be void.

END OF SECTION

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West Natick Fire Station 4 Signal Improvements Project

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SECTION 00200 – BID

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

Estimated quantities are approximate only, being given for the uniform comparison of Bids. The OWNER does not expressly agree, or by implication agree, that the actual amount of work will correspond therewith, and the right is expressly reserved, to increase or diminish the amount of any class or portion of the work, or to omit construction in certain locations, as may be deemed necessary by the OWNER to keep within the limits of available funds, as permitted by applicable law.

Bidder hereby agrees to commence Work under this Contract on or before the date to be indicated on the Notice to Proceed and will be completed as soon as practicable, but no later than **two hundred seventy (270) consecutive calendar days** unless an extension of time is granted. Bidder further agrees to pay as liquidated damages, the sum of **eight hundred dollars (\$800.00)** for each consecutive calendar day thereafter that work is not completed as provided in the Information for Bidders Section of this Contract, and agrees that this sum is not contingent upon any financial losses incurred by the Owner due to the delay, and not to be considered as a penalty, but an agreed upon sum to be deducted from Contractor's payment. Bidder also agrees to the individual contract completion dates and liquidated damages outlined in the Instruction to Bidders.

Bidder acknowledges receipt of Addenda: #1  #2  #3 #4

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

TOTAL BID PRICE FOR BID COMPARISON \$ 144,099.00

one hundred forty four thousand ninety nine dollars
(Bid Price in Words)

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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BID
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Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

BID FORM

BIDDER NAME: _____

Item No.	Estimated Quantity	Item with Unit Bid Price Written in Words and Figures	Total in Figures (Unit Price Times Estimated Quantity)
141.1	10 CY	TEST PIT FOR EXPLORATION <u>one hundred fifty</u> Dollars and <u>no</u> cents (\$ <u>150.00</u>)	\$ <u>1500</u>
748	1 LS	MOBILIZATION <u>four thousand</u> Dollars and <u>no</u> cents (\$ <u>4000.00</u>)	\$ <u>4000</u>
751	10 CY	LOAM BORROW <u>one hundred fifty</u> Dollars and <u>no</u> cents (\$ <u>150.00</u>)	\$ <u>1500</u>
765	40 SY	SEEDING <u>twenty</u> Dollars and <u>no</u> cents (\$ <u>20.00</u>)	\$ <u>800</u>
804.34	180 LF	3 INCH SCHEDULE 40 PVC CONDUIT <u>forty five</u> Dollars and <u>no</u> cents (\$ <u>45.00</u>)	\$ <u>8100.00</u>
804.38	60 LF	3 INCH SCHEDULE 80 PVC CONDUIT <u>sixty</u> Dollars and <u>no</u> cents (\$ <u>60.00</u>)	\$ <u>3600</u>
811.31	2 EA	PULL BOX 12 X 12 INCHES - SD2.031 <u>one thousand one hundred eleven</u> Dollars and <u>no</u> cents (\$ <u>1111.00</u>)	\$ <u>2222</u>
816.01	1 LS	TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 1 <u>five hundred</u> <u>ninety five thousand fifty five</u> Dollars and <u>no</u> cents (\$ <u>95555.00</u>)	\$ <u>95555</u>
816.8	1 LS	TRAFFIC CONTROL SIGNAL REMOVED AND STACKED <u>one thousand two hundred twenty</u> Dollars and <u>no</u> cents (\$ <u>1220.00</u>)	\$ <u>1220.00</u>

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BIDDER NAME: _____

Item No.	Estimated Quantity	Item with Unit Bid Price Written in Words and Figures	Total in Figures (Unit Price Times Estimated Quantity)
819.001	1 LS	UPS BATTERY BACKUP SYSTEM <u>twelve thousand</u> Dollars and <u>no</u> cents (\$ <u>12000.00</u>)	\$ <u>12000</u>
832	112 SF	WARNING-REGULATORY AND ROUTE MARKER - ALUM. PANEL (TYPE A) <u>twenty five</u> Dollars and <u>no</u> cents (\$ <u>25.00</u>)	\$ <u>2800</u>
847.1	20 EA	SIGN SUP (N/GUIDE) + RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL <u>one hundred sixty</u> Dollars and <u>no</u> cents (\$ <u>160.00</u>)	\$ <u>3200</u>
850.41	100 HR	ROADWAY FLAGGER <u>thirty</u> Dollars and <u>no</u> cents (\$ <u>30.00</u>)	\$ <u>3000</u>
852	125 SF	SAFETY SIGNING FOR TRAFFIC MANAGEMENT <u>ten</u> Dollars and <u>no</u> cents (\$ <u>10.00</u>)	\$ <u>1250</u>
853.403	10 DAY	TRUCK MOUNTED ATTENUATOR <u>fifty</u> Dollars and <u>no</u> cents (\$ <u>50.00</u>)	\$ <u>500</u>
856	15 DAY	ARROW BOARD <u>fifteen</u> Dollars and <u>no</u> cents (\$ <u>15.00</u>)	\$ <u>225</u>
859	500 DAY	REFLECTORIZED DRUM <u>zero</u> Dollars and <u>25</u> cents (\$ <u>0.25</u>)	\$ <u>125</u>
866.106	100 FT	6-INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) <u>ten</u> Dollars and <u>no</u> cents (\$ <u>10.00</u>)	\$ <u>1000</u>

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

BIDDER NAME: _____

Item No.	Estimated Quantity	Item with Unit Bid Price Written in Words and Figures	Total in Figures (Unit Price Times Estimated Quantity)
866.112	100 FT	12-INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) <u>fifteen</u> Dollars and <u>no</u> cents (\$ <u>15.00</u>)	\$ <u>1500</u>
TOTAL BID PRICE <u>one hundred forty four thousand ninety nine</u> Dollars and <u>26</u> cents (\$ <u>144099.00</u>)			\$ <u>144099.00</u>

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STATEMENT OF EXPERIENCE

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

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

SEE ATTACHED

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

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

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

SEE ATTACHED

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

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

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

SEE ATTACHED

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

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

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

SEE ATTACHED

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

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

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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

SEE ATTACHED

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

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

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

May 13, 2020

BID
00200-9

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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May 13, 2020

BID
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Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

SUBCONTRACTORS

The Bidder shall list below, the name/names of subcontractor, if other than Bidder, who shall perform work on the project, including but not limited to the subcontractor qualified as an Approved Concrete Specialty Contractor to do the concrete repairs.

The Bidder shall submit a list of experience for above subcontractor.

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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May 13, 2020

BID
00200-12

PROPOSAL

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

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

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

Michael Rocca, President

Andrew T. Rist, V.P.	Pine Ridge Technologies, Inc.
	217R Main Street
	North Reading, MA 01864

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

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

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

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

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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

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

THIS BID SUBMITTED ON JUNE 2 20 2020
(Date)

By


(Signature)

Andrew T. Rist, V.P.

(Printed Name)

(Printed Title)

By

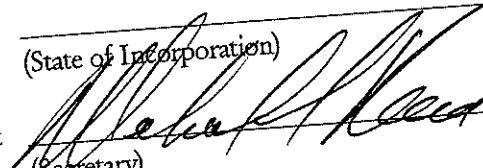
Pine Ridge Technologies, Inc.
(Corporation Name)

MA

(State of Incorporation)

(Corporate Seal)

Attest


(Secretary)

Pine Ridge Technologies, Inc.
217R Main Street
North Reading, MA 01864

Business Address: _____

Telephone Number: (781) 246-5555 _____

Email Address: arist@pineridgetech.com

Fax Number: (781) 246-5555

May 13, 2020

BID
00200-14

Town of Natick, MA

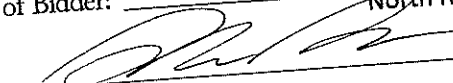
West Natick Fire Station 4 Signal Improvements Project

CERTIFICATE OF NON-COLLUSION

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

Name of Bidder Pine Ridge Technologies, Inc.
(Corporation Name)

Address of Bidder: Pine Ridge Technologies, Inc.
217R Main Street
North Reading, MA 01864

By 
(Signature)

Andrew T. Rist, V.P.
(Printed Name)

Andrew T. Rist, V.P.
(Printed Title)

6/2/20
(Date)

BID
00200-15

May 13, 2020

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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May 13, 2020

BID
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Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

TAX COMPLIANCE CERTIFICATION

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

Pine Ridge Technologies, Inc.

Name of Bidder

(Corporation Name)

Pine Ridge Technologies, Inc.

217R Main Street

Address of Bidder

North Reading, MA 01864

By

(Signature)

Andrew T. Rist, V.P.

(Printed Name)

Andrew T. Rist, V.P.

(Printed Title)

(Date)

6/2/20

May 13, 2020

BID
00200-17

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CONFLICT OF INTEREST CERTIFICATION

The Bidder named below hereby certifies that:

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

Pine Ridge Technologies, Inc.

Name of Bidder _____
(Corporation Name)

Pine Ridge Technologies, Inc.

Address of Bidder: _____
217R Main Street

North Reading, MA 01864

By _____
(Signature)

Andrew T. Rist, V.P.

(Printed Name)

Andrew T. Rist, V.P.

(Printed Title)

(Date)

6/2/20

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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May 13, 2020

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00200-20

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

CERTIFICATE AS TO CORPORATE BIDDER

I, MICHAEL ROCCA certify that I am the PRESIDENT of Pine Ridge Technologies, Inc.
the corporation named as Bidder in the Bid included herein; that ANDREW RIST, who
signed said Bid on behalf of the Bidder was then V.P. of said corporation; that I
know his signature; that his signature thereon is genuine and that said Bid was duly signed, sealed and
executed for and in behalf of said corporation by authority of its governing body.

(Corporate Seal)

Name of Bidder Pine Ridge Technologies, Inc.
(Corporation Name)

Address of Bidder: Pine Ridge Technologies, Inc.
217R Main Street
North Reading, MA 01864

Telephone Number: (781) 246-5555

By

(Signature)

Michael Rocca, President

(Printed Name)

Michael Rocca, President

(Printed Title)

(Date)

6/2/2020

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

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May 13, 2020

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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May 13, 2020

BID
00200-22

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

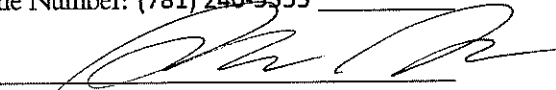
The Bidder hereby certifies that it is in compliance with and shall remain in compliance with Massachusetts General Laws (M.G.L.) Chapter 151B and shall not discriminate on any prohibited basis outlined herein.

Name of Bidder Pine Ridge Technologies, Inc.

(Corporation Name) Pine Ridge Technologies, Inc.

Address of Bidder: 217R Main Street
North Reading, MA 01864

Telephone Number: (781) 246-5555

By 
(Signature)

Andrew T. Rist, V.P.

(Printed Name)

Andrew T. Rist, V.P.

(Printed Title)

6/2/20
(Date)

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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May 13, 2020

BID
00200-24

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

CERTIFICATE OF NON-DEBARMENT

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

Pine Ridge Technologies, Inc.

(Company Name)

(Signature title)

Name of Bidder _____ Pine Ridge Technologies, Inc. _____
(Corporation Name) 217R Main Street
North Reading, MA 01864

Address of Bidder: _____

By

(Signature)

Andrew T. Rist, V.P.

(Printed Name)

Andrew T. Rist, V.P.

(Printed Title)

(Date)

6/2/20

May 13, 2020

BID
00200-25

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CERTIFICATE OF FOREIGN CORPORATION

If the Bidder is a foreign corporation, by affixing his or her signature, the Bidder certifies that the corporation is qualified under provision of M.G.L. c. 181, Section 4 to do business in the Commonwealth of Massachusetts.

Name of Bidder _____
(Corporation Name)

Address of Bidder: _____

By _____
(Signature)

(Printed Name)

(Printed Title)

(Date)

If awarded the Contract, the Contractor shall provide with his agreement package, a certificate from the Secretary of the Commonwealth of Massachusetts that the corporation is qualified under provisions of M.G.L. c.181, Section 4, to do business in the Commonwealth.

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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May 13, 2020

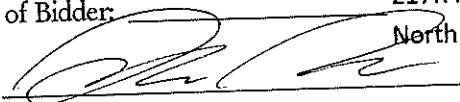
BID
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Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

CONTRACT INSURANCE REQUIREMENTS

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

Name of Bidder Pine Ridge Technologies, Inc.
(Corporation Name)
Address of Bidder: Pine Ridge Technologies, Inc.
217R Main Street
North Reading, MA 01864
By 
(Signature)
Andrew T. Rist, V.P.
(Printed Name)
Andrew T. Rist, V.P.
(Printed Title)
6/2/20
(Date)

May 13, 2020

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Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

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May 13, 2020

BID
00200-30

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION CERTIFICATION

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

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

Name of Bidder Pine Ridge Technologies, Inc.
(Corporation Name) Pine Ridge Technologies, Inc.

Address of Bidder: 217R Main Street
North Reading, MA 01864

By 
(Signature)

Andrew T. Rist, V.P.

(Printed Name)

Andrew T. Rist, V.P.
(Printed Title)

6/2/20
(Date)

END OF SECTION

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

SECTION 00300 – BID BOND

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

Pine Ridge Technologies, Inc
(Name of Contractor)

217R Main Street, North Reading, MA 01864
(Address of Contractor)

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

Philadelphia Indemnity Insurance Company
(Name of Surety)

One Bala Plaza, Suite 100 in the city of Bala Cynwyd, Pennsylvania
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

the Town of Natick, Massachusetts
(Name of Owner)

Natick Town Hall, 13 East Central Street, Natick, MA 01760
(Address of Owner)

as OWNER in the total aggregate penal sum of

5 percent

Dollars (\$ _____)

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

The Condition of the above obligation is such that, whereas the Principal has submitted to the Board of Selectmen, Town of Natick, Massachusetts a certain Bid, attached hereto and hereby made a part hereof and hereby incorporated by reference herein, to enter into a Contract in writing, for the Complete Streets Implementation Project in Natick, Massachusetts.

NOW, THEREFORE,

(a) If said Bid shall be rejected, or

BID BOND
00300-1

May 13, 2020

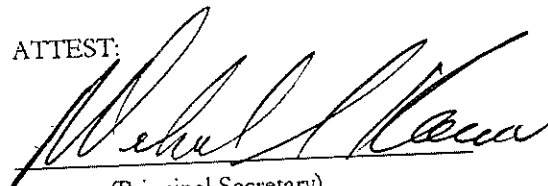
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a Contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a Bond for his faithful performance of said Contract, and for the payment of all persons performing labor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

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

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

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

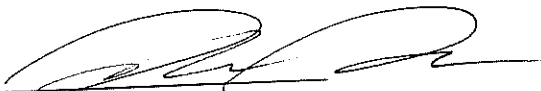
ATTEST:


(Principal Secretary)

Pine Ridge Technologies Inc
Principal Andrew RIST

(SEAL)(s)

By


Signature

Andrew RIST
Printed Name

V.P.
Printed Title

217 R Nah St, N Reading, MA 01864
(Address)

(Address)

(Surety)

Town of Natick, MA

West Natick Fire Station 4 Signal Improvements Project

ATTEST:

Susan Ferreira
(Witness as to Surety) Susan Ferreira

Scott Handorff
Attorney-in-Fact Signature

Scott Handorff
Printed Name

Attorney-in-Fact
Printed Title

400A Franklin Street, Braintree, MA 02184
(Address)

400A Franklin Street, Braintree, MA 02184
(Address)

If Contractor is partnership, all partners should execute Bond.

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

END OF SECTION

PHILADELPHIA INDEMNITY INSURANCE COMPANY
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004-0950

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS: That PHILADELPHIA INDEMNITY INSURANCE COMPANY (the Company), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, does hereby constitute and appoint Richard Mazzarella; Scott Handorff; Carol F. McHugh OF THE TOWN OF BRAINTREE, STATE OF MASSACHUSETTS, its true and lawful Attorney-in-fact with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of Indemnity and writings obligatory in the nature thereof, issued in the course of its business and to bind the Company thereby, in an amount not to exceed \$50,000,000.

This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of PHILADELPHIA INDEMNITY INSURANCE COMPANY on the 14th of November, 2016.

RESOLVED: That the Board of Directors hereby authorizes the President or any Vice President of the Company: (1) Appoint Attorney(s) in Fact and authorize the Attorney(s) in Fact to execute on behalf of the Company bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof and to attach the seal of the Company thereto; and (2) to remove, at any time, any such Attorney-in-Fact and revoke the authority given. And, be it

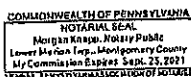
FURTHER RESOLVED: That the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney or certificate relating thereto by facsimile, and any such Power of Attorney so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN TESTIMONY WHEREOF, PHILADELPHIA INDEMNITY INSURANCE COMPANY HAS CAUSED THIS INSTRUMENT TO BE SIGNED AND ITS CORPORATE SEAL TO BE AFFIXED BY ITS AUTHORIZED OFFICE THIS 27th DAY OF OCTOBER, 2017.

(Seal)

Robert D. O'Leary Jr., President & CEO
Philadelphia Indemnity Insurance Company

On this 27th day of October, 2017, before me came the individual who executed the preceding instrument, to me personally known, and being by me duly sworn said that he is the therein described and authorized officer of the PHILADELPHIA INDEMNITY INSURANCE COMPANY; that the seal affixed to said instrument is the Corporate seal of said Company; that the said Corporate Seal and his signature were duly affixed.



Notary Public:

Morgan Knapp

residing at:

Bala Cynwyd, PA

(Notary Seal)

My commission expires:

September 25, 2021

I, Edward Sayago, Corporate Secretary of PHILADELPHIA INDEMNITY INSURANCE COMPANY, do hereby certify that the foregoing resolution of the Board of Directors and the Power of Attorney issued pursuant thereto on the 27th day of October, 2017 are true and correct and are still in full force and effect. I do further certify that Robert D. O'Leary Jr., who executed the Power of Attorney as President, was on the date of execution of the attached Power of Attorney the duly elected President of PHILADELPHIA INDEMNITY INSURANCE COMPANY.

In Testimony Whereof I have subscribed my name and affixed the facsimile seal of each Company this 2nd day of June, 2020.

Edward Sayago, Corporate Secretary
PHILADELPHIA INDEMNITY INSURANCE COMPANY

PHILADELPHIA INDEMNITY INSURANCE COMPANY
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004-0950

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS: That PHILADELPHIA INDEMNITY INSURANCE COMPANY (the Company), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, does hereby constitute and appoint Richard Mazzarella; Scott Handorff; Carol F. McHugh OF THE TOWN OF BRAINTREE, STATE OF MASSACHUSETTS, its true and lawful Attorney-in-fact with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business and to bind the Company thereby, in an amount not to exceed \$50,000,000.

This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of PHILADELPHIA INDEMNITY INSURANCE COMPANY on the 14th of November, 2016.

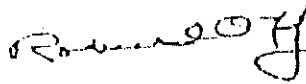
RESOLVED:

That the Board of Directors hereby authorizes the President or any Vice President of the Company: (1) Appoint Attorney(s) in Fact and authorize the Attorney(s) in Fact to execute on behalf of the Company bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof and to attach the seal of the Company thereto; and (2) to remove, at any time, any such Attorney-in-Fact and revoke the authority given. And, be it

**FURTHER
RESOLVED:**

That the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney or certificate relating thereto by facsimile, and any such Power of Attorney so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

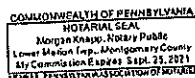
IN TESTIMONY WHEREOF, PHILADELPHIA INDEMNITY INSURANCE COMPANY HAS CAUSED THIS INSTRUMENT TO BE SIGNED AND ITS CORPORATE SEAL TO BE AFFIXED BY ITS AUTHORIZED OFFICE THIS 27th DAY OF OCTOBER, 2017.



(Seal)

Robert D. O'Leary Jr., President & CEO
Philadelphia Indemnity Insurance Company

On this 27th day of October, 2017, before me came the individual who executed the preceding instrument, to me personally known, and being by me duly sworn said that he is the therein described and authorized officer of the PHILADELPHIA INDEMNITY INSURANCE COMPANY; that the seal affixed to said instrument is the Corporate seal of said Company; that the said Corporate Seal and his signature were duly affixed.



(Notary Seal)

Notary Public:

Morgan Knapp

residing at:

Bala Cynwyd, PA

My commission expires:

September 25, 2021

I, Edward Sayago, Corporate Secretary of PHILADELPHIA INDEMNITY INSURANCE COMPANY, do hereby certify that the foregoing resolution of the Board of Directors and the Power of Attorney issued pursuant thereto on the 27th day of October, 2017 are true and correct and are still in full force and effect. I do further certify that Robert D. O'Leary Jr., who executed the Power of Attorney as President, was on the date of execution of the attached Power of Attorney the duly elected President of PHILADELPHIA INDEMNITY INSURANCE COMPANY.

In Testimony Whereof I have subscribed my name and affixed the facsimile seal of each Company this 2nd day of June, 20 20.



Edward Sayago, Corporate Secretary
PHILADELPHIA INDEMNITY INSURANCE COMPANY



PINE RIDGE TECHNOLOGIES, INC.
PINE RIDGE TECH.COM
ELECTRICAL • SECURITY • TELECOMMUNICATIONS

June 1, 2020

TOWN OF NATICK

RE: Statement Of Qualifications

To whom it may concern:

We are pleased to provide this company profile and references for our company. Pine Ridge Technologies, Inc. (PRT) is a Massachusetts based electrical contracting company founded in 2005. PRT is an electrical contractor with experience in many aspects of electrical contracting, including: transit, railroad, security, fire alarm, fiber optic, ITS, highway lighting, and traffic signal projects. PRT holds a master electrical license in the state of MA and is signatory to the I.B.E.W. PRT also has a live-staffed 24 hour answering service via the toll free number (844) PRT-5556, and an electrician is always on call 24/7. PRT confirms receipt of all addenda and question and answer responses

PRT is a union contractor and is able to obtain additional labor forces quickly over and above currently employed workers. PRT attests it will obtain the necessary insurance required to complete the project per specifications. PRT also attests receipt of all addenda and question and answer responses. Please see attached list of personnel and equipment. Below we will outline our company's key team members and experience.

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Call dispatch/central monitoring station	18
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If you have any questions regarding this submission, please do not hesitate to contact me at (781) 246-5555. We look forward to working with you.

Sincerely,

Michael Rocca
President

Experience

PRT has extensive experience in the electrical industry, in both public and private sectors. Below are some of our current and completed projects.

PRT Projects

Project Name: Boston Engine Terminal Security Enhancements
Reference / Contact: Adam Peters / (617) 222-5714

Owner: MBTA

Customer/Contractor: MBTA

Contract Price: \$1,495,000 Completion Date: 2/28/2014

Location: MBTA Boston Engine Terminal, Somerville, Ma

Description: Installation of security cameras, access control and security fencing.

Project includes: Installing (120) security cameras throughout the facility, both indoors and outdoors, including Vidsys software and Lenel access control software, Pivot 3 video storage; installing 2000' of underground electric conduit & 8000' of surface mounted electrical conduit; 3000' fiber optic cable with termination and testing; installation of 36' Tymetal security gate with all electrical controls; various installations of mesh fencing and barbed wire; installation of concrete foundations and bollards; full integration of all cameras installed into the existing MBTA system.

Project Name: Installation of Video Advertising Screens - Phase 1
Reference / Contact: Mike Naclerio / (212) 418-1048

Owner: Titan 360

Customer/Contractor: Titan 360

Contract Price: \$361,561 Completion Date: 3/31/2013

Location: Various MBTA Subway Stations, Boston, MA

Description: Install video TV advertising screens in MBTA subway stations at various locations (across track in median of subway, on existing station walls, on existing station columns, etc.). Run conduit/wire from existing electrical panels through existing stations to newly installed TV screens. Install structural steel support members. Install fiber optic cable and CAT5e cable for communication network and integrate into titan's network.

Project Name: METFON - 6 Locations - State Contract #72209
Reference / Contact: Kathy Barr / (857) 368-6100

Owner: MassDOT

Customer/Contractor: Maverick

Contract Price: \$197,988 Completion Date: 6/30/2012

Location: Tobin Bridge

Description: Installation of (4000') of 2" FRE electrical conduit on and across the Tobin Bridge (from 200 Arlington St, Chelsea to MassDOT maintenance facility in Charlestown)

Project Name: Charles/MGH Station Frame Installation
Reference / Contact: Casey Miles / 319-573-9371

Owner: MBTA

Customer/Contractor: MBTA

Contract Price: \$92,900 Completion Date: 1/31/2014

Location: Charles/MGH MBTA Station, Boston, MA

Description: install digital signs, structural steel, communication, conduit, and power feeds per MBTA spec

Project Name: Installation of Video Advertising Screens - Phase 2
Reference / Contact: Mike Naclerio / (212) 418-1048

Owner: Titan 360

Customer/Contractor: Titan 360

Contract Price: \$549,836 Completion Date: 11/30/2014

Location: Various MBTA Subway Stations, Boston, MA

Description: Design electrical conduit and wiring. Submit P.E. stamped drawings to MBTA for approval. Install video TV advertising screens in (4) different MBTA subway stations at various locations (across track in median of subway, on existing station walls, on existing station columns, etc.). Run conduit/wire from existing electrical panels through existing stations to newly installed TV screens. Install structural steel support members.

Project Name: Streetlight and Traffic Signal Maintenance and Improvements
Reference / Contact: Dave Turocy / (413) 499-9330

Owner: City of Pittsfield, MA

Customer/Contractor: City of Pittsfield, MA

Contract Price: \$ 426,094.72 Completion Date: 8/4/2017

Location: Various Locations, Pittsfield MA

Description: perform maintenance and improvements for all City-owned streetlight and traffic signal infrastructure

Project Name: Melrose Highlands Lighting Improvements
Reference / Contact: Bob Rotondi / 781-321-7772
Owner: City of Melrose, MA
Customer/Contractor: D&R GENERAL CONTRACTING, INC.
Contract Price: \$78,800 Completion Date: 4/30/2015
Location: Franklin Street, Melrose, MA
Description: installation of streetlight poles, fixtures and applicable wiring and electrical service pedestals

Project Name: Traffic Signal Improvements
Reference / Contact: Wayne A. Chouinard / (781) 316-3320
Owner: Town of Arlington, MA
Customer/Contractor: Town of Arlington, MA
Contract Price: \$91,577 Completion Date: 9/30/2015
Location: Various locations, Arlington, MA
Description: installation of traffic signal preemption systems, pedestrian and vehicular signals, controller programming, audible pedestrian buttons, underground conduit repairs, and signage

Project Name: LED Streetlight Conversion and Maintenance (3 separate Town joint procurement)
Reference / Contact: Mary C. Day / (781) 259-2603
Owner: Town of Randolph, Town of Lincoln, City of Fitchburg, MA
Customer/Contractor: Town of Randolph, Town of Lincoln, City of Fitchburg, MA
Contract Price: \$400,000.00 Completion Date: 11/30/2015
Location: Various locations, Randolph, Lincoln, Fitchburg, MA
Description: Conversion of approximately 6,000 fixtures to LED, including maintenance

Project Name: Lantheus Electrical service upgrade
Reference / Contact: Ken Purington / (781) 944-5513
Owner: Lantheus Medical Imaging
Customer/Contractor: Cable Splicing and Testing, Inc.
Contract Price: \$109,000 Completion Date: 7/30/2015
Location: Lantheus Medical Imaging Facility, Billerica, MA
Description: Install (5) sets of 4x500 MCM Cu cables per transformer. Install 4" RGS conduit on exterior of building from each transformer. Core existing building wall for conduits. Install interior conduits, wire ways, junction boxes, hangers, and associated hardware from cored holes to existing switchgear (2 separate switchgear rooms). Provide grounding for both transformer pads

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Project Name: CAP 3-15 - Uphams Corner Security Upgrades

Reference / Contact: Adam Peters / (617) 222-5714

Owner: MBTA

Customer/Contractor: MBTA

Contract Price: \$224,329 Completion Date: 9/30/2015

Location: Uphams Corner Commuter Rail MBTA Station

Description: Installation of all conduit, wiring, hardware, and integration for (20) IP cameras and (4) intercoms/passenger assistance telephones.

Project Name: Red Line Security Upgrades Fields Corner Station And Shawmut Station

Reference / Contact: Mike Daly / (339) 502-6611

Owner: MBTA

Customer/Contractor: FTG Security

Contract Price: \$414,000 Completion Date: 7/30/2015

Location: Fields Corner and Shawmut MBTA Stations

Description: Installation of all conduit, wiring and hardware for (77) IP cameras, (31) intercoms/passenger assistance telephones, and (17) door access control locations. Fiber optic cable installation for tie-in to MBTA network

Project Name: Town of Littleton - Nashoba Road Roadway Reconstruction

Reference / Contact: Jim Murray / (978) 897-4353

Owner: Town of Littleton, MA

Customer/Contractor: ET&L Corp

Contract Price: \$ 18,450 Completion Date: 7/15/2015

Location: Nashoba Road, Littleton, MA

Description: installation of driver feedback signs

Project Name: Fiber Optic Cable Installation

Reference / Contact: Matt Picanso / (207) 375-8248

Owner: Town of Salem, NH

Customer/Contractor: Highway Tech

Contract Price: \$23,670 Completion Date: 8/30/2015

Location: Main Street, Salem, NH

Description: installation, termination and testing of overhead and underground fiber optic cable between various traffic signal cabinets.

Project Name: LED streetlight conversion

Reference / Contact: Carole Collins / 413-772-1412

Owner: Town of Greenfield, MA

Customer/Contractor: Town of Greenfield, MA

Contract Price: \$41,426 Completion Date: 9/15/2015

Location: Various locations, Greenfield, MA

Description: Conversion of approximately 730 streetlight fixtures to LED

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Project Name: LED streetlight conversion
Reference / Contact: Adrienne St. John / (781) 275-7605
Owner: Town of Bedford, MA
Customer/Contractor: Town of Bedford, MA
Contract Price: \$43,806 Completion Date: 11/30/2015
Location: Various locations, Bedford, MA
Description: Conversion of approximately 715 fixtures to LED. Perform energy savings calculations and process rebate application and close-out with utility (Eversource).

Project Name: LED streetlight conversion and maintenance
Reference / Contact: Todd Korchin / (781) 251-2578
Owner: Town of Westwood, MA
Customer/Contractor: Town of Westwood, MA
Contract Price: \$250,000 Completion Date: 6/30/19
Location: Various locations, Westwood, MA
Description: Conversion of approximately 1,116 fixtures to LED, including decorative fixtures and follow-on maintenance and improvements.

Reference / Contact: Bill Peckham / 617-254-7550
Owner: Geis Companies
Customer/Contractor: The Welch Corp
Contract Price: \$40,350 Completion Date: 12/15/2015
Location: Third Ave, Waltham, MA
Description: Installation of telecom and electrical duct banks

Project Name: 605528 - Bridge Replacement - Route 145 (Winthrop Avenue) over the MBTA and PanAM Railroads
Reference / Contact: Bryan Delaney/ (781) 821-6222
Owner: MassDOT/MBTA
Customer/Contractor: Barletta
Contract Price: \$600,000.00 Completion Date: 5/30/2016
Location: Revere, MA
Description: Full-depth Installation/replacement of (2) traffic signal intersections, including (2) full temporary intersections. Installation of lighting. Complete relocation of duct bank/wiring for MBTA railroad signals and power.

Project Name: LED streetlight conversion and maintenance
Reference / Contact: Doreen DeFazio / (508) 917-7012
Owner: Town of Sutton, MA
Customer/Contractor: Town of Sutton, MA
Contract Price: \$25,000 Completion Date: 7/30/2016
Location: Various locations, Sutton, MA
Description: Conversion of approximately 250 streetlight fixtures to LED, including flood light fixtures and follow-on maintenance and improvements.

Project Name: Main Street Traffic Signal improvements
Reference / Contact: Jay Corey / 781-897-5882

Owner: City of Woburn

Customer/Contractor: City of Woburn

Contract Price: \$209,329 Completion Date: 12/31/2015

Location: 2 Intersections, Main Street, Woburn, MA

Description: Improvement of (2) traffic signal intersections, including underground conduit, foundations, hand holes, sidewalk improvements, fiber optic cable drops, cabinets, preemption, signals, and video detection

Project Name: 607975 - Traffic Signal Improvements at 6 Locations In the Municipalities of AUBURN-NORTHBOROUGH-SHREWSBURY-STURBRIDGE & WORCESTER

Reference / Contact: Mark Johnson / (508) 929-3800

Owner: MassDOT

Customer/Contractor: MassDOT

Contract Price: \$1,024,188.33 Completion Date: 7/15/2016

Location: at 6 Locations In the Municipalities of AUBURN-NORTHBOROUGH-SHREWSBURY-STURBRIDGE & WORCESTER

Description: The work includes, but is not limited to, changing the signal lighting from semi-actuated operation to fully actuated operation, the installation of conduit, pull boxes, and detectors, replacing the existing cabinet and foundations, installing Ethernet modems, resetting/replacing granite curb, construction of sidewalks and wheelchair ramp, and other miscellaneous improvements at each location.

Project Name: 608180 - Resurfacing and Related Work (Including Signals) along a Section of Route 9 (Worcester Street) in the Town of WELLESLEY

Reference / Contact: Eric Mistretta / (617) 224-2385

Owner: MassDOT

Customer/Contractor: PJ Keating

Contract Price: \$274,930.45 Completion Date: 10/31/2018

Location: 2 intersections, Route 9, Wellesley, MA

Description: The work includes, but is not limited to, full reconstruction of (2) traffic signal intersections, as well as installation of CCTV cameras and integration into Town of Wellesley network.

Project Name: 608047 - Intersection Reconstruction and Traffic Signal Improvements along Route 8A (Ashland Street) at American Legion Drive and Chestnut Street in the City of NORTH ADAMS

Reference / Contact: Timothy Moore / (413) 346-8978

Owner: MassDOT

Customer/Contractor: MassDOT

Contract Price: \$233,895.00 Completion Date: 5/4/2016

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Location: Route 8A (Ashland Street) at American Legion Drive and Chestnut Street in the City of NORTH ADAMS

Description: The work to be done under this Contract consists of removing and replacing an existing traffic signal at the intersection of Ashland Street with American Legion Drive and Chestnut Street in the City of North Adams. The installation includes a diagonal strain pole/span wire setup, LED traffic signals, a video detection system, an 8-phase traffic controller, new 10' signal posts, plus all miscellaneous wire, conduit, and cable needed to construct a fully actuated traffic signal. Included also with the project will be sidewalk and wheel chair ramp replacement in the vicinity of the intersection. New pavement markings and signs will be installed within the project limits.

Project Name: 606706 - Bridge Replacement Br. No. P-10-010 (Steel) Woodlawn Avenue over CSX Railroad in the City of Pittsfield

Reference / Contact: Chris Wesche / 413-289-1230

Owner: MassDOT

Customer/Contractor: Northern Construction

Contract Price: \$51,485 Completion Date: 5/4/2016

Location: Woodlawn Avenue over CSX Railroad in the City of Pittsfield, MA

Description: Installation of new and replacement of existing roadway lighting wiring, poles and fixtures

Project Name: School Zone Signal Improvements

Reference / Contact: Mike Maglio / (508) 553-5500

Owner: Town of Franklin

Customer/Contractor: Town of Franklin

Contract Price: \$54,124 Completion Date: 12/31/2015

Location: 6 locations on Oak Street and Lincoln Street, Franklin, MA

Description: Installation of four school zone flasher assemblies complete with driver feedback signs. Installation of two complete rectangular rapid flashing beacon (RRFB's) systems, complete with foundations.

Project Name: Installation of Video Advertising Screens – Urban Panel

Reference / Contact: Ricky Nelson / (212) 909-7659

Owner: Intersection

Customer/Contractor: Intersection

Contract Price: \$307,959 Completion Date: 8/30/2016

Location: Various MBTA Subway Stations, Boston, MA

Description: Install video TV advertising screens at MBTA subway station exterior stairwells/head houses at various locations. Run conduit/wire from existing electrical panels through existing stations/subway tunnels to newly installed TV screens. Install structural steel support members. Install fiber optic cable and CAT5e cable for communication network and integrate into Intersection's network.

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Project Name: Relocate rooftop electrical conduit and feeders
Reference / Contact: Joe Condon / (978) 671-8618
Owner: Lantheus Medical Imaging
Customer/Contractor: Lantheus Medical Imaging
Contract Price: \$94,120 Completion Date: 9/30/2016
Location: Lantheus Medical Imaging Facility, Billerica, MA
Description: Install new 4" RGS conduit with stainless steel junction boxes and 500 MCM copper feeders on roof from Mechanical Room "A" to Mechanical Room "C" to accommodate new rooftop unit. Tie-ins to be done on weekend/off-hours

Project Name: LED Streetlight conversion
Reference / Contact: Ed Lewis / (617) 972-6417
Owner: Town of Watertown
Customer/Contractor: Town of Watertown
Contract Price: \$70,300 Completion Date: 2/8/2017
Location: Various Locations, Watertown, MA
Description: Conversion of approximately 1000 fixtures to LED, including decorative lighting

Project Name: LED Streetlight conversion and maintenance
Reference / Contact: Bill Walsh / 781-821-5023
Owner: Town of Canton
Customer/Contractor: Town of Canton
Contract Price: \$104,520 Completion Date: 2/23/2017
Location: Various Locations, Canton, MA
Description: Conversion of approximately 2000 streetlight fixtures to LED, including follow-on maintenance and improvements.

Project Name: Building 200 Electrical upgrade
Reference / Contact: Joe Condon / (978) 671-8618
Owner: Lantheus Medical Imaging
Customer/Contractor: Lantheus Medical Imaging
Contract Price: \$985,133 Completion Date: 5/30/2017
Location: Lantheus Medical Imaging Facility, Billerica, MA
Description: Installation of new 3000A switchboard, 2500 kVA transformer, 15 kV feeders, underground ductbank and manhole, 2000A transfer switch, and various 1600A 480V feeders throughout the facility.

Project Name: IFB NO. CAP 35-16 Fiber Optic Cable Installation – Riverside Station To
Worcester Main Line MP 10.8

Reference / Contact: Rich Arnold / (617) 222-3635

Owner: MBTA

Customer/Contractor: MBTA

Contract Price: \$106,167 Completion Date: 5/30/2017

Location: Riverside MBTA station and Worcester Commuter Rail, MA

Description: Installation of new signal bungalow at commuter rail. Installation of conduit on catenary poles and under commuter rail tracks. Installation of new 48-fiber cable, both other head on catenary poles and underground, including all terminations and testing.

Project Name: Traffic Signal and Streetlight Maintenance/Improvements
Reference / Contact: Lance Hill / 508-223-2222

Owner: City of Attleboro

Customer/Contractor: City of Attleboro

Contract Price: \$30,000 Completion Date: 3/31/2020

Location: Various locations, Attleboro, MA

Description: Repair/upgrade traffic signals

Project Name: Traffic Signal Maintenance/Improvements
Reference / Contact: Brian White / (781) 505-1116

Owner: Town of Burlington

Customer/Contractor: Town of Burlington

Contract Price: \$150,000

Start date: 6/1/16 Completion Date: 5/31/2019

Location: Various locations, Burlington, MA

Description: Repair/upgrade traffic signals

Project Name: Traffic Signal, Streetlight and Fire Alarm Maintenance/Improvements
Reference / Contact: Feargal O'Regan / 617-730-2156

Owner: Town of Brookline

Customer/Contractor: Town of Brookline

Contract Price: \$150,000 Completion Date: 5/31/2020

Location: Various locations, Brookline, MA

Description: Repair/upgrade traffic signals

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Project Name: Assembly Square/Mystic Ave Traffic signal improvements
Reference / Contact: Joe Cincotta / (617) 845-8000 [Matt LaVangie, Cranshaw, (617) 559-5231]

Owner: Federal Realty

Customer/Contractor: LM Heavy Civil

Contract Price: \$472,552 Completion Date: 10/31/17

Location: Assembly Square/Mystic Ave, Somerville, MA

Description: Construction and reconstruction of (3) traffic signal intersections. Full depth reconstruction including all conduit, foundations, and hand holes.

Project Name: Roadway Reconstruction and Related Work along a Section of Route 1A
(Rantoul and Cabot Streets) - Beverly (MassDOT Project #600220, contract #85012)

Reference / Contact: Bob Aponas / (978) 742-4400

Owner: MassDOT/MBTA

Customer/Contractor: The Middlesex Corp.

Contract Price: \$3,224,625.00 Completion Date: 10/14/17

Location: Rantoul and Cabot Streets, Beverly, MA

Description: Complete construction/reconstruction of (7) traffic signal intersections, (92) decorative light poles/fixtures, and (2) railroad grade/signal crossings

Project Name: Installation of Rapid Flashing Beacons

Reference / Contact: Jay Monty / (617) 544-6033

Owner: City of Everett

Customer/Contractor: City of Everett

Contract Price: \$55,796.00 Completion Date: 10/31/17

Location: 4 locations along Broadway, Everett, MA

Description: Installation of rectangular rapid flashing beacons (RRFB's) including foundations

Project Name: Broadway Signal Improvements

Reference / Contact: Jay Monty / (617) 544-6033

Owner: City of Everett

Customer/Contractor: City of Everett

Contract Price: \$209,985.00 Completion Date: 12/22/17

Location: 8 locations along Broadway, Everett, MA

Description: Convert 8 locations to concurrent pedestrian phasing including upgrade of controllers, pedestrian signal heads, and pedestrian push buttons

Project Name: Pedestrian and Bicycle Improvements At Various Locations
Reference / Contact: John Digiacoimo / (508) 647-6550

Owner: Town of Natick

Customer/Contractor: Town of Natick

Contract Price: \$479,821.27 Completion Date: 12/31/17

Location: (11) Various locations throughout Natick, MA

Description: The work includes, but is not limited to, wheelchair ramp and sidewalk construction, pedestrian push button and signal head installation, loop detector installation, signal timing modifications, Rectangular Rapid-Flashing Beacon installation, mast arm and signal head installation, conduit installation including roadway trenching, sign installation and pavement marking work.

Project Name: Installation of Digital advertising screens
Reference / Contact: Brian Faw / (212) 297-6400

Owner: Outfront Media/MBTA

Customer/Contractor: Outfront Media

Contract Price: \$1,311,743.00 Completion Date: 5/30/19

Location: Various MBTA Stations

Description: Install over (250) video TV advertising screens in MBTA subway stations at various locations (across track in median of subway, on existing station walls, on existing station columns, etc.). Run conduit/wire from existing electrical panels through existing stations to newly installed TV screens. Provide follow-on maintenance services.

Project Name: Back Bay MBTA Station Restroom Upgrade
Reference / Contact: Frank Scalli / (617) 619-5320

Owner: Boston Properties

Customer/Contractor: JDL Corporate Interiors

Contract Price: \$211,520.00 Completion Date: 10/31/17

Location: Back Bay MBTA Station

Description: All electrical work for complete renovation of restroom facilities, including all power, lighting, lighting controls, and heat trace.

Project Name: Traffic Signal Maintenance, Repairs, and Improvements
Reference / Contact: James Petruzzi / (508) 929-1300

Owner: City of Worcester

Customer/Contractor: City of Worcester

Contract Price: \$152,114.00

Start date: 10/1/17 Completion Date: 8/29/2020

Location: various locations throughout the City (over 200 locations)

Description: Repair/upgrade traffic signals

Project Name: LED Streetlight conversion
Reference / Contact: Gene Allen / (508) 643-6331
Owner: Town of North Attleboro Electric Department
Customer/Contractor: Town of North Attleboro Electric Department
Contract Price: \$92,552.00 Completion Date: 2/14/18
Location: various locations throughout Town
Description: Convert roadway cobra head fixtures to LED, including utilizing town software for GIS points

Project Name: Servicing Traffic Signals & Control Systems (DCR-STATEWIDE)
Reference / Contact: Alex Smigliani / 617-727-8632
Owner: Department of Conservation and Recreation (DCR)
Customer/Contractor: DCR
Contract Price: \$2,745,000.00
Start date: 3/1/18 Completion Date: 3/1/20
Location: DCR-STATEWIDE (over 350 locations)
Description: providing service to maintain traffic signal and control systems in good working order, including scheduled preventive maintenance, emergency repairs, capital improvements and modifications

Project Name: Scheduled and emergency traffic signal repairs/improvements, contract #99971
Reference / Contact: Jose Goncalves / 508-824-6633

Owner: MassDOT
Customer/Contractor: MassDOT
Contract Price: \$500,061.00
Start date: 12/15/17 Completion Date: 12/15/19
Location: MassDOT District 5 – District-wide
Description: Scheduled and emergency traffic signal repairs/improvements

Project Name: Supply & Install FY18 Pedestrian Signal Head and APS Push Button Upgrade Program
Reference / Contact: Jason Sobel / 617-796-1476

Owner: City of Newton
Customer/Contractor: City of Newton
Contract Price: \$146,155
Start date: 3/23/18 Completion Date: 6/30/2019
Location: City wide, Newton, MA
Description: installation of new pedestrian signal heads, LED's, and audible pedestrian buttons.

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Project Name: Scheduled and emergency traffic signal repairs/improvements, contract #103752

Reference / Contact: John Soucy / 781-641-8300

Owner: MassDOT

Customer/Contractor: MassDOT

Contract Price: \$962,725

Start date: 9/12/18 Completion Date: 9/11/20

Location: MassDOT District 4 – District-wide

Description: Scheduled and emergency traffic signal repairs/improvements

Project Name: MAPC-DOER-17 - LED Street & Outdoor Lighting Installation, Dalton, MA

Reference / Contact: Rebecca Slick / 413-684-6111

Owner: Town of Dalton

Customer/Contractor: Town of Dalton

Contract Price: \$58,909

Start date: 12/17/18 Completion Date: March 2019

Location: various locations, Dalton, MA – Town-wide

Description: Convert roadway cobra head and decorative fixtures to LED. Also perform installation of new bracket arms and hardware.

Project Name: Building 200 Transformer & ATS improvement project

Reference / Contact: Joe Condon / (978) 671-8618

Owner: Lantheus Medical Imaging

Customer/Contractor: Lantheus Medical Imaging

Contract Price: \$578,450 Completion Date: 1/28/2019

Location: Lantheus Medical Imaging Facility, Billerica, MA

Description: Installation of new 2000 kVA transformer with associated automatic transfer switch, 3000A feeders, transformer pad, bollards, underground ductbank, paving.

Project Name: Contract R32CN01 - Wellington Yard Improvements Tracks 33-38

Reference / Contact: Jason Strazullo / 508-879-4700

Owner: MBTA

Customer/Contractor: JF White

Contract Price: \$371,222 Completion Date: 2/28/2019

Location: Wellington yard/MBTA Station, Medford, MA

Description: Along active ROW with flagging: Installation, termination and testing of various fiber optic cables for MBTA communications and signals

Project Name: Project 41338 - Upgrade signal heads with retroreflective backplates at approximately 184 intersections statewide
Reference / Contact: Dean H. Wilson / (603) 271-2571
Owner: NHDOT

Customer/Contractor: NHDOT
Contract Price: \$384,935 Completion Date: 10/11/2019
Location: Wellington yard/MBTA Station, Medford, MA
Description: Upgrade signal heads with retroreflective backplates at approximately 184 intersections statewide, and other ancillary traffic signal upgrades

Project Name: L1332-C1 - Terminal C Roadway Signage
Reference / Contact: David Doane / (617) 568-5973
Owner: Massport

Customer/Contractor: Massport
Contract Price: \$1,516,911 Completion Date: 6/30/2019
Location: various Massport roadways, Logan Airport, East Boston, MA
Description: The work includes the installation of (4) roadway dynamic led signs On existing roadway support structures. Provision of electrical and communication feeds through existing conduit pathways in the roadway viaduct structures and through new ductbanks to be constructed. Miscellaneous steel framing to support the signs from the existing structure and traffic management to allow for installation in an active roadway.

Project Name: LED Streetlight Conversion MAPC-DOER-15 (5 separate Town joint procurement)
Reference / Contact: Patrick Roche / (617) 933-0790
Owner: Town of Franklin, Town of Manchester, Town of Medfield, City of Medford, Town of Ware, MA
Contract Price: \$417,658.00 Completion Date: 3/31/2019
Location: Various locations, Franklin, Manchester, Medfield, Medford, Ware, MA
Description: Conversion of over 8,200 fixtures to LED. Included fusing, decorative, and flood lighting.

Project Name: CONTRACT 52F-18 - fiber optic installation and rail bungalow relocation
Reference / Contact: Rich Arnold / (617) 222-3635
Owner: MBTA
Customer/Contractor: MBTA
Contract Price: \$198,000 Completion Date: 8/12/2019
Location: various Worcester Commuter rail line at Riverside test track, Newton, MA
Description: Along active ROW with flagging: Relocation of rail bungalow, including all civil work and conduit. Connection of fiber optic cabling and power to relocated bungalow.

Project Name: MAPC-DOER-17 - LED Street & Outdoor Lighting Installation, Pittsfield, MA

Reference / Contact: Ricardo Morales/ (413) 448-9768

Owner: City of Pittsfield

Customer/Contractor: City of Pittsfield

Contract Price: \$471,636 Completion Date: November 2019

Location: various locations, Pittsfield, MA – City-wide

Description: Convert over 5,300 roadway cobra head and decorative fixtures to LED. Also perform installation of new poles, bracket arms and hardware.

Project Name: Solar RRFB Installations

Reference / Contact: Tim Kaiser / (413) 458-9345

Owner: Town of Williamstown

Customer/Contractor: Town of Williamstown

Contract Price: \$123,882 Completion Date: 12/18/2019

Location: various locations, Williamstown, MA

Description: Install various traffic signal crosswalk flashers

Project Name: Scheduled and Emergency Highway Lighting Repairs and Improvements at Various Locations in District 5, contract # 100545

Reference / Contact: Bob Barrett / 508-824-6633

Owner: MassDOT

Customer/Contractor: MassDOT

Contract Price: \$316,983

Start date: 12/13/17 Completion Date: 10/31/19

Location: MassDOT District 5 – District-wide

Description: Scheduled and emergency highway lighting repairs/improvements

Project Name: Fire alarm system upgrade

Reference / Contact: PRT Realty / 781-820-6753

Owner: PRT Realty

Customer/Contractor: PRT Realty

Contract Price: \$25,000

Start date: 6/20/2019 Completion Date: 6/25/2019

Location: North Reading, MA

Description: Complete upgrade and testing of fire alarm system

Architect / Engineer References

A/E Company Name: Jacobs
A/E Contact Name: Ken Sliby
A/E Contact Phone: (617) 242-9222
A/E Company Address: 343 Congress Street, Boston, MA 02210

A/E Company Name: HNTB
A/E Contact Name: Michael Maietta
A/E Contact Phone: (978) 905-4025
A/E Company Address: 300 Apollo Drive, Chelmsford, MA 01824

A/E Company Name: AECOM
A/E Contact Name: Iain Fryer
A/E Contact Phone: 617-723-1700
A/E Company Address: One Federal Street, Suite 800, Boston, MA, 02110, USA

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Call dispatch/central monitoring station

PRT has a 24/7 call center that is staffed by real/live operators. PRT has an on-call schedule so there is always someone standing by for emergency calls. For alarm customers, PRT also has a 3rd party central monitoring station contracted to service these accounts.

Waste Disposal

PRT attests it will dispose of all waste in accordance with all local, state and federal regulations. PRT uses Veolia Environmental Services for disposal of hazardous waste generated on projects.



Key Employee Profiles

Michael S. Rocca – President

Mr. Rocca has worked in the electrical industry for over 40 years in both public and private sectors. Obtaining his master electrical license in 1977, Michael has worked for numerous contractors, both in the field and office, including Interstate Electric, J.F. White, and his own businesses. Throughout his career, Michael has been responsible for as many as (60) field and office employees, as well as numerous rail and transportation projects that include:

- MBTA Orange Line Signal Upgrade: Upgrade fiber optic network for communication, fiber optic network for track signal systems, upgrade track wayside telephones. Total project value: \$3.5M
- MBTA South Station Finishes: Upgrade all lighting, fire alarm, and power systems. Total project value: \$2.5M
- Saks Fifth Avenue: Complete store electrical upgrade/renovation. Total project value: \$1.5M
- MassDOT Video Management System: Complete upgrade and integration of MassDOT/MBTA/Boston Police/Mass Turnpike video management systems. Total project value: \$1.7M

Andrew T. Rist – Vice President

Mr. Rist has worked with public agencies for over ten years on their electrical, traffic signal, lighting and ITS improvement projects. Before joining PRT, Andrew worked for Republic ITS/Siemens where he had complete profit and loss responsibility for two regional offices. Andrew has a B.S. in Civil Engineering from the University of Vermont and has extensive experience managing projects from the bidding/procurement phase all the way through completion and maintenance. Some of Andrew's projects include:

- Pittsfield Streetlight Conversion: Field audit, conversion and maintenance of approximately 5,000 streetlight fixtures from Mercury vapor to HPS.

Pine Ridge Technologies, Inc.
217R Main Street, North Reading, MA 01864
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- City of Newton, MA Streetlight Conversion: Conversion and maintenance of approximately 8,000 streetlight fixtures from Mercury vapor to HPS.
- New Haven, CT City-wide traffic signal construction and communication upgrade: Install new head-end TOC equipment, upgrade (102) traffic signal intersections City-wide and integrate into new system. Total project value: \$3.2M
- MAPC LED Streetlight Conversion: Field audit, conversion and maintenance of approximately 7,000 streetlight fixtures from HPS to LED. Total project value: \$2.4M

James Lynch – Master Electrician/Foreman

Mr. Lynch has worked as a foreman on public sector projects for over 30 years. As an I.B.E.W. master electrician, James has built numerous traffic signal intersections and lighting systems across Massachusetts from the ground up to include all underground conduit and concrete foundation work. He has worked for several companies including Daisy Electric and Republic ITS/Siemens, and managed a field staff of over thirty employees and subcontractors, in both maintenance and construction divisions, whose trades included electrical, drainage, concrete, paving, steel erection, landscaping, pavement markings, and signage. James also holds the following certifications: IMSA work zone safety, IMSA Roadway Lighting Level I, IMSA Traffic Signal Technician Level II, MA 1B & 2A hoisting licenses, MBTA/Keolis ROW training.

James Morris – Journeyman Electrician

Mr. Morris has worked as a street lighting and traffic signal electrician on public infrastructure for over 25 years. James also holds the following certifications: IMSA work zone safety, IMSA Roadway Lighting Level II, IMSA Traffic Signal Technician Level III, and MBTA ROW training.

Michael Jensen – Journeyman Electrician

Mr. Jensen has worked and managed electrical projects as an I.B.E.W. journeyman electrician and foreman for over 20 years. His work has touched on many facets in the electrical industry, including lighting retrofits, transit traction power substations, and transit security systems. He holds IMSA Level II traffic certification.

Dan Messom - Journeyman Electrician

Mr. Messom has maintained traffic signals for over 15 years. As the head traffic signal electrician for MassDOT, he was responsible for the maintenance and of over (450) signalized intersections throughout MassDOT District 4. He has extensive experience with troubleshooting and repairing all aspects of traffic signals including programming controllers, troubleshooting cabinets, repairing vehicle detection (video, loop, microwave, etc.), removing and replacing knocked down poles, troubleshooting and re-splicing traffic signal cable, programming and repairing repair closed-loop systems on various different controller manufacturers. He holds IMSA Level II traffic certification.

David Rocca – Journeyman Electrician

Mr. Rocca has been an electrician for over 15 years. He has extensive experience in installing, terminating and testing fiber optic cable systems and is FOA certified. David has also been a project foreman on numerous electrical infrastructure projects, including rail transit/signals, aeronautical, and controls. David is also a certified welder and certified by Honeywell. He holds IMSA Level II traffic certification.

Sean Hastings – Journeyman Electrician

Mr. Hastings has been an electrician for over 20 years. He has extensive experience with highway lighting and traffic signal systems, both new construction and maintenance. He holds IMSA Level II traffic certification, and electrical licenses in NH, MA and RI.

Bill Regens – Journeyman Electrician

Mr. Regens has been an electrician for over 10 years. He has extensive experience with traffic signal systems, both new construction and maintenance, including controller/cabinet installations and PTZ camera installations. He holds IMSA Level III traffic and Fiber Optics for ITS level I certifications.

Rob Boudreau – Journeyman Electrician

Mr. Boudreau has been an electrician for over 10 years. He has extensive experience with construction and maintenance of fire alarm systems. Rob was instrumental in the design and reconstruction of the PLC controls for the CNG detection system for the MBTA. He also holds a F1 license for City of Boston.

Ronal Bilodeau – Teledata Lineman/Mechanic

Mr. Bilodeau has been working as a telecommunications lineman and mechanic for 14 years. Working for Argus Holdings, Ronal was responsible for the maintenance and oversight of over (450) construction vehicles including commercial pickup trucks, utility trucks, cargo vans, box trucks, line trucks, cable trailers, bucket trucks, and fiber optic splice trucks. Ronal also worked in the field installing coaxial and fiber optic cable networks. Ronal's certifications include: MBTA/Keolis ROW training, Versalift inspector, Telsta inspector, heavy/light truck state inspection, and air brake repair certification.

Equipment List

Type of Equipment:		Serial no. / Vin No.	Used for what Qualification a Class of Work?	Own- ed
Make, Model and Year	Type of Equipment			
2016 CHEVY C4500	14' BOX TRUCK	54DCDW1B4GS809726	ALL	X
2013 ISUZU NQR	18' BOX TRUCK	54DB4W1B5DS800914	ALL	X
2017 ISUZU NPR	14' BOX TRUCK	54DC4W1B2HS808852	ALL	X
2011 HINO 258268	RACK TRUCK	5PVNJ8JM4B4S50226	ALL	X
2005 FORD F750	RACK TRUCK	3FRXF75G85V174430	ALL	X
2014 FORD F250	PICK UP TRUCK	1FTBF2B62EEA06445	ALL	X
2013 CHEVY 2500	PICK UP TRUCK	1GC0CVC650F215132	ALL	X
2015 CHEVY 2500	PICK UP TRUCK	1GB2KUEG7FZ555536	ALL	X
2017 CHEVY 2500	PICK UP TRUCK	1GC2KUEG6H2235384	ALL	X
2017 CHEVY 1500	PICK UP TRUCK	1GCNKNEC4H2221138	ALL	X
2008 CHEVY	SERVICE VAN	1GCFG15X581230821	ALL	X
2014 MERCEDES SPRINTER	SERVICE VAN	WD4PE7CC6E5849225	ALL	X
2007 FORD F550	43' BUCKET TRUCK	1FDAF57P77EA42838	ALL	X
2017 FORD F550	43' BUCKET TRUCK	1FDUF5GT4HDA09491	ALL	X
2016 DODGE 5500	43' BUCKET TRUCK	3C7WRMAL5GG145398	ALL	X
1997 FORD F450	34' BUCKET TRUCK	3FELF47G4VMA68688	ALL	X
2016 HINO 258ALP-	43' BUCKET TRUCK	5PVNJ8JNXG4S52093	ALL	X
2016 DODGE 5500	50' BUCKET TRUCK W/ MATERIAL	3C7WRNBL3GG307675	ALL	X
2016 FORD F550	43' BUCKET TRUCK	1FDUF5GT6GED30022	ALL	X
2018 DODGE 5500	43' BUCKET TRUCK	3C7WRMAL4JG122456	ALL	X
2018 DODGE 5500	43' BUCKET TRUCK	3C7WRNB2JG243859	ALL	X
2018 DODGE 5500	43' BUCKET TRUCK	3C7WRNB8JG242909	ALL	X
2018 FORD F550	43' BUCKET TRUCK	1FDUF5GY1JEC20322	ALL	X
2017 MERCEDES SPRINTER	34' BUCKET VAN	WD3PF3CC8HP385339	ALL	X
2001 INT'L 4900	40' BUCKET TRUCK	1HTSDAAR61H400294	ALL	X
2001 INT'L 4900	DIGGER	1HTSDAAR31H347408	ALL	X
2020 WESTERN STAR 4700SB	70' CRANE (PALFINGER SLS-	SKKHAXDV3LLLM8603	ALL	X
2017 ISUZU NPR	DUMP TRUCK	54DB4W1BXHS802857	ALL	X
2011 UTILEV LT25P	FORKLIFT	A281J03700M	ALL	X
2008 WANCO	ARROW BOARD	5F11S101X81003649	ALL	X
2014 SOLAR TECH	ARROW BOARD	4GM1A0914E1527032	ALL	X
2015 WANCO	ARROW BOARD	5F11S1010F1002538	ALL	X
2014 WANCO	ARROW BOARD	5F11S1015E1003117	ALL	X
2000 K-DEE 1085	HYDR. WIRE TRAILER	1AVXBHE14Y10XB309	ALL	X
2018 BIGTEX	UTILITY TRAILER	16VEX2029J2098695	ALL	X
2017 DOOSAN P185WDD-T4F	185 CFM COMPRESSOR	4FVCABAABHU478431	ALL	X
2018 KAESER M27PE	92 CFM COMPRESSOR	WKA0N0758J6577909	ALL	X
2019 KAESER M27 (SKID MOUNT)	92 CFM COMPRESSOR	WKA050000K6988127	ALL	X
2019 KAESER M17 (CART STYLE)	60 CFM COMPRESSOR	WKA0N0000K6867354	ALL	X
CORE CUT 1800XL	LOOP/ASPHALT	158009	ALL	X
GRNLEE 881CTE380	CONDUIT BENDER	-	ALL	X
GRNLEE 854DX	CONDUIT BENDER	-	ALL	X
RADIO DETECTION RD7100	PIPE/CABLE LOCATOR	-	ALL	X

**Pine Ridge Technologies, Inc. also has numerous accounts and lease agreements with equipment companies to obtain any piece of equipment required for completion our work

Pine Ridge Technologies, Inc.
217R Main Street, North Reading, MA 01864
PH: (781) 246-5555; FAX: (781) 246-5554
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Certifications

Please see below for various certifications held by PRT personnel.

Roadway Lighting Renewal Program
James P. Lynch
Is Hereby Certified as a
Roadway Lighting Technician Level I
By completing all requirements and
examination.



Cert #	Date	Good Thru
RR_30436	4/6/2017	5/30/2020

Traffic Signal Renewal Program
James P. Lynch
Is Hereby Certified as a
Traffic Signal Field Technician Level II
By completing all requirements and
examination.



Cert #	Date	Good Thru
BE_30436	4/6/2017	5/30/2020

Roadway Lighting Renewal Program
James A. Morris
Is Hereby Certified as a
Roadway Lighting Technician Level II
By completing all requirements and
examination.



Cert #	Date	Good Thru
SS_23453	4/27/2017	6/11/2020

Traffic Signal Renewal Program
James A. Morris
Is Hereby Certified as a
Traffic Signal Senior Field Technician Level III
By completing all requirements and
examination.



Cert #	Date	Good Thru
CE_23453	4/27/2017	6/11/2020

Traffic Signal Program
Michael E. Jensen
Is Hereby Certified as a
Traffic Signal Field Technician Level II
By completing all requirements and
examination.

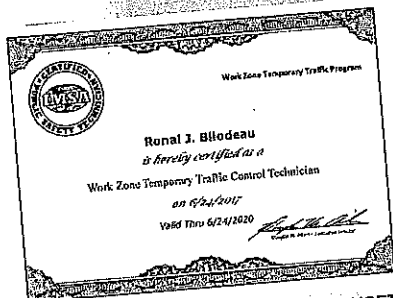


Cert #	Date	Good Thru
BE_118145	6/16/2018	6/16/2021

Traffic Signal Program
Daniel E. Messom
Is Hereby Certified as a
Traffic Signal Field Technician Level II
By completing all requirements and
examination.



Cert #	Date	Good Thru
BE_118154	6/16/2018	6/16/2021



Traffic Signal Program
David M. Rocca
Is Hereby Certified as a
Traffic Signal Field Technician Level II
By completing all requirements and
examination.



Cert #	Date	Good Thru
BE_118159	6/16/2018	6/16/2021

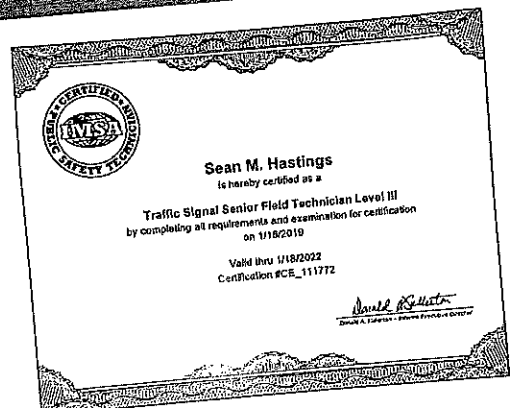
COMMONWEALTH OF MASSACHUSETTS
DIVISION OF PROFESSIONAL LICENSURE
BOARD OF

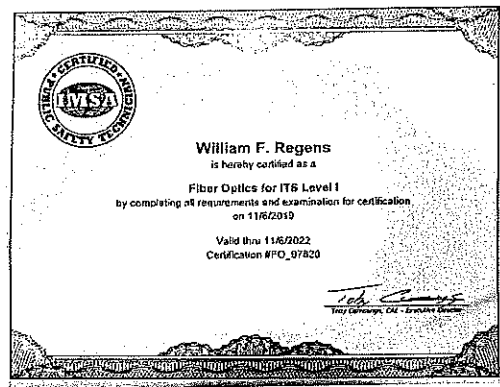
ELECTRICIANS
ISSUES THE FOLLOWING LICENSE
REGISTERED MASTER ELECTRICIAN

MICHAEL S. ROCCA
PINE RIDGE TECHNOLOGIES INC
217-R MAIN STREET
NORTH READING, MA 01864

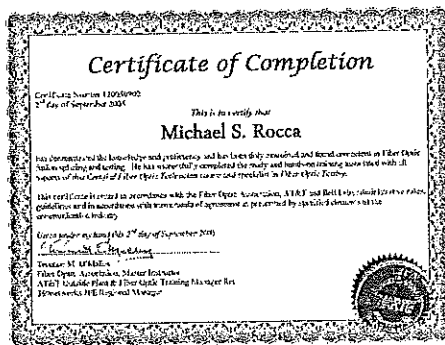
LICENSE NUMBER	EXPIRATION DATE	SERIAL NUMBER
17300 A	07/31/2022	704050

Pine Ridge Technologies, Inc.
217R Main Street, North Reading, MA 01864
PH: (781) 246-5555; FAX: (781) 246-5554
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MASTER



Dave Rocca
Certification No. 2850004
CFOT
Expires: 06-21



THIS CERTIFIES MICHAEL S ROCCA		
IS DULY LICENSED TO TAKE CHARGE OF WORK UNDER PROVISIONS OF THE ACTS OF 1938 CHAPTER 479 AS AMENDED		
F-1 Class of Lic	5/1/19 Date Issued	5/1/20 Exp Date

- MBTA ROW training (all employees)
- Keolis RWP training (all employees)
- OSHA 10 (all employees)
- FOA certification
- Certified welding
- MassDOT prequalification
- MBTA prequalification
- NHDOT prequalification
- DCAMM prequalification
- City of Boston F1 License
- Underwriters Laboratory (UL) certified #S36227

Pine Ridge Technologies, Inc.
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PH: (781) 246-5555; FAX: (781) 246-5554
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Currently Prequalified Contractors in the following class(es) of work:

Traffic Signals

With a minimum MassDOT Single Class of Work Limit of:

\$249,888.73

Company	Expiration Date
ARDEN ENGINEERING CONSTRUCTORS LLC	08/31/2020
BARTLETT CONSOLIDATED LLC	07/31/2020
BAY STATE PIPING CO	05/31/2020
BELL TRAFFIC SIGNAL MAINTENANC	08/31/2020
CENTRAL MASS SIGNAL LLC	05/31/2020
CORA OPERATIONS INC	12/31/2020
COVIELLO ELECTRIC & GENERAL	02/28/2021
DAGLE ELECTRICAL CONSTR CORP	05/31/2021
DAVID R NORTHUP ELECTRICAL	08/31/2020
ELECTRIC LIGHT CO INC	12/31/2020
J F WHITE CONTRACTING CO	12/31/2020
LAPINSKI ELECTRIC INC	02/28/2021
MASS BAY ELECTRICAL CORP	02/28/2021
MASS ELECTRIC CONSTRUCTION CO	08/31/2020
MOULISON LLC	04/30/2021
PINE RIDGE TECHNOLOGIES, INC	05/31/2021
ROSSI ELECTRIC CO INC	06/30/2020
VIGIL ELECTRIC COMPANY INC	08/31/2020

5/29/2020

Town of Natick Mail - ADDENDUM NO. 2 - WEST NATICK FIRE STATION PROJECT TRAFFIC SIGNAL WORK - PLEASE ACKNOWLEDGE...



Bryan Leblanc <bleblanc@natickma.org>

ADDENDUM NO. 2 - WEST NATICK FIRE STATION PROJECT TRAFFIC SIGNAL WORK - PLEASE ACKNOWLEDGE RECEIPT!!!!

11 messages

Wed, May 27, 2020 at 2:50 PM

Bryan Leblanc <bleblanc@natickma.org>
To: addenda <addenda@projectdog.com>, Elin Carboneau <ecarboneau@deccorp.com>, Linda Callanan <lcallanan@deccorp.com>, Megan Hafner <Meganh@cei77.com>, Alex Gugliada <agugliada@mail.thebluebook.com>, Prime Vendor <primevendor124@gmail.com>, Robert McGoodwin <rmcgoodwin@econolite.com>, jtanner@bidprime.com, pturla@mackaycompanies.com, Eric Mills <Eric.Mills@constructconnect.com>
Cc: "Bill Chenard," <chenard@natickma.org>, Jeremy Marsette <jmarsette@natickma.org>, Kenneth Mitchell <kmitchell@natickma.org>, Christina Viera <CViera@fando.com>, Kevin McGarry <KMcGarry@fando.com>, Bryan Leblanc <bleblanc@natickma.org>

Good morning!

Please find attached addendum no. 2. **Please reply to confirm receipt.** You will also need to acknowledge this ADDENDUM No. 2 (as well as previously issued ADDENDUM No. 1) **in your bid form.** FAILURE TO ACKNOWLEDGE ADDENDA IN YOUR BID FORM MAY CAUSE DISQUALIFICATION OF YOUR BID!

Thank you for your attention.

Very truly yours,

Bryan Le Blanc

--
Bryan R. Le Blanc
Procurement Officer
Town of Natick
75 West Street
Natick, MA 01760
bleblanc@natickma.org
(508)-647-6438

2020-05-27 - West Natick Fire Signals - Addendum 2.pdf
3676K

Wed, May 27, 2020 at 2:51 PM

Bryan Leblanc <bleblanc@natickma.org>
To: Mike Wasielewski <mwasielewski@oceanstatesignal.com>

[Quoted text hidden]

2020-05-27 - West Natick Fire Signals - Addendum 2.pdf
3676K

Wed, May 27, 2020 at 2:54 PM

Justin Tanner <jtanner@bidprime.com>
To: Bryan Leblanc <bleblanc@natickma.org>

Received with thanks.

[Quoted text hidden]

Wed, May 27, 2020 at 3:41 PM

pturla@mackaycompanies.com <pturla@mackaycompanies.com>
To: Bryan Leblanc <bleblanc@natickma.org>

<https://mail.google.com/mail/u/0?ik=dc37439454&view=pt&search=all&permthid=thread-a%3Ar-9148316980197563652&simpl=msg-a%3Ar-4381271...>

5/29/2020

Town of Natick Mail - ADDENDUM NO. 2 - WEST NATICK FIRE STATION PROJECT TRAFFIC SIGNAL WORK - PLEASE ACKNOWLEDGE...

Mackay Construction confirming Receipt of addendum no. 2

Petra Turla

From: Bryan Leblanc <bleblanc@natickma.org>
Sent: Wednesday, May 27, 2020 2:50 PM
To: addenda <addenda@projectdog.com>; Elin Carbonneau <ecarbonneau@deccorp.com>; Linda Callanan <lcallanan@deccorp.com>; Megan Hafner <MeganH@cei77.com>; Alex Gugliada <agugliada@mail.thebluebook.com>; Prime Vendor <primevendor124@gmail.com>; Robert McGoodwin <rmcgoodwin@econolite.com>; jtanner@bidprime.com; pturla@mackaycompanies.com; Eric Mills <Eric.Mills@constructconnect.com>
Cc: Bill Chenard, <chenard@natickma.org>; Jeremy Marsette <jmarsette@natickma.org>; Kenneth Mitchell <kmitchell@natickma.org>; Christina Viera <CViera@fando.com>; Kevin McGarry <KMcGarry@fando.com>; Bryan Leblanc <bleblanc@natickma.org>
Subject: ADDENDUM NO. 2 - WEST NATICK FIRE STATION PROJECT TRAFFIC SIGNAL WORK - PLEASE ACKNOWLEDGE RECEIPT!!!!

Good morning!

[Quoted text hidden]

Wed, May 27, 2020 at 3:47 PM

Bryan Leblanc <bleblanc@natickma.org>
To: Justin Tanner <jtanner@bidprime.com>

Many thanks!

[Quoted text hidden]

Wed, May 27, 2020 at 3:47 PM

Bryan Leblanc <bleblanc@natickma.org>
To: pturla@mackaycompanies.com

Many thanks!

[Quoted text hidden]

Thu, May 28, 2020 at 10:42 AM

Megan Hafner <MeganH@cei77.com>
To: Bryan Leblanc <bleblanc@natickma.org>

Receipt confirmed 😊

From: Bryan Leblanc <bleblanc@natickma.org>
Sent: Wednesday, May 27, 2020 2:50 PM
To: addenda <addenda@projectdog.com>; Elin Carbonneau <ecarbonneau@deccorp.com>; Linda Callanan <lcallanan@deccorp.com>; Megan Hafner <MeganH@CEI77.com>; Alex Gugliada <agugliada@mail.thebluebook.com>; Prime Vendor <primevendor124@gmail.com>; Robert McGoodwin <rmcgoodwin@econolite.com>; jtanner@bidprime.com; pturla@mackaycompanies.com; Eric Mills <Eric.Mills@constructconnect.com>
Cc: Bill Chenard, <chenard@natickma.org>; Jeremy Marsette <jmarsette@natickma.org>; Kenneth Mitchell <kmitchell@natickma.org>; Christina Viera <CViera@fando.com>; Kevin McGarry <KMcGarry@fando.com>; Bryan Leblanc <bleblanc@natickma.org>
Subject: ADDENDUM NO. 2 - WEST NATICK FIRE STATION PROJECT TRAFFIC SIGNAL WORK - PLEASE ACKNOWLEDGE RECEIPT!!!!

Good morning!

<https://mail.google.com/mail/u/0?ik=dc37439454&view=pt&search=all&permthid=thread-a%3Ar-9148316980197563652&simpl=msg-a%3Ar-4381271...>

5/29/2020

Town of Natick Mail - ADDENDUM NO. 2 - WEST NATICK FIRE STATION PROJECT TRAFFIC SIGNAL WORK - PLEASE ACKNOWLEDGE...

[Quoted text hidden]

Thu, May 28, 2020 at 10:49 AM

Bryan Leblanc <bleblanc@natickma.org>
To: Megan Hafner <MeganH@cei77.com>

Thanks!

[Quoted text hidden]

Thu, May 28, 2020 at 11:59 AM

Bryan Leblanc <bleblanc@natickma.org>
To: addenda <addenda@projectdog.com>, Elin Carboneau <ecarbonneau@deccorp.com>, Linda Callanan <lcallanan@deccorp.com>, Megan Hafner <MeganH@cei77.com>, Alex Gugliada <agugliada@mail.thebluebook.com>, Prime Vendor <primevendor124@gmail.com>, Robert McGoodwin <rmcgoodwin@econolite.com>, Justin Tanner <jtanner@bidprime.com>, pturla@mackaycompanies.com, Eric Mills <Eric.Mills@constructconnect.com>
Cc: "Bill Chenard," <chenard@natickma.org>, Jeremy Marseite <jmarseite@natickma.org>, Kenneth Mitchell <kmitchell@natickma.org>, Christina Viera <CViera@fando.com>, Kevin McGarry <KMcGarry@fando.com>

Good afternoon.

For the latest MDOT bidder's list, please see the attached. This is NOT an addendum and should not be separately acknowledged. Thanks for your attention. Very truly yours,

Bryan Le Blanc

[Quoted text hidden]

 **Bidders list 5.28.20.pdf**
554K

Thu, May 28, 2020 at 12:07 PM

pturla@mackaycompanies.com <pturla@mackaycompanies.com>
To: Bryan Leblanc <bleblanc@natickma.org>

Mackay Construction Confirming Receipt of Addendum 2.

Petra Turla

From: Bryan Leblanc <bleblanc@natickma.org>
Sent: Thursday, May 28, 2020 12:00 PM
To: addenda <addenda@projectdog.com>; Elin Carboneau <ecarbonneau@deccorp.com>; Linda Callanan <lcallanan@deccorp.com>; Megan Hafner <MeganH@cei77.com>; Alex Gugliada <agugliada@mail.thebluebook.com>; Prime Vendor <primevendor124@gmail.com>; Robert McGoodwin <rmcgoodwin@econolite.com>; Justin Tanner <jtanner@bidprime.com>; pturla@mackaycompanies.com; Eric Mills <Eric.Mills@constructconnect.com>
Cc: Bill Chenard, <chenard@natickma.org>; Jeremy Marseite <jmarseite@natickma.org>; Kenneth Mitchell <kmitchell@natickma.org>; Christina Viera <CViera@fando.com>; Kevin McGarry <KMcGarry@fando.com>

[Quoted text hidden]

[Quoted text hidden]

Thu, May 28, 2020 at 12:10

Bryan Leblanc <bleblanc@natickma.org>
To: "pturla@mackaycompanies.com" <pturla@mackaycompanies.com>

Thanks!

[Quoted text hidden]

Town of Natick, Massachusetts
IFB: Traffic Signals West Natick Fire Station

ADDENDUM NO. 2

TO: Prospective Bidders

PROJECT: IFB: Signals West Natick Fire Station

FROM: Bryan R. Le Blanc
Procurement Officer
Natick Public Works
75 West Street
Natick, MA 01760
(508)- 647-6438

DATE: May 27, 2020

Please also acknowledge via return correspondence upon receipt.

This addendum shall be acknowledged as indicated on the bid form, which is included with the IFB, and which shall be submitted to the Town. Failure to acknowledge Addendum No. 2 in the bid form may result in rejection of your firm's bid.

This addendum consists of twenty-eight (28) pages (including this one).

REVISIONS TO SOLICITATION

"Appendix D, Traffic Signal As-Built, Natick, Massachusetts" and "Appendix E, Bidder's Questions" have been added to Appendices in Table of Contents.

Appendix D, Traffic Signal As-Built, Natick, Massachusetts, has been added to the Project Manual.

Appendix E, Bidder's Questions, has been added to the Project Manual

Addendum No. 1 was issued on May 21, 2020. All other terms of the bid remain unaltered.

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- A Prevailing Wage Rates
- B Contract Drawings (separately bound)
- C MassDOT Permit 3-2018-0459
- D Traffic Signal As-Built, Natick, Massachusetts
- E Bidder's Questions

Town of Natick, MA

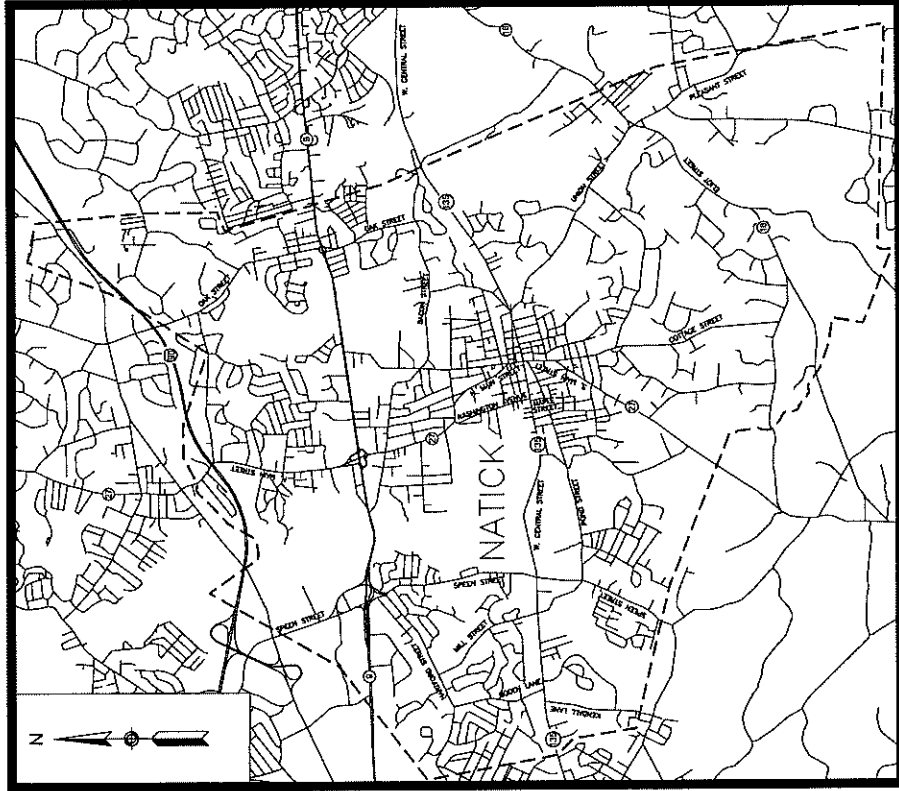
West Natick Fire Station 4 Signal Improvements Project

Appendix D

Traffic Signal As-Built, Natick, Massachusetts

TRAFFIC SIGNAL AS-BUILT

NATICK, MASSACHUSETTS



INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET AND INDEX
2	LOC. 01 - BACON ST @ OAK ST
3	LOC. 0203 - E. CENTRAL ST @ HAYES ST/FIRE STATION HEADQUARTERS
4	LOC. 04 - HARTFORD ST @ MILL ST
5	LOC. 05 - E. CENTRAL ST (RTE 135) @ MARIAN STATION ST
6	LOC. 06 - N. MAIN ST (RTE 27) @ GENERAL GREENE AVE/GILBERT RD
7	LOC. 07 - N. MAIN ST (RTE 27) @ BACON ST
8	LOC. 08 - N. MAIN ST (RTE 27) @ TARGET DRIVE
9	LOC. 09 - N. MAIN ST (RTE 27) @ EVERGREEN RD
10	LOC. 10 - OAK ST @ FIRE STATION 3
11	LOC. 11 - ELIOT ST (RTE 18) @ UNION ST/PLEASANT ST
12	LOC. 12 - SPEEN ST @ POND ST/MILL ST
13	LOC. 13 - SPEEN ST @ FIRE STATION 4
14	LOC. 14 - SPEEN ST @ NOUVELLE WAY
15	LOC. 15 - SPEEN ST @ CHRYSLER RD
16	LOC. 16 - W. CENTRAL ST (RTE 135) @ N. MAIN STS, MAIN ST (RTE 27)
17	LOC. 17 - W. CENTRAL ST (RTE 135) @ WASHINGTON AVE
18	LOC. 18 - W. CENTRAL ST (RTE 135) @ SPEEN ST
19	LOC. 19 - W. CENTRAL ST (RTE 135) @ MILL ST
20	LOC. 20 - W. CENTRAL ST (RTE 135) @ KENDALL LN
21	LOC. 21 - COMMONWEALTH RD (RTE 30) @ TIA DRIVE
22	LOC. 22 - W. CENTRAL ST (RTE 135) @ W. NATICK MBTA STATION

TRAFFIC SIGNAL INVENTORY
NATICK, MASSACHUSETTS

PREPARED FOR
DEPT. OF PUBLIC WORKS
75 WEST ST
NATICK, MA

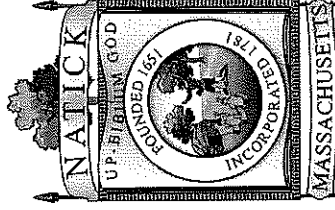
GPI Greenman-Pedersen, Inc.
151 Ballineville Street, Suite 202, Weymouth, MA 01987
Tel: (978) 972-8800 Fax: (978) 972-3044
http://www.gpi-ma.com

REVISIONS	
NO.	DATE
1	3/20/18
DRAWN BY: CTV	
CHECKED BY: JMD	

TITLE SHEET &
INDEX

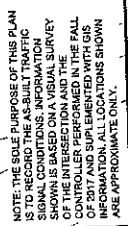
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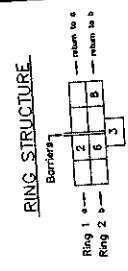


GPI Greenman-Pedersen, Inc.
Engineers, Architects, Planners, Construction Engineers & Inspectors
151 Ballineville Street, Suite 202, Weymouth, MA 01987
Tel: (978) 972-8800 Fax: (978) 972-3044
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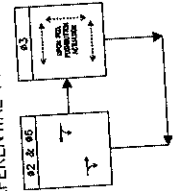
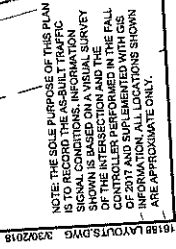




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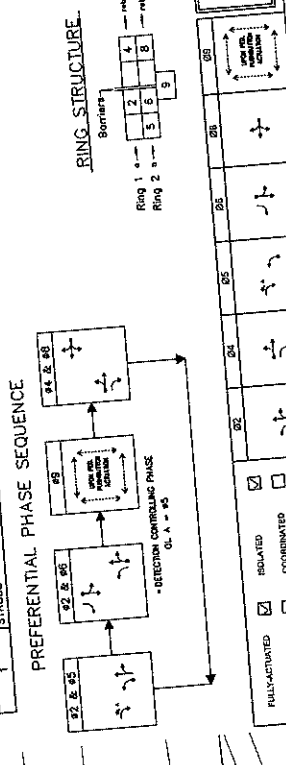
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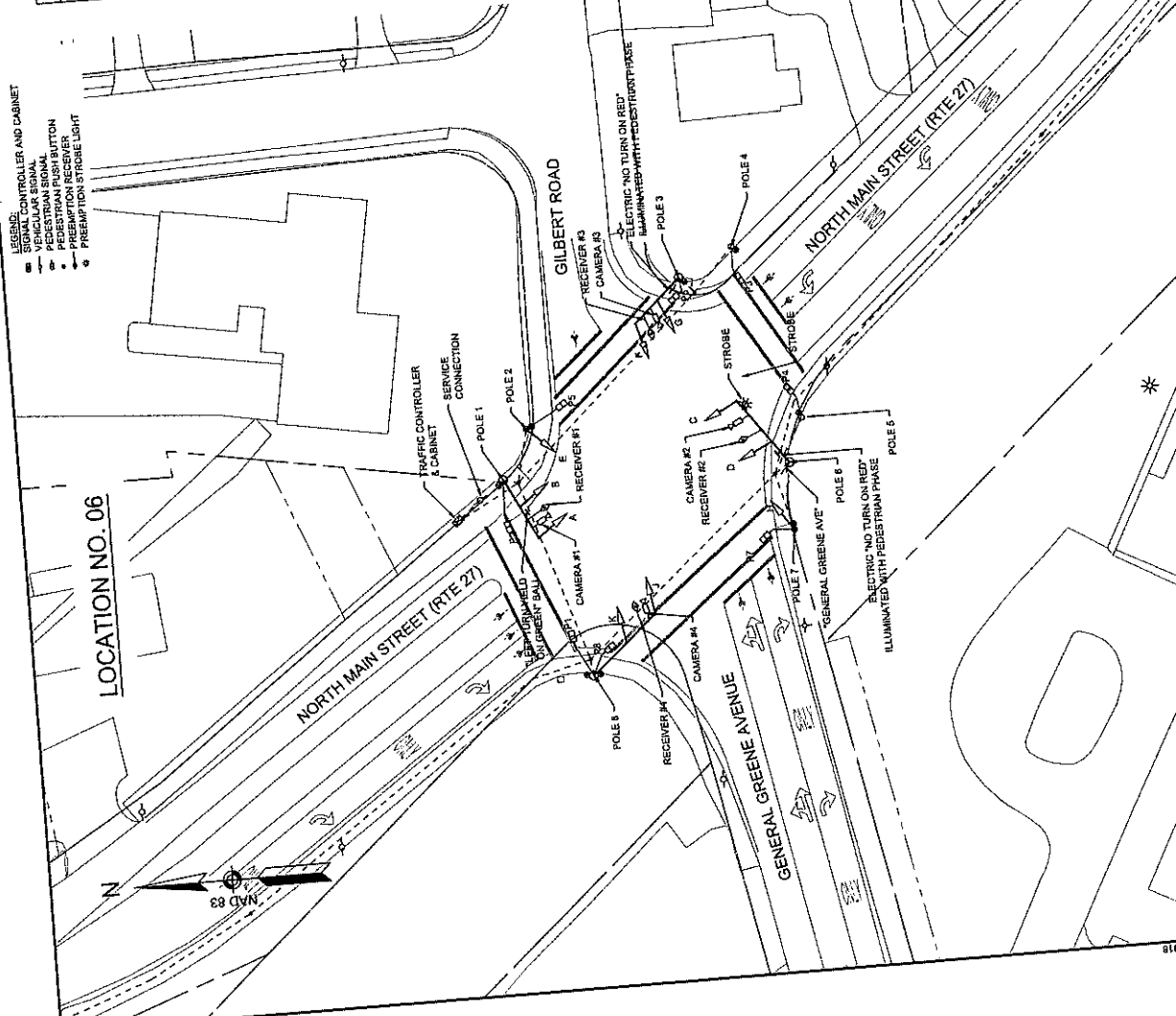
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1					

EXISTING SIGNALS	
B, C, D, E, F, H, J, K	5 X 12" LENS
G	5 X 12" LENS
A	5 X 12" LENS
P1-P8	12 X 12" LENS

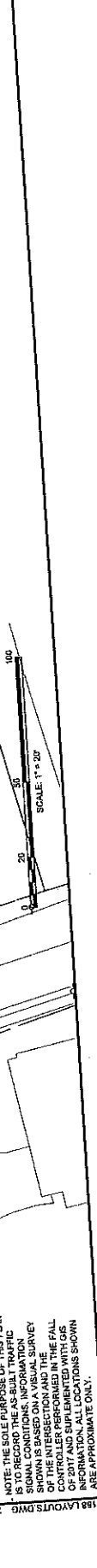
QUANTITY	DESCRIPTION
1	CABINET NEMA 125-TYPE 2 W/ FDN
1	TRAFFIC CONTROLLER SIEMENS M50
1	CONFLICT MONITOR EDI MM42-18LEP
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
1	30" TYPE 1 MAST ARM ASSEMBLY
1	30" TYPE 1 MAST BASE & FDN
1	8" SIGNAL POST BASE & FDN
1	10" SIGNAL POST BASE & FDN
1	SIGNAL HEAD, 5 SECTION
1	SIGNAL HEAD, 5 SECTION
1	PEDESTRIAN HOUSING GRAPHIC LED W/ COUNTDOWN TIMER
1	AUDIBLE & VIBROTACTILE PEDESTRIAN PUSHBUTTON
1	INTEGRATED SIGNAL & SADDLE W/ LED CONFIRMATION LIGHT
1	VIDEO PROCESSOR (2 CH)
1	VIDEO DETECTOR CAMERA
1	9" PORTABLE LCD COLOR MONITOR AND POINTING DEVICE
1	NO TURN ON RED LED BLANK OUT SIGN W/ FIXED MOUNT
1	LOAD SWITCHES (12 30 SLOTS)
1	FLASH TRANSFER RELAYS (6 SLOTS)
1	PULL BOX 12"X12" 5020201
1	ELECTRIC HANDHOLE, 5020202
1	OPTICAL DETECTOR, UNIDIRECTIONAL SINGLE CHANNEL
1	2 CHANNEL PHASE SELECTOR
1	STROBE



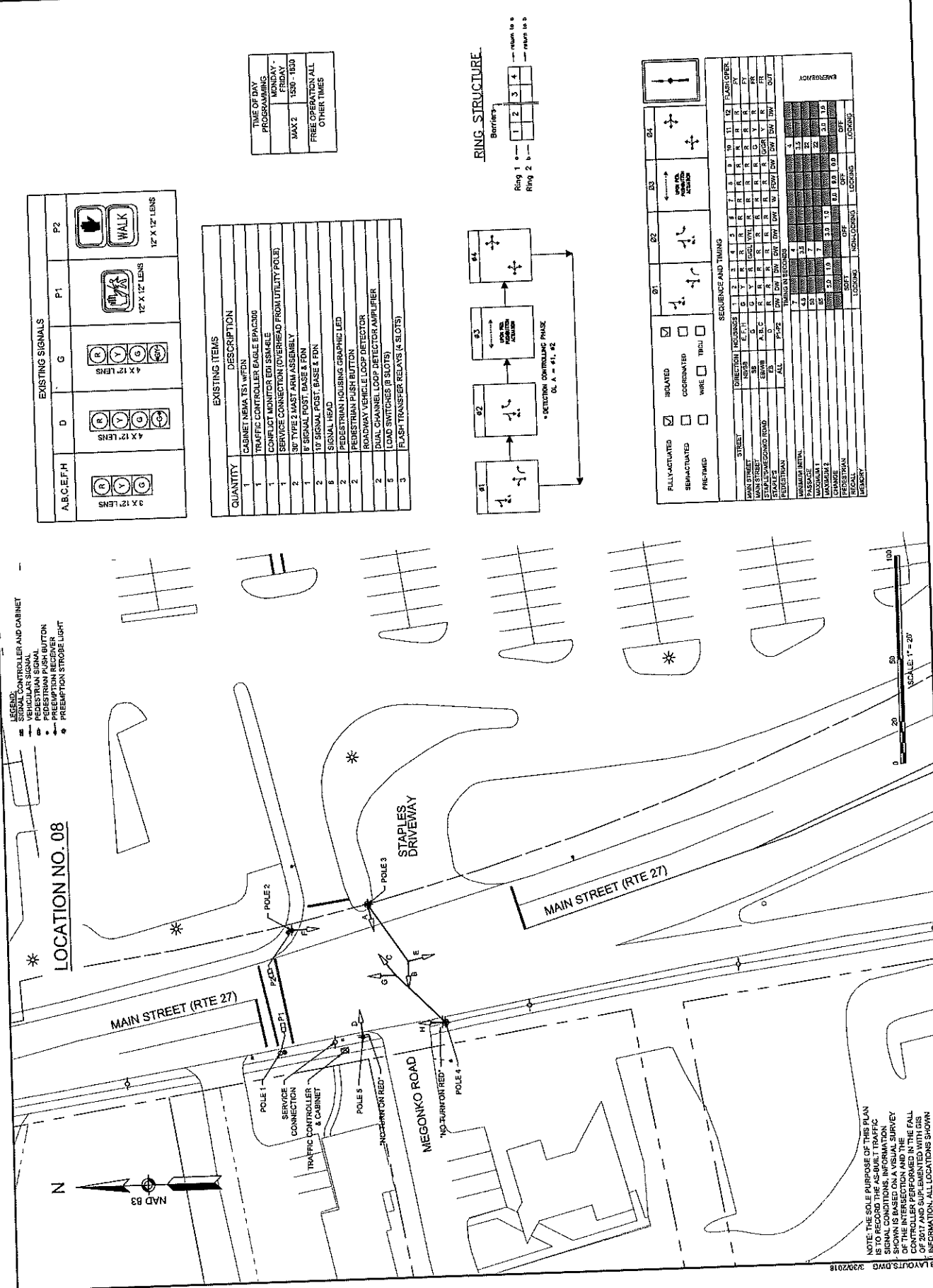
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NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A FIELD SURVEY OF THE INTERSECTION AND THE LOCATION OF THE SIGNALS. THE LOCATION OF THE SIGNALS IS BASED ON THE INFORMATION SHOWN IN THE PLAN. THE LOCATION OF THE SIGNALS IS BASED ON THE INFORMATION SHOWN IN THE PLAN. THE LOCATION OF THE SIGNALS IS BASED ON THE INFORMATION SHOWN IN THE PLAN.

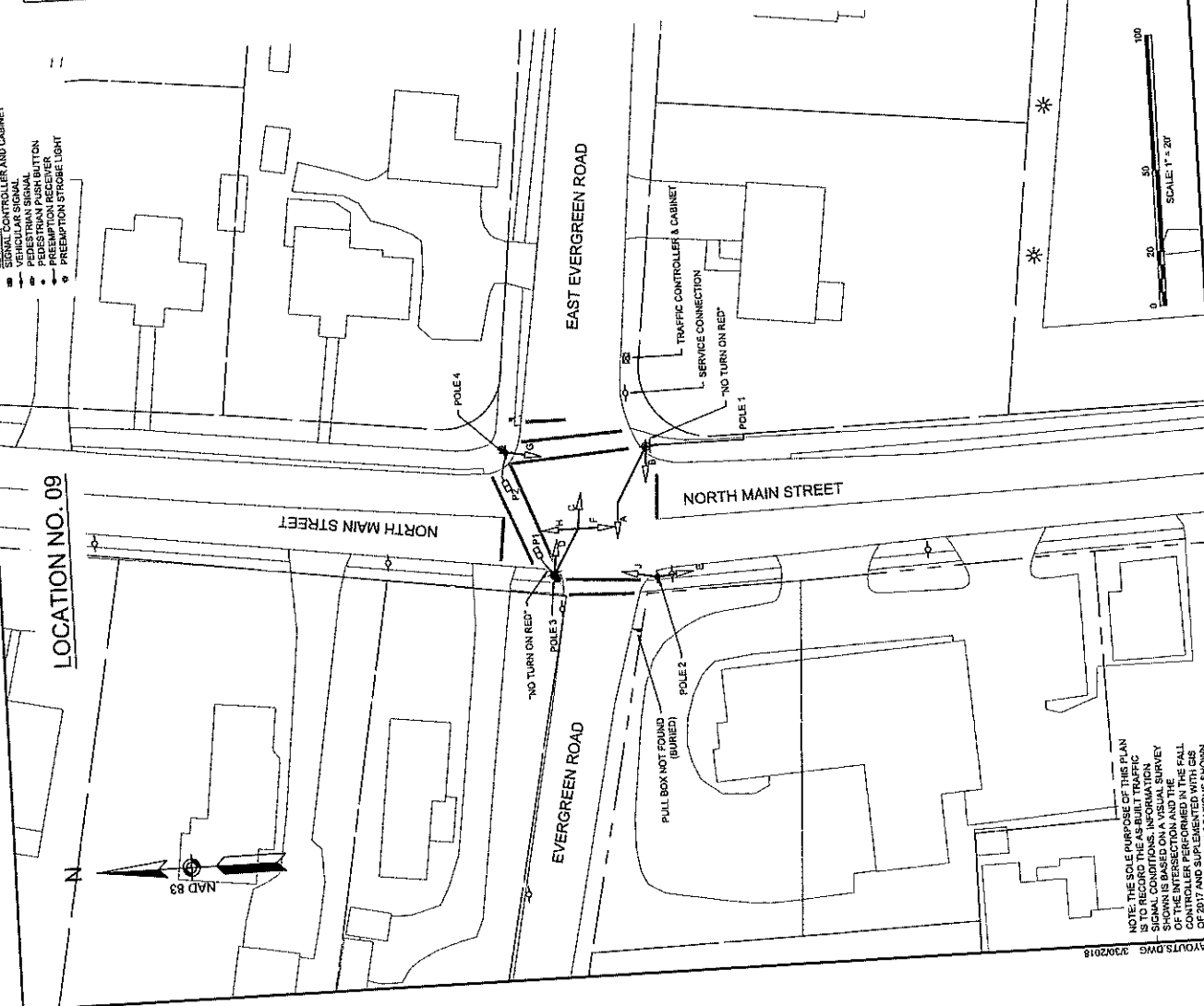


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NO.	REVISION	DATE
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6	REVISION	
7	REVISION	
8	REVISION	
9	REVISION	
10	REVISION	

- LEGEND:
- TRAFFIC CONTROLLER AND CABINET
 - VEHICULAR SIGNAL
 - PEDESTRIAN SIGNAL
 - PEDESTRIAN PUSH BUTTON
 - PREEMPTION RECEIVER
 - PREEMPTION STROBE LIGHT

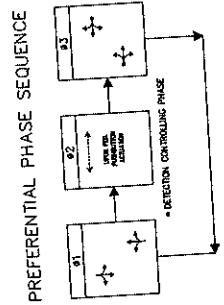
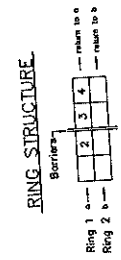


EXISTING SIGNALS

C.D.E.F.H.J	A.B.G	P1	P2
3 X 12" LENS	1 X 12" LENS	12" X 12" LENS	12" X 12" LENS
2 X 8" LENS	1 X 12" LENS	12" X 12" LENS	12" X 12" LENS

EXISTING ITEMS

QUANTITY	DESCRIPTION
1	CABINET NEMA 125-TYPE 1 WFDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI NSM-4
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
2	20" TYPE 1 MAST ARM ASSEMBLY
2	10" SIGNAL POST BASE & FRN
2	SIGNAL HEAD 3 SECTION
2	PEDESTRIAN HOUSING GRAPHIC LED
2	PEDESTRIAN PUSH BUTTON
2	ROADWAY VEHICLE LOOP DETECTOR
1	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
3	LOAD SWITCHES (8 SLOTS)
3	FLASH TRANSFER RELAYS (4 SLOTS)

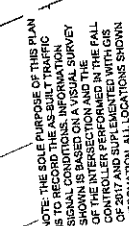


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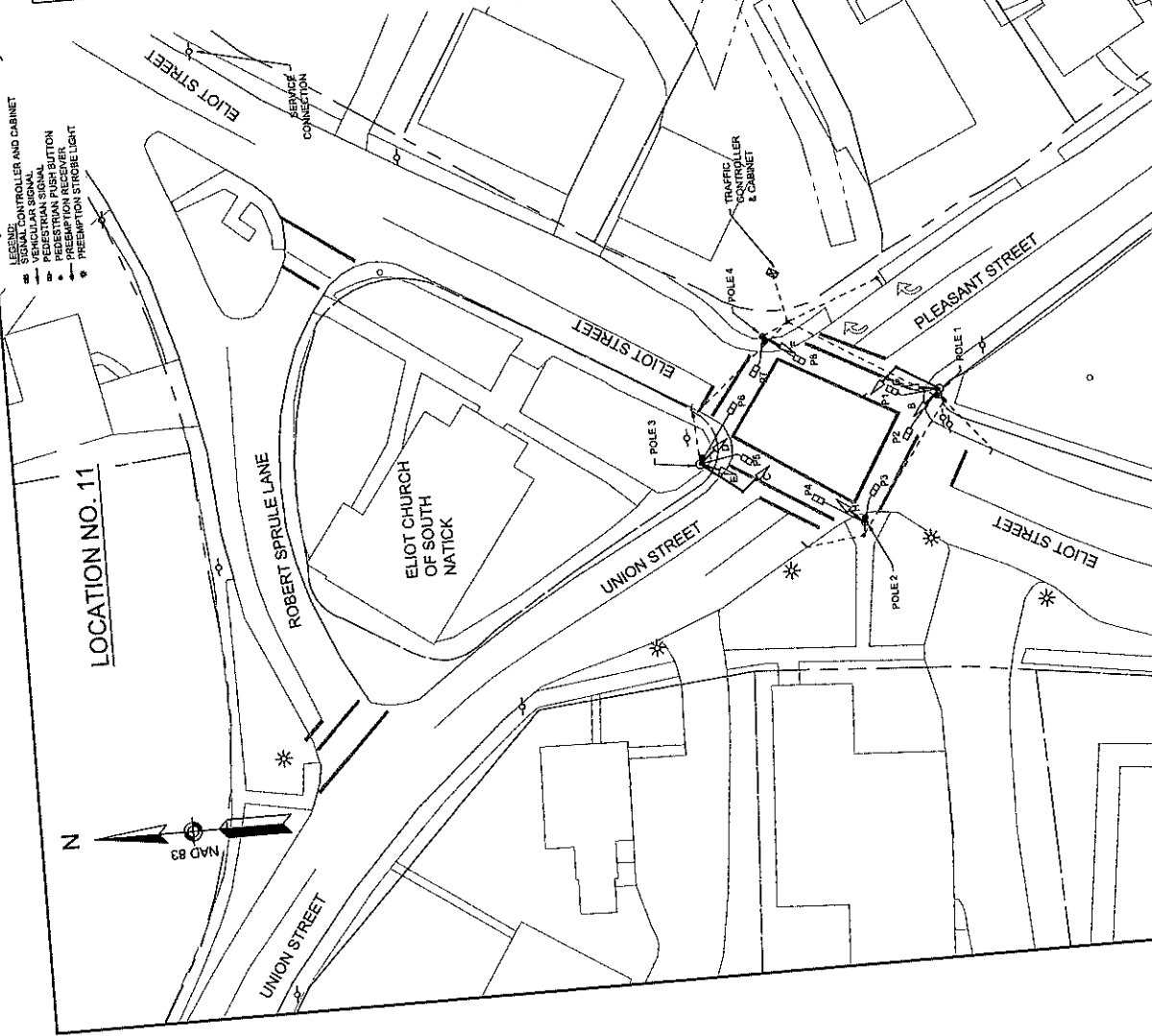
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NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A FIELD SURVEY OF THE INTERSECTION AND THE DATA WAS COLLECTED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

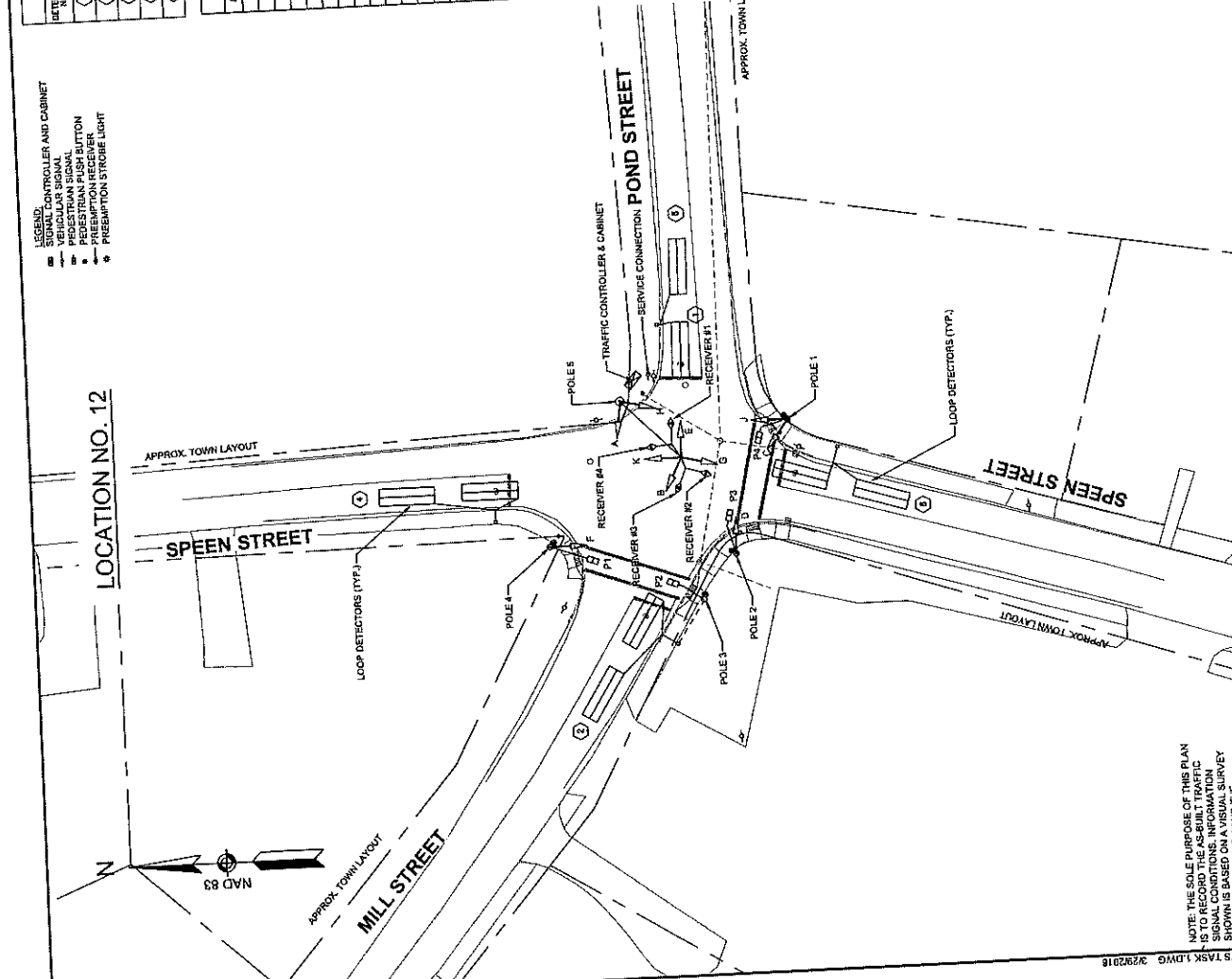


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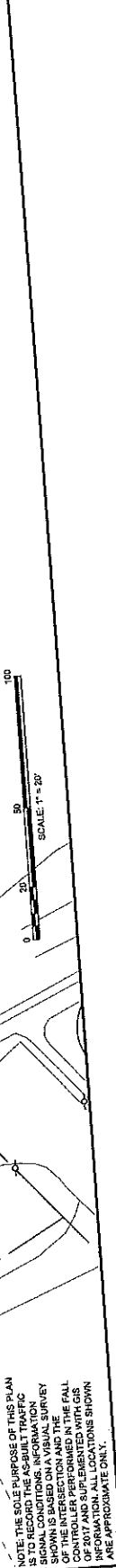
---CENTRAL PHASE SEQUENCE

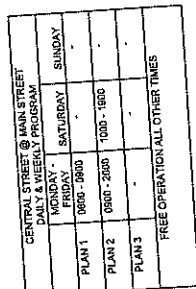


NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTS SHOWN

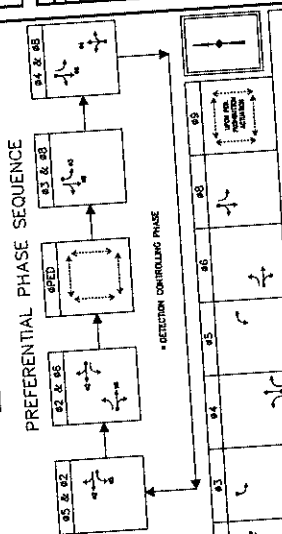
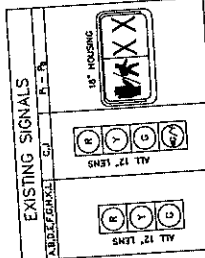
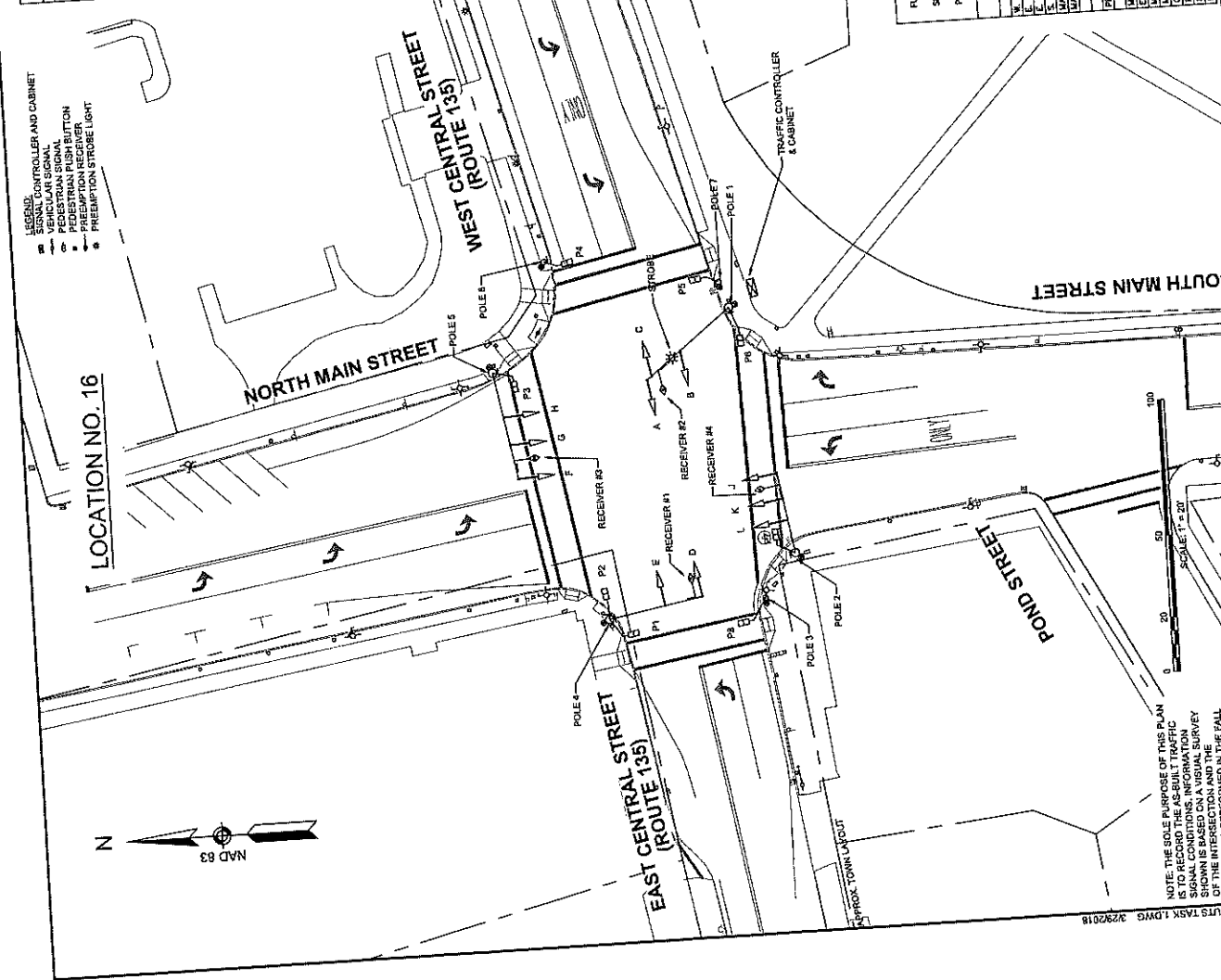
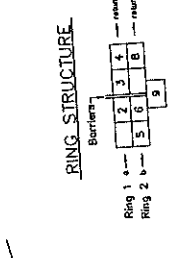


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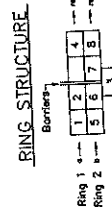
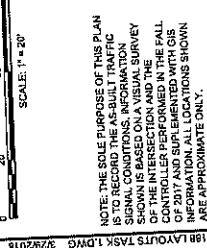
CENTRAL STREET @ MAIN STREET COORDINATION OF TRAFFIC SIGNALS (ALL ENTRIES IN SECONDS)									
		PLAN 1		PLAN 2		PLAN 3			
		100	120	45	100	80			
		42	w/0.89	w/0.28	w/0.89	w/0.89			
		58	33	89	31	52	24		
SPLIT TIME	02	58	33	12	12	12	12		
SPLIT TIME	03	12	36	12	12	12	16		
SPLIT TIME	04	30	56	29	29	14	12		
SPLIT TIME	05	12	12	12	12	12	12		
SPLIT TIME	06	12	12	45	17	40	12		
SPLIT TIME	08	40	18	20	25	15	16		
SPLIT TIME	09	30	20	25	20				
SPLIT TIME	08	30	25	20				28	

[illegible][illegible]

NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

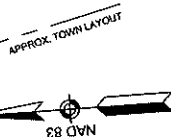


NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

[illegible]

LEGEND:
 SIGNAL CONTROLLER AND CABINET
 VEHICULAR SIGNAL
 PEDESTRIAN SIGNAL
 PEDESTRIAN PUSH BUTTON
 PREEMPTION RECEIVER
 PREEMPTION STROBE LIGHT

LOCATION NO: 19



MILL STREET

WEST CENTRAL
ROUTE 135)

... AND DETECTORS (TYP.) --

PULL BOX

MILL STREET

NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE.

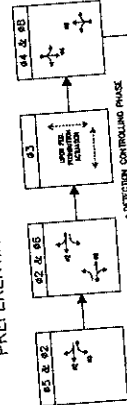
[illegible]

DETENTION	NUMBER AND SIZE	LOOSE PATTERNS	NO. OF QUADS	NO. OF QUADS OF	MAKE	RELAY TIME
(7)	2-6-200"	PARALLEL	2	2	B	-
(8)	2-6-200"	PARALLEL	4	4	B	-
(9)	2-6-200"	PARALLEL	5	5+2	B	-
(10)	4-6-200"	PARALLEL	6	6	B	-
(11)	4-6-200"	PARALLEL	8	8	B	-
(12)	6-6"	BICYCLE TYPE D-2	4	4	B	-

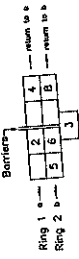
EXISTING ITEMS		DESCRIPTION
QUANTITY		
1		CABINET NEWA T81 W/FOIN
1		TRAFFIC CONTROLLER EAGLE EPM300
1		CONTACT MONITOR EDI MMU-12
1		SERIAL CONNECTION (COVERHEAD FROM UTILITY POLE)
1		35 WAST / PN/ASSEMBLY, BASE & FDN
1		25 WAST / PN/ASSEMBLY, BASE & FDN
1		17 SIGNAL POST, BASE & FDN
1		10 SIGNAL POST, BASE & FDN
2		SIGNAL HEAD, 3 SECTION
1		SIGNAL HEAD, 1 SECTION
4		DUAL CHANNEL LOOP DETECTOR AMPLIFIER
5		LOAD SWITCHES (12 SLOTS)
4		FLASH SWITCHES (12 SLOTS)
12		PULL BOX 12"x12"
4		PEDESTRIAN JOURNALING (SIGNALING LED WITH COUNTDOWN TIMER)
4		AUDIBLE & VIBROTACTILE PEDESTRIAN PUSH BUTTON
4		INTEGRATED SIGNALING SADDLE WITH LED CONFIGURATION LIGHT
12		ROADWAY VARIABLE LOOP DETECTOR (QUADRUPOLE TYPE)
1		BICYCLE LOOP DETECTOR TYPE D2

EXISTING SIGNALS		P = PA	
C		16" HOUSING	
ALL 12" LENS		ALL 12" LENS	
ALL 12" LENS		ALL 12" LENS	

SEQUENTIAL PHASE SEQUENCE



RING STRUCTURE







[illegible]

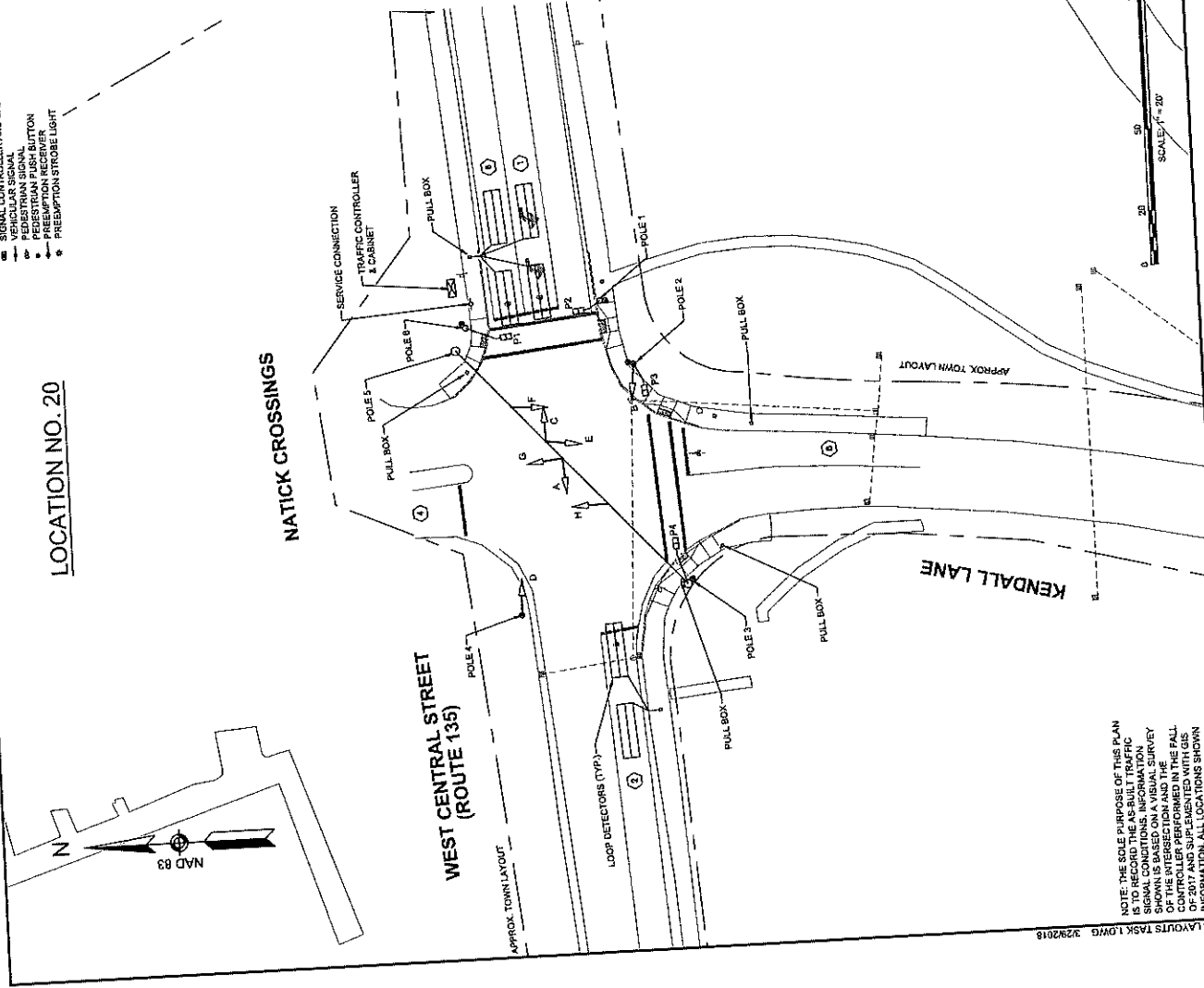
TRAFFIC SIGNAL INVENTORY
NATICK, MASSACHUSETTS

REVISIONS		DATE	CHANGED BY
NO.	REVISION	3/20/18	JNO
			CTW

TRAFFIC SIGNAL AS-BUILT
LOCATION 19
SCALE 1"=20'
19 OF 22

LOCATION NO. 20

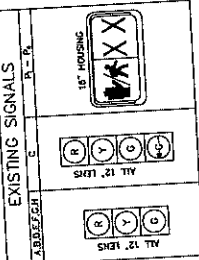
- LEGEND:**
 SIGNAL CONTROLLER AND CABINET
 VEHICULAR SIGNAL
 PEDESTRIAN SIGNAL
 PEDESTRIAN PUSH BUTTON
 PEDESTRIAN RECEIVER
 PREEMPTION STROBE LIGHT



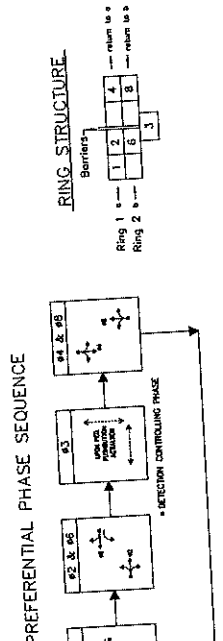
NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

[illegible]

LOOP DETECTOR DATA						
DETECTOR NO.	NUMBER AND SIZE	SPIRAL PATTERN	NO. OF TURNS	ODD OR EVEN	WORK IN PROGRESS	EST. TIME
1	2-5 200'	PARALLEL	QUAD TYPE	1	1-6 B	-
2	2-5 200'	PARALLEL	QUAD TYPE	2	2 B	-
3	2-5 200'	PARALLEL	QUAD TYPE	6	6 B	-



QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 W/FIN
1	TRAFFIC CONTROLLER TCT LMD 8000
1	CONVECT MONITOR TCT 12
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
1	SPAL WIRE ASSEMBLY, BASE & FEN (120FT SPAN)
2	8" SIGNAL POST, BASE & FEN
2	10" SIGNAL POST, BASE & FEN
1	SIGNAL HEAD, 2 SECTION
1	SIGNAL HEAD, 4 SECTION
3	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
5	LOAD SWITCHES (17 SLOTS)
3	FLASH TRANSFER RELAYS (8 SLOTS)
6	PULL SWITCH 12X12
6	PEDESTRIAN HOURS GRAPHIC LED WITH COUNTDOWN TIMER
4	AUDIBLE & VIBRO-TACTILE PED-LED PUSH BUTTON
4	INTEGRATED SIGN & SIGNAL CONTROLLER (120V)
2	ROADWAY VEHICLE LOOP DETECTOR (QUADRUPOLE TYPE)

[illegible][illegible]

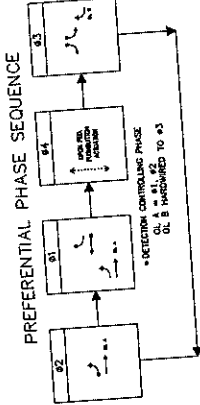
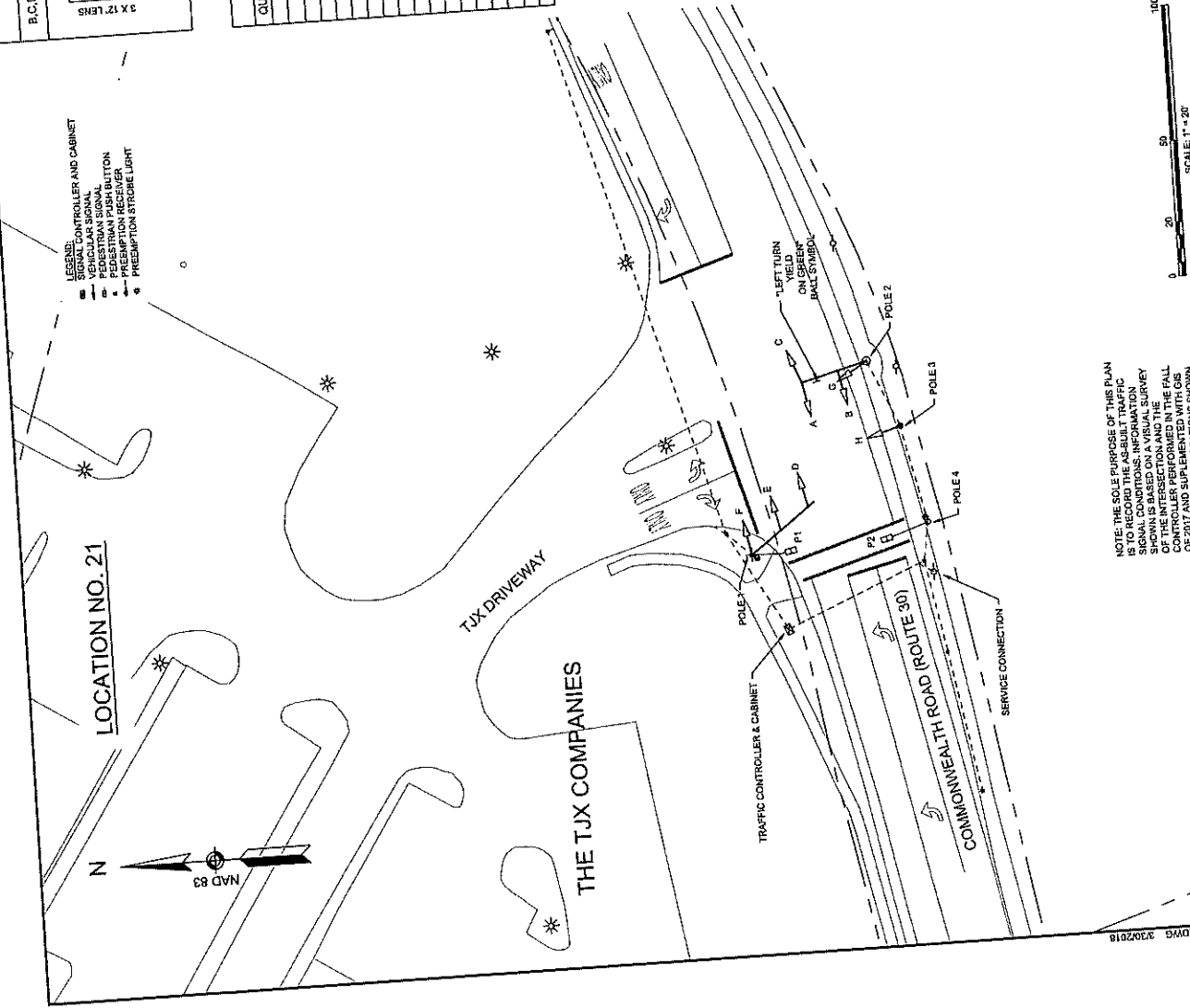
TRAFFIC SIGNAL INVENTORY
NATICK, MASSACHUSETTS

DEPT. OF PUBLIC WORKS
75 WEST ST
NATICK, MA

TRAFFIC SIGNAL AS-BUILT	LOCATION 20	SCALE: 1"=20'	20 OF 22
----------------------------	-------------	---------------	----------

COMMONWEALTH ROAD & TUX DRIVEWAY COORDINATION DATA (ALL ENTRIES IN SECONDS)		PLAN 1	PLAN 2
CYCLE		103	102
OFFSET		60	69
		W/O 09	W/O 25
		W/O 09	W/O 25
SPLIT TIME 01	55	55	52
SPLIT TIME 02	25	25	20
SPLIT TIME 03	22	22	30
SPLIT TIME 04	0	0	0

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER, EXCITE EPAC200
1	CONFLICT MONITOR, EXCITE ECC
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
1	25 TYPE 2 MAST ARM ASSEMBLY
1	307 TYPE 2 MAST ARM ASSEMBLY
1	147 SIGNAL POST, BASE & FDN
1	8 SIGNAL POST, BASE & FDN
0	3 SECTION SIGNAL HEAD
1	4 SECTION SIGNAL HEAD
1	5 SECTION SIGNAL HEAD (BYPASSING LED)
1	PEDESTRIAN HOUSING TON
2	PEDESTRIAN PUSH BUTTON DETECTOR
2	ROADWAY VEHICLE LOOP DETECTOR
3	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
3	LOAD SWITCHES (5 SLOTS)
3	FLASH TRANSFER RELAYS (4 SLOTS)
5	PULLBOX

[illegible]

NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

Appendix E

Bidder's Questions

Bidder's Questions:

1. Does Natick have it owns(sic) traffic signal equipment specification it can provide or provide information on existing signal equipment used in the Town ?

Response: Refer to Appendix D – Traffic Signal As-Built, Natick Massachusetts, for information related to existing signal equipment used in the Town. Also, the Town of Natick uses opticoms manufactured by GTT Opticom.

2. Have soil borings been performed at the locations of the mast arms ? If so can they be provided?

Response: Soil borings have not been performed at the mast arm locations. Test pit excavations have been performed adjacent to the proposed mast arm locations. Test pit logs are included in the plans on sheet CP1.01.



Bryan Leblanc <bleblanc@natickma.org>

ADDENDUM NO. 1 - WEST NATICK FIRE STATION PROJECT TRAFFIC SIGNAL WORK - PLEASE ACKNOWLEDGE RECEIPT!!!

3 messages

Bryan Leblanc <bleblanc@natickma.org>

Thu, May 21, 2020 at 3:15 PM

To: addenda <addenda@projectdog.com>, Elin Carboneau <ecarbonate@deccorp.com>, Linda Callanan <lcallanan@deccorp.com>, Megan Hafner <MeganH@cei77.com>, Alex Gugliada <agugliada@mail.thebluebook.com>, Prime Vendor <primevendor124@gmail.com>, Robert McGoodwin <rmcgoodwin@econolite.com>, Eric Mills <Eric.Mills@constructconnect.com>, jtanner@bidprime.com, pturla@mackaycompanies.com
Cc: "Bill Chenard," <chenard@natickma.org>, Jeremy Marsette <jmarsette@natickma.org>, Kenneth Mitchell <kmitchell@natickma.org>, Christina Viera <CViera@fando.com>, Kevin McGarry <KMcGarry@fando.com>, Bryan Leblanc <bleblanc@natickma.org>

Good morning!


Please find attached addendum no. 1. **Please reply to confirm receipt.** You will also need to acknowledge this ADDENDUM No. 1 **in your bid form.** FAILURE TO ACKNOWLEDGE ADDENDA IN YOUR BID FORM MAY CAUSE DISQUALIFICATION OF YOUR BID!

Thank you for your attention.

Very truly yours,

Bryan Le Blanc

--
Bryan R. Le Blanc
Procurement Officer
Town of Natick
75 West Street
Natick, MA 01760
bleblanc@natickma.org
(508)-647-6438

 **Addendum 1 Signals 051821 - Compiled.pdf**
391K

Megan Hafner <MeganH@cei77.com>
To: Bryan Leblanc <bleblanc@natickma.org>

Fri, May 22, 2020 at 7:15 AM

Good morning Bryan,

I would like to confirm receipt of Addendum No. 1.

Thank you and have a great long weekend!

Megan

[Quoted text hidden]

5/26/2020

Town of Natick Mail - ADDENDUM NO. 1 - WEST NATICK FIRE STATION PROJECT TRAFFIC SIGNAL WORK - PLEASE ACKNOWLEDGE...
Fri, May 22, 2020 at 7:59 AM

Bryan Leblanc <bleblanc@natickma.org>
To: Megan Hafner <MeganH@cei77.com>

Thank you, you too!
[Quoted text hidden]

Town of Natick, Massachusetts
IFB: Traffic Signals West Natick Fire Station

ADDENDUM NO. 1

TO: Prospective Bidders

PROJECT: IFB: Signals West Natick Fire Station

FROM: Bryan R. Le Blanc
Procurement Officer
Natick Public Works
75 West Street
Natick, MA 01760
(508)- 647-6438

DATE: May 21, 2020

Please also acknowledge via return correspondence upon receipt.

This addendum shall be acknowledged as indicated on the bid form, which is included with the IFB, and which shall be submitted to the Town. Failure to acknowledge Addendum No. 1 in the bid form may result in rejection of your firm's bid.

This addendum consists of fourteen (14) pages (including this one).

REVISIONS TO SOLICITATION

"Appendix C, MassDOT Permit 3-2018-0459" has been added to Appendices in Table of Contents.

"1.8. B Existing Permits – 1. Comply with the requirements of MassDOT Permit 3-2018-0459. A copy of this permit is included in Appendix C." has been added to Division 1 – General Requirements, Section 01110 – Summary of Work.

Appendix C, MassDOT Permit 3-2018-0459 has been added to the Project Manual.

No other addenda have been issued to date. All other terms of the bid remain unaltered.

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CERTIFICATE OF NON-DEBARMENT	00200-25
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Appendices

- A Prevailing Wage Rates
- B Contract Drawings (separately bound)
- C MassDOT Permit 3-2018-0459

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01110 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 Summary

- A. Section Includes:
1. Project information.
 2. Work covered by Contract Documents.
 3. Work under separate contracts.
 4. Access to site.
 5. Coordination with occupants.
 6. Work restrictions.

1.3 Project Information

- A. Project Identification: West Natick Fire Station 4 Signal Improvements Project.
1. Project Location: 268 Speen Street, Natick, MA.
- B. Owner:
- Town of Natick
13 East Central Street
Natick, MA 01760
Contact: Ms. Melissa Malone, Town Administrator
Telephone: (508) 647-6400
- C. Owner's Representative:
- The Vertex Companies, Inc.
400 Libbey Parkway
Weymouth, MA 02189
Contact: Mr. William C. Nangle
Telephone: (508) 277-0129
Email: wnangle@vertexeng.com
- D. Engineer:
- Fuss & O'Neill, Inc.
108 Myrtle Street, Suite 502
Quincy, MA 02021
Contact: Mr. Kevin C. McGarry, PE

SUMMARY OF WORK

01110-1

May 13, 2020

Telephone: (617) 282-4675
Email: kmcgarry@fando.com

- E. Architect
TectonArchitects
34 Sequassen Street, Suite 200
Hartford, CT 06106
Contact: Ms. Rebecca Hopkins, AIA, NCARB, EDAC
Telephone: (860) 990-6492
Email: rebeccah@tectonpc.com
- F. Fire Station General Contractor
Castagna Construction
100 Conifer Hill Drive, Unit 507
Danvers MA. 01923
Contact: Abe Hafiani
Telephone: (978) 465-2800
Email: ahafiani@castagnaconstruction.com

1.4 Work Covered By Contract Documents

- A. The Work of Project is defined by the Contract Documents and consists of furnishing all necessary labor, tools, materials and equipment required for the following:
1. Construction of an emergency traffic signal for the West Natick Fire Station.
- B. The Work shall be performed in conformance with the following:
1. Commonwealth of Massachusetts Highway Department (MassDOT) Standard Specifications for Highways and Bridges 2020 Edition.
 2. The latest Manual on Uniform Traffic Control Devices (MUTCD) with Massachusetts Amendments.
 3. The MassDOT October 2017 Construction Standard Details
 4. The MassDOT 2015 Overhead Signal Structure and Foundation Standard Drawings
 5. The MassDOT 1990 standard drawings for signs and supports.
 6. The MassDOT 1968 Standard Drawings for Traffic Signals and Highway Lighting.
 7. The Special Provisions.

1.5 Work Under Separate Contracts

- A. Concurrent Work: Owner has awarded separate contract(s) for the following construction operations at Project site. Those operations will be conducted simultaneously with work under this Contract.
1. West Natick Fire Station 4: To Castagna Construction for the construction of a new fire station.
 2. Coordinate the work with Castagna Construction throughout the duration of the contract.

1.6 Access to Site

SUMMARY OF WORK

01110-2

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated. Coordinate with Castagna Construction for site logistics.

1.7 Coordination With Occupants

- A. Maintain roadway services throughout the duration of the project unless specifically approved by the Owner and MassDOT.

1.8 Work Restrictions

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. Existing Permits:
 - 1. Comply with the requirements of MassDOT Permit 3-2018-0459. A copy of this permit is included in *Appendix C*.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

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Appendix C

MassDOT Permit 3-2018-0459

Permit Number: 3-2018-0459

NATICK

Subject to all of the terms, conditions and restrictions printed or written below, and on the reverse side hereof, permission is hereby granted to the **TOWN of NATICK** to enter upon the State Layout in the **TOWN OF NATICK** on the road known as **AUTO 9, 286 Speen Street** for the purpose of constructing curbing, guard rail and ADA compliant sidewalk, as indicated on the plan submitted and on file in the District Three Permits Office.

**PRIOR TO THE START OF ANY WORK BEING CONDUCTED WITHIN THE
STATE HIGHWAY LAYOUT CONTACT THE FOLLOWING 5 DAYS IN
ADVANCE:**

Dave Blodgett – District Permit Compliance Engineer @ 617-892-3640

Provide the Permit #, date work is to be started, contractor who will perform the work, name, address, and telephone number of person to be contact in case of emergency.

SPECIAL CONDITION:

- *All maintenance and repair work in regards to the sidewalk (including but not limited to snow removal) shall be the sole responsibility of the applicant.*

WORK HOURS:

No equipment, trucks, etc. shall occupy any part of the traveled way except between the hours of **9:00 AM and 3:30 PM from Monday through Friday**. No work shall be allowed on holidays or at any times between and including the day before or the day after a long weekend which involves a holiday without the permission of the District Maintenance Engineer.

All operations shall be conducted so as not to interfere with, interrupt, or endanger the general public or the traffic flow.

At any time during construction operations when a traffic delay of over twelve (12) minutes occurs and the situation is worsening, the Grantee or the Department shall begin to suspend operations. Continuously increasing delays of over twelve (12) minutes shall not be permitted. When it appears that delays are developing, one or more of the parties mentioned above shall drive the queue to determine the actual time of delay. Monitoring of traffic delays will be a continuous process until the job activity is complete and off the traveled way or until the determination is made to suspend operations.

In no case will operations commence prior to the specified hours of this Permit. This includes traffic set-ups that restrict the flow of traffic upstream of and through the construction zone.

GENERAL:

All work shall be performed in accordance with the 1988 Massachusetts Highway Department Standard Specifications for Highways and Bridges (English Edition); the Supplemental Specifications (English Edition), dated February 25, 2010; the 2010 Construction Standards; the current Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) with latest revisions; the 1990 Standard Drawings for Traffic Signals and Highway Lighting; and the American Standard for Nursery Stock Current Edition (ANSI Z-60.1-2004).

The equipment necessary to perform the proposed work shall be located off of the roadway as much as possible.

Only equipment to be used in the actual construction work shall be allowed within the State Highway location.

All personnel who are working in the State Highway Layout shall wear safety vests and hardhats.

Free flow of traffic shall be maintained at all times.

No metal drums are allowed within the State Highway Layout.

UNIFORMED POLICE OFFICERS SHALL BE IN ATTENDANCE TO DIRECT TRAFFIC.

All excavated material, including bituminous concrete, cement concrete, stone, gravel, etc., shall be removed from the State Highway Layout. No stockpiling will be allowed within the State Highway Layout.

All required signs and traffic warning devices, **including the use of arrowboard(s)**, shall be furnished by the Grantee. All signs and devices shall be in accordance with the current edition of the F.H.W.A. Manual on Uniform Traffic Control Devices. The number and location of all signs and devices shall be as deemed necessary by the Engineer for the safe and efficient performance of the work and the safety of the traveling public.

All warning devices shall be subject to removal, replacement and/or repositioning by the Grantee as often as deemed necessary by the Engineer.

Cones or non-reflectorized warning devices shall not be left in operational position on the highway when the daytime operations have closed. If it becomes necessary for the MassDOT Highway Division to remove any warning devices or appurtenances from the project due to negligence by the Grantee, all costs for this work will be charged to the Grantee.

All vehicles excepting passenger cars which are assigned to the permitted project and which operate on the site at speeds of 25 mph or less shall have an official SLOW MOVING VEHICLE emblem displayed.

The shoulder area shall be restored to as good condition as existed prior to the construction work.

All grassed areas where disturbed shall be restored to as good condition as found by loaming and seeding.

Care shall be exercised to protect existing underground structures.

The bounds marked MHB shall not be disturbed or buried.

All street approaches and driveways where disturbed shall be replaced conforming to original alignment, grade and materials.

The Grantee shall exercise this permit subject to all the rules and regulations made from time to time by the said MassDOT Highway Division and nothing in the permit shall be construed as authorizing any installation or maintenance thereof except in strict conformity with all Federal, State and Municipal laws, ordinances and regulations.

The Grantee shall indemnify and save harmless the Commonwealth and its MassDOT Highway Division against all suits, claims or liability of every name and nature arising at any time out of or in consequence of the Acts of the Grantee in the performance of the work covered by this permit and/or failure to comply with the terms and conditions of this permit whether by itself or its employees or subcontractors.

A copy of this permit will be made available at the project site at all times during the progress of work for inspection by Department Personnel. Should the Grantee or contractor not have a copy at the site, the work will be stopped until such permit is made available.

This office will be notified prior to the start of work under the provisions of this permit.

ALL OF SAID WORK SHALL BE DONE AS DIRECTED AND TO THE SATISFACTION OF THE ENGINEER FROM THIS DEPARTMENT.

No work shall be done under this permit until the Grantee shall have communicated with and received instructions from the District Highway Director of the MassDOT Highway Division listed below.

"FOLLOWING CONDITIONS APPLY TO PERMITS"

Conditions Relating Particularly to Permits for the Laying of Pipes, Conduits, etc.

After any pipes, conduits, drains or other underground structures are laid, or any excavation is made in the roadway, the trenches or openings shall be properly backfilled with suitable material, the back-filling shall be thoroughly tamped, and the surface of the

road over said structures shall be left even with the adjoining ground. If the work is done in cold weather no frozen material shall be used for back-filling.

Wherever the hardened surface of the roadway, gutters, or any part of the surface of the highway is disturbed it shall be replaced in as good condition as before it was disturbed, and if new materials are required they shall correspond with those already in place on the road. Where service pipes are to cross the highway the connections shall be made without disturbing the hardened surface of the roadway, by driving the pipes under the roadway, or the service pipes shall be carried under and across the road in a larger pipe, unless otherwise ordered by the Director.

The Grantee shall maintain the surface of the roadway over said structures as long as MassDOT may deem necessary, until all signs of the trenches shall have been eliminated. Conditions Relating Particularly to Permits for the Erection of Poles, Wires, and Overhead Structures, and the Cutting and Trimming of Trees In the erection of pole lines, unless otherwise herein provided, no trees located within the limits of the State Highway shall be cut or trimmed. No guy wires shall be attached to trees without a special permit from MassDOT, and in no event shall they be so attached as to girdle the trees or in any way interfere with their growth. The wires shall be so protected at all time and places that they shall not interfere with or injure the trees either inside or outside the location of the highway.

Where the cutting or trimming of trees is authorized by this permit, only such cutting and trimming shall be done as may be designated by the Director. In the construction or reconstruction of pole lines no guy wires shall be erected nearer to the surface of the ground than six feet; provided, however, that the owners of such lines may maintain such guy wires at a lower elevation than six feet from the ground until such time as MassDOT shall notify them to remove said wires or to the elevation first stated.

In order to protect the trees through which any wires may pass, said wires shall be insulated and such other tree guards used as may be directed by the Director. Where high tension wires are erected under this permit, they shall be so located that, under conditions of maximum severity as regards a coating of ice or snow, there shall be a space of at least eight feet between such high tension wires and other wires.

The Grantee shall, within sixty days from the date of completion of the work, file in the office of MassDOT a plan showing the location of each pole erected in accordance with the permit, said plan to be of such size and in such form as MassDOT may direct.

General and Additional Conditions

Whenever the word "MassDOT" is used herein it shall mean the Massachusetts Department of Transportation of the Commonwealth of Massachusetts. Whenever the word "Director" is used herein it shall mean the District Highway Director or other authorized representative of MassDOT. Whenever the word "Grantee" is used herein it shall mean the person or persons, corporation or municipality to whom this permit is granted, or their legal representatives. During the progress of the work all structures underground and above ground shall be properly protected from damage or injury; such

barriers shall be erected and maintained as may be necessary for the protection of the traveling public; the same shall be properly lighted at night; and the Grantee shall be responsible for the damages to persons or property due to or resulting from any work done under this permit. Except as herein authorized, no excavation shall be made or obstacle placed within the limits of the State highways in such a manner as to interfere unnecessarily with the travel over said road. If any grading of sidewalk work done under this permit interferes with the drainage of the State highway in any way, such catch basins and outlets shall be constructed as may be necessary, in the opinion of the Director, to take proper care of such drainage.

Wherever the hardened surface of the roadway is disturbed and the Director may consider it necessary or advisable to do so, said surface will be restored by the employees of MassDOT, at such time as MassDOT may direct, and the expense thereof shall be borne by the Grantee, who shall purchase and deliver on the road the materials necessary for said work if and when directed by the Director. All payments to the supplier and Page 2 of 3 District 3, 403 Belmont Street Worcester, MA 01604 Tel: (508) 929-3800, FAX: (508) 799-9763 www.mass.gov/orgs/highway-division laborers, inspectors, etc., employed by MassDOT for or on account of the work herein contemplated shall be made by said Grantee forthwith on receipt of written orders, pay rolls, or vouchers approved by MassDOT.

IF THE GRANTEE DOES ANY WORK CONTRARY TO THE ORDERS OF THE DIRECTOR, AND, AFTER DUE NOTICE, FAILS TO CORRECT SUCH WORK OR TO REMOVE STRUCTURES OR MATERIALS ORDERED TO BE REMOVED, OR FAILS TO COMPLETE WITHIN THE SPECIFIED TIME THE WORK AUTHORIZED BY TIDS PERMIT, MASSDOT MAY, WITH OR WITHOUT NOTICE, CORRECT OR COMPLETE SUCH WORK IN WHOLE OR IN PART, OR REMOVE SUCH STRUCTURES OR MATERIALS, AND THE GRANTEE SHALL REIMBURSE

MASSDOT FOR ANY EXPENSE INCURRED IN CORRECTING AND/OR COMPLETING THE WORK OR REMOVING THE STRUCTURES OR MATERIALS.

ALL OF THE WORK HEREIN CONTEMPLATED SHALL BE DONE UNDER THE SUPERVISION AND TO THE SATISFACTION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, AND THE ENTIRE EXPENSE THEREOF SHALL BE BORNE BY THE GRANTEE.

On the completion of the work herein contemplated all rubbish and debris shall be removed and the roadway and roadsides shall be left neat and presentable and satisfactory to the Director. MassDOT hereby reserves the right to order the change of location or the removal of any structure or structures authorized by this permit at any time, said change or removal to be made by and at the expense of the Grantee or its successors or assigns. This permit may be modified or revoked at any time by MassDOT without rendering said MassDOT or the Commonwealth of Massachusetts liable in any way.

The Grantee shall pay the salary, subsistence and travel expenses of any inspector appointed by MassDOT to supervise the work herein contemplated. All of the above



Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, Secretary & CEO
Jonathan L. Gulliver, Highway Administrator



Approved Signature

Barry Lorion by J.G.
District Highway Director

Date of Issue: May 6, 2020

Permit Expiration: Tuesday, April 27, 2021

June 9, 2020

Patrick Hayes, Chairman
Fire Station Building Committee
c/o Town of Natick
Natick Town Hall
13 East Central Street
Natick, MA 01760

Re: New Fire Station for the Town of Natick – General Construction
Tecton Project #NTK-01-AR
Traffic Signalization Contract Award Recommendation Letter

Dear Patrick:

Pursuant to M.G.L. c. 30, §39M, the "West Natick Fire Station 4 Signal Improvements Project" was issued for public bid on May 13, 2020. Project documents were prepared by Fuss & O'Neill in conjunction with Bryan LeBlanc, the Town of Natick Procurement Officer. The following public notices were issued for the project:

1. COMMBUYS – 5/6/20
2. Town Website – 5/6/20
3. Town Hall Posting – 5/6/20
4. Metrowest Daily News – 5/11/20
5. Central Register – 5/13/20

The following sealed bids were received and publicly opened on June 2, 2020 at 9:00 AM:

- Pine Ridge Technologies, Inc.
 - Address: 217R Main Street, North Reading, MA
 - Bid Price: \$144,099.00
- Coviello Electric & General Contracting Co., Inc.
 - Address: 55 Concord Street, North Reading, MA
 - Bid Price: \$184,695.00
- Dagle Electrical Construction Corp
 - Address: 68 Industrial Way, Wilmington, MA
 - Bid Price: \$193,391.00

Pine Ridge Technologies, Inc. (Pine Ridge) is prequalified by MassDOT and submitted a complete bid. Both Fuss & O'Neill and the Town have checked references, all of which who gave favorable reviews. Therefore, it is our recommendation that the "West Natick Fire Station 4 Signal Improvements Project" be awarded to Pine Ridge for \$144,099.00.

Sincerely,



Jeffery R. McElravy, AIA
Principal, Tecton Architects

Town of Natick, Massachusetts
Board of Selectmen

West Natick Fire Station 4 Signal Improvements
Project



May 13, 2020

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DIVISION 0 – BID & CONTRACT

SECTION 00010 – INVITATION FOR BIDS

Pursuant to the provisions of Chapter 30, Section 39M of the General Laws of the Commonwealth of Massachusetts (M.G.L. c. 30, §39M), the Town of Natick, the Awarding Authority, (hereinafter referred to as "Owner"), by the Natick Board of Selectmen of the Town of Natick, Massachusetts, invites sealed Bids for the General Contract from responsible and eligible bidders for the West Natick Fire Station 4 Signal Improvements Project in accordance with the Contract Documents prepared by Fuss & O'Neill, 108 Myrtle Street, Suite 502, Quincy, Massachusetts. Sealed Bids shall be received for the General Contract until Tuesday, June 2, 2020, at 9:00 A.M. local time, at the Procurement Office located in the Natick DPW Building, 75 West Street, Natick, MA 01760, at which time and place they will be publicly opened, read and registered. No faxed or email, or conditional bids shall be accepted. If the Procurement Office within the DPW Building is closed due to weather or other emergency (except for the current COVID 19 emergency), the deadline for receipt of bids shall be extended until 9:00 A.M. local time on the next business day upon which the Procurement Office is open for business.

Bid opening will be held virtually at the following site:

<https://us02web.zoom.us/j/82496336238?pwd=ckFrWURNaUdiOUxsK2ZQRIMvVE9RUT09>

Description :Bryan LeBlanc is inviting you to a scheduled Zoom meeting.

Join Zoom Meeting

<https://us02web.zoom.us/j/82496336238?pwd=ckFrWURNaUdiOUxsK2ZQRIMvVE9RUT09>

Meeting ID: 824 9633 6238

Password: 1tuWY3.

Each and every Bid shall be submitted on the Bid Form furnished with the Bidding Documents and shall be addressed to the Board of Selectmen. Each and every Bid shall be sealed in an envelope which is clearly marked in the lower left hand corner "BID FOR WEST NATICK FIRE STATION 4 SIGNAL IMPROVEMENTS PROJECT."

The scope of work includes, but is not limited to, providing new emergency signals to support the construction of the West Natick Fire Station 4. The project also includes signage, pavement markings, and other incidental required for the project, as shown on the Contract Drawings entitled "West Natick Fire Station 4; 268 Speen Street, Natick, Massachusetts; Signal Improvements" dated May 13, 2020 prepared by Fuss & O'Neill. A separate contract has been awarded to Castagna Construction for the construction of the fire station building and associated site improvements. Coordinate the work with Castagna Construction throughout the duration of the contract.

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

INVITATION FOR BIDS

May 13, 2020

00010-1

The Invitation for Bids ("IFB") may be obtained from the Procurement Office, Natick Public Works, 75 West Street, Natick, MA 01760, between 8:00 A.M. and 4:00 P.M. local time, Monday through Thursday, and between 8:00 A.M. and 12:00 P.M. (noon) local time, Friday, by emailing bleblanc@natickma.org, beginning at 8:00 A.M. on May 13, 2020.

There will be no pre-bid meeting for this project. The site will be available for prospective bidders during the following times:

- Monday, May 18, 2020 from 8:00 A.M. to 2:00 P.M. local time
- Tuesday, May 19, 2020 from 8:00 A.M. to 2:00 P.M. local time

Due to the on-going COVID-19 pandemic, prospective bidders are required to contact the Owner's Representative, The Vertex Companies, Inc., prior to visiting the site to schedule a time.

Contact: Mr. William C. Nangle
Telephone: (508) 277-0129
Email: wnangle@vertexeng.com

Please note that parking is available behind the Pet World building located at 1262 Worcester St, Natick, MA. DO NOT PARK AT THE EXISTING FIRE STATION. Prospective bidders are required to check in with Mr. Nangle prior to walking the site.

The Contractor must be pre-qualified by the Massachusetts Department of Transportation (MassDOT) in accordance with 720 CMR 5.00 "Prequalification of Contractors and Prospective Bidders for Statewide Engineering Field Survey Services".

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

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

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

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

keep within the limits of available funds. The award of any Contract pursuant to this Invitation for Bids is subject to appropriation by Natick Town Meeting.

Bidder's attention is directed to the Non-Discrimination in Employment and Affirmative Action Program requirements of this Contract. The requirements of these programs are explained in the Instructions to Bidders and in Part I of the Supplementary Conditions of the Contract. This Contract includes a price adjustment clause for gasoline and diesel fuel and Portland cement and liquid asphalt used on-site from start through the completion date, as contained in SECTION 00812 – MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE and SECTION 00814 – PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES.

TOWN OF NATICK

Board of Selectmen

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

Town Administrator

Melissa A. Malone

END OF SECTION

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SECTION 00100 – INSTRUCTIONS TO BIDDERS

1. RECEIPT OF BIDS AND COPIES OF BID DOCUMENTS:

- 1.1. In accordance with Massachusetts General Laws, Chapter 30, Section 39M, and all other applicable laws, Bids will be received by the Board of Selectmen of the Town of Natick (hereinafter known as the OWNER) at the Procurement Office located in the Natick DPW Building, 75 West Street, Natick, MA 01760, until Tuesday, June 2, 2020, at 9:00 A.M. local time, and then at said office be publicly opened and read aloud. The clock in the Procurement Office shall be considered official. No faxed, email, or conditional bids shall be accepted. If the Procurement Office within the DPW Building is closed due to weather or other emergency, the deadline for receipt of bids shall be extended until 11:00 A.M. local time on the next business day upon which the Procurement Office is open for business.
- 1.2. Each Bid shall be submitted in an opaque sealed envelope, addressed to the Board of Selectmen, and shall be delivered to the Procurement Office, DPW Building, 75 West Street, Natick, MA 01760. Each sealed envelope containing a Bid shall be plainly marked on the outside as "BID FOR WEST NATICK FIRE STATION 4 SIGNAL IMPROVEMENTS PROJECT" and also shall bear the name of the Bidder, his address, his contact telephone number, and also his license number, if applicable. If forwarded by mail, the sealed envelope containing the Bid shall be enclosed in another envelope addressed to the Procurement Office, DPW Building, 75 West Street, Natick, MA 01760. The Bid Security shall be attached to the signature page of the Bid.
- 1.3. Submission of a Bid shall be conclusive evidence that the Bidder has examined the Premises and the Bid Documents and is familiar with all the conditions of the proposed Contract. Upon finding any omissions or discrepancy in this Invitation for Bids, the Bidder shall notify the Procurement Officer immediately so that any necessary addenda may be issued. Failure of the Bidder to investigate completely the Premises and/or to be thoroughly familiar with the Bid Documents shall in no way relieve any such Bidder from any obligation with respect to the Bid.
- 1.4. DELETED.
- 1.5. Complete sets of the Bid Documents may be obtained from may be obtained from the Procurement Office, Natick Public Works, 75 West Street, Natick, MA 01760, between 8:00 A.M. and 4:00 P.M. local time, Monday through Thursday, and between 8:00 A.M. and 12:00 P.M. (noon) local time, Friday, by emailing bleblanc@natickma.org, beginning on May 13, 2020.
- 1.6. Complete sets of Bid Documents shall be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.
- 1.7. OWNER and ENGINEER, in making copies of Bid Documents available on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

2. SCOPE OF WORK/LOCATION OF WORK:

- 2.1. The scope of work includes, but is not limited to, providing new emergency signals to support the construction of the West Natick Fire Station 4. The project also includes signage, pavement markings, and other incidental required for the project, as shown on the Contract Drawings entitled "West Natick Fire Station 4; 268 Speen Street, Natick, Massachusetts; Signal Improvements" dated May 13, 2020 prepared by Fuss & O'Neill. A separate contract has been awarded to Castagna Construction for the construction of the fire station building and associated site improvements. Coordinate the work with Castagna Construction throughout the duration of the contract.
- 2.2. The Contractor shall supply all labor, materials and equipment necessary to complete the work shown on the Contract Drawings and hereinafter contained in the Specifications.
- 2.3. To the extent permitted by law, the OWNER reserves the right to eliminate certain sections of the Work as may be determined by it as a basis of award, to keep within the limits of available funds, or to add sections of the work previously eliminated.

3. SCHEDULING:

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

4. FORM OF BID:

- 4.1. All Bids shall be made on the blank form. The total of the item prices when correctly calculated, shall be used in the comparison of Bids received. In the event there is a discrepancy in the Bid between the prices written in words and figures, the prices written in words shall govern.
- 4.2. The form of Bid shall not be changed, and it shall be signed by the Bidder with his business address and place of residence.
- 4.3. A conditional or qualified Bid shall not be accepted.

5. BID SECURITY:

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

- 5.2. The Bid Security of Bidders, except those of the three lowest responsible and eligible Bidders, shall be returned within five (5) days, Saturdays, Sundays and holidays excluded, after opening of Bids. The Bid Security of said three lowest Bidders shall be returned upon execution of the Contract.
- 5.3. In case the Successful Bidder shall fail or neglect to execute the Contract and furnish the satisfactory bonds within the time specified, the OWNER may determine that the Bidder has abandoned the Contract and thereupon the Bid Security accompanying the Bid shall be forfeited to the OWNER as liquidated damages for such failure or neglect, and to indemnify said OWNER for any loss which may be sustained by failure of the Bidder to execute the Contract and furnish the bonds as aforesaid, provided that, in case of death, disability, or other unforeseen circumstances affecting the Bidder, such Bid Security may be returned to him. After execution of the Contract and acceptance of the bonds by the OWNER, the Bid Security accompanying the Bid of the Successful Bidder will be returned.

6. WITHDRAWAL OF BIDS:

- 6.1. Once Bid is submitted and received by the OWNER for consideration and comparison with other Bids similarly submitted, the Bidder agrees that he may not and shall not withdraw said Bid within a period of thirty (30) days (Saturdays, Sundays and legal holidays excluded).
- 6.2. Upon proper request and identification, Bids may be withdrawn only as follows:
- 6.2.1. At any time prior to the designated time for the opening of Bids.
- 6.2.2. Provided the Bid has not theretofore been accepted by the OWNER, at any time subsequent to the expiration of the period during which the Bidder has agreed not to withdraw his Bid.
- 6.3. Unless a Bid is withdrawn as provided above, each Bidder shall agree that it shall be deemed open for acceptance until the Contract has been executed by both parties thereto, or until the OWNER notifies a Bidder in writing that his Bid is rejected, or that the OWNER does not intend to accept it, or returns his Bid deposit. Notice of acceptance of a Bid shall not constitute rejection of any other Bid.

7. EXPERIENCE OF BIDDER:

- 7.1. Bidders shall satisfy to the OWNER that they have ability and experience in this class of work, and that sufficient capital and plant to enable them to prosecute the same successfully and to complete it in the time named in the Contract. Bidders must be pre-qualified by the Massachusetts Department of Transportation (MassDOT) in accordance with 720 CMR 5.00 "Prequalification of Contractors and Prospective Bidders for Statewide Engineering Field Survey Services".

8. QUESTIONS REGARDING DRAWINGS AND DOCUMENTS:

- 8.1. In general, no answer will be given to prospective Bidders in reply to an oral question if the question involves an interpretation of the intent or meaning of the Drawings or other Contract Documents, or the equality or use of products or methods other than those designated or described on the Drawings or in the Specifications. Any information given to Bidders other than by means of the Drawings and other Contract Documents, including Addenda, as described below, is given informally, for information and the convenience of the Bidder only and is not guaranteed. Each Bidder agrees that such information shall not be used as the basis of, nor shall the giving of any such information entitle the Bidder to assert, any claim or demand against the OWNER or the ENGINEER or account thereof.
- 8.2. To receive consideration, such questions shall be submitted in writing to the OWNER, at least seven (7) days before the established date for receipt of Bids. If the question involves the equality of use of products or methods, it shall be accompanied by Drawings, Specifications, or other data in sufficient detail to enable the OWNER and ENGINEER to determine the equality or suitability of the product or method. In general, the OWNER and ENGINEER will neither approve nor disapprove particular products prior to the opening of Bids. Such products will be considered when offered by the CONTRACTOR for incorporation into the work.
- 8.3. The OWNER will set forth as Addenda, which shall become part of the Contract Documents, such questions received as above provided as in his sole judgment are appropriate or necessary and his decision regarding each. At least two (2) days prior to the receipt of Bids, he will send a copy of these Addenda to those prospective Bidders known to have taken out sets of the Drawings and other Contract Documents.
- 8.4. Addenda notification will be distributed by email to all parties recorded by the Engineer as having received bidding documents and are on the planholder list. The prospective bidders will download addendums from the Engineer's website. Alternative methods of distributing addendum must be requested by the party recorded as receiving bidding documents. Each Bidder shall be responsible for determining that it has received all Addenda, which have been issued. If an Addendum notification is issued by email, OWNER will request a return email to verify receipt of the Addendum, however, failure by any Bidder or prospective Bidder to send a return email will not invalidate the delivery of the Addendum notification.
- 8.5. Each Bidder agrees to use the products and methods designated or described in the Specifications as amended by the Addenda.
- 8.6. It shall each Bidder's responsibility to confirm the existence of Addenda with the OWNER prior to submittal of Bid.
- 8.7. Bidders shall acknowledge receipt of Addenda when submitting bids.
9. INFORMATION NOT GUARANTEED:
 - 9.1. It is agreed and understood that no Bidder or CONTRACTOR shall use or be entitled to use, any of the information made available to him or obtained in any examination made by him in

any manner as a basis of or ground for any claim or demand against the OWNER or the ENGINEER, arising from or by reason of any variance which may exist between the information made available and the actual subsurface or other conditions, natural phenomena, existing pipes, or other structures actually encountered during the construction work, except as may otherwise be expressly provided for in the Contract Documents.

- 9.2. All information given on the Drawings or in the other Contract Documents relating to subsurface and other conditions, natural phenomena, existing pipes, and other structures, is from the best sources at present available to the OWNER. All such information is furnished only for the information and convenience of Bidders and is not guaranteed.
- 9.3. It is further agreed and understood that OWNER does not warrant or guarantee that the subsurface or other conditions, natural phenomena, existing pipes, or other structures encountered during construction will be the same as those indicated on the Contract Drawings, or in the other Contract Documents.

10. BIDDER RESPONSIBILITY:

- 10.1. If a Bidder, after examining the site and Contract Documents, determines the presence of a discrepancy between the Contract Drawings and Contract Specifications, it is each Bidder's responsibility to notify the ENGINEER prior to the Bid opening. ENGINEER shall review and issue an Addendum if necessary. If a Bidder fails to notify ENGINEER of such discrepancy and is awarded the Contract, the CONTRACTOR shall not be entitled to a Contract price adjustment if OWNER or ENGINEER determines CONTRACTOR was aware of the discrepancy during the Bid period.
- 10.2. Each Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents. The failure or omission of any Bidder to do any of the foregoing shall in no way relieve any Bidder from any obligation in respect to his Bid.
- 10.3. The Contract Documents contain the provisions required for the construction of the project. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by each Bidder or relieve him from fulfilling any of the conditions of the Contract.
- 10.4. It is the CONTRACTOR'S responsibility to visit each known site in order to identify any limitations in access to each site. The OWNER will not be responsible for any claims for additional cost during construction that are related to access to each known site.
- 10.5. Each Bidder assumes all responsibility for the Bid arriving on time and at the designated location. The time of receipt of a Bid shall determine the acceptability of mailed Bids, regardless of postmark. It shall be the sole responsibility of the Bidder to assure that a Bid has arrived before the time for opening of Bids as specified in the Invitation for Bids and Instructions to Bidders. Bids received at the specified location and after the time specified will not be accepted.

11. COMPARISON OF BIDS:

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

12. RIGHTS RESERVED BY OWNER:

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

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

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

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

13. AWARD OF CONTRACT:

13.1. Award of the Contract will be made to the lowest responsible and eligible Bidder. The term "lowest responsible and eligible bidder" shall mean the bidder: (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who shall certify, that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (3) who shall certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; (4) who, where the provisions of section 8B of chapter 29 apply, shall have been determined to be qualified thereunder, and (5) who obtains within ten (10) days of the notification of contract award the security by bond required under section 29 of chapter 149; provided that for the purposes of this section the term "security by bond" shall mean the bond of a surety company qualified to do business under the laws of the

commonwealth and satisfactory to the awarding authority; provided further that if there is more than one (1) surety company, the surety companies shall be jointly and severally liable. The party to whom the CONTRACT is awarded will be required to execute the Contract, obtain Payment and Performance Bonds, Insurance Certificates and Certification Form, and a Certificate of Vote of authorization of signature on Documents, within ten (10) calendar days from receipt of Notice of Award. The Notice of Award shall be accompanied by the necessary Agreement and Bid Forms. In case of failure of a Bidder to execute the Contract and provide the above mentioned Bonds, Certificates, etc., the OWNER may at its option, consider the Bidder in default, in which case the Bid security accompanying the Bid shall become property of the OWNER.

14. PAYMENT AND PERFORMANCE BONDS:

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

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

15. CONTRACT INSURANCE:

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

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

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

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

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

16. INDEMNIFICATION:

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

17. CONTRACT SIGNING AND NOTICE TO PROCEED:

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

18. TIME OF STARTING:

- 18.1. The work shall start on the date to be placed on the Notice to Proceed, and proceed on a continuous basis until complete, except for winter shutdown or unless directed differently by OWNER.
- 18.2. If the Contractor chooses to complete the work over two construction seasons, the West Central water main must be completed in the first construction season.

19. TIME OF COMPLETION AND LIQUIDATED DAMAGES:

- 19.1. The date for commencing Contract time will be the day to be indicated on the Notice to Proceed.
- 19.2. The Successful Bidder agrees that all work shall be completed and accepted as soon as practicable, but not later than two hundred seventy (270) consecutive calendar days after the start date to be indicated on the Notice to Proceed.
- 19.3. The Successful Bidder agrees to pay as liquidated damages, the sum of eight hundred dollars (\$800.00) per day for each calendar day beyond the dates set forth in section 19.2 for which all work included in the Contract Documents is not completed and agrees that this sum is not contingent upon any financial losses incurred by the OWNER due to the delay and is not to be considered as a penalty, but an agreed upon sum to be deducted from CONTRACTOR'S payment.
- 19.4. It is the intention of the Contract to require the CONTRACTOR to commence work and to continue working on a continuous basis until complete.

20. LAWS AND REGULATIONS:

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

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

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

21. CONTRACT DRAWINGS:

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

22. UNBALANCED BIDS:

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

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

23. SAFETY AND HEALTH REGULATIONS:

23.1. This project is subject to the Safety and Health Regulations of the U.S. Department of Labor set forth in Title 29 CFR Part 1926 and to all subsequent amendments, and to the Massachusetts Department of Labor and Workforce Development, Division of Industrial Safety "Rules and Regulations for the Prevention of Accidents in Construction Operations" (Chapter 454 CMR 10.00 et seq.). This project is also subject to "COVID-19 Guidelines and Procedures for All Construction Sites and Workers at All Public Work Sites (COVID-19 Construction Safety Guidance)" as set forth by the Commonwealth of Massachusetts, for the duration of the COVID-19 State of Emergency. CONTRACTORS shall be familiar with the requirements of these regulations.

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

24. SALES TAX EXEMPTION:

24.1. The OWNER will provide a Massachusetts Sales Tax Blanket Exemption Certificate No. applicable to all materials to be furnished under this Contract.

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

25. PERMITS AND LICENSES:

25.1. All permits for work within the project limits shall be obtained. Town will waive the permit fees.

26. MINIMUM PREVAILING WAGE RATES:

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

26.2. Minimum prevailing wage rates to be used for this Contract are contained in Appendix A.

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

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

27. WARRANTIES:

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

27.2. The Successful Bidder, if selected as the CONTRACTOR, shall further warrant that it shall perform services under this Contract with the highest degree of professionalism and care. Any

equipment delivered, unless otherwise agreed by the parties, shall be of generally merchantable quality and shall be fit for the purpose sought by the OWNER.

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

28. NONDISCRIMINATION IN EMPLOYMENT:

- 28.1. Contracts for work under this Bid shall obligate the CONTRACTOR and subcontractors not to discriminate in employment practices.
- 28.2. Contracts for work under this project shall obligate the CONTRACTOR and Subcontractors not to discriminate in employment practices, and shall maintain not less than five percent (5%) ratio of minority employees man hours to total man hours.
- 28.3. In connection with the performance of work under this Contract, the CONTRACTOR shall not discriminate against any employees or applicant for employment because of race, color, religious creed, national origin, age, sex, gender identity, sexual orientation (which shall not include persons whose sexual orientation involves minor children as the sex object), genetic information, ancestry, children, marital status, veteran status or membership in the armed services, the receiving of public assistance, and handicap. The aforesaid provision shall include, but not be limited to the following: advertising; recruitment; hiring; rates of pay or other forms of compensation; terms, conditions or privileges of employment; employment upgrading; transfer; demotion; layoff; and termination. The CONTRACTOR shall post hereafter in conspicuous places, available for employees and applicants for employment notices to be provided by the applicable agent of the Commonwealth of Massachusetts setting forth the provisions of the Fair Employment Practices Law of the Commonwealth. The CONTRACTOR shall also undertake in good faith, affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age, sex, gender identity, sexual orientation (which shall not include persons whose sexual orientation involves minor children as the sex object), genetic information, ancestry, children, marital status, veteran status or membership in the armed services, the receiving of public assistance, and handicap and to eliminate and remedy any effects of such discrimination in the past.
- 28.4. The Successful Bidder shall submit a Contractor's Certification Form and a Subcontractor's Certification Form concerning their employment practices and policies in order to maintain their eligibility to receive the Award of the Contract. These forms shall be submitted with the signed Contract Documents.

29. SUBSTITUTE OR "OR-EQUAL" ITEMS

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

30. PRICE ADJUSTMENTS FOR SPECIFIC MATERIALS

30.1. In accordance with the requirements of Chapter 30, Section 38A of the General Laws of Massachusetts, Municipal Contracts for water and sewer projects bid under Chapter 30 Section 39M shall include a price adjustment clause for each of the following: fuel, both diesel and gasoline; liquid asphalt; and Portland cement contained in cast-in-place concrete. Details and baseline prices are provided in SECTION 00812 – MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE and SECTION 00814 – PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES.

END OF SECTION

SECTION 00200 – BID

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

Estimated quantities are approximate only, being given for the uniform comparison of Bids. The OWNER does not expressly agree, or by implication agree, that the actual amount of work will correspond therewith, and the right is expressly reserved, to increase or diminish the amount of any class or portion of the work, or to omit construction in certain locations, as may be deemed necessary by the OWNER to keep within the limits of available funds, as permitted by applicable law.

Bidder hereby agrees to commence Work under this Contract on or before the date to be indicated on the Notice to Proceed and will be completed as soon as practicable, but no later than two hundred seventy (270) consecutive calendar days unless an extension of time is granted. Bidder further agrees to pay as liquidated damages, the sum of eight hundred dollars (\$800.00) for each consecutive calendar day thereafter that work is not completed as provided in the Information for Bidders Section of this Contract, and agrees that this sum is not contingent upon any financial losses incurred by the Owner due to the delay, and not to be considered as a penalty, but an agreed upon sum to be deducted from Contractor's payment. Bidder also agrees to the individual contract completion dates and liquidated damages outlined in the Instruction to Bidders.

Bidder acknowledges receipt of Addenda: #1 #2 #3 #4

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

TOTAL BID PRICE FOR BID COMPARISON \$ _____

(Bid Price in Words)

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BID FORM

BIDDER NAME: _____

Item No.	Estimated Quantity	Item with Unit Bid Price Written in Words and Figures	Total in Figures (Unit Price Times Estimated Quantity)
141.1	10 CY	TEST PIT FOR EXPLORATION _____ Dollars and _____ cents (\$_____)	\$_____
748	1 LS	MOBILIZATION _____ Dollars and _____ cents (\$_____)	\$_____
751	10 CY	LOAM BORROW _____ Dollars and _____ cents (\$_____)	\$_____
765	40 SY	SEEDING _____ Dollars and _____ cents (\$_____)	\$_____
804.34	180 LF	3 INCH SCHEDULE 40 PVC CONDUIT _____ Dollars and _____ cents (\$_____)	\$_____
804.38	60 LF	3 INCH SCHEDULE 80 PVC CONDUIT _____ Dollars and _____ cents (\$_____)	\$_____
811.31	2 EA	PULL BOX 12 X 12 INCHES - SD2.031 _____ Dollars and _____ cents (\$_____)	\$_____
816.01	1 LS	TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 1 _____ Dollars and _____ cents (\$_____)	\$_____
816.8	1 LS	TRAFFIC CONTROL SIGNAL REMOVED AND STACKED _____ Dollars and _____ cents (\$_____)	\$_____

BIDDER NAME: _____

Item No.	Estimated Quantity	Item with Unit Bid Price Written in Words and Figures	Total in Figures (Unit Price Times Estimated Quantity)
819.001	1 LS	UPS BATTERY BACKUP SYSTEM _____ Dollars and _____ cents (\$_____)	\$_____
832	112 SF	WARNING-REGULATORY AND ROUTE MARKER - ALUM. PANEL (TYPE A) _____ Dollars and _____ cents (\$_____)	\$_____
847.1	20 EA	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL _____ Dollars and _____ cents (\$_____)	\$_____
850.41	100 HR	ROADWAY FLAGGER _____ Dollars and _____ cents (\$_____)	\$_____
852	125 SF	SAFETY SIGNING FOR TRAFFIC MANAGEMENT _____ Dollars and _____ cents (\$_____)	\$_____
853.403	10 DAY	TRUCK MOUNTED ATTENUATOR _____ Dollars and _____ cents (\$_____)	\$_____
856	15 DAY	ARROW BOARD _____ Dollars and _____ cents (\$_____)	\$_____
859	500 DAY	REFLECTORIZED DRUM _____ Dollars and _____ cents (\$_____)	\$_____
866.106	100 FT	6-INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) _____ Dollars and _____ cents (\$_____)	\$_____

BIDDER NAME: _____

Item No.	Estimated Quantity	Item with Unit Bid Price Written in Words and Figures	Total in Figures (Unit Price Times Estimated Quantity)
866.112	100 FT	12-INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) _____ Dollars and _____ cents (\$_____)	\$_____
		TOTAL BID PRICE _____ Dollars and _____ cents (\$_____)	\$_____

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STATEMENT OF EXPERIENCE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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SUBCONTRACTORS

The Bidder shall list below, the name/names of subcontractor, if other than Bidder, who shall perform work on the project, including but not limited to the subcontractor qualified as an Approved Concrete Specialty Contractor to do the concrete repairs.

The Bidder shall submit a list of experience for above subcontractor.

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PROPOSAL

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

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

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

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

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

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

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

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

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

THIS BID SUBMITTED ON _____ 20_____
(Date)

By _____
(Signature)

(Printed Name)

(Printed Title)

By _____
(Corporation Name)

(State of Incorporation)

(Corporate Seal)

Attest _____
(Secretary)

Business Address: _____

Telephone Number: (____) _____

Email Address: _____

Fax Number: (____) _____

CERTIFICATE OF NON-COLLUSION

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

Name of Bidder _____
(Corporation Name)

Address of Bidder: _____

By _____
(Signature)

(Printed Name)

(Printed Title)

(Date)

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TAX COMPLIANCE CERTIFICATION

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

Name of Bidder _____
(Corporation Name)

Address of Bidder: _____

By _____
(Signature)

(Printed Name)

(Printed Title)

(Date)

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CONFLICT OF INTEREST CERTIFICATION

The Bidder named below hereby certifies that:

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

Name of Bidder _____
(Corporation Name)

Address of Bidder: _____

By _____
(Signature)

(Printed Name)

(Printed Title)

(Date)

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CERTIFICATE AS TO CORPORATE BIDDER

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

(Corporate Seal)

Name of Bidder _____
(Corporation Name)

Address of Bidder: _____

Telephone Number: () _____

By _____
(Signature)

(Printed Name)

(Printed Title)

(Date)

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

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

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

Name of Bidder _____
(Corporation Name)

Address of Bidder: _____

Telephone Number: (____) _____

By _____
(Signature)

(Printed Name)

(Printed Title)

(Date)

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CERTIFICATE OF NON-DEBARMENT

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

(Company Name)

(Signature title)

Name of Bidder

(Corporation Name)

Address of Bidder:

By

(Signature)

(Printed Name)

(Printed Title)

(Date)

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CERTIFICATE OF FOREIGN CORPORATION

If the Bidder is a foreign corporation, by affixing his or her signature, the Bidder certifies that the corporation is qualified under provision of M.G.L. c. 181, Section 4 to do business in the Commonwealth of Massachusetts.

Name of Bidder _____
(Corporation Name)

Address of Bidder: _____

By _____
(Signature)

(Printed Name)

(Printed Title)

(Date)

If awarded the Contract, the Contractor shall provide with his agreement package, a certificate from the Secretary of the Commonwealth of Massachusetts that the corporation is qualified under provisions of M.G.L. c.181, Section 4, to do business in the Commonwealth.

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CONTRACT INSURANCE REQUIREMENTS

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

Name of Bidder _____
(Corporation Name)

Address of Bidder: _____

By _____
(Signature)

(Printed Name)

(Printed Title)

(Date)

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OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION CERTIFICATION

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

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

Name of Bidder _____
(Corporation Name)

Address of Bidder: _____

By _____
(Signature)

(Printed Name)

(Printed Title)

(Date)

END OF SECTION

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SECTION 00300 – BID BOND

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

(Name of Contractor)

(Address of Contractor)

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

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

the Town of Natick, Massachusetts

(Name of Owner)

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

(Address of Owner)

as OWNER in the total aggregate penal sum of

_____ Dollars (\$_____)

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

The Condition of the above obligation is such that, whereas the Principal has submitted to the Board of Selectmen, Town of Natick, Massachusetts a certain Bid, attached hereto and hereby made a part hereof and hereby incorporated by reference herein, to enter into a Contract in writing, for the Complete Streets Implementation Project in Natick, Massachusetts.

NOW, THEREFORE,

(a) If said Bid shall be rejected, or

BID BOND

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

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

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

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

ATTEST:

Principal

(Principal Secretary)

(SEAL)(s)

By _____
Signature

Printed Name

Printed Title

(Address)

(Address)

(Surety)

ATTEST:

(Witness as to Surety)

By _____
Attorney-in-Fact Signature

Printed Name

Printed Title

(Address)

(Address)

If Contractor is partnership, all partners should execute Bond.

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

END OF SECTION

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SECTION 00400 – CONTRACT AGREEMENT

THIS AGREEMENT made this _____ day of _____ in the year 2020, by and between the Town of Natick, Massachusetts, Natick Town Hall, 13 East Central Street, Natick, MA 01760 (hereinafter called OWNER), by the Natick Board of Selectmen, and

_____, having an address of _____, doing business as a (Corporation, Partnership or Individual) hereinafter called "CONTRACTOR."

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

ARTICLE 1. ARTICLE 1. WORK

- 1.1 CONTRACTOR shall commence the Work as specified or indicated in the Contract Documents as defined in Article 8 herein. The Work is generally described as follows:
- 1.2 The Project under this Contract consists of furnishing all necessary labor, materials and equipment required for The scope of work includes, but is not limited to, providing new emergency signals to support the construction of the West Natick Fire Station 4. The project also includes signage, pavement markings, and other incidental required for the project, as shown on the Contract Drawings entitled "West Natick Fire Station 4; 268 Speen Street, Natick, Massachusetts; Signal Improvements" dated May 13, 2020 prepared by Fuss & O'Neill. A separate contract has been awarded to Castagna Construction for the construction of the fire station building and associated site improvements. Coordinate the work with Castagna Construction throughout the duration of the contract.
- 1.3 CONTRACTOR shall furnish all materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the Project described herein.

ARTICLE 2. ARTICLE 2. ENGINEER

- 2.1 The Project has been designed by Fuss & O'Neill, who is hereinafter called ENGINEER and who shall act as OWNER'S representative, who shall assume all duties and responsibilities, and who and shall have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3. CONTRACT TIME

- 3.1 CONTRACTOR shall commence work when authorization by the OWNER or ENGINEER with the provisions of the Notice to Proceed and Contract Documents. The work will be completed and accepted as soon as practicable, but no later than two

CONTRACT AGREEMENT

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hundred seventy (270) consecutive calendar days after the start date to be indicated on the Notice to Proceed

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

ARTICLE 4. CONTRACT PRICE

- 4.1 In consideration for performance of the work as required by the Contract Documents, the OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents in current funds as follows:

Contractor's Bid is attached to this Agreement as an exhibit.

TOTAL CONTRACT AMOUNT \$ _____

As permitted by law, specific items of this Contract may be eliminated, or reduced in quantity to keep within the limits of available funding, at the OWNER'S option.

ARTICLE 5. PAYMENT PROCEDURES

- 5.1 CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions, as modified, if applicable, by the Supplementary Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.
- 5.2 Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER and as provided in Article 14 of the General Conditions, as modified, if applicable, by the Supplementary Conditions. Retainage with respect to any progress payments will be five percent (5%) or, if stipulated, the maximum allowed by Massachusetts General Laws. ENGINEER shall establish with the CONTRACTOR an acceptable format for submittal and for the processing of progress payments, prior to the first such request as will be submitted by the CONTRACTOR.
- 5.3 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, as modified, if applicable, by the

Supplementary Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.13.

ARTICLE 6. TERMS

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

ARTICLE 7. CONTRACTOR'S REPRESENTATIONS

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

- 7.1 CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 7.2 CONTRACTOR has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in the Supplementary Conditions as provided in paragraph 4.2 of the General Conditions, and accepts the determination set forth in paragraph SC-4.2 of the Supplementary Conditions of the extent of the technical data contained in such reports and drawings upon which CONTRACTOR is entitled to rely.
- 7.3 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies (in addition to or to supplement those referred to in paragraph 7.2 above) which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.2 of the General Conditions, as modified, if applicable, by the Supplementary Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.
- 7.4 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms

and conditions of the Contract Documents, including specifically the provisions of paragraph 4.03 of the General Conditions, as modified, if applicable, by the Supplementary Conditions.

- 7.5 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- 7.6 CONTRACTOR has given ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

ARTICLE 8. CONTRACT DOCUMENTS

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

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

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.04 and 3.05 of the General Conditions.

ARTICLE 9. INDEMNIFICATION

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

ARTICLE 10. INSURANCE

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

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

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

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

ARTICLE 11. MISCELLANEOUS PROVISIONS

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

11.2 This Agreement shall be binding upon the OWNER and CONTRACTOR, their respective heirs, executors, administrators, successors, or assigns and legal representative to the other party hereto, its partners, heirs, executors, successors,

assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

- 11.3 If any provision of this Agreement shall be determined to be invalid or unenforceable by final judgment of a court of competent jurisdiction, the remaining provisions shall continue in effect to the extent permitted by law.
- 11.4 This Agreement may be amended only by a written instrument signed by the parties.
- 11.5 This Agreement shall be governed by and construed in accordance with the Massachusetts law, without respect to choice of law principles.
- 11.6 The CONTRACTOR shall provide to the satisfaction of the OWNER, adequate supervision of all work performed under this Agreement.
- 11.7 This Agreement shall be subject to the Natick Non-Discrimination in the Workforce provision included in Part I Supplementary Conditions.
- 11.8 The CONTRACTOR shall comply with all provisions of law applicable to his work including without limitation statutes, by-laws rules, regulations, orders and directives. This Contract shall be considered to include in their entirety all terms respecting workers' compensation insurance and other terms required to be included in it by Chapter 152 of the Massachusetts General Laws, as amended, and any other laws, as though such terms were set forth in their entirety herein. The CONTRACTOR shall comply with all applicable provisions of law and regulation as specified by the Williams-Steiger Occupational Safety and Health Act of 1970, as amended.
- 11.9 The CONTRACTOR has made this Contract in reliance on his own examinations and estimates as to the amount and character of his work, and conditions which may be encountered in the performance thereof, and shall assume all risks and bear all losses pertaining thereto.
- 11.10 The CONTRACTOR shall compensate the Town of Natick for all damages to the Town property of any nature arising out of the CONTRACTOR'S work.
- 11.11 The Town of Natick may defer payment to the CONTRACTOR of such sums otherwise due him under this Contract for such period of time as the Director of Public Works may deem required by law or expedient for protection of the Town or others against his noncompliance with the provisions thereof; and the Town may reimburse itself, by deduction from the money so retained, for all expense and loss resulting to it from his noncompliance.
- 11.12 No payment by the Town of Natick to the CONTRACTOR shall be deemed to be a waiver of any right of the Town of Natick under this Contract or ratification by the Town of Natick any breach hereof by him.

- 11.13 The CONTRACTOR shall provide services under this Agreement as an independent CONTRACTOR with the town of Natick and the CONTRACTOR and its employees shall not be entitled to receive any benefits of employment with the Town of Natick, including without limitation salary, overtime, vacation pay, holiday pay, health insurance, life insurance, pension or deferred compensation.
- 11.14 If any assignment shall be made by the CONTRACTOR or by any guarantor of the CONTRACTOR for the benefit of creditors, or if a petition is filed by the CONTRACTOR or by any guarantor of the CONTRACTOR for adjudication as a bankrupt, or for reorganization or an arrangement under any provision of the Bankruptcy Act as then in force and effect, or if an involuntary petition under any of the provisions of the Bankruptcy Act is filed against the CONTRACTOR and such involuntary petition is not discharged within ninety (90) days thereafter, in any event the Town may terminate this Contract upon written notice to the CONTRACTOR.
- 11.15 The award of this Contract and the continued operation of this Contract are subject to appropriation by Natick Town Meeting of sufficient money to fund the Contract.
- 11.16 The Owner may terminate this Contract upon written notice to the CONTRACTOR if a source of money to fund the Contract is lost during any year of the Contract term. In the alternative, the parties may agree in writing to amend the Contract to provide for a Contract price which represents the reduced appropriation for a contract year.
- 11.17 In the event of termination, the CONTRACTOR shall be entitled to be paid for services rendered in accordance with this Contract prior to termination.

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

OWNER:

Town of Natick, Massachusetts

The Natick Board of Selectmen

Michael J. Hickey, Jr., Chairman

Susan G. Salamoff, Vice Chairman

Jonathan H. Freedman, Clerk

Karen Adelman-Foster

Richard P. Jennett, Jr.

Date

CONTRACTOR:

Printed Name of CONTRACTOR

Signature

Printed Name

Printed Title

Date

CORPORATE SEAL

Attest

Owner Address for giving notices:

Board of Selectmen
Natick Town Hall
13 East Central Street
Natick, MA 01760

Contractor Address for giving notices:

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

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CERTIFICATE OF APPROPRIATION

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

Arti P. Mehta
Comptroller, Town of Natick

Date

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

Karis L. North, Esq.

Date

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CERTIFICATE OF CORPORATE AUTHORIZATION

I, _____, Clerk of _____, a _____
corporation organized pursuant to _____ state law, which maintains its principal office at
_____ hereby certify that at a meeting of the Board of Directors of
_____ (the "Corporation") duly held on _____, _____, at
which _____ (Date must be earlier than Agreement)
A quorum was present and voting throughout, the following vote was duly passed and is now in full
force and effect:

"VOTED: That _____ be and hereby is authorized, directed and
(Name of Officer authorized to sign for Corporation)
empowered for, in the name and on behalf of this Corporation to sign seal with the corporate seal,
execute, acknowledge and deliver all contracts, bonds and other obligations of the Corporation, with the
Town of Natick, acting by and through the Town of Natick, Massachusetts, 13 East Central Street,
Natick, MA 01760; the execution of any such contract, lease, bond or obligation by such
_____ to be valid and binding upon this Corporation for all
(Name of Officer)
purposes, and that a certificate of the Clerk of this Corporation setting forth this vote shall be delivered
to the Town of Natick.

I further certify that

(Name of Officer)

is duly elected _____ of said Corporation.
(Title)

Signed: _____

Printed Name: _____

Printed Title: (Clerk- Secretary)

Date: _____

Place of Business: _____

AFFIX CORPORATE SEAL

COUNTERSIGNATURE: _____
(Name and Title of Officer)

Date: _____

In the event that the clerk or Secretary is the same person as the Officer authorized to sign that contract or other instrument
for the Corporation, this certificate must be countersigned by another officer of the Corporation.

CONTRACT AGREEMENT

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CONTRACTORS CERTIFICATION

NATICK, MASSACHUSETTS
BOARD OF SELECTMEN

Name of Project _____

A contractor will not be eligible for award of a contract unless such contractor has submitted the following certification, which is deemed a part of the resulting contract:

CONTRACTOR'S CERTIFICATION

_____ certifies that

1. it intends to use the following listed construction trades in the work under the contract

and

2. will comply with the minority manpower ratio and specific affirmative action steps contained herein;
and
3. will obtain from each of its Subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the Subcontractor certification required by these bid conditions.

(Signature of authorized representative of Contractor)

Printed Name

Printed Title

Date

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SUBCONTRACTOR'S CERTIFICATION

NATICK, MASSACHUSETTS
BOARD OF SELECTMEN

West Natick Fire Station 4 Signal Improvements Project

Name of Project _____

Prior to the award of any subcontract, regardless of tier, the prospective Subcontractor must execute and submit to the contractor the following certification, which is deemed a part of the resulting contract:

_____ certifies that

1. it intends to use the following listed construction trades in the work under the contract

and

2. will comply with the minority manpower ratio and specific affirmative action steps contained herein;
and

3. will obtain from each of its Subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the Subcontractor certification required by these bid conditions.

(Signature of authorized representative of Subcontractor)

Printed Name

Printed Title

Date

In order to ensure that the said Subcontractor's certification becomes a part of all subcontracts under the contract, no subcontract shall be executed until an authorized representative of the Town agency (or agencies) administering this project has determined, in writing, that the said certification has been incorporated in such subcontract, regardless of tier. Any subcontract executed without such written approval shall be void.

END OF SECTION

CONTRACT AGREEMENT

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SECTION 00500 – NOTICE OF AWARD

DATED: _____

To: BIDDER: _____

ADDRESS: _____

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

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

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

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

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

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

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

Dated this _____ day of _____, 20 ____

By: _____

Signature of Owner's Representative

Printed Name

Printed Title

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged

By: _____
(Contractor)

this ____ day of _____, 20____

By: _____
Authorized Signature

Printed Name

Printed Title

COPY TO ENGINEER

END OF SECTION

SECTION 00510 – NOTICE TO PROCEED

Dated _____, 20 ____

To: _____

(Contractor)

(Address)

You are hereby notified to commence Work in accordance with the Agreement dated _____, 20____, on or before _____, 20____. You are to complete the Work within two hundred seventy (270) consecutive calendar days from Contract start on this form. The date of Contract completion is therefore _____, 20____.

OWNER: Town of Natick
Massachusetts Board of Selectmen

By _____
(Authorized Signature)

Printed Name

Printed Title

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by

this the _____ day of _____ 20____.

By: _____
Authorized Signature

Printed Name

Printed Title

END OF SECTION

NOTICE TO PROCEED

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SECTION 00600 – CONTRACT BONDS

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

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

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

the Town of Natick, Massachusetts

(Name of Owner)

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

(Address of Owner)

hereinafter called Owner, in the total aggregate penal sum of _____

_____ Dollars (\$ _____)

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

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____, 20 ____, a copy of which is hereto attached and made a part hereof for Contract regarding West Natick Fire Station 4 Signal Improvements Project.

Now, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the

CONTRACT BONDS

May 13, 2020

00600-1

Surety and during the one year guarantee period, and if the Principal shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

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

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

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

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

ATTEST:

Principal

(Principal Secretary)

(SEAL)(s)

By _____
Signature

Printed Name

Printed Title

(Address)

(Surety)

CONTRACT BONDS

May 13, 2020

00600-2

ATTEST:

By

(Witness as to Surety)

Attorney-in-Fact Signature

Printed Name

Printed Title

(Address)

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

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PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

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

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

the Town of Natick, Massachusetts

(Name of Owner)

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

(Address of Owner)

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

_____ Dollars (\$ _____)

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

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner, dated the _____ day of _____, 20 ____, a copy of which is hereto attached and made a part hereof for Contract regarding West Natick Fire Station 4 Signal Improvements Project.

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, and corporations furnishing materials for or performing labor in prosecution of the Work provided for in such Contract, and any authorized extensions or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such Work, and for all labor cost incurred in such Work

CONTRACT BONDS

May 13, 2020

00600-5

including that by a Subcontractor, and to any mechanic or materialman lienholder whether it acquires its lien by operation of State or Federal law; then this obligation shall be void, otherwise to remain in full force and effect.

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

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

PROVIDED, FURTHER, that no suit or action shall be commenced hereunder by any claimant: (a) unless claimant, other than one having a direct Contract with the Principal, shall have given written notice to any two of the following: The Principal, the Owner, or the Surety above named within sixty-five (65) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner, or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer. (b) After the expiration date of one (1) year following the date of which Principal ceased work on said Contract, it being understood, however, that if any limitation embodied in the Bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

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

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

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

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

_____ day of _____, 20 ____.

ATTEST:

Principal

(Principal Secretary)

(SEAL)(s)

By _____
Signature

Printed Name

Printed Title

(Address)

(Surety)

ATTEST:

By _____
(Witness as to Surety)

Attorney-in-Fact Signature

Printed Name

Printed Title

(Address)

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

END OF SECTION

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SECTION 00700 – GENERAL CONDITIONS

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This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By



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AMERICAN SOCIETY OF CIVIL ENGINEERS

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The Associated General Contractors of America



Construction Specifications Institute

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National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314

American Council of Engineering Companies
1015 15th Street, N.W., Washington, DC 20005

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Nos. C-520 or C-525 (2002 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC Construction Documents, General and Instructions (No. C-001) (2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800) (2002 Edition).

NOTE:

Highlighted text (*Substantial Completion*) indicates the paragraph has been amended.

Stricken text indicates the paragraph has been deleted or superseded.

→ Indicates a paragraph(s) has/have been inserted.

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*--The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

~~5. *Bid* The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.~~

~~6. *Bidder* The individual or entity who submits a Bid directly to Owner.~~

~~7. *Bidding Documents* The Bidding Requirements and the proposed Contract Documents (including all Addenda).~~

~~8. *Bidding Requirements* The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.~~

~~9. *Change Order* A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.~~

10. *Claim*--A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

~~12. *Contract Documents* Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.~~

13. *Contract Price*--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*--The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*--See Paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *Engineer*--The individual or entity named as such in the Agreement.

20. *Field Order*--A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

~~22. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.~~

23. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

~~24. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.~~

25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*--A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

~~29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.~~

30. *PCBs*--Polychlorinated biphenyls.

31. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule*--A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.

37. *Resident Project Representative*--The authorized representative of Engineer who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Schedule of Submittals*--A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

40. *Schedule of Values*--A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

41. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

42. *Site*--Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

43. *Specifications*--That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain

administrative requirements and procedural matters applicable thereto.

44. *Subcontractor*--An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.

~~45. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.~~

~~46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.~~

47. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

48. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.

49. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

50. *Unit Price Work*--Work to be paid for on the basis of unit prices.

51. *Work*--The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

~~52. *Work Change Directive*--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times~~

~~but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.~~

1.02 Terminology

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

B. *Intent of Certain Terms or Adjectives*

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered", "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day*

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

- a. does not conform to the Contract Documents, or
- b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or
- c. has been damaged prior to Engineer's - recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. Furnish, Install, Perform, Provide

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

~~B. Evidence of Insurance: Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.~~

2.02 Copies of Documents

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement

or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. ~~In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.~~

2.04 Starting the Work

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

A. Preliminary Schedules: Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule; indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 Preconstruction Conference

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 Initial Acceptance of Schedules

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or

responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of, their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work

(unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or

2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer.

B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's

sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party..

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

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

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

~~B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.~~

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

~~A. Notice: If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:~~

~~1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or~~

~~2. is of such a nature as to require a change in the Contract Documents; or~~

~~3. differs materially from that shown or indicated in the Contract Documents; or~~

~~4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;~~

~~then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.~~

~~B. Engineer's Review: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.~~

~~C. Possible Price and Times Adjustments~~

~~1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:~~

~~a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and~~

~~b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.~~

~~2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:~~

~~a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or~~

~~b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or~~

~~e. Contractor failed to give the written notice as required by Paragraph 4.03.A.~~

~~3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.~~

4.04 *Underground Facilities*

A. Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

- a. reviewing and checking all such information and data,
- b. locating all Underground Facilities shown or indicated in the Contract Documents,
- c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and
- d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will

promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. ~~If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.~~

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. Reports and Drawings: Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to

entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

~~G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.~~

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

~~A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified~~

~~in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.~~

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection

from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.

a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

~~A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.~~

5.06 *Property Insurance*

~~A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:~~

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, (other than caused by flood) and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

~~B. Owner shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.~~

~~C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.~~

~~D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any~~

~~deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.~~

~~E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.~~

5.07 *Waiver of Rights*

~~A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.~~

~~B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:~~

~~1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and~~

~~2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.~~

~~C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.~~

5.08 *Receipt and Application of Insurance Proceeds*

~~A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.~~

~~B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.~~

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

~~A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract~~

~~Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.~~

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

~~A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.~~

~~B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or~~

~~received from the superintendent shall be binding on Contractor.~~

6.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

~~A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below:~~

~~1. "Or-Equal" Items: If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:~~

~~a. in the exercise of reasonable judgment Engineer determines that:~~

~~1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;~~

~~2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;~~

~~3) it has a proven record of performance and availability of responsive service; and~~

~~b. Contractor certifies that, if approved and incorporated into the Work:~~

~~1) there will be no increase in cost to the Owner or increase in Contract Times; and~~

~~2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.~~

2. Substitute Items

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;

b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified, and

b) available engineering, sales, maintenance, repair, and replacement services;

4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,

B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. Special Guarantee: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. Engineer's Cost Reimbursement: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract

Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. Contractor's Expense: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 Concerning Subcontractors, Suppliers, and Others

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor

2. shall anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual

or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

~~B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.~~

6.08 *Permits*

~~A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.~~

6.09 *Laws and Regulations*

~~A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.~~

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 Taxes

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 Use of Site and Other Areas

~~A. Limitation on Use of Site and Other Areas~~

~~1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.~~

~~2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.~~

~~3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.~~

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 Record Documents

~~A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.~~

6.13 Safety and Protection

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

~~C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Draw~~

~~ings or Specifications or to the acts or omissions of Owner or Engineer or , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).~~

D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. Shop Drawings

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:* Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals , any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents

with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 Continuing the Work

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or

disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 Contractor's General Warranty and Guarantee

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 Indemnification

~~A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or~~

~~arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.~~

~~B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A 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, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.~~

~~C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:~~

~~1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or~~

~~2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.~~

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal

shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 - OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. ~~If such other work is not noted in the Contract Documents, then:~~

~~1. written notice thereof will be given to Contractor prior to starting any such other work; and~~

~~2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.~~

~~B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and~~

~~properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.~~

~~C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.~~

~~7.02 Coordination~~

~~A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:~~

~~1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;~~

~~2. the specific matters to be covered by such authority and responsibility will be itemized; and~~

~~3. the extent of such authority and responsibilities will be provided.~~

~~B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.~~

~~7.03 Legal Relationships~~

~~A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.~~

~~B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.~~

~~C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.~~

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 *Insurance*

~~A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.~~

8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 ~~*Undisclosed Hazardous Environmental Condition*~~

~~A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.~~

8.11 ~~*Evidence of Financial Arrangements*~~

~~A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.~~

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

~~A. Engineer will be Owner's representative during the construction period.~~ The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep

Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

~~A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question~~

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show

partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

~~10.01 *Authorized Changes in the Work*~~

~~A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall~~

~~promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).~~

~~B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.~~

~~10.02 Unauthorized Changes in the Work~~

~~A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.~~

~~10.03 Execution of Change Orders~~

~~A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:~~

~~1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;~~

~~2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and~~

~~3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.~~

~~10.04 Notification to Surety~~

~~A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.~~

~~10.05 Claims~~

~~A. Engineer's Decision Required: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.~~

~~B. Notice: Written notice stating the general nature of each Claim, shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).~~

~~C. Engineer's Action: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:~~

~~1. deny the Claim in whole or in part,~~

~~2. approve the Claim, or~~

~~3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.~~

~~D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.~~

~~E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.~~

~~F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.~~

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

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

→ 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and

Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

~~c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.~~

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by ☐ insurance ☐ or ☐ otherwise, ☐ sustained ☐ by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established ☐ in ☐ accordance ☐ with ☐ Paragraph 5.06.D), provided such losses and damages have

resulted from causes other than the negligence of Contractor, ☐ any ☐ Subcontractor, ☐ or ☐ anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

~~h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.~~

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. Costs Excluded: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. Contractor's Fee: When all the Work is performed on the basis of cost-plus, Contractor's fee shall

be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an

allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

~~a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;~~

~~b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;~~

~~c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;~~

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted

by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

~~B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.~~

12.03 Delays

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

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

13.01 Notice of Defects

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

~~B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:~~

~~1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;~~

~~2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and~~

~~3. as otherwise specifically provided in the Contract Documents.~~

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to

be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or
2. correct such defective Work; or
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications .

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.



ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress

payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. Applications for Payments

1. ~~At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.~~

2. ~~Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.~~

3. ~~The amount of retainage with respect to progress payments will be as stipulated in the Agreement.~~

B. Review of Applications

1. ~~Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.~~

2. ~~Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:~~

a. ~~the Work has progressed to the point indicated;~~

b. ~~the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and~~

c. ~~the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.~~

3. ~~By recommending any such payment Engineer will not thereby be deemed to have represented that:~~

a. ~~inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or~~

b. ~~that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.~~

4. ~~Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:~~

a. ~~to supervise, direct, or control the Work, or~~

b. ~~for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or~~

c. ~~for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or~~

d. ~~to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or~~

e. ~~to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.~~

5. ~~Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent~~

~~inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:~~

~~a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;~~

~~b. the Contract Price has been reduced by Change Orders;~~

~~c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or~~

~~d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.~~

~~C. Payment Becomes Due~~

~~1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.~~

~~D. Reduction in Payment~~

~~1. Owner may refuse to make payment of the full amount recommended by Engineer because:~~

~~a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;~~

~~b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;~~

~~c. there are other items entitling Owner to a set-off against the amount recommended; or~~

~~d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.~~

~~2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.~~

~~3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.~~

14.03 Contractor's Warranty of Title

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 Substantial Completion

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, , Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial

~~Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.~~

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals

that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

~~14.07 *Final Payment*~~

~~A. Application for Payment~~

~~1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.~~

~~2. The final Application for Payment shall be accompanied (except as previously delivered) by:~~

~~a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;~~

~~b. consent of the surety, if any, to final payment;~~

~~c. a list of all Claims against Owner that Contractor believes are unsettled; and~~

~~d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.~~

~~3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.~~

~~B. Engineer's Review of Application and Acceptance~~

~~1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations~~

~~under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.~~

C. Payment Becomes Due

~~1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and, will be paid by Owner to Contractor.~~

14.08 *Final Completion Delayed*

~~A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.~~

14.09 *Waiver of Claims*

~~A. The making and acceptance of final payment will constitute:~~

~~1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and~~

~~2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance~~

~~with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.~~

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

~~A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.~~

15.02 *Owner May Terminate for Cause*

~~A. The occurrence of any one or more of the following events will justify termination for cause:~~

~~1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);~~

~~2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;~~

~~3. Contractor's disregard of the authority of Engineer; or~~

~~4. Contractor's violation in any substantial way of any provisions of the Contract Documents.~~

~~B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:~~

~~1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);~~

~~2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and~~

~~3. complete the Work as Owner may deem expedient.~~

~~C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.~~

~~D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.~~

~~E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.~~

~~F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.~~

~~15.03 Owner May Terminate For Convenience~~

~~A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):~~

~~1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;~~

~~2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;~~

~~3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and~~

~~4. reasonable expenses directly attributable to termination.~~

~~B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.~~

~~15.04 Contractor May Stop Work or Terminate~~

~~A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.~~

~~B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.~~

ARTICLE 16 - DISPUTE RESOLUTION

~~16.01 Methods and Procedures~~

~~A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be~~

~~governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.~~

~~B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.~~

~~C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:~~

~~1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or~~

~~2. agrees with the other party to submit the Claim to another dispute resolution process, or~~

~~3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.~~

ARTICLE 17 - MISCELLANEOUS

17.01 Giving Notice

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. 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

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 Computation of Times

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 Cumulative Remedies

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 Survival of Obligations

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Controlling Law

~~A. This Contract is to be governed by the law of the state in which the Project is located.~~

17.06 Headings

~~A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.~~

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SECTION 00800 – SUPPLEMENTARY CONDITIONS

PART I

PART I AMENDMENTS TO GENERAL CONDITIONS

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

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

ARTICLE 1 DEFINITIONS AND TERMINOLOGY

SC-1.01 Defined Terms

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

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

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

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

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

"Bidding documents shall mean any and all documents issued by the Owner in requesting Bids pursuant to M.G.L. c.149, §§44A et seq., which shall include, but shall not be limited to, the Invitation for Bids, the Information for Bidders,

Bid Bond (if any), Performance Bond, Payment Bond, Contract, General Conditions of the Contract, Supplementary General Conditions of the Contract, Supplier Diversity Office (SDO) Forms (if applicable), Minimum Prevailing Wage Rates (as applicable), and other additional information provided to potential Bidders by the Owner."

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

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

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

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

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

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

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

In the definition of 11. Contract, insert the following sentence at the end:
"The word "Agreement" in the Bidding Requirements or Contract Documents shall mean the same as the word Contract."

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

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

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

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

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

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

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

“Owner, sometimes referred to as Town or Awarding Authority, is the Town of Natick, a body corporate and politic located in Natick, Middlesex County,

Massachusetts. The Owner and its authorized representatives, as well as Engineer and Owner's Project Manager, if any, shall at all times have access to and be permitted to observe and review all Work, materials, payrolls, records of personnel, conditions of employment, invoices for materials, and generally all records relating to the Work. No member, officer, agent, employee, representative or official of the Owner shall in any way, directly or indirectly, be personally liable, under any provisions of the Contract."

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

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

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

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

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

Add the following to the definition of 51. Work:

"All Work mentioned or indicated in the Contract Documents shall be performed by the Contractor as part of the Contract unless it is specifically indicated in the Contract Documents that such Work is to be done by others. Should the Drawings or the Specifications disagree in themselves or with each other, the Contractor shall provide the better quality or greater quantity of Work unless otherwise directed by written addendum to the Contract. All indications or notations which apply to one of a number of similar situations, materials or processes shall be deemed to apply to all such situations, materials or processes wherever they appear in the Work, except where a contrary result is clearly indicated by the Contract Documents. Where codes, regulations, standards, requirements, and publications of public and private bodies are referred to in the Specifications, references shall be understood to be to the latest revision prior to the date of receiving bids, except where otherwise indicated. Where no explicit quality or standards for workmanship are

established for Work, such Work is to be of good quality and consistent with the quality required by the Contract Documents. The Drawings are diagrammatic only, and are not intended to show the alignment, physical locations or configurations of such Work. The Owner and Engineer assume no liability arising out of jurisdictional issues raised or claims advanced by trade organizations or other interested parties based on the arrangement or manner of subdivision of the content of the Drawings and Specifications. The Contractor shall make all necessary arrangements to reconcile any such jurisdictional conflicts without delay, damage or cost to the Owner, unless otherwise agreed by the parties hereto."

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

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

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

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

ARTICLE 2 PRELIMINARY MATTERS

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

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

ARTICLE 3 CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SC 4.01 Insert the following language at the end of the third sentence of paragraph 4.01-A of the General Conditions ", which easements are required under the circumstances".

SC-4.01-C Add the following language to the last sentence in paragraph 4.01-C of the General Conditions:
", at his own expense and without liability to the Owner"

SC-4.01-B Delete paragraph 4.01-B of the General Conditions in its entirety.

SC-4.03 Delete paragraph 4.03 A, B and C of the General Conditions in their entirety and insert in its place the following language:

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

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

If the Contractor claims that any acts or omissions of the Owner or the Engineer, including any instructions or orders, whether oral, written, by Drawings, or otherwise, involve extra cost or time, and the Contractor has not received a written acknowledgment by the Owner or Engineer that extra payment will be made or time extended on account thereof, the Contractor shall promptly so notify the Engineer in writing of such Claim and shall not proceed with the Work relating to such Claim until the Contractor has received a further written order to proceed in accordance with this Agreement. No Claim by the Contractor on account of such acts, omissions, instructions or orders shall be valid unless the Contractor has so notified the Engineer in writing, before proceeding, and has received the further written order to proceed.

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

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

"The locations of existing underground facilities shown on the Contract Drawings are approximate only, and are included to indicate that the underground facilities are present, and it shall be the Contractor's responsibility to make arrangements with all utility companies for field locations. The

Contractor shall also contact "Dig Safe" and other appropriate departments, agencies and companies to insure that all underground facilities are located prior to excavation, regardless of the fact that they may or may not be shown on the Contract Drawings".

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

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

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

- None"

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

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

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

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

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

ARTICLE 5 BONDS AND INSURANCE

SC-5.01 Delete paragraph 5.01-A of the General Conditions in its entirety and insert in its place the following:

"As required by M.G.L. c. 149, §44E, or by these Supplementary Conditions, the Contractor shall furnish a Performance Bond, acceptable to the Town of Natick, as security for the faithful performance of its obligations under the Contract. Said Performance Bond shall be in the amount of one hundred percent (100%) of the Contract Price and shall be issued by a surety company qualified to do business under the laws of the Commonwealth of

Massachusetts and approved by the Owner. Said Performance Bond shall obligate the Contractor, its surety, and their successors and assigns for all of the work required to be performed by the Contractor under the Contract. Said Performance Bond shall remain in effect no less than one (1) year after the expiration of the term of the Contract, or any extension or renewal thereof.

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

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

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

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

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

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

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

"5.04-B-2.a "The Contractor shall provide and maintain throughout the term of the Contract and any extension or renewal thereof the following insurance

with companies that are authorized and licensed in the Commonwealth of Massachusetts to issue policies for the coverages and limits so required. The Contractor shall also ensure that any and all Subcontractors and sub-subcontractors provide insurance in the following limits and that the Town of Natick is named as an additional insured and meet the following requirements.

A 1 Commercial General Liability including but not limited to:

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

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

- | | | |
|----|-------------------------------|--------------|
| 1. | General Liability | |
| | General Aggregate | \$2,000,000. |
| | Each Occurrence | \$1,000,000. |
| 2. | Products/Completed Operations | \$2,000,000. |
| 3. | Personal Injury | \$1,000,000. |
| 4. | Medical Expense | \$ 5,000. |

B 1 Automotive Liability including but not limited to:

1. Scheduled Autos
2. Hired Autos
3. Non Owned Autos

B 2 Limit for Automotive Liability at a minimum shall be:

- | | | |
|----|-----------------------|--------------|
| 1. | Combined Single Limit | \$1,000,000. |
|----|-----------------------|--------------|

C 1 Worker's Compensation and Employer's Liability

C 2 Limits for Worker's Compensation and Employer's Liability at a minimum shall be:

- | | | |
|----|-----------------------|------------------|
| 1. | Worker's Compensation | Statutory Amount |
| 2. | Employer's Liability | |
| | Each Accident | \$1,000,000. |
| | Disease Policy Limit | \$1,000,000. |
| | Disease Each Employee | \$1,000,000. |

D-1 Provide Excess Umbrella for Liability Coverage. Use of Umbrella to meet other insurance limits will not be accepted. Limits for liability at a minimum shall be:

- | | | |
|----|-------------------|-------------|
| 1. | Each Occurrence | \$5,000,000 |
| 2. | General Aggregate | \$5,000,000 |

Excess Liability Insurance, Umbrella Form shall be following form, providing coverage over commercial general liability insurance, automobile liability insurance, and employer's liability under workers' compensation insurance.

E-1 Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the Contract and shall operate as an immediate termination thereof.

F-1 Certificates evidencing such insurance in five (5) copies shall be furnished to the Town of Natick at the execution of the Contract. Such certificates shall not merely name the types of policies provided, but shall specifically refer to the Contract and shall state that such insurance is as required by the Contract. With the certificates, the Contractor shall submit an insurance certification form from insurer/insurers, indicating that the coverages provided do in fact satisfy all the insurance requirements listed under ARTICLE 5 of the General Conditions, and the amendments thereto under the Supplementary Conditions. The insurance certification form is included in Part II of the Supplementary Conditions.

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

No insurance shall be obtained from an insurer which:

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

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

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

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

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

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

5.05.-A.2 The provisions of paragraph 5.04-B.2.aE-1 and 5.04B-2.aF-1 of the General Conditions are incorporated herein by reference.

SC 5.06 Delete paragraph 5.06-A of the General Conditions in its entirety and insert the following paragraph in its place:

"5.06-A. For projects that includes work within existing structures or buildings, the Contractor shall be required to provide Installation Floater coverage in the full amount of the work being performed, and for projects that include construction of a new structure or building, the Contractor shall provide Builder's All Risk coverage in the full value of the structure and contents. This insurance shall:"

SC-5.06-A.1 Add the following sentence to the end of paragraph 5.06-A.1 of the General Conditions, as follows:

"The additional insured for this project shall be the Owner and Engineer."

SC-5.06 Delete paragraphs 5.06-B, C, D, E of the General Conditions in their entirety.

SC 5.07 Delete paragraphs 5.07-A and 5.07-B and 5.07-C of the General Conditions in their entirety, and insert the following paragraphs in their place:
 "5.07 The Contractor shall waive all rights against the Owner for all losses and damages caused by any perils covered by the policies of insurance provided in response to paragraph SC 5.06 of the Supplementary Conditions and any other property insurance applicable to the Work, and also waive such rights against the Subcontractors, Engineer, Engineer's consultant and all other parties named as insured in such policies for loss and damages so caused.

5.07.1 As required by paragraph 6.06-G of the General Conditions each subcontract between Contractor and a Subcontractor will contain similar waiver provisions by the Subcontractor in favor of Owner, Contractor, Engineer, Engineer's consultants and all other parties named as insureds.

5.07.2 All such policies provided in response to paragraph 5.06 of the General Conditions, as amended in SC 5.06 of the Supplementary Conditions shall contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights or recovery against the Owner, Engineer or Engineer's consultant."

SC 5.08 Delete paragraph 5.08-A and 5.08-B of the General Conditions in their entirety.

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

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

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

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

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

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

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

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

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

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

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

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

- SC-6.02-B In paragraph 6.02-B of the General Conditions, in the seventh line, insert "prior" between "Owner's" and "written".
- SC-6.05-A Delete paragraph 6.05-A of the General Conditions, in its entirety and insert in its place the following:
- "Specifications for such contracts, and specifications for contracts awarded pursuant to the provisions of said sections forty-four A to forty-four L of said chapter one hundred and forty-nine, shall be written to provide for full competition for each item of material to be furnished under the contract; except, however, that said specifications may be otherwise written for sound reasons in the public interest stated in writing in the public records of the awarding authority or promptly given in writing by the awarding authority to anyone making a written request therefor, in either instance such writing to be prepared after reasonable investigation. Every such contract shall provide that an item equal to that named or described in the said specifications may be furnished; and an item shall be considered equal to the item so named or described if, in the opinion of the awarding authority: (1) it is at least equal in quality, durability, appearance, strength and design, (2) it will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased, and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the said specifications. For each item of material the specifications shall provide for either a minimum of three named brands of material or a description of material which can be met by a minimum of three manufacturers or producers, and for the equal of any one of said named or described materials." Statutory reference M.G.L. c. 30, §39M(b)
- SC-6.05-A.2.d.2) and 3) In paragraphs 6.05-A.2.d.2) and 3) of the General Conditions, delete the first word "will" and insert in its place the word "shall".
- SC-6.05-B In paragraph 6.05-B of the General Conditions, in the sixth line, insert "in advance, in writing," between "approved" and "by".
- SC 6.05-F Add the following language to the end of paragraph 6.05-F of the General Conditions.
- "Contractor shall submit to the Engineer for review, drawings to scale, showing the effect this substitute will have upon the adjoining materials, piping, equipment, etc., at no additional cost to the Owner."
- SC-6.06-B Add the following to the end of paragraph 6.06-B of the General Conditions:
- "The Contractor shall be required to submit to the Owner a list of Subcontractors it intends to use at a certain date to be specified by the Owner. The Contractor shall not use any Subcontractor to which the Owner objects

and to which the Owner provides written notice of such objection to the Contractor.”

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Town is exempt from Commonwealth of Massachusetts sales tax. M.G.L. c.64, §6(h) exempts "sales of building materials and supplies to be used in the construction, reconstruction, alteration, remodeling or repair of (1) any building structure, public highway, bridge or other public works owned by or held in trust for the benefit of any governmental body or agency mentioned in paragraph (d) and used exclusively for public purposes; (2) any building or structure owned by or held in trust for the benefit of any corporation, foundation, organization or institution described in paragraph (e) and used exclusively in the conduct of its religious, scientific, charitable or educational purposes; and (3) any building, structure, residence, school or other facility included under any written contract dated on or after January 1, 1985 arising

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

SC-6.11 Delete paragraph 6.11-A of the General Conditions in its entirety and insert in its place the following:

"The right of possession of the premises shall remain at all times in the Owner.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"SC-6.22 Miscellaneous

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

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

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

The Contractor shall submit each Request for Information sufficiently in advance of the date by which such information is required in order to allow the Engineer sufficient time, in the Engineer's professional judgment, to permit adequate review and response and to permit Contractor compliance with the latest Construction Schedule. The Contractor shall maintain a log at the Project site that sequentially numbers and lists each Request For Information. This log shall also contain the Drawing reference or Specification section to which the request pertains, the date of request, to whom the request was made, by whom the request was made, the nature of the request, and the Engineer's resolution thereof. This log shall be updated weekly by the Contractor and reviewed at each Project meeting, and the resolution of requests for information shall be made part of the minutes of such meetings.

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

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

6.22-D The Contractor shall furnish sufficient forces, plant and equipment as may be necessary to insure the progress of the Work in accordance with the Project Schedule. If, in the opinion of the Owner, the Contractor has fallen behind the Project Schedule, the Contractor shall submit its bid demonstrating the manner in which the desired rate of progress may be increased and shall take such steps, at the Contractor's own cost, as may be necessary to meet the

Project Schedule. It shall be the responsibility of the Contractor to maintain its schedule so as not to delay the progress of the Work or the scheduled work of separate Contractors.

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

6.22-F If this Project requires the containment, abatement or removal of asbestos or material containing asbestos, lead or waste containing lead-based paint, the Contractor shall ensure that the person or entity performing the asbestos or lead related services is licensed pursuant to applicable State laws and regulations.

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

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

compliance with such procedures, the giving of such notices, and the issuance of such permits and approvals.

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

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

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

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

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

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

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

permit any employment or person under his supervision or control to be under the influence thereof."

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

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

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

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

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

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

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

6.22-S The Contractor agrees to procure materials, equipment, labor and supplies from such sources and to perform all Work on the Project with labor,

material suppliers and Subcontractors that will work harmoniously with the Owner's employees, employees of other contractors employed by the Owner, and with other elements of labor involved in the construction of the Project or the operation of the building in which the Project is located, including, without limitation, any tenant improvement work contractors engaged by Owner or any tenants of Owner."

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

ARTICLE 7 – OTHER WORK AT THE SITE

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

ARTICLE 8 - OWNER'S RESPONSIBILITIES

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

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

- SC-9.01 Delete the first sentence of paragraph 9.01 of the General Conditions.
- SC-9.02 Add the words "and Owner" after the word "Engineer" in the third line of paragraph 9.02-A of the General Conditions. Substitute the word "deem" for "deems" in the same line. Delete the second and third sentences of said paragraph 9.02-A.

SC-9.08-A Delete paragraph 9.08-A of the General Conditions.

SC-9.09-A Insert the following language at the beginning of paragraph 9.09-A "To the extent permitted by law"

ARTICLE 10 -CHANGES IN THE WORK: CLAIMS

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

"SC-10.01 Change Orders

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

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

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

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

Contractor shall provide the Owner with all cost and pricing data used in computing the amount of the equitable adjustment, and the Contractor shall certify that the pricing data used was accurate, complete, and current.

With respect to any sum of money due to be paid by the Contractor to the Owner under the Contract, an appropriate Change Order shall be issued deducting said sum of money from payments then due or thereafter due to the Contractor from the Owner. If such deductions from payments then due or thereafter due to the Contractor from the Owner are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

SC-10.02 COMPUTING EQUITABLE ADJUSTMENTS

SUPPLEMENTARY CONDITIONS

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

- a. fixed price basis, provided that the fixed price shall be inclusive of items (1) through (5) (below) and shall be computed in accordance with those provisions;
- b. estimated lump sum basis, to be adjusted in accordance with contract unit prices, or other agreed upon unit prices provided that the unit prices shall be inclusive of all costs related to such equitable adjustment;
- c. time and materials basis, on a not-to-exceed predetermined upset amount to be subsequently adjusted on the basis of actual costs based on the following items (1) through (5):
 - (1) the cost at minimum prevailing rates for direct labor, material, supplies and use of equipment exclusive of hand tools;
 - (2) plus cost of Workers' Compensation Insurance, union fringe benefits, federal unemployment taxes, Federal Social Security, and Massachusetts Unemployment Compensation, or, as an alternative the Contractor may elect to use a flat twenty (20%) percent of the total labor rate in item (1);
 - (3) plus fifteen (15%) percent of item (1) for overhead, superintendence, and profit, which will be paid to the Contractor for work performed by the Contractors' own trade forces (for work performed by a Subcontractor, the Subcontractor will be entitled to a fifteen (15%) percent mark-up and the Contractor to a five (5%) percent mark-up; for work performed by a Sub-subcontractor, the Sub-subcontractor will be entitled to a fifteen (15%) percent mark-up, the Subcontractor to a five (5%) percent mark-up, and the Contractor to a five (5%) percent markup);
 - (4) if the net change is in addition to the contract price, it shall include the Contractor's overhead, superintendence, and profit. On any change which involves a net credit, no allowances for overhead, superintendence, and profit shall be figured;

- (5) plus actual direct premium cost of payment and performance bonds required of the Contractor and its Subcontractors, provided there will be an appropriate credit for bond premiums in the case of a credit Change Order.
- d. If unit prices are stated in the Contract Documents or subsequently agreed upon, or if quantities originally contemplated are so changed in a proposed Change Order or Construction Change Directive that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

SC-10.03

WORK PERFORMED UNDER PROTEST

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

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

SC-10.04 COMPUTING TIME EXTENSIONS

Contract Time shall not be changed due to a delay in the Contractor's early completion date until all Contract Float is used and performance of the specified work necessarily extends beyond the Contract Time. An extension in Contract Time will not be approved unless the Contractor demonstrates through a detailed CPM schedule analysis that unforeseeable causes, beyond the control of and without the fault or negligence of both the Contractor and the Subcontractors or Suppliers at any tier, led to performance or completion of all or part of the work beyond the corresponding Contract Time despite the Contractor's reasonable and diligent actions. If granted, an extension in Contract Time shall be the Contractor's sole and exclusive remedy for any delay, disruption, interference, hindrance, and associated costs, however caused.

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

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

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

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

submitted change order request, make an equitable adjustment in the Contract price and the Contract shall be modified in writing accordingly.

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

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

SC-10.06 CERTIFICATE OF APPROPRIATION

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

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

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

- SC-11.01-A In paragraph 11.01-A of the General Conditions, in the last sentence, delete the word "and", in the second last line, and insert at the end of the last sentence the following text ", and shall include no markup".

SC-11.01-A In paragraph 11.01-A.1 of the General Conditions, in the last line, insert "in advance, in writing," between the words "authorized" and "by".

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SC-12.01-C New paragraph 12.-1-C.2.a of the General Conditions (former paragraph 12.01-C-2.d.) shall read"
"No fee shall be paid on the basis of costs."

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

"SC-12.02 TIME

12.02-B TIME IS OF THE ESSENCE

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

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

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

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

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

be entitled to additional payment or compensation of any kind if, for any reason, the full Contract Time is required to achieve Substantial Completion of the Work.

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

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

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

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

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

Within fifteen (15) days (thirty (30) days in the case of the commonwealth, including local housing authorities) after receipt from the contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make a periodic payment to the contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, upon certification by the contractor that he is

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

The awarding authority may make changes in any periodic estimate submitted by the contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the awarding authority may, within seven days after receipt, return to the contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty-nine G shall not apply to any

contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

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

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

Notwithstanding the provisions of this section, at any time after the value of the work remaining to be done is, in the estimation of the awarding authority, less than 1 per cent of the adjusted contract price, or the awarding authority has determined that the contractor has substantially completed the work and the awarding authority has taken possession for occupancy, the awarding authority may send to the general contractor by certified mail, return receipt requested, a complete and final list of all incomplete and unsatisfactory work items, including, for each item on the list, a good faith estimate of the fair and reasonable cost of completing such item. The general contractor shall then complete all such work items within 30 days of receipt of such list or before the contract completion date, whichever is later. If the general contractor fails to complete all incomplete and unsatisfactory work items within 45 days after receipt of such items furnished by the awarding authority or before the contract completion date, whichever is later, subsequent to an additional 14 days' written notice to the general contractor by certified mail, return receipt requested, the awarding authority may terminate the contract and complete the incomplete and unsatisfactory work items and charge the cost of same to the general contractor and such termination shall be without prejudice to any other rights or remedies the awarding authority may have under the contract. The awarding authority shall note any such termination in the evaluation form to be filed by the awarding authority pursuant to the provisions of section 44D of chapter 149.

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

12.02-K Should the Contractor request additional time to complete the work, it shall document its reasons therefor and request an extension of time the alleged delay occurred. Failure to notify the Owner of any delay as provided in

this Article shall preclude the Contractor from subsequently claiming any time extension or other relief due to said delay. Request for extensions of time shall be submitted as a Change Order request to the Owner.

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

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

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

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

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

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

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

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

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

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

12.02-N - LIQUIDATED DAMAGES

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

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

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

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

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

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

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

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

ARTICLE 14 -PAYMENTS TO CONTRACTOR AND COMPLETION

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

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

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

SUPPLEMENTARY CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

If, within seventy (70) days after the Subcontractor has substantially completed the subcontract work, the Subcontractor has not received from the Contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the Contractor, less any amount retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the Subcontractor may demand direct payment of that balance from the Awarding Authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the Contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth (70th) day after the Subcontractor has substantially completed the subcontract work. Within ten (10) days after the Subcontractor has delivered or so mailed the demand to the Awarding Authority and delivered or so mailed a copy to the Contractor, the Contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract, including any amount due for extra labor and materials furnished to the Contractor and of the amount due for each claim made by the Contractor against the Subcontractor.

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

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

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

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

If the Subcontractor does not receive payment as provided herein or if the Contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the Subcontractor and the Subcontractor does not receive payment for same when due less the deductions provided for

herein, the Subcontractor may demand direct payment by following the procedure provided for in M.G.L. c.30, §39F, and the Contractor may file a sworn reply as provided in that same Sub-subparagraph. A demand made after the first day of the month following that for which the Subcontractor performed or furnished the labor and materials for which the Subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the Contractor. Thereafter the Awarding Authority shall proceed as provided in M.G.L. c.30, §39F.

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

(3) "Subcontractor" as used in this section (i) for contracts awarded as provided in sections forty-four A to forty-four H, inclusive, of chapter one hundred forty-nine shall mean a person who files a sub-bid and receives a subcontract as a result of that filed sub-bid or who is approved by the awarding authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor

A Contractor or a Subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited pursuant to M.G.L. c.30, §39F by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A Subcontractor shall enforce a claim for direct payment or a right to require a deposit by a petition in equity in the superior court against the Awarding Authority and the Contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. M.G.L. c.231, §§59 and 59B shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to §§59 and 59B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any Subcontractor with the petition of one or more Subcontractors of the same general contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated and that such consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit.

No person except a Subcontractor filing a demand for direct payment for which no funds due the Contractor are available for direct payment shall have a right to file a petition in a court of equity against the Awarding Authority claiming a demand for direct payment is premature, and such Subcontractor must file the petition before the Awarding Authority has made a direct payment to the Subcontractor and has made a deposit of the disputed portion.

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

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

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

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

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

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

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

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

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

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

any event the Owner may terminate this Contract upon written notice to the Contractor."

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

"15.03 OWNER'S TERMINATION FOR CONVENIENCE

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

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

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

ARTICLE 16 - DISPUTE RESOLUTION

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

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

The Owner and Contractor shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be conducted under the auspices of the American Arbitration Association in accordance with the most current version of the Association's Construction Industry Mediation Rules in effect at the time the request for mediation is filed. Request for

mediation shall be filed in writing with the other party to this Contract and with the American Arbitration Association. All necessary parties may be brought into such mediation.

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

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

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

ARTICLE 17

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

Insert new paragraphs 17.01 through 17.06 in the General Conditions:

"ARTICLE 17 - CONTRACTOR'S ACCOUNTING METHOD REQUIREMENTS (Statutory reference: M.G.L. c.30, §39R)

SC_17.01*-SC-17.06* Add new paragraphs 17.01 through 17.06, to the General Conditions as follows:

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

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

17.01-A.2 "Contract" means any contract awarded or executed pursuant to §§44-58, inclusive of c.7C, and any contract awarded or executed pursuant to

§11C of c.25A, §39M of c.30, or §§44A-44H, inclusive, of c.149, which is for an amount or estimated amount greater than one hundred thousand dollars.

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

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

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

17.01-A.6 "Accountant's Report", when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which s/he has made and sets forth his/her opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the Contractor.

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

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

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

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

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

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

17.02-A.4 If the Contract is a contract as defined herein, the Contractor has filed a statement of management on internal accounting controls as set forth in Paragraph 17.03 below prior to the execution of the contract.

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

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

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

17.03-A.2 transactions are recorded as necessary:

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

(ii) to maintain accountability for assets;

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

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

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

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

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

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

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

ARTICLE 18

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

"ARTICLE 18: NONDISCRIMINATION IN EMPLOYMENT

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

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

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

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

ARTICLE 19 -MISCELLANEOUS

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

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

Contractor shall be deemed sufficient service thereof upon Contractor; and the date of said service shall be the date of such delivery or mailing.

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

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

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

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

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

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

"19.07 MINIMUM PREVAILING WAGE RATES

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

19.07-A.1. The schedules of wages referred to above are minimum rates only, and Owner will not consider any claims for additional compensation made by

Contractor because of payment by Contractor of any wage rate in excess of the applicable rate contained in these Contract Documents. All disputes in regard to the payment of wages in excess of these specified in the schedules shall be adjusted by Contractor.

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

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

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

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

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

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

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

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

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

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

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

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

- Health and Welfare
- Pension
- Supplementary Unemployment

All contributions shall be made to bona fide plans.

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

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

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

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

19.07-A.17 Any "separate check" given to any employee as the "benefit portion" of the minimum prevailing wage may not be treated differently than the check for "base wages". All "separate checks" are considered wages and

subject to state and federal taxes, unemployment insurance and worker's compensation requirements.

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

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

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

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

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

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

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

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

appealing or defending against such action, suit, or claim, counter-claim, cross-claim, or third-party claim.

SC-19.12-A Any cause of action which the Owner may have in connection with Work shall be deemed to accrue only when the Owner has obtained actual knowledge of the act of omission which gives rise to the cause of action, not before.

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

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

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

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

ARTICLE 20: ADDITIONAL PROVISIONS

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

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

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

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

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

PART II

PART II STATE AND LEGAL GOVERNMENT PROVISIONS

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

1.0 State Government Provisions were current as of March 6, 2019.

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

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

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

Section 39F. (1) Every contract awarded pursuant to sections forty-four A to L, inclusive, of chapter one hundred and forty-nine shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the general contractor and each subcontractor.

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

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

(c) Each payment made by the awarding authority to the general contractor pursuant to 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 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. (d) 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 subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the subcontractor may demand direct payment of that balance from the awarding authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the general contractor at the same time. The demand shall contain a detailed breakdown of the 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.

(e) 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 (i) retained by the awarding authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the general contractor in the sworn reply; provided, that the awarding authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The awarding authority shall make further direct payments to the subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

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

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

(h) The awarding authority shall deduct from payments to a general contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all

unpaid balances of demands for direct payment received from subcontractors. All such amounts shall be earmarked for such direct payments, and the subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the general contractor.

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

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

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

(4) A general contractor or a subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited as provided in subparagraph (f) of paragraph 1 by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A subcontractor shall enforce a claim for direct payment or a right to require a deposit as provided in subparagraph (f) of paragraph 1 by a petition in equity in the superior court against the awarding authority and the general contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. Sections fifty-nine and fifty-nine B of chapter two hundred thirty-one shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to sections fifty-nine and fifty-nine B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any subcontractor with the petition of one or more subcontractors or the same general contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated and that such

consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit. No person except a subcontractor filing a demand for direct payment for which no funds due the general contractor are available for direct payment shall have a right to file a petition in court of equity against the awarding authority claiming a demand for direct payment is premature and such subcontractor must file the petition before the awarding authority has made a direct payment to the subcontractor and has made a deposit of the disputed portion as provided in part (iii) of subparagraph (e) and in subparagraph (f) of paragraph (1).

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

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

Completion of public works; semi-final and final estimates; payments; extra work; disputed items

Section 39G. Upon substantial completion of the work required by a contract with the commonwealth, or any agency or political subdivision thereof, for the construction, reconstruction, alteration, remodeling, repair or improvement of public ways, including bridges and other highway structures, sewers and, water mains, airports and other public works, the contractor shall present in writing to the awarding authority its certification that the work has been substantially completed. Within twenty-one days thereafter, the awarding authority shall present to the contractor either a written declaration that the work has been substantially completed or an itemized list of incomplete or unsatisfactory work items required by the contract sufficient to demonstrate that the work has not been substantially completed. The awarding authority may include with such list a notice setting forth a reasonable time, which shall not in any event be prior to the contract completion date, within which the contractor must achieve substantial completion of the work. In the event that the awarding authority fails to respond, by presentation of a written declaration or itemized list as aforesaid, to the contractor's certification within the twenty-one day period, the contractor's certification shall take effect as the awarding authority's declaration that the work has been substantially completed.

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

If the awarding authority fails to prepare and send to the contractor any substantial completion estimate required by this section on or before the date herein above set forth, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such substantial completion estimate at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston from such date to the date on which the awarding authority sends that substantial completion estimate to the contractor for acceptance or to the date of payment therefor, whichever occurs first. The awarding authority shall include the amount of such interest in the substantial completion estimate.

Within fifteen days after the effective date of the declaration of substantial completion, the awarding authority shall send to the contractor by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory work items, and, unless delayed by causes beyond his control, the contractor shall complete all such work items within forty-five days after the receipt of such list or before the then contract completion date, whichever is later. If the contractor fails to complete such work within such time, the awarding authority may, subsequent to seven days' written notice to the contractor by certified mail, return receipt requested, terminate the contract and complete the incomplete or unsatisfactory work items and charge the cost of same to the contractor.

Within thirty days after receipt by the awarding authority of a notice from the contractor stating that all of the work required by the contract has been completed, the awarding authority shall prepare and forthwith send to the contractor for acceptance a final estimate for the quantity and price of the work done and all retainage, if held by the awarding authority, on that work less all payments made to date, unless the awarding authority's inspection shows that work items required by the contract remain incomplete or unsatisfactory, or that documentation required by the contract has not been completed. If the awarding authority fails to prepare and send to the contractor the final estimate within thirty days after receipt of notice of completion, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such final estimate at the rate hereinabove provided from the thirtieth day after such completion until the date on which the awarding authority sends the final estimate to the contractor for acceptance or the date of payment therefor, whichever occurs first, provided that the awarding authority's inspection shows that no work items required by the contract remain incomplete or unsatisfactory. Interest shall not be paid hereunder on amounts for which interest is required to be paid in connection with the substantial completion estimate as hereinabove provided. The awarding authority shall include the amount of the interest required to be paid hereunder in the final estimate.

The awarding authority shall pay the amount due pursuant to any substantial completion or final estimate within thirty-five days after receipt of written acceptance for such estimate from the contractor and shall pay interest on the amount due pursuant to such estimate at the rate hereinabove provided from that thirty-fifth day to the date of payment. Within 15 days, 30 days in the case of the commonwealth, after receipt from the contractor, at the place designated by the awarding authority, if such place is so designated, of a periodic estimate requesting payment of the amount due for the preceding periodic estimate period, the awarding authority shall make a periodic payment to the contractor for the work performed during the preceding periodic estimate period and for the materials not incorporated in the work but delivered and suitably stored at the site, or at some location agreed upon in writing, to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, upon certification by the contractor

that he is the lawful owner and that the materials are free from all encumbrances. The awarding authority shall include with each such payment interest on the amount due pursuant to such periodic estimate at the rate herein above provided from the due date. In the case of periodic payments, the contracting authority may deduct from its payment a retention based on its estimate of the fair value of its claims against the contractor, a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and a retention to secure satisfactory performance of the contractual work not exceeding five per cent of the approved amount of any periodic payment, and the same right to retention shall apply to bonded subcontractors entitled to direct payment under section thirty-nine F of chapter thirty; provided, that a five per cent value of all items that are planted in the ground shall be deducted from the periodic payments until final acceptance.

No periodic, substantial completion or final estimate or acceptance or payment thereof shall bar a contractor from reserving all rights to dispute the quantity and amount of, or the failure of the awarding authority to approve a quantity and amount of, all or part of any work item or extra work item.

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

1.1.3 CHAP. 30 MGL SECTION 39K

Public building construction contracts; payments

Section 39K. Every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the commonwealth, or by any county, city, town, district, board, commission or other public body, when the amount is more than five thousand dollars in the case of the commonwealth and more than two thousand dollars in the case of any county, city, town, district, board, commission or other public body, shall contain the following paragraph: Within fifteen days (30 days in the case of the commonwealth, including local housing authorities) after receipt from the contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make a periodic payment to the contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, upon certification by the contractor that he is the lawful owner and that the materials are free from all encumbrances, but less (1) a retention based on its estimate of the fair value of its claims against the contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and less (3) a retention not exceeding five per cent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty-five days after (a) the contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the awarding authority, less than one per cent of the original contract price, or (b) the contractor substantially completes the work and the awarding authority takes possession for occupancy, whichever occurs first, the awarding authority shall

pay the contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, or based on the record of payments by the contractor to the subcontractors under this contract if such record of payment indicates that the contractor has not paid subcontractors as provided in section thirty-nine F. If the awarding authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate 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 such interest paid in accordance with the amount due each subcontractor.

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

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

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

Notwithstanding the provisions of this section, at any time after the value of the work remaining to be done is, in the estimation of the awarding authority, less than 1 per cent of the adjusted contract price, or the awarding authority has determined that the contractor has substantially completed the work and the awarding authority has taken possession for occupancy, the awarding authority may send to the general contractor by certified mail, return receipt requested, a complete and final list of all incomplete and

unsatisfactory work items, including, for each item on the list, a good faith estimate of the fair and reasonable cost of completing such item. The general contractor shall then complete all such work items within 30 days of receipt of such list or before the contract completion date, whichever is later. If the general contractor fails to complete all incomplete and unsatisfactory work items within 45 days after receipt of such items furnished by the awarding authority or before the contract completion date, whichever is later, subsequent to an additional 14 days' written notice to the general contractor by certified mail, return receipt requested, the awarding authority may terminate the contract and complete the incomplete and unsatisfactory work items and charge the cost of same to the general contractor and such termination shall be without prejudice to any other rights or remedies the awarding authority may have under the contract. The awarding authority shall note any such termination in the evaluation form to be filed by the awarding authority pursuant to the provisions of section 44D of chapter 149.

1.1.4 CHAP. 30 MGL SECTION 39M

Contracts for construction and materials; manner of awarding

(a) Every contract for the construction, reconstruction, alteration, remodeling or repair of any public work, or for the purchase of any material, as hereinafter defined, by the commonwealth, or political subdivision thereof, or by any county, city, town, district or housing authority that is and estimated by the awarding authority to cost less than \$10,000 dollars shall be obtained through the exercise of sound business practices as defined in section 2 of chapter 30B. The awarding authority shall make and keep a record of each procurement that, at a minimum, shall include the name and address of the person from whom the services were procured. An awarding authority that utilizes a vendor on a statewide contract procured through the operational services division, or a blanket contract procured by the awarding authority pursuant to this section, shall be deemed to have obtained the contract through sound business practices.

Every contract for the construction, reconstruction, alteration, remodeling or repair of any public work, or for the purchase of any material, as hereinafter defined, by the commonwealth, or political subdivision thereof, or by any county, city, town, district or housing authority that is estimated by the awarding authority to cost not less than \$10,000 but not more than \$50,000 shall be awarded to the responsible bidder offering to perform the contract at the lowest price. The awarding authority shall make public notification of the contract and shall seek written responses from no fewer than 3 persons who customarily perform such work. For purposes of this subsection, the term "public notification" shall include, but need not be limited to, posting, at least 2 weeks before the time specified in the notification for the receipt of responses, the contract and scope-of-work statement: (1) on the website of the awarding authority, (2) on the COMMBUYS system administered by the operational services division, (3) in the central register published pursuant to section 20A of chapter 9 and (4) in a conspicuous place in or near the primary office of the awarding authority; provided, however, that if the awarding authority obtains a minimum of 2 written responses from a vendor list established through a blanket contract or a statewide contract procured through the operational services division, and the lowest of those written responses is deemed acceptable to the awarding authority, public notification is not required. The solicitation shall include a scope-of-work statement that defines the work to be performed and provides potential responders with sufficient information regarding the objectives and requirements of the awarding authority and the time period within which the work shall be completed. The awarding authority shall record the names and addresses of all persons from whom written

responses were sought, the names of the persons submitting written responses and the date and amount of each written response.

An awarding authority may utilize a vendor list established through a statewide contract procured through the operational services division to identify 1 or more of the persons from whom it will seek written responses for purposes of this subsection. An awarding authority may also procure a blanket contract to establish a listing of vendors in certain defined categories of work that are under contract to provide services for multiple individual tasks of not more than \$50,000 each, and from whom written responses will be sought. Any such blanket contract procured by the awarding authority shall be procured pursuant to this section or sections 44A to 44J, inclusive, of chapter 149 which are applicable to projects over \$50,000.

Every contract for the construction, reconstruction, alteration, remodeling or repair of any public work, or for the purchase of any material, as hereinafter defined, by the commonwealth, or political subdivision thereof, or by any county, city, town, district or housing authority that is estimated by the awarding authority to cost more than \$50,000, and every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency, as defined by subsection (1) of section 44A of chapter 149, estimated to cost more than \$50,000 but not more than \$150,000, shall be awarded to the lowest eligible responsible bidder on the basis of competitive bids publicly opened and read by the awarding authority forthwith upon expiration of the time for the filing thereof; provided, however, that such awarding authority may reject any and all bids, if it is in the public interest to do so. Every bid for such contract shall be accompanied by a bid deposit in the form of: (1) a bid bond, (2) cash, or (3) a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company, payable to the awarding authority. The amount of the bid deposit shall be 5 per cent of the value of the bid. Any person submitting a bid pursuant to this section shall, on such bid, certify as follows:

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

(Name of person signing bid)

(Company)

This subsection shall not apply to the award of any contract subject to the provisions of sections 44A to 44J, inclusive, of chapter 149 and every such contract shall continue to be awarded as provided therein. In cases of extreme emergency: (1) caused by enemy attack, sabotage or other such hostile actions or (2) resulting from an imminent security threat explosion, fire, flood, earthquake, hurricane, tornado or other such catastrophe, an awarding authority may, without competitive bids and notwithstanding any general or special law, award contracts otherwise subject to this subsection to perform work and to purchase or rent materials and equipment, all as may be necessary for temporary repair and restoration to service of any and all public work in order to preserve the health and safety of persons or property; provided, that this exception shall not apply to any permanent reconstruction, alteration, remodeling or repair of any public work.

(b) Specifications for such contracts, and specifications for contracts awarded pursuant to the provisions of said sections forty-four A to forty-four L of said chapter one hundred and forty-nine, shall be written to provide for full competition for each item of material to be furnished under the contract; except, however, that said specifications may be otherwise written for sound reasons in the public interest stated in writing in the public records of the awarding authority or promptly given in writing by the awarding authority to anyone making a written request therefor, in either instance such writing to be prepared after reasonable investigation. Every such contract shall provide that an item equal to that

named or described in the said specifications may be furnished; and an item shall be considered equal to the item so named or described if, in the opinion of the awarding authority: (1) it is at least equal in quality, durability, appearance, strength and design, (2) it will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased, and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the said specifications. For each item of material the specifications shall provide for either a minimum of three named brands of material or a description of material which can be met by a minimum of three manufacturers or producers, and for the equal of any one of said name or described materials.

(c) The term "lowest responsible and eligible bidder" shall mean the bidder: (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who shall certify, that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (3) who shall certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; (4) who, where the provisions of section 8B of chapter 29 apply, shall have been determined to be qualified thereunder; and (5) who obtains within 10 days of the notification of contract award the security by bond required under section 29 of chapter 149; provided that for the purposes of this section the term "security by bond" shall mean the bond of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority; provided further, that if there is more than 1 surety company, the surety companies shall be jointly and severally liable.

(d) The provisions of this section shall not apply (1) to the extent that they prevent the approval of such specifications by any contributing federal agency, (2) to materials purchased under specifications of the state department of highways at prices established by the said department pursuant to advertisement and bidding in connection with work to be performed under the provisions of chapter eighty-one or chapter ninety, (3) to any transaction between the commonwealth and any of its political subdivisions or between the commonwealth and any public service corporation, and (4) to any contract of not more than \$50,000 awarded by a governmental body, as defined by section two of chapter thirty B, in accordance with the provisions of section five of said chapter thirty B; and (5) to any contract solely for the purchase of material awarded by a governmental body, as defined by section 2 of chapter 30B, in accordance with section 5 of said chapter 30B, or procured through the operational services division pursuant to sections 22 and 52 of chapter 7.

(e) The word "material" as used in this section shall mean and include any article, assembly, system, or any component part thereof.

1.1.5 CHAP. 30 MGL SECTION 39N

Construction contracts; equitable adjustment in contract price for differing subsurface or latent physical conditions

Every contract subject to section forty-four A of chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an Awarding Authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

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

1.1.6 CHAP. 30 MGL SECTION 39O

Contracts for construction and materials; suspension, delay or interruption due to order of awarding authority; adjustment in contract price; written claim

Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the awarding authority increases the cost of performance to any subcontractor, that subcontractor shall have the same rights against the general contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the general contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the general contractor or the subcontractor may have against each other.

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

(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more

than twenty days before the general contractor notified the awarding authority in writing of the act or failure to act involved in the claim.

1.1.7 CHAP. 30 MGL SECTION 39P

Contracts for construction and materials; awarding authority's decisions on interpretation of specifications, etc.; time limit; notice

Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine which requires the awarding authority, any official, its architect or engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any event, no later than thirty days after the written submission for decision; but if such decision requires extended investigation and study, the awarding authority, the official, architect or engineer shall, within thirty days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made.

1.1.8(a) CHAP. 30 MGL SECTION 39R

Definitions; contract provisions; management and financial statements; enforcement

(a) The words defined herein shall have the meaning stated below whenever they appear in this section:

(1) "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A to forty-four H, inclusive, of chapter one hundred and forty-nine, which is for an amount or estimated amount greater than one hundred thousand dollars.

(2) "Contract" means any contract awarded or executed pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A through forty-four H, inclusive, of chapter one hundred and forty-nine, which is for amount or estimated amount greater than one hundred thousand dollars.

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

(4) "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's

independence shall not be confined to the relationships existing in connection with the filing of reports with the awarding authority.

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

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

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

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

(b) Subsection (a)(2) hereof notwithstanding, every agreement or contract awarded or executed pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven, or eleven C of chapter twenty-five A, and pursuant to section thirty-nine M of chapter thirty or to section forty-four A through H, inclusive, of chapter one hundred and forty-nine, shall provide that:

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

(2) until the expiration of six years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the contractor or of his subcontractors that directly pertain to, and involve transactions relating to, the contractor or his subcontractors, and

(3) if the agreement is a contract as defined herein, the contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the awarding authority, including in his description the date of the change and reasons therefor, and shall accompany said description with a letter from the contractor's independent certified public accountant approving or otherwise commenting on the changes, and

(4) if the agreement is a contract as defined herein, the contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and

(5) if the agreement is a contract as defined herein, the contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

(c) Every contractor awarded a contract shall file with the awarding authority a statement of management as to whether the system of internal accounting controls of the contractor and its subsidiaries reasonably assures that:

(1) transactions are executed in accordance with management's general and specific authorization;

(2) transactions are recorded as necessary

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

ii. to maintain accountability for assets;

(3) access to assets is permitted only in accordance with management's general or specific authorization; and

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

Every contractor awarded a contract shall also file with the awarding authority a statement prepared and signed by an independent certified public accountant, stating that he has examined the statement of management on internal accounting controls, and expressing an opinion as to

(1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and

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

(d) Every contractor awarded a contract by the commonwealth or by any political subdivision thereof shall annually file with the commissioner of capital asset management and maintenance during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the awarding authority upon request.

(e) The office of inspector general, the commissioner of capital asset management and maintenance and any other awarding authority shall enforce the provisions of this section. The commissioner of capital asset management and maintenance may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all awarding authorities. A contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine.

(f) Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b).

1.1.9 CHAP. 149 MGL SECTION 25

Lodging, board and trade of public employees; statute part of employment contract

Every employee in public work shall lodge, board and trade where and with whom he elects; and no person or his agents or employees under contract with the commonwealth, a county, city or town, or with a department, board, commission or officer acting therefor, for the doing of public work shall directly or indirectly require, as a condition of employment therein, that the employee shall lodge, board or trade at a particular place or with a particular person. This section shall be made a part of the contract for such employment.

1.1.10 CHAP. 149 MGL SECTION 26

Public works; preference to veterans and citizens; wages

In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works by the commonwealth, or by a county, town, authority or district, or by persons contracting or subcontracting for such works, preference shall first be given to citizens of the commonwealth who have been residents of the commonwealth for at least six months at the commencement of their employment who are veterans as defined in clause Forty-third of section 7 of chapter 4 and who are qualified to perform the work to which the employment relates and, within such preference, preference shall be given to service-disabled veterans; and secondly, to citizens of the commonwealth generally who have been residents of the commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provision to this effect. Each county, town or district in the construction of public works, or persons contracting or subcontracting for such works, shall give preference to veterans and citizens who are residents of such county, town, authority or district and, within such preference, preference shall be given to service-disabled veterans. The rate per hour of the wages paid to said mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works shall not be less than the rate or rates of wages to be determined by the commissioner as hereinafter provided; provided, that the wages paid to laborers employed on said works shall not be less than those paid to laborers in the municipal service of

the town or towns where said works are being constructed; provided, further, that where the same public work is to be constructed in two or more towns, the wages paid to laborers shall not be less than those paid to laborers in the municipal service of the town paying the highest rate; provided, further, that if, in any of the towns where the works are to be constructed, a wage rate or wage rates have been established in certain trades and occupations by collective agreements or understandings in the private construction industry between organized labor and employers, the rate or rates to be paid on said works shall not be less than the rates so established; provided further, that in towns where no such rate or rates have been so established, the wages paid to mechanics, teamsters, chauffeurs and laborers on public works, shall not be less than the wages paid to the employees in the same trades and occupations by private employers engaged in the construction industry. This section shall also apply to regular employees of the commonwealth or of a county, town, authority or district, when such employees are employed in the construction, addition to or alteration of public buildings for which special appropriations of more than one thousand dollars are provided. Payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans under collective bargaining agreements or understandings between organized labor and employers shall be included for the purpose of establishing minimum wage rates as herein provided.

Permanent and temporary laborers employed by the state department of highways and by the metropolitan district commission shall receive such salary or compensation as may be fixed under and in accordance with sections forty-five to fifty inclusive of chapter thirty.

1.1.11 CHAP. 149 MGL SECTION 34

Public contracts; stipulation as to hours and days of work; void contracts

Every contract, except for the purchase of material or supplies, involving the employment of laborers, workmen, mechanics, foremen or inspectors, to which the commonwealth or any county or any town, subject to section thirty, is a party, shall contain a stipulation that no laborer, workman, mechanic, foreman or inspector working within the commonwealth, in the employ of the contractor, sub-contractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, or more than six days in any one week, except in cases of emergency, or, in case any town subject to section thirty-one is a party to such a contract, more than eight hours in any one day, except as aforesaid; provided, that in contracts entered into by the department of highways for the construction or reconstruction of highways there may be inserted in said stipulation a provision that said department, or any contractor or sub-contractor for said department, may employ laborers, workmen, mechanics, foremen and inspectors for more than eight hours in any one day in such construction or reconstruction when, in the opinion of the commissioner, public necessity so requires. Every such contract not containing the aforesaid stipulation shall be null and void.

1.1.12 CHAP. 149 MGL SECTION 34A

Contracts for public works; workers' compensation insurance; breach of contract; enforcement and violation of statute

Every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public building or other public works for the commonwealth or any political subdivision thereof shall

contain stipulations requiring that the contractor shall, before commencing performance of such contract, provide by insurance for the payment of compensation and the furnishing of other benefits under chapter one hundred and fifty-two to all persons to be employed under the contract, and that the contractor shall continue such insurance in full force and effect during the term of the contract. No officer or agent contracting in behalf of the commonwealth or any political subdivision thereof shall award such a contract until he has been furnished with sufficient proof of compliance with the aforesaid stipulations. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the contract and shall operate as an immediate termination thereof. No cancellation of such insurance, whether by the insurer or by the insured, shall be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the officer or agent who awarded the contract at least fifteen days prior to the intended effective date thereof, which date shall be expressed in said notice. Notice of cancellation sent by the party proposing cancellation by registered mail, postage prepaid, with a return receipt of the addressee requested, shall be a sufficient notice. An affidavit of any officer, agent or employee of the insurer or of the insured, as the case may be, duly authorized for the purpose, that he has so sent such notice addressed as aforesaid shall be prima facie evidence of the sending thereof as aforesaid. This section shall apply to the legal representative, trustee in bankruptcy, receiver, assignee, trustee and the successor in interest of any such contractor. The superior court shall have jurisdiction in equity to enforce this section.

Whoever violates any provision of this section shall be punished by a fine of not more than one hundred dollars or by imprisonment for six months, or both; and, in addition, any contractor who violates any provision of this section shall be prohibited from contracting, directly or indirectly, with the commonwealth or any political subdivision thereof, for the construction, alteration, demolition, maintenance or repair of, or addition to, any public works or public building for a period of two years from the date of conviction of said violation.

1.1.13 CHAP. 149 MGL SECTION 34B

Contracts for public works; wages for reserve police officer

Every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public works for the commonwealth or any political subdivision thereof shall contain stipulations requiring that the contractor shall pay to any reserve police officer employed by him in any city or town the prevailing rate of wage paid to regular police officers in such city or town.

1.1.14 CHAP.149 MGL SECTION 44A

(1) The words defined in this section shall have the meaning set forth below whenever they appear in sections forty-four A through forty-four H, inclusive, of this chapter unless indicated otherwise or unless the context in which they are used clearly requires a different meaning.

"Commissioner", means the commissioner of the division of capital asset management and maintenance or his designee.

"Public Agency" means a department, agency, board, commission, authority, or other instrumentality of the commonwealth or political subdivision of the commonwealth, or two or more subdivisions thereof but not including the Massachusetts Bay Transportation Authority;

"Responsible" means demonstrably possessing the skill, ability and integrity necessary to faithfully perform the work called for by a particular contract, based upon a determination of competent workmanship and financial soundness in accordance with the provisions of section forty-four D of this chapter;

"Eligible" means able to meet all requirements for bidders or offerors set forth in sections forty-four A through forty-four H of this chapter and not debarred from bidding under section forty-four C of this chapter or any other applicable law, and who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work.

"Modular Building", a pre-designed building or units of a pre-designed building assembled and equipped with internal plumbing, electrical or similar systems prior to movement to the site where such units are attached to each other and such building is affixed to a foundation and connected to external utilities; or any portable structure with walls, a floor, and a roof, designed or used for the shelter of persons or property, transportable in one or more sections and affixed to a foundation and connected to external utilities.

"Procurement", buying, purchasing, or otherwise acquiring and installing a modular building, and all functions that pertain to the acquisition and installation of a modular building, including description of requirements, selection and solicitation of sources, preparation and award of contract, and all phases of contract administration.

"Proprietary environmental technology systems", systems, in the town of Nantucket, including solid waste related equipment, supporting structures, and buildings, designed, manufactured, and produced under exclusive individual right to sell such product, pertaining to solid waste related environmental protection or remediation. Such systems shall include, but not be limited to, sequential, turnkey, construction management, design/build procurement, and the phasing of such procurement, including approval of design and construction stages as separate or combined phases.

(A) Every contract or procurement for the construction, reconstruction, installation, demolition, maintenance or repair of a building by a public agency estimated to cost less than \$10,000 shall be obtained through the exercise of sound business practices as defined in section 2 of chapter 30B. The public agency shall make and keep a record of each procurement that, at a minimum, shall include the name and address of the person from whom the services were procured. A public agency that utilizes a vendor on a statewide contract procured through the operational services division of the commonwealth, or a blanket contract procured by the public agency pursuant to this subsection, shall be deemed to have obtained the contract through sound business practices.

(B) Every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building estimated to cost not less than \$10,000 but not more than \$50,000 shall be awarded to the responsible person offering to perform the contract at the lowest price. The public agency shall make public notification of the contract and shall seek written responses from no fewer than 3 persons

who customarily perform such work. The solicitation shall include a scope-of-work statement that defines the work to be performed and provides potential responders with sufficient information regarding the objectives and requirements of the public agency and the time period within which the work shall be completed. The public agency shall record the names and addresses of all persons from whom written responses were sought, the names of the persons submitting written responses and the date and amount of each written response. A public agency may utilize a vendor list established through a statewide contract procured through the operational services division to identify 1 or more of the persons from whom it will seek written responses for purposes of this paragraph. A public agency may also procure a blanket contract to establish a listing of vendors in certain defined categories of work that are under contract to provide services for multiple individual tasks of not more than \$50,000 each, and from whom written responses will be sought. Any such blanket contract procured by the awarding authority shall be procured pursuant to either section 39M of chapter 30 or sections 44A to 44J, inclusive, of chapter 149 which are applicable to projects over \$50,000. For purposes of this paragraph, the term "public notification" shall include, but not be limited to, posting at least 2 weeks before the time specified in the notification for the receipt of responses, the contract and scope-of-work statement: (1) on the website of the public agency, (2) on the COMMBUYS system administered by the operational services division, (3) in the central register published pursuant to section 20A of chapter 9 and (4) in a conspicuous place in or near the primary office of the public agency; provided, however, that if the public agency obtains a minimum of 2 written responses from a vendor list established through a blanket contract or a statewide contract procured through the operational services division, and the lowest of those written responses is deemed acceptable to the public agency, public notification is not required.

(C) Every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency estimated to cost more than \$50,000 but not more than \$150,000, except for a pumping station to be constructed as an integral part of a sewer construction or water construction project bid under the provisions of section 39M of chapter 30, shall be awarded to the lowest responsible and eligible bidder on the basis of competitive bids publicly opened and read in accordance with the procedure set forth in said section 39M of said chapter 30. The term "pumping station" as used in this section shall mean a building or other structure which houses solely pumps and appurtenant electrical and plumbing fixtures.

(D) Every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency estimated to cost more than \$150,000, except for a pumping station to be constructed as an integral part of a sewer construction or water construction project bid under the provisions of section 39M of chapter 30, shall be awarded to the lowest responsible and eligible general bidder on the basis of competitive bids in accordance with the procedure set forth in section 44A to 44H, inclusive.

(E) When the general court has approved the use of an alternative mode of procurement of construction for a project pursuant to section 7E of chapter 29, the awarding authority responsible for procuring construction services for the project shall follow the policies and procedures of this section and of section 44B to 44H, inclusive, to the extent compatible with the mode of construction procurement selected.

(F) Notwithstanding paragraph (E), a public agency may undertake the procurement of modular buildings, in accordance with section 44E. A public agency may procure site work for modular buildings, including but not limited to, construction of foundations, installations, and attachment to external utilities, or any portion of site work, either in combination with the procurement of modular buildings pursuant to section 44E or on the basis of competitive bids pursuant to the paragraph (E). Notwithstanding the paragraph (E), a public agency may procure energy management services in accordance with section 11C of chapter 25A and regulations promulgated thereunder.

(G) Every contract by a state agency or state assisted contract for design, construction, reconstruction, installation, demolition, maintenance or repair shall set forth the participation goals of minority and women workers to be employed on each such contract and the processes and procedures to ensure compliance with those workforce participation goals, including reporting and enforcement provisions.

(3) The award of every such contract in connection with which approval by an officer, board or agency of the federal government is required shall be made within thirty days, Saturdays, Sundays and legal holidays excluded, after such approval; and the award of every contract subject to this section in connection with which approval by an officer, board or agency of the federal government is not required shall be made within thirty days, Saturdays, Sundays and legal holidays excluded, after the opening of the bids therefor. If the bidder selected as the general contractor fails to perform his agreement to execute a contract in accordance with the terms of his bid and furnish a performance bond and also a labor and materials or payment bond as stated in his bid in accordance with section forty-four E, an award shall be made to the next lowest responsible and eligible bidder, subject to the provisions of sections forty-four A to forty-four H, inclusive, of this chapter. The thirty-day time limit shall not be applicable to a second or subsequent award made after expiration of the time limit with the consent of said next lowest responsible and eligible bidder, and made because the original award made within the time limit was invalid, or because the bidder failed to execute the contract or to provide a performance bond and labor and materials or payment bond.

(4) In cases of extreme emergency, the awarding authority may, with the prior approval of the commissioner, award a contract for that portion of the work necessary to preserve the health or safety of persons or property or to alleviate an imminent security threat on the basis of such competitive bids or proposals as it can obtain in time to care for the extreme emergency and without public opening of the bids or proposals.

Where the nature of the emergency prevents the awarding authority from obtaining the prior approval of the commissioner, the awarding authority may contract for the necessary work without said prior approval; provided, however, that the approval of the commissioner shall still be sought at the earliest possible time; and provided, further, that if the commissioner at that time fails to approve the emergency determination the awarding authority shall promptly cease all work for which the emergency determination was denied. In such cases, the contractor shall be entitled to payment for the fair value of the labor and materials furnished prior to cessation of the work.

The commissioner shall maintain a record of all contracts awarded pursuant to this subsection, containing a description of the circumstances and the reasons for the commissioner's determination.

(5) (a) Notwithstanding the provisions of this section or any other general or special law to the contrary, a municipality may enter into a contract for proprietary environmental technology systems as defined in subsection (1) of this section without said contract being subject to the competitive bid process as set forth in sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven; this section and sections forty-four B to forty-four H, inclusive, of this chapter, and section thirty-nine M of chapter thirty; provided that the awarding authority meets the conditions set forth and receives the approvals required in paragraph (b) of this subsection.

(b) Prior to the issuance of any request for proposal with respect to the awarding of any contract pursuant to the provisions of paragraph (a) of this subsection, the awarding authority shall meet or obtain each of the following conditions or required approvals: (1) the municipality shall appoint qualified persons to conduct a thorough review of all available environmental technology, including both proprietary and non-proprietary environmental technology, and if the conclusion of this review is that a contract for proprietary environmental technology systems is in the public interest, such conclusion shall be supported by sound documented reasons in writing available for public inspection; (2) the city council, the board of selectmen, or the town meeting shall take a majority vote finding that it is in the public interest to enter into a contract for proprietary environmental technology systems, as defined in subsection (1) of this section, providing such vote is supported by the conclusion of the review conducted pursuant to condition (1); (3) both the attorney general and the commissioner of the department of environmental protection shall grant written approval; (4) said contract shall be subject to any limitation in the waiver of sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven, sections forty-four A to forty-four H of chapter one hundred and forty-nine, and section thirty-nine M of chapter thirty imposed by either the attorney general or the commissioner of the department of environmental protection as a condition for a grant of approval by said officers; and (5) every proprietary environmental technology systems contract shall be as compatible with sections thirty-eight A to thirty-eight O, inclusive, of chapter seven, sections forty-four A to forty-four H of chapter one hundred and forty-nine, and section thirty-nine M of chapter thirty as is feasible for the procurement of the proprietary environmental technology systems chosen.

1.1.15 CHAP.149 MGL SECTION 44G(D)

(D) Every contract subject to section forty-four A shall include specifications for the installation of weather protection and shall require that the contractor shall install the same and that he shall furnish adequate heat in the area so protected during the months of November through March. Standards for such specifications shall be established by the commissioner or his designee.

INSURANCE CERTIFICATION FORM

This form is to be completed by an authorized representative of each insurance company providing coverages, to verify that contract insurance requirements are provided.

CONTRACT PARAGRAPH NUMBER	DESCRIPTION OF COVERAGE	COMPANY LETTER	POLICY NUMBER	LIMITS	LIMIT EXTENDED BY UMBRELLA
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WORKMAN'S COMPENSATION
(Contractor as Insured)

SC 5.4	Workman's Compensation	_____	# _____	\$ _____	_____
SC 5.4	Employer's Liability	_____	# _____	\$ _____	
a.	Each Accident			\$ _____	_____
b.	Disease Policy Limit			\$ _____	_____
c.	Disease Each Employee			\$ _____	_____

COMMERCIAL GENERAL LIABILITY
(Contractor as Insured, Owner and Engineer as Additional Insured)

SC 5.4	General Liability	_____	# _____		
a.	General Aggregate			\$ _____	_____
b.	Each Occurrence			\$ _____	_____
1.	Premises/Operations			\$ _____	_____
2.	Products/Completed Operation			\$ _____	_____
3.	Contractual			\$ _____	_____
4.	Independent Contractors			\$ _____	_____
5.	Broad Form Property Damage			\$ _____	_____
6.	Personal Injury			\$ _____	_____
7.	Medical Expense			\$ _____	_____
8.	XCU			\$ _____	_____

AUTOMOTIVE LIABILITY
(Contractor as Named Insured)

a.	Combined Single Limit	_____	# _____	\$ _____	_____
1.	Scheduled Autos			\$ _____	_____
2.	Hired Autos			\$ _____	_____
3.	Non Owned Autos			\$ _____	_____

SUPPLEMENTARY CONDITIONS

INSURANCE CERTIFICATION FORM (Continued)

CONTRACT PARAGRAPH NUMBER	DESCRIPTION OF COVERAGE	COMPANY LETTER	POLICY NUMBER	LIMITS	LIMIT EXTENDED BY UMBRELLA
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EXCESS UMBRELLA LIABILITY

(Contractor as Named Insured, Owner and Engineer as Additional Insured)

a.	General Aggregate	_____	# _____	\$ _____	_____
b.	Each Occurrence	_____	# _____	\$ _____	_____

INSTALLATION FLOATER

(Contractor as Named Insured, Owner and Engineer as Additional Insured)

a.	General Aggregate	_____	# _____	\$ _____	_____
b.	Each Occurrence	_____	# _____	\$ _____	_____
c.	Installation Floater	_____	# _____	\$ _____	_____

BUILDER'S ALL RISK

(Contractor as Named Insured, Owner and Engineer as Additional Insured)

a.	General Aggregate	_____	# _____	\$ _____	_____
b.	Each Occurrence	_____	# _____	\$ _____	_____
c.	All Risk	_____	# _____	\$ _____	_____

OWNER'S PROTECTIVE LIABILITY

(Owner and Engineer as Named Insured)

a.	General Aggregate	_____	# _____	\$ _____	_____
b.	Each Occurrence	_____	# _____	\$ _____	_____

I hereby certify that the information contain herein is accurate to the best of knowledge.

SIGNATURE_____
PRINTED NAME_____
DATE_____
PRINTED TITLETOWN OF NATICK, MASSACHUSETTS
BOARD OF SELECTMEN

SUPPLEMENTARY CONDITIONS

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CHANGE ORDER FORM

WEST NATICK FIRE STATION 4 SIGNAL IMPROVEMENTS PROJECT

Original Contract Price \$ _____
Previous Change Orders # \$ _____
Present Contract Price \$ _____
This Change Order # Increase/Decrease \$ _____

Total Adjusted Contract Price \$ _____

This Change Order changes the time of completion by _____ calendar Days.

The extended completion date is _____

This Change Order checked by _____
Engineer Date

This Change Order requested by _____

This Change Order prepared _____
Engineer Date

The undersigned agree to the terms of the Change Order.

Contractor Date

Owner Date

Certification of Appropriation under M.G.L. c.44, §31C: Adequate funding in the amount sufficient to cover the total cost of this Change Order is available.

Town Accountant Date

CHANGE ORDER FORM (CONTINUED)

Public Entity _____

Project Number _____ Contract Number: _____

Change Order Number: _____

Contract Title: _____

Owner's Name: _____

Owner's Address: _____

Contractor's Name: _____

Contractor's Address: _____

Description of Change

Reason for Change

EXAMPLE CALCULATION SHEET

(1) Labor

Foreman	10 hrs @ \$45.00/hr.	\$ 450.00
Engineer	10 hrs @ 35.00/hr.	350.00
Operator	10 hrs @ 40.00/hr.	400.00
Laborers	24 hrs @ 28.00/hr.	672.00

\$ 1,872.00

(2) Direct Labor Cost (use the agreed upon Direct Labor Cost)

*(30) % of \$1,872

*(used for example purposes only)

561.60

(3) Materials & Freight

150 l.f. of 12" pipe @ \$15.00/l.f.	\$ 2,250.00
15 v.f. precast SMH	2,500.00
Freight (slip # Enclosed)	110.00

4,860.00

(4) Equipment

1 Backhoe 10 hrs @ \$140.00/hr.	\$1,400.00
1 Truck crane 10 hrs @ \$180.00/hr.	1,800.00

3,200.00

Total items 1 through 4)

\$ 10,493.60

(5) 15% markup for Overhead, Profit

15% of \$10,493.60

\$ 1,574.04

(6) 5% markup for General Contractor (if Subcontractor is involved)

5% of \$10,493.60

524.68

(7) Credits deductible

- 323.00

Total Cost

\$ 12,269.32

Reminder: Provide support documentation as necessary i.e. vouchers, correspondence, calculations, Blue Book equipment rental rate printouts, photographs, reports, etc.

END OF SECTION

SUPPLEMENTARY CONDITIONS

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SECTION 00812 – MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE

PART 1 - GENERAL

1.1 Price Adjustment

- A. This monthly fuel price adjustment is inserted in this contract because the national and worldwide energy situation has made the future cost of fuel unpredictable. This adjustment will provide for either additional compensation to the Contractor or repayment to the Commonwealth, depending on an increase or decrease in the average price of diesel fuel or gasoline.
- B. This adjustment will be based on fuel usage factors for various items of work developed by the Highway Research Board in Circular 158, dated July 1974. These factors will be multiplied by the quantities of work done in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.
- C. The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Department's web site (<https://www.mass.gov/orgs/massachusetts-department-of-transportation>) for the month in which the contract was bid, which includes State Tax.
- D. The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchases made during each month.
- E. This adjustment will be effected only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.
- F. No adjustment will be paid for work done beyond the extended completion date of any contract.
- G. Any adjustment (increase or decrease) to estimated quantities made to each item at the time of final payment will have the fuel price adjustment figured at the average period price for the entire term of the project for the difference of quantity.
- H. The fuel price adjustment will apply only to the following items of work at the fuel factors shown:

Items Covered	Fuel Factors	
	Diesel	Gasoline
Excavation: and Borrow Work: Items 120, 120.1, 121, 123, 124, 125, 127, 129.3, 140, 140.1, 141, 142, 143, 144., 150, 150.1, 151 and 151.1 (Both Factors used)	0.29 Gallons / CY	0.15 Gallons / CY

MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND

GASOLINE

Items Covered	Fuel Factors	
	Diesel	Gasoline
Surfacing Work: All Items containing Hot Mix Asphalt	2.90 Gallons / Ton	Does Not Apply

END OF SECTION

SECTION 00814 – PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES

PART 1 - GENERAL

1.1 Price Adjustment

- A. This provision applies to all projects using greater than 100 Cubic Yards (76 Cubic Meters) of Portland cement concrete containing Portland cement as stipulated in the Notice to Contractors section of the Bid Documents. This Price Adjustment will occur on a monthly basis.
- B. The Price Adjustment will be based on the variance in price for the Portland cement component only from the Base Price to the Period Price. It shall not include transportation or other charges.
- C. The Base Price of Portland cement on a project is a fixed price determined at the time of bid by the Department by using the same method as for the determination of the Period Price (see below) and found in the Notice to Contractors.
- D. The Period Price of Portland cement will be determined by using the latest published price, in dollars per ton (U.S.), for Portland cement (Type I) quoted for Boston, U.S.A. in the Construction Economics section of ENR Engineering News-Record magazine or at the ENR website <http://www.enr.com> under Construction Economics. The Period Price will be posted on the MassHighway website the Wednesday immediately following the publishing of the monthly price in ENR, which is normally the first week of the month.
- E. The Contract Price of the Portland cement concrete mix will be paid under the respective item in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which the work was performed.
- F. The price adjustment applies only to the actual Portland cement content in the mix placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M4.02.01. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.
- G. The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of cubic yards of Portland cement concrete placed during each monthly period times the Portland cement content percentage times the variance in price between the Base Price and Period Price of Portland cement.
- H. This Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE

MIXES

- I. No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

END OF SECTION

PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE

MIXES

May 13, 2020

00814-2

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01110 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 Summary

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Work under separate contracts.
 - 4. Access to site.
 - 5. Coordination with occupants.
 - 6. Work restrictions.

1.3 Project Information

- A. Project Identification: West Natick Fire Station 4 Signal Improvements Project.
 - 1. Project Location: 268 Speen Street, Natick, MA.

- B. Owner:
 - Town of Natick
 - 13 East Central Street
 - Natick, MA 01760
 - Contact: Ms. Melissa Malone, Town Administrator
 - Telephone: (508) 647-6400

- C. Owner's Representative:
 - The Vertex Companies, Inc.
 - 400 Libbey Parkway
 - Weymouth, MA 02189
 - Contact: Mr. William C. Nangle
 - Telephone: (508) 277-0129
 - Email: wnangle@vertexeng.com

- D. Engineer:
 - Fuss & O'Neill, Inc.
 - 108 Myrtle Street, Suite 502
 - Quincy, MA 02021
 - Contact: Mr. Kevin C. McGarry, PE

Telephone: (617) 282-4675
Email: kmcgarry@fando.com

- E. Architect:
TectonArchitects
34 Sequassen Street, Suite 200
Hartford, CT 06106
Contact: Ms. Rebecca Hopkins, AIA, NCARB, EDAC
Telephone: (860) 990-6492
Email: rebeccah@tectonpc.com

- F. Fire Station General Contractor
Castagna Construction
100 Conifer Hill Drive, Unit 507
Danvers MA. 01923
Contact: Abe Hafiani
Telephone: (978) 465-2800
Email: ahafiani@castagnaconstruction.com

1.4 Work Covered By Contract Documents

- A. The Work of Project is defined by the Contract Documents and consists of furnishing all necessary labor, tools, materials and equipment required for the following:
1. Construction of an emergency traffic signal for the West Natick Fire Station.
- B. The Work shall be performed in conformance with the following:
1. Commonwealth of Massachusetts Highway Department (MassDOT) Standard Specifications for Highways and Bridges 2020 Edition.
 2. The latest Manual on Uniform Traffic Control Devices (MUTCD) with Massachusetts Amendments.
 3. The MassDOT October 2017 Construction Standard Details
 4. The MassDOT 2015 Overhead Signal Structure and Foundation Standard Drawings
 5. The MassDOT 1990 standard drawings for signs and supports.
 6. The MassDOT 1968 Standard Drawings for Traffic Signals and Highway Lighting.
 7. The Special Provisions.

1.5 Work Under Separate Contracts

- A. Concurrent Work: Owner has awarded separate contract(s) for the following construction operations at Project site. Those operations will be conducted simultaneously with work under this Contract.
1. West Natick Fire Station 4: To Castagna Construction for the construction of a new fire station.
 2. Coordinate the work with Castagna Construction throughout the duration of the contract.

1.6 Access to Site

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated. Coordinate with Castagna Construction for site logistics.

1.7 Coordination With Occupants

- A. Maintain roadway services throughout the duration of the project unless specifically approved by the Owner and MassDOT.

1.8 Work Restrictions

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

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SECTION 01300 – PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 Summary

- A. Section includes administrative and procedural requirements necessary to define the basis for measurement and payment for the Work of the Project.

1.3 Basis for Measurement and Payment

- A. The method of Measurement and Payment shall be as called for in Section 9.00 of the Commonwealth of Massachusetts Highway Department (MassDOT) Standard Specifications for Highways and Bridges 1988 and all Supplemental Specifications and the Special Provisions.

1.4 Police Details

- A. Provide uniformed police officers for the direction and control of traffic as deemed necessary by the Owner.
- B. Costs incurred for traffic police will be reimbursed without markup for overhead and profit. Submit invoices and proof of payment for police details along with certified payment requisitions.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

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SECTION 01330 – CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 Summary

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Startup construction schedule.
 - 2. Contractor's construction schedule.
 - 3. Construction schedule updating reports.

1.3 Submittals

- A. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
- B. Construction Schedule Updating Reports: Submit with Applications for Payment or when requested by the Engineer, Owner, or Owner's Representative.

PART 2 - PRODUCTS

2.1 Contractor's Construction Schedule

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's construction schedule within 14 days of date established for the Notice to Proceed. Base schedule on the startup construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

PART 3 - EXECUTION (NOT USED)

END OF SECTION

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SECTION 01340 – SUBMITTAL REQUIREMENTS

PART 1 - GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 Summary

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.3 Submittals

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Engineer and additional time for handling and reviewing submittals required by those corrections.

1.4 Submittal Administrative Requirements

- A. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Initial Review: Allow 10 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Resubmittal Review: Allow 5 days for review of each resubmittal.
- B. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
 - 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 - 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).

3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Engineer.
4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Engineer, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Engineer.
 - d. Name of Contractor.
 - e. Name of firm or entity that prepared submittal.
 - f. Names of subcontractor, manufacturer, and supplier.
 - g. Category and type of submittal.
 - h. Submittal purpose and description.
 - i. Specification Section number and title.
 - j. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - k. Drawing number and detail references, as appropriate.
 - l. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Submittal and transmittal distribution record.
 - o. Other necessary identification.
 - p. Remarks.
- C. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked with approval notation from Engineer's action stamp.
- D. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- E. Use for Construction: Retain complete copies of submittals on Project site. Use only final submittals that are marked with approval notation from Engineer's action stamp.

1.5 Submittal Procedures

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 1. Submit electronic submittals via email as PDF electronic files.
 - a. Engineer, will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 2. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be

signed by an officer or other individual authorized to sign documents on behalf of that entity.

- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before or concurrent with Samples.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.

SUBMITTAL REQUIREMENTS

- e. Specification paragraph number and generic name of each item.
- 3. Provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
- 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 Contractor's Review

- A. Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 Engineer's Action

- A. Submittals: Engineer will review each submittal, make marks to indicate corrections or revisions required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- B. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- C. Submittals not required by the Contract Documents may be returned by the Engineer without action.
- D. If submittals require more than two revision due to the Contractor's failure to meet the project requirements or address comments from the Engineer, the Contractor will be responsible for the cost of additional review.

END OF SECTION

SUBMITTAL REQUIREMENTS

SECTION 01710 – EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 Summary

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.

1.3 Informational Submittals

- A. Qualification Data: For land surveyor.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.

1.4 Quality Assurance

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 Examination

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

3.2 Preparation

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility

EXECUTION REQUIREMENTS

appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

3.3 Construction Layout

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Engineer and Owner's Representative promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Engineer and Owner's Representative when deviations from required lines and levels exceed allowable tolerances.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.

END OF SECTION

DIVISION 2 – CONSTRUCTION WORK

SECTION 02010 – SPECIAL PROVISIONS

ITEM 816.01 TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 1 LUMP SUM

GENERAL

The work to be done under this Item consists of furnishing and installing Traffic Signal Control Devices in accordance with the applicable portions of Section 815; TRAFFIC CONTROL DEVICES, as amended and supplemented herein.

SHOP DRAWINGS

Within 30 days following execution of the Contract, the Contractor shall submit shop drawings for signal supports, a list of equipment, and manufacturer's equipment specifications to the Engineer in accordance with the relevant provision of Section 815.20.

No work shall be commenced by the Contractor until approval of the shop drawings and manufacture's data 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 the materials and workmanship conforming to the plans and specifications.

MATERIALS

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

The work consists of reconstruction of the traffic control signals at the following intersection:

Worcester Street at Fire Station West Driveway and approach to Speen Street Intersection

The work shall include the furnishing and installation of all or part of the following items:

- traffic signal post foundations and mast arm foundations with anchor bolts
- signal post and pedestals, mast arms, posts and arms
- signal heads, backplates and tunnel visors
- ground rods, equipment grounding and bonding
- service connection (overhead)
- pre-emption system fire station panels
- all other equipment, materials and incidental costs necessary to provide a complete, fully operational traffic signal system as specified herein and as shown on the plans

A list of required major traffic signal system items is included on the plans. All equipment installed shall be listed on the MassDOT "Approved Equipment List" and compatible with the Town of Natick's traffic signal equipment.

All existing traffic signal equipment removed shall remain the property of the MassDOT unless the Contractor is notified in writing by the Engineer to dispose of specific items. Disposal of existing equipment shall be as specified in the Standard Specifications, except as modified herein. Traffic signal

SPECIAL PROVISIONS

equipment removed shall be transported to MassDOT Highway Maintenance Facility on Worcester Road at the intersection of Routes 9 and 126 in Framingham, MA (1.5 miles west) or as directed by the Engineer. All existing traffic signal equipment scheduled to be removed and transported, if found to be damaged as a result of the Contractor's operations, shall be replaced or restored to its original condition by the Contractor at their own expense.

The Contractor shall provide all labor, equipment and material required for the total maintenance of all existing and proposed temporary and permanent traffic signal control equipment within the project limits.

The Contractor is required to coordinate work with the local utilities to adjust, rebuild, reset or relocate all private utilities required by the scope of work and as directed by the Engineer. No additional compensation or extension of time shall be granted due to any delays that may result from the failure to relocate utilities in a timely fashion.

The work shall include removal and disposal of existing traffic signal post foundations as directed by the Engineer.

SERVICE CONNECTIONS

Eversource will furnish connection and power at the locations shown on the Contract Drawing. Eversource will connect and disconnect power as required. No work shall be done in manholes or on power poles without a representative of the Eversource being present. The Contractor will be responsible for coordinating the Eversource. It shall also be the Contractor's responsibility to pay all charges to Eversource for performing this work.

No direct reimbursement will be made to the Contractor for payments made to Eversource. Compensation for payments made by the Contractor to the utility company should be included in the Contractor's bid price for this Item. This bid price should also include compensation for conduit used for the power supply, utility pole risers, weatherheads and temporary power supply until the intersection has been accepted by the Town.

FLASHING OPERATION

Changes from automatic flashing to stop-and-go operation and from stop-and-go to automatic flashing operation shall occur as set forth in Section 4D-12 of the MUTCD and in accordance with the times specified on the plans.

TRAFFIC SIGNAL EQUIPMENT

Traffic Signal Controller

The Controller shall be included on MassDOT's approved equipment list for traffic signal equipment and be compatible with the Town of Natick's traffic signal controllers. The traffic controllers supplied shall conform to Section 3 "Controller Units" of the NEMA TS 2 Standard. The traffic controller shall be supplied in a TS 2 Type Configuration as required in the list of major traffic signal items included on

the plans for each intersection location. Specifically, the controller units (CU) shall be supplied as actuated controllers with NTCIP capabilities, defined as Type A 1 N in Subsection 3.2 of the NEMA TS 2 Standard.

The controller units shall utilize an interface conforming to Subsection 3.3 of the NEMA TS 2 Standard. The controller units shall utilize an input/output interface conforming to the requirements of Paragraph 3.3.1 for all input/output functions with the Terminals and Facilities (TF), Malfunction Management Unit (MMU), detector rack assemblies and auxiliary devices.

The controller units shall also meet the requirements of Paragraph 3.3.6 "NTCIP Requirements" of the NEMA TS 2 Standard.

The controller units shall be supplied with Port 1, Port 2, and Port 3 as defined by the requirements of Subsections 3.3.1, 3.3.2, and 3.3.3, respectively.

Furnishing and installing signal controllers shall include setting the system parameters, timings, offsets and all other programming work necessary. The Contractor will also be responsible for fine-tuning the control unit upon completion of the unit set-up.

Malfunction Management Unit

The malfunction management unit (MMU) shall comply with Section 4 of the NEMA TS 2 Standard. The MMU shall be capable of operating as either a Type 16 with 16 channels (8 vehicle, 4 pedestrian, 4 overlap) or a Type 12 with 12 channels (8 vehicle, 4 overlap). The MMU's supplied shall be configured to operate as Type 16 units.

The MMU's in either the Type 16 or Type 12 configuration shall be capable of operating in a NEMA TS 2 Type 1 cabinet, a NEMA TS 2 Type 2 cabinet, or a NEMA TS 1 cabinet without loss of functionality.

Warranty- Led Signals

The LED signal module will be replaced or repaired by the manufacturer if it exhibits a failure due to workmanship or material defects within the first 60 months of field operation.

The LED signal module will be replaced or repaired by the manufacturer if it exhibits either a greater than 40 percent light output degradation or a fall below the minimum intensity levels within the first 36 months of field operation.

Vehicular Signal Heads

5 inch black louvered backplates with 2" retroreflective yellow borders shall be provided on all signal heads as noted on the plans. All indicators shall be equipped with a standard cut-away tunnel visor. All signal heads visors and backplates shall be gloss black.

Mounting Signals

Signals shall be rigidly mounted by means of Astro-brac hardware, or approved equivalent. All signal heads mounted overhead on mast arms shall be installed, with the bottom of the signals at the same height. The Contractor shall modify any signal head location that is visibly obstructed to a motorist or pedestrian by overhead street light post or other obstructions as determined by the Engineer.

Diagrams and Manuals

Wiring and schematic diagrams, descriptive parts, lists, and instructions and maintenance manuals shall be provided for all items furnished under these specifications. Tables, charts or data for use in designing loops of various sizes and configurations, other than specified below, shall be provided. Ten (10) complete sets of diagrams, manuals and pertinent information shall be furnished with each contract.

CONSTRUCTION METHODS

Once the Contractor begins construction in the area, it shall then be their responsibility to operate and maintain the traffic/pedestrian signal system at each location. The contractor is responsible for the cost of electricity for each traffic signal for the duration of the work until the acceptance of the work by the Town.

The Contractor shall be required to keep records of dates when traffic signal posts are installed and when traffic signals are put on flashing and stop and go. These records are to be submitted to the Engineer by the first of each month.

If required, the Contractor shall make all electrical arrangements with Eversource for providing service to the controllers. The Contractor shall supply and install the conduit and wires to the Eversource system under the supervision of Eversource. The Contractor will be required to pay directly to the company, all charges resulting from, at no additional cost above the LUMP SUM bid for this contract. The Contractor, or their agent, will not cause any of their personnel to work on an electric manhole or on a pole without the permission of Eversource.

The Contractor shall coordinate work with local utilities to adjust, rebuild, rest, or relocate all private utilities required by the scope of work and as directed by the engineer. No additional compensation shall be granted due to any delays that may result from failure to relocate utilities in a timely fashion.

The Contractor's attention is directed to the necessity of making their own investigation in order to assure that no damage to existing structures, drainage lines, traffic signal conduits, etcetera, will occur.

The Contractor shall notify Massachusetts DIG SAFE and procure a Dig Safe Number for each location prior to disturbing existing ground in any way. The telephone number of the Dig Safe Call Center is 1-888-344-7233.

SUBMITTALS

- A. Catalog cuts for all traffic signal control equipment used on the project shall be provided to both the Engineer and The Town of Natick for review and approval prior to ordering any equipment.

Mast Arm Foundations

For the purpose of bid comparison only, each foundation has been estimated to be approximately 4 feet in diameter and 12 feet deep, requiring approximately 6 cubic yards of Class A Cement Concrete and requiring approximately 900 pounds of reinforcing steel. Actual sizes of mast arm foundation and quantities of materials shall be as detailed in the plans and in these specifications.

It shall be the responsibility of the signal fabricator to confirm that the mast arm loading does not exceed the standard mast arms shown in the Overhead Signal Structure & Foundation Standard Drawings. If the standard loading is exceeded, it is the responsibility of the fabricator to submit a design for the structure foundation that conforms to the latest edition of AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

Vehicle Housings & Signal Indications

Vehicle signal housings shall be 12-inches and shall conform to Section 800 and MassDOT Specifications for 8 and 12 inch Traffic Signals, dated November 8, 1993. Tunnel visors shall be in accordance with Institute of Transportation Engineers (ITE) "Vehicle Traffic Control Signal Heads (1985), or most recent version." All signal housings shall contain light emitting diode (LED) signal indications, which shall conform to MassDOT Specifications for Light Emitting Diode (LED) 12" Vehicle Traffic Signals, dated September 30, 2005.

Equipment Finish and Color

All traffic signal equipment, including, but not limited to, signal posts, bases, signal heads, visors (outside), mast arms, doors, pushbutton saddles, controller cabinet, service meter socket boxes, hardware, strapping, and rigid mounting brackets for signals and signs, shall be the color Gloss Black which shall match Color Number 27038 of the Federal Standard 595A "Colors Used in Government Procurement." This includes the metal strapping used to secure signal heads to the mast arm shaft. The inside of visors shall be Flat Black in accordance with Federal Color Number 37038. The Contractor shall submit to the Engineer and Town of Natick for approval, four (4) paint chips and sample finishes on aluminum and steel of the intended color prior to any work being done under this heading.

Signal heads, doors, visors, mounting brackets, and hardware supplied direct from the manufacturer in the color stipulated above may be acceptable provided it meets or exceeds the finish process for the material indicated below:

1. Steel Equipment

Galvanizing

All bolts, screws, nuts, rods, and washers shall be galvanized in accordance with AASHTO M232 and the Standard Specifications. The hardened machine screws may be electroplate galvanized. Stainless steel studs, bolts, screws, nuts, straps, and washers shall not be galvanized. Galvanized hardware need not be painted; however, the ends of bolts, nuts, and washers shall be painted in the field according to section "Touch-up and Repairs." Immediately prior to galvanizing, the steel shall be immersed in a bath of zinc ammonium chloride. The dry kettle galvanizing process shall be used.

All steel components, other than above, shall be galvanized after fabrication in accordance with AASHTO M111. The galvanizing bath shall contain nickel (0.05% to 0.09% by weight) in accordance with Subsection 960.61 of the Standard Specifications.

Galvanized members requiring shop assembly shall be welded and drilled prior to galvanizing.

Coating over Galvanized Steel

Prior to painting, the applicator shall ensure that all components are smooth and without sharp protrusions that would present an injury hazard to pedestrians. Also, the fabricator shall ensure that all welds shall be thoroughly cleaned in accordance with good practice and according to AWD D1.5 and ASTM A123-89a and shall have a suitable surface to accept the galvanizing.

In preparation for the two coat painting system, the surface shall be blast cleaned in accordance with the requirements of SSPC-SP-7 "Brush-Off Blast Cleaning" or other method producing equivalent results and uniform profile, to achieve a 1.0 to 1.5 mils anchor profile as indicated by a Keane Tator Profile Comparator or similar device. The creation of the anchor profile shall be performed prior to the formation of "white rust" on the galvanized surface. Following blast cleaning, the zinc coating thickness shall be measured to verify that the coating thickness is in accordance with AASHTO M111.

A two coat painting system shall be applied by the Galvanizer in their own facility within twelve hours of galvanizing the steel components. If the two coat painting system cannot be applied by the Galvanizer within twelve hours of galvanizing, the Galvanizer shall bake the steel components at 375 degrees for two hours prior to SSPC-SP-7 "Brush-Off Blast Cleaning".

The prime coat material shall be a polyamide epoxy applied to minimum dry film thickness of 4.0 to 6.0 mils and force cured as given below for the finish coat.

The finish coat material shall be a two component, catalyzed aliphatic urethane applied by airless spray to a minimum dry film thickness of 4.0 mils.

The color shall be Gloss Black, as specified above. The fabricator shall submit to the Engineer and Town for approval, paint chips of the intended color prior to any work being done under this heading.

All finish coat material shall be applied under conditions within the following tolerances:

- A. Air Temperature: 10°C min., 32°C max.
- B. Surface Temperature: 10°C min., 38°C max.
- C. Surface temperature must be at least 5°F above the dew point.

The finish coat shall be cured in a booth capable of maintaining 65°C for 2-4 hours.

Touch-up and Repairs

Should any damage occur to the galvanized coating during shipping or handling at the job site, the Contractor shall repair and touch-up any damaged areas to the satisfaction of the Engineer and the following:

Touch-up of galvanizing before the finish coat is applied shall be accomplished by applying galvanizing repair paint in accordance with Section M7.04.11. The dry film thickness of the applied repair paint shall not be less than 4.0 mils. Applications shall be in accordance with the manufacturer's instructions.

Field touch-up procedures shall conform to the recommendations of the Galvanizer. Touch-up of the finish coat shall be by applying a coating of a two-part urethane, as supplied by the Galvanizer, to achieve a dry film thickness of at least 4.0 mils. Prior to the application of the paint, remove all damaged coatings down to a solidly adhered coating and apply galvanizing repair paint as primer. Allow the primer to dry for at least 4 hours prior to top coating.

The Contractor shall also use the touch-up paint material and procedures to paint the galvanized hardware used in field erection that has not been finish coated previously.

2. Aluminum Equipment

All aluminum equipment called for shall have a powder coat finish Gloss Black in color. The coating shall be a polyester-TGIC (triglycidyl isocyanurate) resin system conforming to the following:

Quality	Test	Limits
Abrasion	Taber abraser CS-10, 1000 gram load, 1000 cycles, ASTM D4060	100 mg. maximum weight loss
Adhesion	ASTM D 3359 Initial 1000 hours	5A 5A
Gloss	ASTM D 523 15°C - 600 hours 15°C - 1000 hours	82% retention 90% retention (washed)
Hardness	ASTM D 3363	2H - No Gouge
Impact	ASTM D 2794 Direct	Pass 6.59 Nm

Quality	Test	Limits
Salt Spray Resistance	ASTM B 177 ASTM D 1654 1000 hours unscribed 400 hours scribed	Table 2-10 Table 1-10
Weather Resistance	ASTM G 23, 1000 hours, 18 min. waterspray, 102 min. light	No film failure
Color	Gloss Black	
Identify	Infrared fingerprint	Match
Flexibility	180° bend; 13mm dia., mandrel within 10 seconds	No breaks, flaking or cracks. Tested with a Q-panel with 2 mils or less of coating
Humidity	ASTM D 2247, 1000 hours	No blister or film failure
Thickness		4 mils ± 1 mils
Mar Resistance		Good

A Certificate of Compliance of the powder coating system is required for the Engineer's approval.

Emergency Vehicle Pre-emption

Contractor shall check with the Natick Fire Department prior to ordering the equipment.

When pre-emption signals are received at the controller, 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 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 the pre-emption equipment at this project. Fire Department pre-emption equipment required includes fire station panel, 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.

SPECIAL PROVISIONS

- 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 of the fire department pre-emption system.
- 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.

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

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.

Preemption Confirmation Light

A preemption confirmation light shall be provided and mounted as shown on the plans. It shall be located in a position where it may be visible from all preemption approaches to each intersection. The light shall be weather tight and consist of a double flash clear (white) strobe which shall be illuminated whenever the controller is in the emergency preemption phase. The indicator light shall meet ITE, NEMA, IMSA and MassDOT standards. The light shall have a minimum diameter of 140mm and height of 170mm. It shall be capable of flashing at a rate of 60 to 75 flashes per minute. Candela intensity shall be a minimum of 1,000 for clear lenses.

The Contractor shall be responsible for the proper programming of the phase selector, orientation of the optical receivers in the field, and all other work necessary to provide a complete and operating emergency preemption system.

Fire Station Panel

The Contractor shall provide eight (8) Fire Station panels in accordance with these specifications and the plans. Mounting location of the Fire Station panels shall be between all vehicle doors, four (4) on each side of the building, and shall be coordinated with the building Contractor, Architect and the Natick Fire Department. The Contractor shall furnish all required wiring and any additional interior building conduit needed to connect the Fire Station panels to the traffic signal conduit system as detailed on the plans, as required for a complete system, and in accordance with NEC and Town of Natick building codes. The building Contractor shall install the conduit connection along the driveway between the Fire Station and driveway pull box, and shall install all interior conduit to the general mounting locations of the fire panels. The Contractor shall coordinate their work with the work of the building Contractor to complete the installation, testing and operation of the Fire Station panels and pre-emption system.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

ITEM 816.01, TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 1 will be measured and paid for at the Contract LUMP SUM price; which price shall include all labor, material, equipment and incidental costs required to complete work.

No separate payment will be made for maintenance of existing installation, and the removal and stacking of existing traffic signal equipment, but all costs in connection therewith shall be included in the LUMP SUM price.

Handholes, pull boxes, conduit, and battery backup system will be measured and paid for under their individual items.

ITEM 819.001UPS BATTERY BACKUP FOR SYSTEMEACH

The work under this Item shall conform to the relevant provisions of Section 800 and the following:

Work shall include furnishing and installing a Side Mounted Battery Back Up System on traffic signal controller cabinet where indicated by the Engineer.

This specification is for establishing the minimum requirements for a complete emergency battery backup system for use with Light Emitting Diode (LED) Traffic Signal Modules at intersections with NEMA cabinets. The Battery Backup System (BBS) shall include, but not be limited to the following: Inverter/Charger, Batteries, a separate automatic and manually operated Bypass Switch and all necessary hardware and interconnect wiring. The BBS shall be capable of providing power for full run-time operation for an "LED -only" intersection (all colors: red, yellow, green and pedestrian heads) The BBS shall be designed for outdoor applications.

Enclosure Construction

The BBS Enclosure shall be capable of being a Side Mount. The enclosure will house the batteries, Uninterrupted Power Supply (UPS) and bypass switches. The cabinet must meet the requirements for NEMA 3R enclosures. The housing must have the dimensions so that it may easily be attached to the side of a NEMA Size 5 or 6 (M or P) cabinet. Dimensions of the enclosure shall not exceed 50"H x 17" W x 17" D. The UPS enclosure must not interfere with the opening of the traffic cabinet door.

- A. Door: The cabinet must have a door to provide access to the complete cabinet interior. The door must include a continuous piano hinge made of 14-gauge stainless steel and a .120" diameter stainless steel hinge pin. The hinge must be attached to the enclosure and the door with close end pop rivets. The door must have a three (3) point locking mechanism with rollers at the ends for the latch rods. The key lock must be a Corbin cylinder lock with a #2 key. When the door is opened it must have stops at 90, and 130 degrees. A continuous neoprene gasket must be used to weatherproof the enclosure when the door is closed.
- B. Ventilation Fan: A fan must be mounted in the air baffle at the top of the cabinet with an air outlet built into the overhang. The fan must be thermostatically controlled. The bottom of the door must be louvered to allow airflow. A removable dust filter must be located behind the vent.
- C. Finish: The enclosure shall be a natural aluminum or painted ASA 61 Gray.
- D. Features: An "On Battery" factory installed high impact red light option shall be available for the enclosure. The "On Battery" LED shall operate off of the DC voltage of the UPS to notify that the UPS is on batteries without opening of the door. The lamp will be wired to and controlled by the UPS power module. The enclosure shall be designed to rack mount the UPS and Fail Safe ATS transfer switch. When the UPS is mounted into the enclosure it must be mounted to accommodate straight-on horizontal viewing of the LCD screen on the UPS.
- E. Generator Connection: An optional factory installed flush mount generator compartment with neoprene gaskets for weatherproofing shall be available for the enclosure. The generator compartment shall include a locking 30 amp plug, L5-30FI, for connecting of a portable AC generator. A manual transfer switch shall be mounted within the generator compartment to allow for transferring from utility power to generator power. The generator door will provide a cable slot to allow for closing of the door when the generator is plugged in and to lock the cable inside of the compartment. The door will include a Corbin Type 2 lock.
- F. Mounting: The cabinet will be mounted to the traffic control cabinet with six 6 hex head bolts, 1/4" x 20". All holes will be field drilled by the Contractor to accommodate the specific situation. A grommet must be supplied to protect the cable in a field drilled 1.5" to

SPECIAL PROVISIONS

2" hole for cable connection to the existing traffic controller. The Contractor will supply all the mounting hardware, bolts, washers, nuts, gaskets, bushings, grommets, caulking, etc., necessary to install the cabinet in a safe and weatherproof manner.

Battery System

- A. Individual batteries shall be:
 - Voltage rating: 12V type
 - Amp-hour rating: 100 amp-hour minimum
 - Group size: 31 minimum
 - Batteries shall be easily replaced and commercially available off the shelf.
- B. Batteries used for BBS shall consist of 4 batteries. All batteries must meet their specifications out of the box immediately after the initial 24-hour top off charge. Batteries that require cycling to meet the AH rating specifications are not acceptable.
- C. Batteries shall be deep discharge, sealed prismatic lead-calcium based GEL/VRLA Gelled Electrolyte/ Valve Regulated Lead Acid). Batteries designed for Cycle applications, such as Solar, are not acceptable. The battery must be designed for Standby Applications.
- D. Batteries shall have a discharge operating temperature range of – 40 °C to +71 °C.
- E. Batteries shall have a Manufactures Warranty of 4 Years Full Replacement plus 1 additional year when a battery balancer is used. The warranty shall cover any battery that does not meet 80% of its original reserve capability during the warranty period.
- F. The batteries shall be provided with appropriate interconnect wiring and corrosion resistant mounting trays, shelves and/or brackets appropriate for the cabinet into which they will be installed.
- G. Batteries shall indicate maximum recharge data and recharging cycles.
- H. Battery Harness
 - 1) Battery interconnect wiring shall be via two-part modular harness.
 - 2) Part I shall be equipped with red (+) and black (-) 30.48 cm (12") cabling that can be permanently connected to the positive and negative posts of each battery. Each red and black pair shall be terminated into an Anderson style Power Pole connector or equivalent.
 - 3) Part II shall be equipped with the mating Power Pole style connector for the batteries and a single, insulated Power Pole style connection to the inverter/charger unit. Harness shall be fully insulated and constructed to allow batteries to be quickly and easily connected in any order to ensure proper polarity and circuit configuration.
 - 4) Power Pole connectors may be either one-piece or two-piece. If a two-piece connector is used, a locking pin shall be used to prevent the connectors from separating.
 - 5) All battery interconnect harness wiring shall be UL Style 1015 CSA TEW or Welding Style Cable or equivalent, all of proper gauge with respect to design current and with sufficient strand count for flexibility and ease of handling.
 - 6) Battery terminals shall be covered and insulated with molded boots so as to prevent accidental shorting.
- I. Battery Balancer: The battery balancer shall be provided that automatically balances the battery charge voltage on all batteries in the string to within $\pm 100\text{mV}$ between any two batteries. The Balancer shall allow for any single 12V battery within the battery string to be replaced without having to replace the entire battery string.

BBS Operation

- A. The BBS shall provide a minimum four (4) hours of full run-time operation at 500 watts with an additional nine (9) hours of Red Flash operation at 125 watts. Typical values for a "LED-only" intersection. The inverter, when on batteries, shall operate with a minimum efficiency of 84% with a load ranging from 25% to 90% of the BBS total output rating. The BBS shall operate at 98% or higher when operating under normal condition (utility power is available).
- B. The BBS, for safety and efficiency shall operate with a nominal 48 VDC buss. A DC level

- higher than 56 VDC shall be considered unsafe and not acceptable.
- C. The maximum transfer time allowed, from disruption of normal utility line voltage to stabilized inverter line voltage from batteries, shall be 5 milliseconds. The 5 milliseconds maximum allowable transfer time shall also apply when switching from inverter line voltage to utility line voltage.
 - D. The BBS shall include a rack mounted Fail Safe Automatic/Manual Bypass Switch for bypassing the UPS for maintenance. The FS-ATS bypass switch will be a 3-stage configuration, UPS Normal mode, bypass UPS On and bypass UPS Off. The FSATS Bypass Switch shall mount in a 19" rack inside of the BBS side mount enclosure.
 - E. The BBS shall provide the user with 6-sets of normally open (NO) and normally closed (NC) single-pole double-throw (SPDT) individually programmable dry relay contact closures, available on a front panel-mounted terminal block, rated at a minimum 120V/1A, and labeled so as to identify each contact.
 - 1) One set of NO and NC contact closures shall be energized whenever the unit switches to battery power. Contact shall be labeled or marked "On Batt."
 - 2) A second and third set of NO and NC contact closures shall be energized whenever the battery approaches approximately 40% of remaining useful capacity. Contact shall be labeled or marked "Low Batt." This setting must be adjustable from 10% to 90% via the RS232 connection.
 - 3) A fourth set of NO and NC contact closures shall be energized two hours after the unit switches to battery power. Contact shall be labeled or marked "Timer." This setting must be adjustable from 1 Min. to 8 Hours via the RS232 connection.
 - 4) A fifth set of NO and NC contact closures shall be energized in the event that an Alarm condition occurs. Contact shall be labeled "Alarm".
 - 5) A 48 VDC output shall be provided for operating an external fan. This output can also be factory configured as a dry contact
 - 6) Relay contact activation shall be annunciated on the front panel via a visual indication. This can be either discreet LED, or part of LCD screen, etc.
 - F. The BBS shall have (2) independently programmable timers 0 to 8 hours with (2) times-of-day restrictions on each timer.
 - G. The BBS shall provide 3 user inputs to support Intrusion Alarm, Emergency Power Off (EPO) and external Self-Test (Battery Test).
 - H. Operating temperature for both the inverter/charger, and manual bypass switch shall be -40°C to $+74^{\circ}\text{C}$ with a load of 850 watts.
 - I. The Fail Safe ATS Bypass Switch shall be rated at 240VAC/30 amps, minimum
 - J. The BBS shall use a temperature-compensated battery charging system. The charging system shall compensate over a range of 2.5 – 6.0 mV/ $^{\circ}\text{C}$ per cell. The temperature sensor shall be external to the inverter/charger unit. The temperature sensor shall come with 2 meters (6'5") of wire.
 - K. Batteries shall not be recharged when battery temperature exceeds $50^{\circ}\text{C} \pm 3^{\circ}\text{C}$.
 - L. BBS shall bypass the utility line power whenever the utility line voltage is outside of the following voltage range: 85VAC to 175VAC ($\pm 2\text{VAC}$). During a utility input from 85 VAC to 175 VAC the UPS shall utilize its internal double buck, double boost regulation to maintain a 108 to 131 VAC output to the controller cabinet, without the use of the batteries. The BBS shall go into Boost Mode 1 when the AC Line voltage reaches below 110 VAC, ± 2 volts. When the AC line drops below 96 VAC, ± 2 volts the BBS shall go into Boost Mode 2. When the AC line voltage reaches 131 volts, ± 2 volts the BBS shall go into Buck Mode 1. When the AC Line voltage reaches 150 volts the BBS shall go into Buck Mode 2.
 - M. When utilizing battery power, the BBS output voltage shall be between 112 VAC and 128 VAC, pure sine wave output, $\leq 3\%$ THD, 60Hz $\pm 3\text{Hz}$.
 - N. BBS shall be compatible with NEMA, 170 or 2170 Controllers, and cabinet components for full time operation. All loads to the maximum rating of the BBS shall be powered through

the BBS system to utilize the UPS internal Buck/Boost regulation.

- O. In cases of low (below 85VAC) or absent utility line power, when the utility line power has been restored to normal for more than 3 seconds, the BBS shall transfer from the Boost Regulation Mode or the battery backed inverter mode back to utility line mode.
- P. In cases of high utility line power (above 175VAC), when the utility line power has been restored to normal for more than 3 seconds, the BBS shall transfer from the Buck Regulation Mode or battery backed inverter mode back to utility line mode.
- Q. BBS shall be equipped to prevent a malfunction feedback to the cabinet or from feeding back to the utility service. For conformation the UPS module must be UL/CSA approved and labeled. "Tested to" or "Built to" UL/CSA is not acceptable.

Work shall be measured and paid at the contract unit price per each, which price shall include all materials necessary such as mounting hardware, electrical connectors, tools and labor incidental thereto.

Appendix A

Prevailing Wage Rates



CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

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

Prevailing Wage Rates

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

ROSALIN ACOSTA
Secretary

MICHAEL FLANAGAN
Director

Awarding Authority: Town of Natick

Contract Number:

City/Town: NATICK

Description of Work: Providing new emergency traffic signals to support the construction of West Natick Fire Station 4. The project includes signage, pavement markings, and associated site and electrical work.

Job Location: 268 Speen Street, Natick, MA

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule from the Department of Labor Standards ("DLS") if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Department of Labor Standards, Division of Apprentice Standards (DLS/DAS). Apprentice must keep his/her apprentice identification card on his/her person during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DLS/DAS regardless of whether or not they are registered with any other federal, state, local, or private agency must be paid the journeyworker's rate for the trade.**
- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule. Awarding authorities are required to request these updates no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F "rental of equipment" contracts.
- Every contractor or subcontractor which performs construction work on the project is required to submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2019	\$34.25	\$12.41	\$13.72	\$0.00	\$60.38
	06/01/2020	\$35.15	\$12.41	\$13.72	\$0.00	\$61.28
	08/01/2020	\$35.15	\$12.91	\$13.72	\$0.00	\$61.78
	12/01/2020	\$35.15	\$12.91	\$14.82	\$0.00	\$62.88
	06/01/2021	\$35.95	\$12.91	\$14.82	\$0.00	\$63.68
	08/01/2021	\$35.95	\$13.41	\$14.82	\$0.00	\$64.18
	12/01/2021	\$35.95	\$13.41	\$16.01	\$0.00	\$65.37
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2019	\$34.32	\$12.41	\$13.72	\$0.00	\$60.45
	06/01/2020	\$35.22	\$12.41	\$13.72	\$0.00	\$61.35
	08/01/2020	\$35.22	\$12.91	\$13.72	\$0.00	\$61.85
	12/01/2020	\$35.22	\$12.91	\$14.82	\$0.00	\$62.95
	06/01/2021	\$36.02	\$12.91	\$14.82	\$0.00	\$63.75
	08/01/2021	\$36.02	\$13.41	\$14.82	\$0.00	\$64.25
	12/01/2021	\$36.02	\$13.41	\$16.01	\$0.00	\$65.44
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2019	\$34.44	\$12.41	\$13.72	\$0.00	\$60.57
	06/01/2020	\$35.34	\$12.41	\$13.72	\$0.00	\$61.47
	08/01/2020	\$35.34	\$12.91	\$13.72	\$0.00	\$61.97
	12/01/2020	\$35.34	\$12.91	\$14.82	\$0.00	\$63.07
	06/01/2021	\$36.14	\$12.91	\$14.82	\$0.00	\$63.87
	08/01/2021	\$36.14	\$13.41	\$14.82	\$0.00	\$64.37
	12/01/2021	\$36.14	\$13.41	\$16.01	\$0.00	\$65.56
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.81	\$8.10	\$15.38	\$0.00	\$58.29
	06/01/2020	\$35.70	\$8.10	\$15.38	\$0.00	\$59.18
	12/01/2020	\$36.59	\$8.10	\$15.38	\$0.00	\$60.07
	06/01/2021	\$37.51	\$8.10	\$15.38	\$0.00	\$60.99
	12/01/2021	\$38.42	\$8.10	\$15.38	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>HEAT & FROST INSULATORS LOCAL 6 (BOSTON)</i>	12/01/2019	\$37.00	\$12.50	\$8.85	\$0.00	\$58.35
	06/01/2020	\$38.00	\$12.50	\$8.85	\$0.00	\$59.35
	12/01/2020	\$39.00	\$12.50	\$8.85	\$0.00	\$60.35
ASPHALT RAKER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
	12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
	12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.81	\$8.10	\$15.38	\$0.00	\$58.29
	06/01/2020	\$35.70	\$8.10	\$15.38	\$0.00	\$59.18
	12/01/2020	\$36.59	\$8.10	\$15.38	\$0.00	\$60.07
	06/01/2021	\$37.51	\$8.10	\$15.38	\$0.00	\$60.99
	12/01/2021	\$38.42	\$8.10	\$15.38	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2020	\$46.10	\$7.07	\$17.98	\$0.00	\$71.15

Apprentice - BOILERMAKER - Local 29

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
2	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
3	70	\$32.27	\$7.07	\$12.59	\$0.00	\$51.93
4	75	\$34.58	\$7.07	\$13.49	\$0.00	\$55.14
5	80	\$36.88	\$7.07	\$14.38	\$0.00	\$58.33
6	85	\$39.19	\$7.07	\$15.29	\$0.00	\$61.55
7	90	\$41.49	\$7.07	\$16.18	\$0.00	\$64.74
8	95	\$43.80	\$7.07	\$17.09	\$0.00	\$67.96

Notes:

Apprentice to Journeyworker Ratio:1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) <i>BRICKLAYERS LOCAL 3 (LOWELL)</i>	02/01/2020	\$52.26	\$10.75	\$21.30	\$0.00	\$84.31
	08/01/2020	\$53.61	\$10.75	\$21.45	\$0.00	\$85.81
	02/01/2021	\$54.21	\$10.75	\$21.45	\$0.00	\$86.41
	08/01/2021	\$55.61	\$10.75	\$21.61	\$0.00	\$87.97
	02/01/2022	\$56.19	\$10.75	\$21.61	\$0.00	\$88.55

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Lowell

Effective Date - 02/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.13	\$10.75	\$21.30	\$0.00	\$58.18
2	60	\$31.36	\$10.75	\$21.30	\$0.00	\$63.41
3	70	\$36.58	\$10.75	\$21.30	\$0.00	\$68.63
4	80	\$41.81	\$10.75	\$21.30	\$0.00	\$73.86
5	90	\$47.03	\$10.75	\$21.30	\$0.00	\$79.08

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.81	\$10.75	\$21.45	\$0.00	\$59.01
2	60	\$32.17	\$10.75	\$21.45	\$0.00	\$64.37
3	70	\$37.53	\$10.75	\$21.45	\$0.00	\$69.73
4	80	\$42.89	\$10.75	\$21.45	\$0.00	\$75.09
5	90	\$48.25	\$10.75	\$21.45	\$0.00	\$80.45

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN	12/01/2019	\$40.25	\$8.10	\$16.80	\$0.00	\$65.15
LABORERS - FOUNDATION AND MARINE	06/01/2020	\$41.24	\$8.10	\$16.80	\$0.00	\$66.14
	12/01/2020	\$42.22	\$8.10	\$16.80	\$0.00	\$67.12
	06/01/2021	\$43.24	\$8.10	\$16.80	\$0.00	\$68.14
	12/01/2021	\$44.25	\$8.10	\$16.80	\$0.00	\$69.15
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER	12/01/2019	\$39.10	\$8.10	\$16.80	\$0.00	\$64.00
LABORERS - FOUNDATION AND MARINE	06/01/2020	\$40.09	\$8.10	\$16.80	\$0.00	\$64.99
	12/01/2020	\$41.07	\$8.10	\$16.80	\$0.00	\$65.97
	06/01/2021	\$42.09	\$8.10	\$16.80	\$0.00	\$66.99
	12/01/2021	\$43.10	\$8.10	\$16.80	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN	12/01/2019	\$39.10	\$8.10	\$16.80	\$0.00	\$64.00
LABORERS - FOUNDATION AND MARINE	06/01/2020	\$40.09	\$8.10	\$16.80	\$0.00	\$64.99
	12/01/2020	\$41.07	\$8.10	\$16.80	\$0.00	\$65.97
	06/01/2021	\$42.09	\$8.10	\$16.80	\$0.00	\$66.99
	12/01/2021	\$43.10	\$8.10	\$16.80	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CARBIDE CORE DRILL OPERATOR	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
LABORERS - ZONE 2	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

CARPENTER	03/01/2020	\$42.50	\$9.40	\$18.95	\$0.00	\$70.85
CARPENTERS -ZONE 2 (Eastern Massachusetts)	09/01/2020	\$43.15	\$9.40	\$18.95	\$0.00	\$71.50
	03/01/2021	\$43.75	\$9.40	\$18.95	\$0.00	\$72.10
	09/01/2021	\$44.40	\$9.40	\$18.95	\$0.00	\$72.75
	03/01/2022	\$45.00	\$9.40	\$18.95	\$0.00	\$73.35
	09/01/2022	\$45.65	\$9.40	\$18.95	\$0.00	\$74.00
	03/01/2023	\$46.25	\$9.40	\$18.95	\$0.00	\$74.60

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 03/01/2020

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

Effective Date - 09/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.58	\$9.40	\$1.73	\$0.00	\$32.71
2	60	\$25.89	\$9.40	\$1.73	\$0.00	\$37.02
3	70	\$30.21	\$9.40	\$13.76	\$0.00	\$53.37
4	75	\$32.36	\$9.40	\$13.76	\$0.00	\$55.52
5	80	\$34.52	\$9.40	\$15.49	\$0.00	\$59.41
6	80	\$34.52	\$9.40	\$15.49	\$0.00	\$59.41
7	90	\$38.84	\$9.40	\$17.22	\$0.00	\$65.46
8	90	\$38.84	\$9.40	\$17.22	\$0.00	\$65.46

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
Step 1&2 \$30.26/ 3&4 \$36.18/ 5&6 \$54.64/ 7&8 \$60.62

Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME	10/01/2019	\$27.95	\$7.07	\$7.86	\$0.00	\$42.88
CARPENTERS -ZONE 2 (Wood Frame)						

All Aspects of New Wood Frame Work

Classification

Effective Date

Base Wage

Health

Pension

Supplemental
Unemployment

Total Rate

Apprentice - CARPENTER (Wood Frame) - Zone 2**Effective Date -** 10/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$16.77	\$7.07	\$0.00	\$0.00	\$23.84
2	60	\$16.77	\$7.07	\$0.00	\$0.00	\$23.84
3	65	\$18.17	\$7.07	\$7.86	\$0.00	\$33.10
4	70	\$19.57	\$7.07	\$7.86	\$0.00	\$34.50
5	75	\$20.96	\$7.07	\$7.86	\$0.00	\$35.89
6	80	\$22.36	\$7.07	\$7.86	\$0.00	\$37.29
7	85	\$23.76	\$7.07	\$7.86	\$0.00	\$38.69
8	90	\$25.16	\$7.07	\$7.86	\$0.00	\$40.09

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$19.65/ 3&4 \$27.19/ 5&6 \$34.50/ 7&8 \$37.29

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING
 BRICKLAYERS LOCAL 3 (LOWELL)

01/01/2020

\$45.23

\$12.75

\$22.41

\$0.62

\$81.01

Apprentice - CEMENT MASONRY/PLASTERING - Lowell**Effective Date -** 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.62	\$12.75	\$15.41	\$0.00	\$50.78
2	60	\$27.14	\$12.75	\$17.41	\$0.62	\$57.92
3	65	\$29.40	\$12.75	\$18.41	\$0.62	\$61.18
4	70	\$31.66	\$12.75	\$19.41	\$0.62	\$64.44
5	75	\$33.92	\$12.75	\$20.41	\$0.62	\$67.70
6	80	\$36.18	\$12.75	\$21.41	\$0.62	\$70.96
7	90	\$40.71	\$12.75	\$22.41	\$0.62	\$76.49

Notes:

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

Apprentice to Journeyworker Ratio:1:3

CHAIN SAW OPERATOR
 LABORERS - ZONE 2

12/01/2019

\$34.31

\$8.10

\$15.38

\$0.00

\$57.79

06/01/2020

\$35.20

\$8.10

\$15.38

\$0.00

\$58.68

12/01/2020

\$36.09

\$8.10

\$15.38

\$0.00

\$59.57

06/01/2021

\$37.01

\$8.10

\$15.38

\$0.00

\$60.49

12/01/2021

\$37.92

\$8.10

\$15.38

\$0.00

\$61.40

For apprentice rates see "Apprentice- LABORER"

CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES
 OPERATING ENGINEERS LOCAL 4

12/01/2019

\$49.73

\$12.50

\$15.70

\$0.00

\$77.93

06/01/2020

\$50.83

\$12.50

\$15.70

\$0.00

\$79.03

12/01/2020

\$51.98

\$12.50

\$15.70

\$0.00

\$80.18

06/01/2021

\$53.08

\$12.50

\$15.70

\$0.00

\$81.28

12/01/2021

\$54.23

\$12.50

\$15.70

\$0.00

\$82.43

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

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2020

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

Effective Date - 07/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.03	\$8.20	\$0.00	\$0.00	\$34.23
2	55	\$28.63	\$8.20	\$5.94	\$0.00	\$42.77
3	60	\$31.24	\$8.20	\$6.48	\$0.00	\$45.92
4	65	\$33.84	\$8.20	\$7.02	\$0.00	\$49.06
5	70	\$36.44	\$8.20	\$18.86	\$0.00	\$63.50
6	75	\$39.05	\$8.20	\$19.40	\$0.00	\$66.65
7	80	\$41.65	\$8.20	\$19.94	\$0.00	\$69.79
8	90	\$46.85	\$8.20	\$21.02	\$0.00	\$76.07

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN <i>LABORERS - ZONE 2</i>	12/01/2019	\$39.30	\$8.10	\$16.60	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2019	\$40.30	\$8.10	\$16.60	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS <i>LABORERS - ZONE 2</i>	12/01/2019	\$40.05	\$8.10	\$16.60	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 2</i>	12/01/2019	\$40.30	\$8.10	\$16.60	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2019	\$40.05	\$8.10	\$16.60	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 2</i>	12/01/2019	\$39.30	\$8.10	\$16.60	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2019	\$68.52	\$9.90	\$21.15	\$0.00	\$99.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2019	\$73.41	\$9.90	\$21.15	\$0.00	\$104.46
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) <i>ELECTRICIANS LOCAL 103</i>	03/01/2020	\$53.50	\$13.00	\$19.20	\$0.00	\$85.70
	09/01/2020	\$54.93	\$13.00	\$19.25	\$0.00	\$87.18
	03/01/2021	\$56.13	\$13.00	\$19.28	\$0.00	\$88.41
	09/01/2021	\$57.56	\$13.00	\$19.33	\$0.00	\$89.89
	03/01/2022	\$58.76	\$13.00	\$19.36	\$0.00	\$91.12
	09/01/2022	\$60.19	\$13.00	\$19.41	\$0.00	\$92.60
	03/01/2023	\$61.39	\$13.00	\$19.44	\$0.00	\$93.83
For apprentice rates see "Apprentice- ELECTRICIAN"						
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2020	\$53.50	\$13.00	\$19.20	\$0.00	\$85.70
	09/01/2020	\$54.93	\$13.00	\$19.25	\$0.00	\$87.18
	03/01/2021	\$56.13	\$13.00	\$19.28	\$0.00	\$88.41
	09/01/2021	\$57.56	\$13.00	\$19.33	\$0.00	\$89.89
	03/01/2022	\$58.76	\$13.00	\$19.36	\$0.00	\$91.12
	09/01/2022	\$60.19	\$13.00	\$19.41	\$0.00	\$92.60
	03/01/2023	\$61.39	\$13.00	\$19.44	\$0.00	\$93.83

Classification

Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate

Apprentice - ELECTRICIAN - Local 103
Effective Date - 03/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$21.40	\$13.00	\$0.64	\$0.00	\$35.04
2	40	\$21.40	\$13.00	\$0.64	\$0.00	\$35.04
3	45	\$24.08	\$13.00	\$14.62	\$0.00	\$51.70
4	45	\$24.08	\$13.00	\$14.62	\$0.00	\$51.70
5	50	\$26.75	\$13.00	\$15.04	\$0.00	\$54.79
6	55	\$29.43	\$13.00	\$15.46	\$0.00	\$57.89
7	60	\$32.10	\$13.00	\$15.87	\$0.00	\$60.97
8	65	\$34.78	\$13.00	\$16.29	\$0.00	\$64.07
9	70	\$37.45	\$13.00	\$16.70	\$0.00	\$67.15
10	75	\$40.13	\$13.00	\$17.12	\$0.00	\$70.25

Effective Date - 09/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$21.97	\$13.00	\$0.66	\$0.00	\$35.63
2	40	\$21.97	\$13.00	\$0.66	\$0.00	\$35.63
3	45	\$24.72	\$13.00	\$14.64	\$0.00	\$52.36
4	45	\$24.72	\$13.00	\$14.64	\$0.00	\$52.36
5	50	\$27.47	\$13.00	\$15.06	\$0.00	\$55.53
6	55	\$30.21	\$13.00	\$15.49	\$0.00	\$58.70
7	60	\$32.96	\$13.00	\$15.90	\$0.00	\$61.86
8	65	\$35.70	\$13.00	\$16.32	\$0.00	\$65.02
9	70	\$38.45	\$13.00	\$16.73	\$0.00	\$68.18
10	75	\$41.20	\$13.00	\$17.16	\$0.00	\$71.36

Notes :

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

Apprentice to Journeyworker Ratio:2:3***

ELEVATOR CONSTRUCTOR	01/01/2020	\$61.42	\$15.73	\$18.41	\$0.00	\$95.56
ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2021	\$63.47	\$15.88	\$19.31	\$0.00	\$98.66
	01/01/2022	\$65.62	\$16.03	\$20.21	\$0.00	\$101.86

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - ELEVATOR CONSTRUCTOR - Local 4

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$30.71	\$15.73	\$0.00	\$0.00	\$46.44
2	55	\$33.78	\$15.73	\$18.41	\$0.00	\$67.92
3	65	\$39.92	\$15.73	\$18.41	\$0.00	\$74.06
4	70	\$42.99	\$15.73	\$18.41	\$0.00	\$77.13
5	80	\$49.14	\$15.73	\$18.41	\$0.00	\$83.28

Effective Date - 01/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$31.74	\$15.88	\$0.00	\$0.00	\$47.62
2	55	\$34.91	\$15.88	\$19.31	\$0.00	\$70.10
3	65	\$41.26	\$15.88	\$19.31	\$0.00	\$76.45
4	70	\$44.43	\$15.88	\$19.31	\$0.00	\$79.62
5	80	\$50.78	\$15.88	\$19.31	\$0.00	\$85.97

Notes:

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

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER	01/01/2020	\$42.99	\$15.73	\$18.41	\$0.00	\$77.13
ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2021	\$44.43	\$15.88	\$19.31	\$0.00	\$79.62
	01/01/2022	\$45.93	\$16.03	\$20.21	\$0.00	\$82.17
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"						
FENCE & GUARD RAIL ERECTOR	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
LABORERS - ZONE 2	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	05/01/2020	\$44.73	\$12.50	\$15.70	\$0.00	\$72.93
OPERATING ENGINEERS LOCAL 4	11/01/2020	\$45.73	\$12.50	\$15.70	\$0.00	\$73.93
	05/01/2021	\$46.88	\$12.50	\$15.70	\$0.00	\$75.08
	11/01/2021	\$47.88	\$12.50	\$15.70	\$0.00	\$76.08
	05/01/2022	\$49.03	\$12.50	\$15.70	\$0.00	\$77.23
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	05/01/2020	\$46.23	\$12.50	\$15.70	\$0.00	\$74.43
OPERATING ENGINEERS LOCAL 4	11/01/2020	\$47.24	\$12.50	\$15.70	\$0.00	\$75.44
	05/01/2021	\$48.40	\$12.50	\$15.70	\$0.00	\$76.60
	11/01/2021	\$49.41	\$12.50	\$15.70	\$0.00	\$77.61
	05/01/2022	\$50.57	\$12.50	\$15.70	\$0.00	\$78.77
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2020	\$22.64	\$12.50	\$15.70	\$0.00	\$50.84
	11/01/2020	\$23.23	\$12.50	\$15.70	\$0.00	\$51.43
	05/01/2021	\$23.91	\$12.50	\$15.70	\$0.00	\$52.11
	11/01/2021	\$24.51	\$12.50	\$15.70	\$0.00	\$52.71
	05/01/2022	\$25.18	\$12.50	\$15.70	\$0.00	\$53.38
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 103</i>	03/01/2020	\$53.50	\$13.00	\$19.20	\$0.00	\$85.70
	09/01/2020	\$54.93	\$13.00	\$19.25	\$0.00	\$87.18
	03/01/2021	\$56.13	\$13.00	\$19.28	\$0.00	\$88.41
	09/01/2021	\$57.56	\$13.00	\$19.33	\$0.00	\$89.89
	03/01/2022	\$58.76	\$13.00	\$19.36	\$0.00	\$91.12
	09/01/2022	\$60.19	\$13.00	\$19.41	\$0.00	\$92.60
	03/01/2023	\$61.39	\$13.00	\$19.44	\$0.00	\$93.83
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE <i>ELECTRICIANS LOCAL 103</i> / COMMISSIONING	03/01/2020	\$40.13	\$13.00	\$17.12	\$0.00	\$70.25
	09/01/2020	\$41.20	\$13.00	\$17.16	\$0.00	\$71.36
	03/01/2021	\$42.66	\$13.00	\$17.27	\$0.00	\$72.93
	09/01/2021	\$44.32	\$13.00	\$17.38	\$0.00	\$74.70
	03/01/2022	\$45.83	\$13.00	\$17.49	\$0.00	\$76.32
	09/01/2022	\$47.55	\$13.00	\$17.62	\$0.00	\$78.17
	03/01/2023	\$49.11	\$13.00	\$17.73	\$0.00	\$79.84
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$39.89	\$12.50	\$15.70	\$0.00	\$68.09
	06/01/2020	\$40.80	\$12.50	\$15.70	\$0.00	\$69.00
	12/01/2020	\$41.75	\$12.50	\$15.70	\$0.00	\$69.95
	06/01/2021	\$42.66	\$12.50	\$15.70	\$0.00	\$70.86
	12/01/2021	\$43.61	\$12.50	\$15.70	\$0.00	\$71.81
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER <i>LABORERS - ZONE 2</i>	12/01/2019	\$23.50	\$8.10	\$15.38	\$0.00	\$46.98
	06/01/2020	\$23.50	\$8.10	\$15.38	\$0.00	\$46.98
	12/01/2020	\$24.50	\$8.10	\$15.38	\$0.00	\$47.98
	06/01/2021	\$24.50	\$8.10	\$15.38	\$0.00	\$47.98
	12/01/2021	\$24.50	\$8.10	\$15.38	\$0.00	\$47.98
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>	03/01/2020	\$47.05	\$9.40	\$19.25	\$0.00	\$75.70
	09/01/2020	\$47.85	\$9.40	\$19.25	\$0.00	\$76.50
	03/01/2021	\$48.65	\$9.40	\$19.25	\$0.00	\$77.30
	09/01/2021	\$49.45	\$9.40	\$19.25	\$0.00	\$78.10
	03/01/2022	\$50.25	\$9.40	\$19.25	\$0.00	\$78.90

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - FLOORCOVERER - Local 2168 Zone I
Effective Date - 03/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.53	\$9.40	\$1.79	\$0.00	\$34.72
2	55	\$25.88	\$9.40	\$1.79	\$0.00	\$37.07
3	60	\$28.23	\$9.40	\$13.88	\$0.00	\$51.51
4	65	\$30.58	\$9.40	\$13.88	\$0.00	\$53.86
5	70	\$32.94	\$9.40	\$15.67	\$0.00	\$58.01
6	75	\$35.29	\$9.40	\$15.67	\$0.00	\$60.36
7	80	\$37.64	\$9.40	\$17.46	\$0.00	\$64.50
8	85	\$39.99	\$9.40	\$17.46	\$0.00	\$66.85

Effective Date - 09/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.93	\$9.40	\$1.79	\$0.00	\$35.12
2	55	\$26.32	\$9.40	\$1.79	\$0.00	\$37.51
3	60	\$28.71	\$9.40	\$13.88	\$0.00	\$51.99
4	65	\$31.10	\$9.40	\$13.88	\$0.00	\$54.38
5	70	\$33.50	\$9.40	\$15.67	\$0.00	\$58.57
6	75	\$35.89	\$9.40	\$15.67	\$0.00	\$60.96
7	80	\$38.28	\$9.40	\$17.46	\$0.00	\$65.14
8	85	\$40.67	\$9.40	\$17.46	\$0.00	\$67.53

Notes: Steps are 750 hrs.
 % After 09/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)
 Step 1&2 \$32.36/ 3&4 \$38.80/ 5&6 \$58.01/ 7&8 \$64.50

Apprentice to Journeyworker Ratio:1:1
**FORK LIFT/CHERRY PICKER
OPERATING ENGINEERS LOCAL 4**

12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

**GENERATOR/LIGHTING PLANT/HEATERS
OPERATING ENGINEERS LOCAL 4**

12/01/2019	\$32.47	\$12.50	\$15.70	\$0.00	\$60.67
06/01/2020	\$33.22	\$12.50	\$15.70	\$0.00	\$61.42
12/01/2020	\$34.00	\$12.50	\$15.70	\$0.00	\$62.20
06/01/2021	\$34.75	\$12.50	\$15.70	\$0.00	\$62.95
12/01/2021	\$35.54	\$12.50	\$15.70	\$0.00	\$63.74

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

**GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR
SYSTEMS)
GLAZIERS LOCAL 35 (ZONE 2)**

01/01/2020	\$40.46	\$8.20	\$22.10	\$0.00	\$70.76
07/01/2020	\$41.56	\$8.20	\$22.10	\$0.00	\$71.86
01/01/2021	\$42.66	\$8.20	\$22.10	\$0.00	\$72.96

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - GLAZIER - Local 35 Zone 2
Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.23	\$8.20	\$0.00	\$0.00	\$28.43
2	55	\$22.25	\$8.20	\$5.94	\$0.00	\$36.39
3	60	\$24.28	\$8.20	\$6.48	\$0.00	\$38.96
4	65	\$26.30	\$8.20	\$7.02	\$0.00	\$41.52
5	70	\$28.32	\$8.20	\$18.86	\$0.00	\$55.38
6	75	\$30.35	\$8.20	\$19.40	\$0.00	\$57.95
7	80	\$32.37	\$8.20	\$19.94	\$0.00	\$60.51
8	90	\$36.41	\$8.20	\$21.02	\$0.00	\$65.63

Effective Date - 07/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.78	\$8.20	\$0.00	\$0.00	\$28.98
2	55	\$22.86	\$8.20	\$5.94	\$0.00	\$37.00
3	60	\$24.94	\$8.20	\$6.48	\$0.00	\$39.62
4	65	\$27.01	\$8.20	\$7.02	\$0.00	\$42.23
5	70	\$29.09	\$8.20	\$18.86	\$0.00	\$56.15
6	75	\$31.17	\$8.20	\$19.40	\$0.00	\$58.77
7	80	\$33.25	\$8.20	\$19.94	\$0.00	\$61.39
8	90	\$37.40	\$8.20	\$21.02	\$0.00	\$66.62

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS

OPERATING ENGINEERS LOCAL 4

12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - OPERATING ENGINEERS - Local 4
Effective Date - 12/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$26.80	\$12.50	\$0.00	\$0.00	\$39.30
2	60	\$29.24	\$12.50	\$15.70	\$0.00	\$57.44
3	65	\$31.67	\$12.50	\$15.70	\$0.00	\$59.87
4	70	\$34.11	\$12.50	\$15.70	\$0.00	\$62.31
5	75	\$36.55	\$12.50	\$15.70	\$0.00	\$64.75
6	80	\$38.98	\$12.50	\$15.70	\$0.00	\$67.18
7	85	\$41.42	\$12.50	\$15.70	\$0.00	\$69.62
8	90	\$43.86	\$12.50	\$15.70	\$0.00	\$72.06

Effective Date - 06/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$27.41	\$12.50	\$0.00	\$0.00	\$39.91
2	60	\$29.90	\$12.50	\$15.70	\$0.00	\$58.10
3	65	\$32.39	\$12.50	\$15.70	\$0.00	\$60.59
4	70	\$34.88	\$12.50	\$15.70	\$0.00	\$63.08
5	75	\$37.37	\$12.50	\$15.70	\$0.00	\$65.57
6	80	\$39.86	\$12.50	\$15.70	\$0.00	\$68.06
7	85	\$42.36	\$12.50	\$15.70	\$0.00	\$70.56
8	90	\$44.85	\$12.50	\$15.70	\$0.00	\$73.05

Notes:
Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK)	02/01/2020	\$49.36	\$13.35	\$24.12	\$2.61	\$89.44
SHEETMETAL WORKERS LOCAL 17 - A	08/01/2020	\$50.96	\$13.35	\$24.12	\$2.66	\$91.09
	02/01/2021	\$52.61	\$13.35	\$24.12	\$2.71	\$92.79
	08/01/2021	\$54.36	\$13.35	\$24.12	\$2.76	\$94.59
	02/01/2022	\$56.11	\$13.35	\$24.12	\$2.81	\$96.39

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS)	03/01/2020	\$53.50	\$13.00	\$19.20	\$0.00	\$85.70
ELECTRICIANS LOCAL 103	09/01/2020	\$54.93	\$13.00	\$19.25	\$0.00	\$87.18
	03/01/2021	\$56.13	\$13.00	\$19.28	\$0.00	\$88.41
	09/01/2021	\$57.56	\$13.00	\$19.33	\$0.00	\$89.89
	03/01/2022	\$58.76	\$13.00	\$19.36	\$0.00	\$91.12
	09/01/2022	\$60.19	\$13.00	\$19.41	\$0.00	\$92.60
	03/01/2023	\$61.39	\$13.00	\$19.44	\$0.00	\$93.83

For apprentice rates see "Apprentice- ELECTRICIAN"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2020	\$49.36	\$13.35	\$24.12	\$2.61	\$89.44
	08/01/2020	\$50.96	\$13.35	\$24.12	\$2.66	\$91.09
	02/01/2021	\$52.61	\$13.35	\$24.12	\$2.71	\$92.79
	08/01/2021	\$54.36	\$13.35	\$24.12	\$2.76	\$94.59
	02/01/2022	\$56.11	\$13.35	\$24.12	\$2.81	\$96.39
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING -WATER) <i>PIPEFITTERS LOCAL 537</i>	03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
	09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
	03/01/2021	\$59.19	\$10.95	\$19.74	\$0.00	\$89.88
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PIPEFITTERS LOCAL 537</i>	03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
	09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
	03/01/2021	\$59.19	\$10.95	\$19.74	\$0.00	\$89.88
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.81	\$8.10	\$15.38	\$0.00	\$58.29
	06/01/2020	\$35.70	\$8.10	\$15.38	\$0.00	\$59.18
	12/01/2020	\$36.59	\$8.10	\$15.38	\$0.00	\$60.07
	06/01/2021	\$37.51	\$8.10	\$15.38	\$0.00	\$60.99
	12/01/2021	\$38.42	\$8.10	\$15.38	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (BOSTON)</i>	09/01/2019	\$48.44	\$12.80	\$16.40	\$0.00	\$77.64

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

Effective Date - 09/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.22	\$12.80	\$11.90	\$0.00	\$48.92
2	60	\$29.06	\$12.80	\$12.80	\$0.00	\$54.66
3	70	\$33.91	\$12.80	\$13.70	\$0.00	\$60.41
4	80	\$38.75	\$12.80	\$14.60	\$0.00	\$66.15

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (BOSTON AREA)</i>	03/16/2019	\$46.66	\$8.00	\$23.50	\$0.00	\$78.16
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Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - IRONWORKER - Local 7 Boston
Effective Date - 03/16/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$28.00	\$8.00	\$23.50	\$0.00	\$59.50
2	70	\$32.66	\$8.00	\$23.50	\$0.00	\$64.16
3	75	\$35.00	\$8.00	\$23.50	\$0.00	\$66.50
4	80	\$37.33	\$8.00	\$23.50	\$0.00	\$68.83
5	85	\$39.66	\$8.00	\$23.50	\$0.00	\$71.16
6	90	\$41.99	\$8.00	\$23.50	\$0.00	\$73.49

Notes:

** Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:**
JACKHAMMER & PAVING BREAKER OPERATOR
LABORERS - ZONE 2

12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

LABORER
LABORERS - ZONE 2

12/01/2019	\$34.06	\$8.10	\$15.38	\$0.00	\$57.54
06/01/2020	\$34.95	\$8.10	\$15.38	\$0.00	\$58.43
12/01/2020	\$35.84	\$8.10	\$15.38	\$0.00	\$59.32
06/01/2021	\$36.76	\$8.10	\$15.38	\$0.00	\$60.24
12/01/2021	\$37.67	\$8.10	\$15.38	\$0.00	\$61.15

Apprentice - LABORER - Zone 2
Effective Date - 12/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.44	\$8.10	\$15.38	\$0.00	\$43.92
2	70	\$23.84	\$8.10	\$15.38	\$0.00	\$47.32
3	80	\$27.25	\$8.10	\$15.38	\$0.00	\$50.73
4	90	\$30.65	\$8.10	\$15.38	\$0.00	\$54.13

Effective Date - 06/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.97	\$8.10	\$15.38	\$0.00	\$44.45
2	70	\$24.47	\$8.10	\$15.38	\$0.00	\$47.95
3	80	\$27.96	\$8.10	\$15.38	\$0.00	\$51.44
4	90	\$31.46	\$8.10	\$15.38	\$0.00	\$54.94

Notes:
Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: CARPENTER TENDER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.06	\$8.10	\$15.38	\$0.00	\$57.54
	06/01/2020	\$34.95	\$8.10	\$15.38	\$0.00	\$58.43
	12/01/2020	\$35.84	\$8.10	\$15.38	\$0.00	\$59.32
	06/01/2021	\$36.76	\$8.10	\$15.38	\$0.00	\$60.24
	12/01/2021	\$37.67	\$8.10	\$15.38	\$0.00	\$61.15
For apprentice rates see "Apprentice- LABORER"						
LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.06	\$8.10	\$15.38	\$0.00	\$57.54
	06/01/2020	\$34.95	\$8.10	\$15.38	\$0.00	\$58.43
	12/01/2020	\$35.84	\$8.10	\$15.38	\$0.00	\$59.32
	06/01/2021	\$36.76	\$8.10	\$15.38	\$0.00	\$60.24
	12/01/2021	\$37.67	\$8.10	\$15.38	\$0.00	\$61.15
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.15	\$8.10	\$15.44	\$0.00	\$57.69
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.06	\$8.10	\$15.38	\$0.00	\$57.54
	06/01/2020	\$34.95	\$8.10	\$15.38	\$0.00	\$58.43
	12/01/2020	\$35.84	\$8.10	\$15.38	\$0.00	\$59.32
	06/01/2021	\$36.76	\$8.10	\$15.38	\$0.00	\$60.24
	12/01/2021	\$37.67	\$8.10	\$15.38	\$0.00	\$61.15
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.06	\$8.10	\$15.38	\$0.00	\$57.54
	06/01/2020	\$34.95	\$8.10	\$15.38	\$0.00	\$58.43
	12/01/2020	\$35.84	\$8.10	\$15.38	\$0.00	\$59.32
	06/01/2021	\$36.76	\$8.10	\$15.38	\$0.00	\$60.24
	12/01/2021	\$37.67	\$8.10	\$15.38	\$0.00	\$61.15
This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	02/01/2020	\$41.49	\$10.75	\$20.12	\$0.00	\$72.36
	08/01/2020	\$42.57	\$10.75	\$20.27	\$0.00	\$73.59
	02/01/2021	\$43.08	\$10.75	\$20.27	\$0.00	\$74.10
	08/01/2021	\$44.20	\$10.75	\$20.43	\$0.00	\$75.38
	02/01/2022	\$44.67	\$10.75	\$20.43	\$0.00	\$75.85

Classification

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

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

Effective Date - 02/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.75	\$10.75	\$20.12	\$0.00	\$51.62
2	60	\$24.89	\$10.75	\$20.12	\$0.00	\$55.76
3	70	\$29.04	\$10.75	\$20.12	\$0.00	\$59.91
4	80	\$33.19	\$10.75	\$20.12	\$0.00	\$64.06
5	90	\$37.34	\$10.75	\$20.12	\$0.00	\$68.21

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.29	\$10.75	\$20.27	\$0.00	\$52.31
2	60	\$25.54	\$10.75	\$20.27	\$0.00	\$56.56
3	70	\$29.80	\$10.75	\$20.27	\$0.00	\$60.82
4	80	\$34.06	\$10.75	\$20.27	\$0.00	\$65.08
5	90	\$38.31	\$10.75	\$20.27	\$0.00	\$69.33

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS,TILELAYERS & TERRAZZO MECH	02/01/2020	\$54.42	\$10.75	\$21.93	\$0.00	\$87.10
BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2020	\$55.77	\$10.75	\$22.08	\$0.00	\$88.60
	02/01/2021	\$56.41	\$10.75	\$22.08	\$0.00	\$89.24
	08/01/2021	\$57.81	\$10.75	\$22.24	\$0.00	\$90.80
	02/01/2022	\$58.38	\$10.75	\$22.24	\$0.00	\$91.37

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 02/01/2020

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

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.89	\$10.75	\$22.08	\$0.00	\$60.72
2	60	\$33.46	\$10.75	\$22.08	\$0.00	\$66.29
3	70	\$39.04	\$10.75	\$22.08	\$0.00	\$71.87
4	80	\$44.62	\$10.75	\$22.08	\$0.00	\$77.45
5	90	\$50.19	\$10.75	\$22.08	\$0.00	\$83.02

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES)	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
OPERATING ENGINEERS LOCAL 4	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 2)	04/01/2019	\$38.87	\$9.90	\$18.50	\$0.00	\$67.27
MILLWRIGHTS LOCAL 1121 - Zone 2						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - MILLWRIGHT - Local 1121 Zone 2

Effective Date - 04/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$21.38	\$9.90	\$5.31	\$0.00	\$36.59
2	65	\$25.27	\$9.90	\$15.13	\$0.00	\$50.30
3	75	\$29.15	\$9.90	\$16.10	\$0.00	\$55.15
4	85	\$33.04	\$9.90	\$17.06	\$0.00	\$60.00

Notes:

Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER LABORERS - ZONE 2	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2019	\$23.08	\$12.50	\$15.70	\$0.00	\$51.28
	06/01/2020	\$23.63	\$12.50	\$15.70	\$0.00	\$51.83
	12/01/2020	\$24.20	\$12.50	\$15.70	\$0.00	\$52.40
	06/01/2021	\$24.75	\$12.50	\$15.70	\$0.00	\$52.95
	12/01/2021	\$25.33	\$12.50	\$15.70	\$0.00	\$53.53
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2019	\$27.64	\$12.50	\$15.70	\$0.00	\$55.84
	06/01/2020	\$28.29	\$12.50	\$15.70	\$0.00	\$56.49
	12/01/2020	\$28.97	\$12.50	\$15.70	\$0.00	\$57.17
	06/01/2021	\$29.61	\$12.50	\$15.70	\$0.00	\$57.81
	12/01/2021	\$30.29	\$12.50	\$15.70	\$0.00	\$58.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II OPERATING ENGINEERS LOCAL 4	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 - ZONE 2	01/01/2020	\$50.96	\$8.20	\$22.10	\$0.00	\$81.26
	07/01/2020	\$52.06	\$8.20	\$22.10	\$0.00	\$82.36
	01/01/2021	\$53.16	\$8.20	\$22.10	\$0.00	\$83.46

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2020

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

Effective Date - 07/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.03	\$8.20	\$0.00	\$0.00	\$34.23
2	55	\$28.63	\$8.20	\$5.94	\$0.00	\$42.77
3	60	\$31.24	\$8.20	\$6.48	\$0.00	\$45.92
4	65	\$33.84	\$8.20	\$7.02	\$0.00	\$49.06
5	70	\$36.44	\$8.20	\$18.86	\$0.00	\$63.50
6	75	\$39.05	\$8.20	\$19.40	\$0.00	\$66.65
7	80	\$41.65	\$8.20	\$19.94	\$0.00	\$69.79
8	90	\$46.85	\$8.20	\$21.02	\$0.00	\$76.07

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SIGN, PICTORIAL & DISPLAY)	06/01/2013	\$25.81	\$7.07	\$7.05	\$0.00	\$39.93
PAINTERS LOCAL 35 - ZONE 2						

Classification

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

Apprentice - PAINTER SIGN - Local 35 Zone 2

Effective Date - 06/01/2013

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

Notes:

Steps are 4 mos.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2020	\$41.86	\$8.20	\$22.10	\$0.00	\$72.16
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2020	\$42.96	\$8.20	\$22.10	\$0.00	\$73.26
	01/01/2021	\$44.06	\$8.20	\$22.10	\$0.00	\$74.36

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New
Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.93	\$8.20	\$0.00	\$0.00	\$29.13
2	55	\$23.02	\$8.20	\$5.94	\$0.00	\$37.16
3	60	\$25.12	\$8.20	\$6.48	\$0.00	\$39.80
4	65	\$27.21	\$8.20	\$7.02	\$0.00	\$42.43
5	70	\$29.30	\$8.20	\$18.86	\$0.00	\$56.36
6	75	\$31.40	\$8.20	\$19.40	\$0.00	\$59.00
7	80	\$33.49	\$8.20	\$19.94	\$0.00	\$61.63
8	90	\$37.67	\$8.20	\$21.02	\$0.00	\$66.89

Effective Date - 07/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.48	\$8.20	\$0.00	\$0.00	\$29.68
2	55	\$23.63	\$8.20	\$5.94	\$0.00	\$37.77
3	60	\$25.78	\$8.20	\$6.48	\$0.00	\$40.46
4	65	\$27.92	\$8.20	\$7.02	\$0.00	\$43.14
5	70	\$30.07	\$8.20	\$18.86	\$0.00	\$57.13
6	75	\$32.22	\$8.20	\$19.40	\$0.00	\$59.82
7	80	\$34.37	\$8.20	\$19.94	\$0.00	\$62.51
8	90	\$38.66	\$8.20	\$21.02	\$0.00	\$67.88

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2020	\$39.92	\$8.20	\$22.10	\$0.00	\$70.22
PAINTERS LOCAL 35 - ZONE 2	07/01/2020	\$41.02	\$8.20	\$22.10	\$0.00	\$71.32
	01/01/2021	\$42.12	\$8.20	\$22.10	\$0.00	\$72.42

Classification

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

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint
Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.96	\$8.20	\$0.00	\$0.00	\$28.16
2	55	\$21.96	\$8.20	\$5.94	\$0.00	\$36.10
3	60	\$23.95	\$8.20	\$6.48	\$0.00	\$38.63
4	65	\$25.95	\$8.20	\$7.02	\$0.00	\$41.17
5	70	\$27.94	\$8.20	\$18.86	\$0.00	\$55.00
6	75	\$29.94	\$8.20	\$19.40	\$0.00	\$57.54
7	80	\$31.94	\$8.20	\$19.94	\$0.00	\$60.08
8	90	\$35.93	\$8.20	\$21.02	\$0.00	\$65.15

Effective Date - 07/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.51	\$8.20	\$0.00	\$0.00	\$28.71
2	55	\$22.56	\$8.20	\$5.94	\$0.00	\$36.70
3	60	\$24.61	\$8.20	\$6.48	\$0.00	\$39.29
4	65	\$26.66	\$8.20	\$7.02	\$0.00	\$41.88
5	70	\$28.71	\$8.20	\$18.86	\$0.00	\$55.77
6	75	\$30.77	\$8.20	\$19.40	\$0.00	\$58.37
7	80	\$32.82	\$8.20	\$19.94	\$0.00	\$60.96
8	90	\$36.92	\$8.20	\$21.02	\$0.00	\$66.14

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (TRAFFIC MARKINGS)	12/01/2019	\$34.06	\$8.10	\$15.38	\$0.00	\$57.54
LABORERS - ZONE 2	06/01/2020	\$34.95	\$8.10	\$15.38	\$0.00	\$58.43
	12/01/2020	\$35.84	\$8.10	\$15.38	\$0.00	\$59.32
	06/01/2021	\$36.76	\$8.10	\$15.38	\$0.00	\$60.24
	12/01/2021	\$37.67	\$8.10	\$15.38	\$0.00	\$61.15

For Apprentice rates see "Apprentice- LABORER"

PAINTER / TAPER (BRUSH, NEW) *	01/01/2020	\$40.46	\$8.20	\$22.10	\$0.00	\$70.76
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	07/01/2020	\$41.56	\$8.20	\$22.10	\$0.00	\$71.86
	01/01/2021	\$42.66	\$8.20	\$22.10	\$0.00	\$72.96

Classification

Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW
Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.23	\$8.20	\$0.00	\$0.00	\$28.43
2	55	\$22.25	\$8.20	\$5.94	\$0.00	\$36.39
3	60	\$24.28	\$8.20	\$6.48	\$0.00	\$38.96
4	65	\$26.30	\$8.20	\$7.02	\$0.00	\$41.52
5	70	\$28.32	\$8.20	\$18.86	\$0.00	\$55.38
6	75	\$30.35	\$8.20	\$19.40	\$0.00	\$57.95
7	80	\$32.37	\$8.20	\$19.94	\$0.00	\$60.51
8	90	\$36.41	\$8.20	\$21.02	\$0.00	\$65.63

Effective Date - 07/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.78	\$8.20	\$0.00	\$0.00	\$28.98
2	55	\$22.86	\$8.20	\$5.94	\$0.00	\$37.00
3	60	\$24.94	\$8.20	\$6.48	\$0.00	\$39.62
4	65	\$27.01	\$8.20	\$7.02	\$0.00	\$42.23
5	70	\$29.09	\$8.20	\$18.86	\$0.00	\$56.15
6	75	\$31.17	\$8.20	\$19.40	\$0.00	\$58.77
7	80	\$33.25	\$8.20	\$19.94	\$0.00	\$61.39
8	90	\$37.40	\$8.20	\$21.02	\$0.00	\$66.62

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)	01/01/2020	\$38.52	\$8.20	\$22.10	\$0.00	\$68.82
PAINTERS LOCAL 35 - ZONE 2	07/01/2020	\$39.62	\$8.20	\$22.10	\$0.00	\$69.92
	01/01/2021	\$40.72	\$8.20	\$22.10	\$0.00	\$71.02

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.26	\$8.20	\$0.00	\$0.00	\$27.46
2	55	\$21.19	\$8.20	\$5.94	\$0.00	\$35.33
3	60	\$23.11	\$8.20	\$6.48	\$0.00	\$37.79
4	65	\$25.04	\$8.20	\$7.02	\$0.00	\$40.26
5	70	\$26.96	\$8.20	\$18.86	\$0.00	\$54.02
6	75	\$28.89	\$8.20	\$19.40	\$0.00	\$56.49
7	80	\$30.82	\$8.20	\$19.94	\$0.00	\$58.96
8	90	\$34.67	\$8.20	\$21.02	\$0.00	\$63.89

Effective Date - 07/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.81	\$8.20	\$0.00	\$0.00	\$28.01
2	55	\$21.79	\$8.20	\$5.94	\$0.00	\$35.93
3	60	\$23.77	\$8.20	\$6.48	\$0.00	\$38.45
4	65	\$25.75	\$8.20	\$7.02	\$0.00	\$40.97
5	70	\$27.73	\$8.20	\$18.86	\$0.00	\$54.79
6	75	\$29.72	\$8.20	\$19.40	\$0.00	\$57.32
7	80	\$31.70	\$8.20	\$19.94	\$0.00	\$59.84
8	90	\$35.66	\$8.20	\$21.02	\$0.00	\$64.88

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PANEL & PICKUP TRUCKS DRIVER	12/01/2019	\$34.08	\$12.41	\$13.72	\$0.00	\$60.21
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	06/01/2020	\$34.98	\$12.41	\$13.72	\$0.00	\$61.11
	08/01/2020	\$34.98	\$12.91	\$13.72	\$0.00	\$61.61
	12/01/2020	\$34.98	\$12.91	\$14.82	\$0.00	\$62.71
	06/01/2021	\$35.78	\$12.91	\$14.82	\$0.00	\$63.51
	08/01/2021	\$35.78	\$13.41	\$14.82	\$0.00	\$64.01
	12/01/2021	\$35.78	\$13.41	\$16.01	\$0.00	\$65.20
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
PILE DRIVER LOCAL 56 (ZONE 1)						
For apprentice rates see "Apprentice- PILE DRIVER"						
PILE DRIVER	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
PILE DRIVER LOCAL 56 (ZONE 1)						

Apprentice - PILE DRIVER - Local 56 Zone 1**Effective Date - 08/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.47	\$9.90	\$21.15	\$0.00	\$55.52
2	60	\$29.36	\$9.90	\$21.15	\$0.00	\$60.41
3	70	\$34.26	\$9.90	\$21.15	\$0.00	\$65.31
4	75	\$36.71	\$9.90	\$21.15	\$0.00	\$67.76
5	80	\$39.15	\$9.90	\$21.15	\$0.00	\$70.20
6	80	\$39.15	\$9.90	\$21.15	\$0.00	\$70.20
7	90	\$44.05	\$9.90	\$21.15	\$0.00	\$75.10
8	90	\$44.05	\$9.90	\$21.15	\$0.00	\$75.10

Notes:**Apprentice to Journeyworker Ratio:1:5****PIPEFITTER & STEAMFITTER***PIPEFITTERS LOCAL 537*

03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
03/01/2021	\$59.19	\$10.95	\$19.74	\$0.00	\$89.88

Apprentice - PIPEFITTER - Local 537**Effective Date - 03/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$22.48	\$10.95	\$8.00	\$0.00	\$41.43
2	45	\$25.29	\$10.95	\$19.74	\$0.00	\$55.98
3	60	\$33.71	\$10.95	\$19.74	\$0.00	\$64.40
4	70	\$39.33	\$10.95	\$19.74	\$0.00	\$70.02
5	80	\$44.95	\$10.95	\$19.74	\$0.00	\$75.64

Effective Date - 09/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$23.08	\$10.95	\$8.00	\$0.00	\$42.03
2	45	\$25.96	\$10.95	\$19.74	\$0.00	\$56.65
3	60	\$34.61	\$10.95	\$19.74	\$0.00	\$65.30
4	70	\$40.38	\$10.95	\$19.74	\$0.00	\$71.07
5	80	\$46.15	\$10.95	\$19.74	\$0.00	\$76.84

Notes:

** 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.

Refrig/AC Mechanic **1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

Apprentice to Journeyworker Ratio:**

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIPELAYER <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						

PLUMBERS & GASFITTERS <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2020	\$58.69	\$12.07	\$17.26	\$0.00	\$88.02
	09/01/2020	\$60.19	\$12.07	\$17.26	\$0.00	\$89.52
	03/01/2021	\$61.69	\$12.07	\$17.26	\$0.00	\$91.02

Apprentice - PLUMBER/GASFITTER - Local 12

Effective Date - 03/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$20.54	\$12.07	\$6.24	\$0.00	\$38.85
2	40	\$23.48	\$12.07	\$7.08	\$0.00	\$42.63
3	55	\$32.28	\$12.07	\$9.63	\$0.00	\$53.98
4	65	\$38.15	\$12.07	\$11.33	\$0.00	\$61.55
5	75	\$44.02	\$12.07	\$13.03	\$0.00	\$69.12

Effective Date - 09/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$21.07	\$12.07	\$6.24	\$0.00	\$39.38
2	40	\$24.08	\$12.07	\$7.08	\$0.00	\$43.23
3	55	\$33.10	\$12.07	\$9.63	\$0.00	\$54.80
4	65	\$39.12	\$12.07	\$11.33	\$0.00	\$62.52
5	75	\$45.14	\$12.07	\$13.03	\$0.00	\$70.24

Notes:

** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic\$65.32, Step5 with lic\$72.89

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.) <i>PIPEFITTERS LOCAL 537</i>	03/01/2020	\$56.19	\$10.95	\$19.74	\$0.00	\$86.88
	09/01/2020	\$57.69	\$10.95	\$19.74	\$0.00	\$88.38
	03/01/2021	\$59.17	\$10.95	\$19.74	\$0.00	\$89.86

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

POWDERMAN & BLASTER <i>LABORERS - ZONE 2</i>	12/01/2019	\$35.06	\$8.10	\$15.38	\$0.00	\$58.54
	06/01/2020	\$35.95	\$8.10	\$15.38	\$0.00	\$59.43
	12/01/2020	\$36.84	\$8.10	\$15.38	\$0.00	\$60.32
	06/01/2021	\$37.76	\$8.10	\$15.38	\$0.00	\$61.24
	12/01/2021	\$38.67	\$8.10	\$15.38	\$0.00	\$62.15

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
	12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
	12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$32.47	\$12.50	\$15.70	\$0.00	\$60.67
	06/01/2020	\$33.22	\$12.50	\$15.70	\$0.00	\$61.42
	12/01/2020	\$34.00	\$12.50	\$15.70	\$0.00	\$62.20
	06/01/2021	\$34.75	\$12.50	\$15.70	\$0.00	\$62.95
	12/01/2021	\$35.54	\$12.50	\$15.70	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS 170 - Dauphinais (Bellingham)</i>	01/01/2020	\$24.00	\$11.01	\$2.50	\$0.00	\$37.51
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg) <i>ROOFERS LOCAL 33</i>	03/01/2020	\$45.67	\$11.50	\$15.90	\$0.00	\$73.07
	08/01/2020	\$47.10	\$11.50	\$15.90	\$0.00	\$74.50
	02/01/2021	\$48.53	\$11.50	\$15.90	\$0.00	\$75.93
	08/01/2021	\$49.96	\$11.50	\$15.90	\$0.00	\$77.36
	02/01/2022	\$51.39	\$11.50	\$15.90	\$0.00	\$78.79

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - ROOFER - Local 33
Effective Date - 03/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.84	\$11.50	\$3.69	\$0.00	\$38.03
2	60	\$27.40	\$11.50	\$15.90	\$0.00	\$54.80
3	65	\$29.69	\$11.50	\$15.90	\$0.00	\$57.09
4	75	\$34.25	\$11.50	\$15.90	\$0.00	\$61.65
5	85	\$38.82	\$11.50	\$15.90	\$0.00	\$66.22

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.55	\$11.50	\$3.69	\$0.00	\$38.74
2	60	\$28.26	\$11.50	\$15.90	\$0.00	\$55.66
3	65	\$30.62	\$11.50	\$15.90	\$0.00	\$58.02
4	75	\$35.33	\$11.50	\$15.90	\$0.00	\$62.73
5	85	\$40.04	\$11.50	\$15.90	\$0.00	\$67.44

Notes: ** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1
 Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.
 (Hot Pitch Mechanics' receive \$1.00 hr. above ROOFER)

Apprentice to Journeyworker Ratio:**
ROOFER SLATE / TILE / PRECAST CONCRETE
ROOFERS LOCAL 33

03/01/2020	\$45.92	\$11.50	\$15.90	\$0.00	\$73.32
08/01/2020	\$47.35	\$11.50	\$15.90	\$0.00	\$74.75
02/01/2021	\$48.78	\$11.50	\$15.90	\$0.00	\$76.18
08/01/2021	\$50.21	\$11.50	\$15.90	\$0.00	\$77.61
02/01/2022	\$51.64	\$11.50	\$15.90	\$0.00	\$79.04

For apprentice rates see "Apprentice- ROOFER"

SHEETMETAL WORKER
SHEETMETAL WORKERS LOCAL 17 - A

02/01/2020	\$49.36	\$13.35	\$24.12	\$2.61	\$89.44
08/01/2020	\$50.96	\$13.35	\$24.12	\$2.66	\$91.09
02/01/2021	\$52.61	\$13.35	\$24.12	\$2.71	\$92.79
08/01/2021	\$54.36	\$13.35	\$24.12	\$2.76	\$94.59
02/01/2022	\$56.11	\$13.35	\$24.12	\$2.81	\$96.39

Apprentice - SHEET METAL WORKER - Local 17-A**Effective Date - 02/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	42	\$20.73	\$13.35	\$5.89	\$0.00	\$39.97
2	42	\$20.73	\$13.35	\$5.89	\$0.00	\$39.97
3	47	\$23.20	\$13.35	\$11.13	\$1.43	\$49.11
4	47	\$23.20	\$13.35	\$11.13	\$1.43	\$49.11
5	52	\$25.67	\$13.35	\$12.08	\$1.53	\$52.63
6	52	\$25.67	\$13.35	\$12.33	\$1.54	\$52.89
7	60	\$29.62	\$13.35	\$13.70	\$1.70	\$58.37
8	65	\$32.08	\$13.35	\$15.15	\$1.80	\$62.38
9	75	\$37.02	\$13.35	\$16.56	\$2.01	\$68.94
10	85	\$41.96	\$13.35	\$17.96	\$2.20	\$75.47

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	42	\$21.40	\$13.35	\$5.89	\$0.00	\$40.64
2	42	\$21.40	\$13.35	\$5.89	\$0.00	\$40.64
3	47	\$23.95	\$13.35	\$11.13	\$1.45	\$49.88
4	47	\$23.95	\$13.35	\$11.13	\$1.45	\$49.88
5	52	\$26.50	\$13.35	\$12.08	\$1.56	\$53.49
6	52	\$26.50	\$13.35	\$12.33	\$1.57	\$53.75
7	60	\$30.58	\$13.35	\$13.70	\$1.73	\$59.36
8	65	\$33.12	\$13.35	\$15.15	\$1.85	\$63.47
9	75	\$38.22	\$13.35	\$16.56	\$2.04	\$70.17
10	85	\$43.32	\$13.35	\$17.96	\$2.24	\$76.87

Notes:

Steps are 6 mos.

Apprentice to Journeyworker Ratio:1:4

SPECIALIZED EARTH MOVING EQUIP < 35 TONS

TEAMSTERS JOINT COUNCIL NO. 10 ZONE B

12/01/2019	\$34.54	\$12.41	\$13.72	\$0.00	\$60.67
06/01/2020	\$35.44	\$12.41	\$13.72	\$0.00	\$61.57
08/01/2020	\$35.44	\$12.91	\$13.72	\$0.00	\$62.07
12/01/2020	\$35.44	\$12.91	\$14.82	\$0.00	\$63.17
06/01/2021	\$36.24	\$12.91	\$14.82	\$0.00	\$63.97
08/01/2021	\$36.24	\$13.41	\$14.82	\$0.00	\$64.47
12/01/2021	\$36.24	\$13.41	\$16.01	\$0.00	\$65.66

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2019	\$34.83	\$12.41	\$13.72	\$0.00	\$60.96
	06/01/2020	\$35.73	\$12.41	\$13.72	\$0.00	\$61.86
	08/01/2020	\$35.73	\$12.91	\$13.72	\$0.00	\$62.36
	12/01/2020	\$35.73	\$12.91	\$14.82	\$0.00	\$63.46
	06/01/2021	\$36.53	\$12.91	\$14.82	\$0.00	\$64.26
	08/01/2021	\$36.53	\$13.41	\$14.82	\$0.00	\$64.76
	12/01/2021	\$36.53	\$13.41	\$16.01	\$0.00	\$65.95
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>	03/01/2020	\$60.82	\$9.68	\$20.55	\$0.00	\$91.05
	10/01/2020	\$62.32	\$9.68	\$20.55	\$0.00	\$92.55
	03/01/2021	\$63.82	\$9.68	\$20.55	\$0.00	\$94.05

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

Effective Date - 03/01/2020

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

Effective Date - 10/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$21.81	\$9.68	\$11.61	\$0.00	\$43.10
2	40	\$24.93	\$9.68	\$12.30	\$0.00	\$46.91
3	45	\$28.04	\$9.68	\$12.99	\$0.00	\$50.71
4	50	\$31.16	\$9.68	\$13.73	\$0.00	\$54.57
5	55	\$34.28	\$9.68	\$14.36	\$0.00	\$58.32
6	60	\$37.39	\$9.68	\$15.05	\$0.00	\$62.12
7	65	\$40.51	\$9.68	\$15.74	\$0.00	\$65.93
8	70	\$43.62	\$9.68	\$16.43	\$0.00	\$69.73
9	75	\$46.74	\$9.68	\$17.11	\$0.00	\$73.53
10	80	\$49.86	\$9.68	\$17.80	\$0.00	\$77.34

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

Apprentice to Journeyworker Ratio:1:3

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

Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103**Effective Date - 03/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.06	\$13.00	\$0.54	\$0.00	\$31.60
2	45	\$18.06	\$13.00	\$0.54	\$0.00	\$31.60
3	50	\$20.07	\$13.00	\$14.00	\$0.00	\$47.07
4	50	\$20.07	\$13.00	\$14.00	\$0.00	\$47.07
5	55	\$22.07	\$13.00	\$14.31	\$0.00	\$49.38
6	60	\$24.08	\$13.00	\$14.62	\$0.00	\$51.70
7	65	\$26.08	\$13.00	\$14.94	\$0.00	\$54.02
8	70	\$28.09	\$13.00	\$15.25	\$0.00	\$56.34
9	75	\$30.10	\$13.00	\$15.56	\$0.00	\$58.66
10	80	\$32.10	\$13.00	\$15.87	\$0.00	\$60.97

Effective Date - 09/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.54	\$13.00	\$0.57	\$0.00	\$32.11
2	45	\$18.54	\$13.00	\$0.57	\$0.00	\$32.11
3	50	\$20.60	\$13.00	\$14.02	\$0.00	\$47.62
4	50	\$20.60	\$13.00	\$14.02	\$0.00	\$47.62
5	55	\$22.66	\$13.00	\$14.33	\$0.00	\$49.99
6	60	\$24.72	\$13.00	\$14.64	\$0.00	\$52.36
7	65	\$26.78	\$13.00	\$14.96	\$0.00	\$54.74
8	70	\$28.84	\$13.00	\$15.28	\$0.00	\$57.12
9	75	\$30.90	\$13.00	\$15.59	\$0.00	\$59.49
10	80	\$32.96	\$13.00	\$15.90	\$0.00	\$61.86

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

TERRAZZO FINISHERS	02/01/2020	\$53.34	\$10.75	\$21.94	\$0.00	\$86.03
BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2020	\$54.69	\$10.75	\$22.09	\$0.00	\$87.53
	02/01/2021	\$55.33	\$10.75	\$22.09	\$0.00	\$88.17
	08/01/2021	\$56.73	\$10.75	\$22.25	\$0.00	\$89.73
	02/01/2022	\$57.32	\$10.75	\$22.25	\$0.00	\$90.32

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.67	\$10.75	\$21.94	\$0.00	\$59.36
2	60	\$32.00	\$10.75	\$21.94	\$0.00	\$64.69
3	70	\$37.34	\$10.75	\$21.94	\$0.00	\$70.03
4	80	\$42.67	\$10.75	\$21.94	\$0.00	\$75.36
5	90	\$48.01	\$10.75	\$21.94	\$0.00	\$80.70

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.35	\$10.75	\$22.09	\$0.00	\$60.19
2	60	\$32.81	\$10.75	\$22.09	\$0.00	\$65.65
3	70	\$38.28	\$10.75	\$22.09	\$0.00	\$71.12
4	80	\$43.75	\$10.75	\$22.09	\$0.00	\$76.59
5	90	\$49.22	\$10.75	\$22.09	\$0.00	\$82.06

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2019	\$40.50	\$8.10	\$16.80	\$0.00	\$65.40
	06/01/2020	\$41.49	\$8.10	\$16.80	\$0.00	\$66.39
	12/01/2020	\$42.47	\$8.10	\$16.80	\$0.00	\$67.37
	06/01/2021	\$43.49	\$8.10	\$16.80	\$0.00	\$68.39
	12/01/2021	\$44.50	\$8.10	\$16.80	\$0.00	\$69.40
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2019	\$39.22	\$8.10	\$16.80	\$0.00	\$64.12
	06/01/2020	\$40.21	\$8.10	\$16.80	\$0.00	\$65.11
	12/01/2020	\$41.19	\$8.10	\$16.80	\$0.00	\$66.09
	06/01/2021	\$42.21	\$8.10	\$16.80	\$0.00	\$67.11
	12/01/2021	\$43.22	\$8.10	\$16.80	\$0.00	\$68.12
For apprentice rates see "Apprentice- LABORER"						
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2019	\$39.10	\$8.10	\$16.80	\$0.00	\$64.00
	06/01/2020	\$40.09	\$8.10	\$16.80	\$0.00	\$64.99
	12/01/2020	\$41.07	\$8.10	\$16.80	\$0.00	\$65.97
	06/01/2021	\$42.09	\$8.10	\$16.80	\$0.00	\$66.99
	12/01/2021	\$43.10	\$8.10	\$16.80	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$48.23	\$12.50	\$15.70	\$0.00	\$76.43
	06/01/2020	\$49.31	\$12.50	\$15.70	\$0.00	\$77.51
	12/01/2020	\$50.45	\$12.50	\$15.70	\$0.00	\$78.65
	06/01/2021	\$51.54	\$12.50	\$15.70	\$0.00	\$79.74
	12/01/2021	\$52.68	\$12.50	\$15.70	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2019	\$35.12	\$12.41	\$13.72	\$0.00	\$61.25
	06/01/2020	\$36.02	\$12.41	\$13.72	\$0.00	\$62.15
	08/01/2020	\$36.02	\$12.91	\$13.72	\$0.00	\$62.65
	12/01/2020	\$36.02	\$12.91	\$14.82	\$0.00	\$63.75
	06/01/2021	\$36.82	\$12.91	\$14.82	\$0.00	\$64.55
	08/01/2021	\$36.82	\$13.41	\$14.82	\$0.00	\$65.05
	12/01/2021	\$36.82	\$13.41	\$16.01	\$0.00	\$66.24
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2019	\$51.38	\$8.10	\$17.20	\$0.00	\$76.68
	06/01/2020	\$52.37	\$8.10	\$17.20	\$0.00	\$77.67
	12/01/2020	\$53.35	\$8.10	\$17.20	\$0.00	\$78.65
	06/01/2021	\$54.37	\$8.10	\$17.20	\$0.00	\$79.67
	12/01/2021	\$55.38	\$8.10	\$17.20	\$0.00	\$80.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2019	\$53.38	\$8.10	\$17.20	\$0.00	\$78.68
	06/01/2020	\$54.37	\$8.10	\$17.20	\$0.00	\$79.67
	12/01/2020	\$55.35	\$8.10	\$17.20	\$0.00	\$80.65
	06/01/2021	\$56.37	\$8.10	\$17.20	\$0.00	\$81.67
	12/01/2021	\$57.38	\$8.10	\$17.20	\$0.00	\$82.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2019	\$43.45	\$8.10	\$17.20	\$0.00	\$68.75
	06/01/2020	\$44.44	\$8.10	\$17.20	\$0.00	\$69.74
	12/01/2020	\$45.42	\$8.10	\$17.20	\$0.00	\$70.72
	06/01/2021	\$46.44	\$8.10	\$17.20	\$0.00	\$71.74
	12/01/2021	\$47.45	\$8.10	\$17.20	\$0.00	\$72.75
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2019	\$45.45	\$8.10	\$17.20	\$0.00	\$70.75
	06/01/2020	\$46.44	\$8.10	\$17.20	\$0.00	\$71.74
	12/01/2020	\$47.42	\$8.10	\$17.20	\$0.00	\$72.72
	06/01/2021	\$48.44	\$8.10	\$17.20	\$0.00	\$73.74
	12/01/2021	\$49.45	\$8.10	\$17.20	\$0.00	\$74.75
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2019	\$34.54	\$12.41	\$13.72	\$0.00	\$60.67
	06/01/2020	\$35.44	\$12.41	\$13.72	\$0.00	\$61.57
	08/01/2020	\$35.44	\$12.91	\$13.72	\$0.00	\$62.07
	12/01/2020	\$35.44	\$12.91	\$14.82	\$0.00	\$63.17
	06/01/2021	\$36.24	\$12.91	\$14.82	\$0.00	\$63.97
	08/01/2021	\$36.24	\$13.41	\$14.82	\$0.00	\$64.47
	12/01/2021	\$36.24	\$13.41	\$16.01	\$0.00	\$65.66
WAGON DRILL OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2019	\$34.31	\$8.10	\$15.38	\$0.00	\$57.79
	06/01/2020	\$35.20	\$8.10	\$15.38	\$0.00	\$58.68
	12/01/2020	\$36.09	\$8.10	\$15.38	\$0.00	\$59.57
	06/01/2021	\$37.01	\$8.10	\$15.38	\$0.00	\$60.49
	12/01/2021	\$37.92	\$8.10	\$15.38	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2019	\$48.73	\$12.50	\$15.70	\$0.00	\$76.93
	06/01/2020	\$49.83	\$12.50	\$15.70	\$0.00	\$78.03
	12/01/2020	\$50.98	\$12.50	\$15.70	\$0.00	\$79.18
	06/01/2021	\$52.08	\$12.50	\$15.70	\$0.00	\$80.28
	12/01/2021	\$53.23	\$12.50	\$15.70	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2020	\$58.69	\$12.07	\$17.26	\$0.00	\$88.02
	09/01/2020	\$60.19	\$12.07	\$17.26	\$0.00	\$89.52
	03/01/2021	\$61.69	\$12.07	\$17.26	\$0.00	\$91.02
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
Outside Electrical - East						
CABLE TECHNICIAN (Power Zone) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$28.83	\$8.75	\$1.86	\$0.00	\$39.44
	08/30/2020	\$29.67	\$9.25	\$1.89	\$0.00	\$40.81
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$40.84	\$8.75	\$10.02	\$0.00	\$59.61
	08/30/2020	\$42.03	\$9.25	\$10.27	\$0.00	\$61.55
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$33.64	\$8.75	\$9.86	\$0.00	\$52.25
	08/30/2020	\$34.62	\$9.25	\$10.07	\$0.00	\$53.94
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$26.43	\$8.75	\$1.79	\$0.00	\$36.97
	08/30/2020	\$27.20	\$9.25	\$1.82	\$0.00	\$38.27
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$40.84	\$8.75	\$14.10	\$0.00	\$63.69
	08/30/2020	\$42.03	\$9.25	\$14.35	\$0.00	\$65.63
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$36.04	\$8.75	\$10.65	\$0.00	\$55.44
	08/30/2020	\$37.09	\$9.25	\$10.87	\$0.00	\$57.21
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$21.62	\$8.75	\$1.65	\$0.00	\$32.02
	08/30/2020	\$22.25	\$9.25	\$1.67	\$0.00	\$33.17
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$26.43	\$8.75	\$1.79	\$0.00	\$36.97
	08/30/2020	\$27.20	\$9.25	\$1.82	\$0.00	\$38.27
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2019	\$48.05	\$8.75	\$17.19	\$0.00	\$73.99
	08/30/2020	\$49.45	\$9.25	\$17.48	\$0.00	\$76.18

Apprentice - LINEMAN (Outside Electrical) - East Local 104

Effective Date - 09/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$28.83	\$8.75	\$3.36	\$0.00	\$40.94
2	65	\$31.23	\$8.75	\$3.44	\$0.00	\$43.42
3	70	\$33.64	\$8.75	\$3.51	\$0.00	\$45.90
4	75	\$36.04	\$8.75	\$5.08	\$0.00	\$49.87
5	80	\$38.44	\$8.75	\$5.15	\$0.00	\$52.34
6	85	\$40.84	\$8.75	\$5.23	\$0.00	\$54.82
7	90	\$43.25	\$8.75	\$7.30	\$0.00	\$59.30

Effective Date - 08/30/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$29.67	\$9.25	\$3.39	\$0.00	\$42.31
2	65	\$32.14	\$9.25	\$3.46	\$0.00	\$44.85
3	70	\$34.62	\$9.25	\$3.54	\$0.00	\$47.41
4	75	\$37.09	\$9.25	\$5.11	\$0.00	\$51.45
5	80	\$39.56	\$9.25	\$5.19	\$0.00	\$54.00
6	85	\$42.03	\$9.25	\$5.26	\$0.00	\$56.54
7	90	\$44.51	\$9.25	\$7.34	\$0.00	\$61.10

Notes:

Apprentice to Journeyworker Ratio:1:2

TELEDATA CABLE SPLICER OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	02/04/2019	\$30.73	\$4.70	\$3.17	\$0.00	\$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	02/04/2019	\$28.93	\$4.70	\$3.14	\$0.00	\$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	02/04/2019	\$28.93	\$4.70	\$3.14	\$0.00	\$36.77

Additional Apprentice Information:

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

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

All steps are six months (1000 hours.)
 Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

** Multiple ratios are listed in the comment field.
 *** APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.
 **** APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

Appendix B

Contract Drawings (separately bound)

WEST NATICK FIRE STATION 4

268 SPEEN STREET · NATICK · MASSACHUSETTS

SIGNAL IMPROVEMENTS

MAY 13, 2020

PREPARED FOR
TOWN OF NATICK, MA
13 E CENTRAL STREET
NATICK, MA 01760



PREPARED BY
FUSS & O'NEILL
108 MYRTLE STREET, SUITE 502
QUINCY, MA 02171
617.282.4675
www.fando.com

SHEET INDEX

<u>SHEET No.</u>	<u>SHEET TITLE</u>
GI0.01	COVER SHEET
CN0.01	GENERAL NOTES
CP1.01	TEST PIT DATA
CI0.01	EXISTING CONDITIONS PLAN
CT1.01	CONSTRUCTION PLAN
CT1.02	TRAFFIC SIGNAL PLAN
CT2.01-CT2.02	TRAFFIC MANAGEMENT PLANS
CD5.01-CD5.03	DETAILS

PROJECT TEAM

TECTON ARCHITECTS
ONE HARTFORD SQUARE WEST
HARTFORD, CT 06106
860 548 0802

CONSULTING ENGINEERING
SERVICES
811 MIDDLE STREET
MIDDLETOWN, CT 06457
860 632 1682



LOCATION MAP
SCALE: 1" = 800'

GENERAL

1.

SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SHOWN ON THE DRAWINGS TO SCALE OR TO THEIR ACTUAL DIMENSION OR LOCATION. COORDINATE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
2.

DO NOT RELY SOLELY ON ELECTRONIC VERSIONS OF DRAWINGS, SPECIFICATIONS, AND DATA FILES THAT ARE PROVIDED BY THE ENGINEER. FIELD VERIFY LOCATION OF PROJECT FEATURES.
3.

PERFORM NECESSARY CONSTRUCTION NOTIFICATIONS, APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK AS REQUIRED BY THE CONTRACT DOCUMENTS.
4.

BASE PLAN: THE PROPERTY LINES, TOPOGRAPHY, AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY WHITMAN AND BINGHAM ASSOCIATES, FIELD OBSERVATIONS, AND RECORD PLANS.
- 4.1.

REFER TO THE APPROVAL NOT REQUIRED (ANR) PLAN FOR THE ACQUISITION AND DISPOSITION OF PROPERTY WITH THE ADJACENT PROPERTY OWNER (N/F HC ATLANTIC DEVELOPMENT LP).
5.

TOPOGRAPHIC ELEVATIONS ARE BASED ON NAVD88.
6.

FLOOD ZONE: THE SUBJECT SITE LIES WITHIN ZONE X, AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FLOOD INSURANCE RATE MAP (FIRM) PANEL NO. 25017C0517F TOWN OF NATICK.
7.

AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE FOR INSPECTION AT THE CONSTRUCTION SITE AT ALL TIMES.

WORK RESTRICTIONS

1.

DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, FIRE HYDRANTS, AND UTILITIES WITHOUT APPROPRIATE PERMITS. ANY PERMITTED OBSTRUCTIONS SHALL NOT BE IN PLACE FOR MORE THAN THREE (3) DAYS WITHOUT THE PROPER IMPLEMENTATION OF TEMPORARY CONCRETE BARRIERS.
2.

WORK IS RESTRICTED TO THE HOURS OF 7 AM TO 5 PM ON MONDAY THROUGH FRIDAY, EXCLUDING HOLIDAYS, UNLESS OTHERWISE APPROVED BY THE OWNER.
3.

A SEPARATE CONTRACT WILL BE AWARDED FOR THE CONSTRUCTION OF THE PROPOSED FIRE STATION. COORDINATE WITH THE FIRE STATION CONTRACTOR THROUGHOUT CONSTRUCTION.

REGULATORY REQUIREMENTS

1.

WITHIN RIGHTS-OF-WAY, PERFORM THE WORK IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS.
2.

WITHIN STATE RIGHTS-OF-WAY, PERFORM THE WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS AND ISSUED REVISIONS/SUPPLEMENTS.
- 2.1.

DO NOT PERFORM WORK WITHIN THE TRAVELED WAY DURING PEAK COMMUTER PERIODS (6:00-9:00 AM AND 3:00-6:00 PM).
3.

AT A MINIMUM, CONSTRUCT ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4.

TRAFFIC SIGNALS, SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
5.

SECURE THE PROJECT SITE AND PERFORM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
6.

DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
7.

COMPLY WITH THE CONDITIONS OF THE FOLLOWING TOWN OF NATICK PERMITS. ASSIST THE ENGINEER TO OBTAIN PERMIT CLOSEOUT DOCUMENTATION.
- 7.1.

LAND DISTURBANCE PERMIT (LDP #43) FROM THE CONSERVATION COMMISSION.
- 7.2.

FINAL SITE PLAN AND SPECIAL PERMIT (DECISION 64-18) FROM THE PLANNING BOARD.
- 7.3.

AQUIFER PROTECTION DISTRICT SPECIAL PERMIT (DECISION 65-18) FROM THE PLANNING BOARD.
- 7.4.

ANY OTHER CONSTRUCTION PERMITS THAT MUST BE OBTAINED.
8.

THE FIRE STATION PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND REQUIRES THE FILING OF A CONSTRUCTION GENERAL PERMIT (CGP) THROUGH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT FOR DISCHARGES FROM CONSTRUCTION ACTIVITIES PERMIT PROGRAM.
- 8.1.

THE FIRE STATION CONTRACTOR WILL BE RESPONSIBLE FOR SUBMITTING A NOTICE OF INTENT (NOI) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) UNDER THE PROGRAM.
- 8.2.

ASSIST THE FIRE STATION CONTRACTOR WITH INSPECTIONS AND MONITORING ASSOCIATED WITH THE CGP AS REQUIRED..

DEMOLITION

1.

REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS, UNLESS OTHERWISE NOTED.
2.

ITEMS TO BE STOCKPILED ON-SITE FOR REUSE OR TO BE RELOCATED SHALL BE PROTECTED FROM CONSTRUCTION OPERATIONS. IF DAMAGED DURING CONSTRUCTION THEY SHALL BE REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.

EARTHWORK

1.

NOTIFY THE FOLLOWING AT LEAST 72 HOURS BEFORE STARTING EXCAVATION EXCLUSIVE OF WEEKENDS AND HOLIDAYS,
"DIG SAFE" AT 1-888-344-7233.

CONSTRUCTION LAYOUT

1.

PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, FIELD VERIFY PROPOSED UTILITY ROUTES AND IDENTIFY ANY INTERFERENCES OR OBSTRUCTIONS WITH EXISTING UTILITIES OR PUBLIC RIGHTS-OF-WAY.
2.

IMMEDIATELY INFORM THE ENGINEER IN WRITING IF EXISTING UTILITY CONDITIONS CONFLICT OR DIFFER FROM THAT INDICATED AND IF THE WORK CANNOT BE COMPLETED AS INDICATED.
3.

DIMENSIONS ARE FROM FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS NOTED OTHERWISE.
4.

BOUNDS OR MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.

EROSION AND SEDIMENT CONTROL

1.

DISTURBANCE OF SOIL SURFACES IS REGULATED BY STATE LAW AND LOCAL ORDINANCE. WORK SHALL COMPLY WITH THE FOLLOWING CRITERIA TO PREVENT OR MINIMIZE SOIL EROSION.
2.

INSTALL, INSPECT, MAINTAIN, AND REPAIR OR REPLACE TEMPORARY AND PERMANENT EROSION CONTROL DEVICES TO ENSURE PROPER OPERATION IN A TIMELY MANNER THROUGHOUT THE LIFE OF THE PROJECT. MAINTAIN PERMANENT MEASURES UNTIL CONSTRUCTION OF THE PROJECT IS COMPLETED OR UNTIL IT IS ACCEPTED BY THE OWNER. DISPOSE OF SEDIMENT IN AN UPLAND AREA.
3.

INSPECT EROSION AND SEDIMENT CONTROLS DAILY AND REMOVE ACCUMULATED SEDIMENTS AS NEEDED. REPAIR OR CORRECT ANY ISSUES, AND NOTIFY THE CONSERVATION COMMISSION IMMEDIATELY.
4.

MAINTAIN A STOCKPILE OF ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES ON SITE AT ALL TIMES. AT A MINIMUM, MAINTAIN A STOCKPILE OF AT LEAST 100 FEET OR 10% OF THE TOTAL AMOUNT OF DEVICES CURRENTLY DEPLOYED AT THE SITE, WHICHEVER IS GREATER.
5.

CLEAN ROADS, CONTROL DUST, AND TAKE NECESSARY MEASURES TO ENSURE THAT THE SITE AND ALL ROADS BE MAINTAINED IN A MUD- AND DUST-FREE CONDITION AT ALL TIMES THROUGHOUT THE LIFE OF THE CONTRACT. DUST CONTROL SHALL INCLUDE, BUT IS NOT LIMITED TO, WATER AND/OR CRUSHED STONE OR COARSE GRAVEL, SUBJECT TO THE APPROVAL OF THE ENGINEER.
6.

VEHICLE TRAFFIC ENTERING OR EXITING THE PROJECT SITE SHALL PASS OVER THE CONSTRUCTION ENTRANCE(S). MAINTAIN THE CONSTRUCTION ENTRANCE(S) IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE SURROUNDING ROADWAYS. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO THE SURROUNDING ROADWAYS MUST BE REMOVED IMMEDIATELY.
7.

INSTALL PERIMETER SEDIMENT CONTROL BARRIERS AS SHOWN ON THE SITE PLANS OR AS MAY BE REQUIRED TO PREVENT SEDIMENT FLOW TO STORM DRAINS OR SURFACE WATERS. A ROW OF STAKED HAYBALES OR A SILT FENCE SHALL ALSO BE INSTALLED AROUND ANY SOIL STOCKPILE AREAS. CLEANOUT OF ACCUMULATED SEDIMENT BEHIND PERIMETER SEDIMENT CONTROL BARRIER IS NECESSARY IF ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER BECOMES FILLED WITH SEDIMENT. REPLACE BARRIER IMMEDIATELY IF BARRIER DECOMPOSED OR BECOMES INEFFECTIVE.
8.

PERFORM CONSTRUCTION SEQUENCING IN SUCH A MANNER TO CONTROL EROSION AND TO MINIMIZE THE TIME THAT EARTH MATERIALS ARE EXPOSED BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED.
9.

IF FINAL GRADING IS TO BE DELAYED FOR MORE THAN THIRTY (30) DAYS AFTER LAND DISTURBANCES CEASE, TEMPORARY VEGETATION OR MULCH SHALL BE USED TO STABILIZE SOILS. OUTSIDE OF THE GROWING SEASON, ONLY WOOD MULCH SHALL BE USED.
10.

PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO ALL DISTURBED AREAS THAT HAVE REACHED FINISHED GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS PERMANENTLY CEASED. THE RECOMMENDED PERMANENT SEEDING DATES ARE APRIL 1 TO JUNE 15 AND AUGUST 15 TO SEPTEMBER 30.

LIMESTONE AND FERTILIZER SHALL BE APPLIED ACCORDING TO SOIL TEST RECOMMENDATIONS OFFERED BY THE UNIVERSITY OF MASSACHUSETTS SOIL TESTING LABORATORY. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11.5 POUNDS PER 1,000 SQUARE FEET OF 10-20-20 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AS FOLLOWS: 4 TONS PER ACRE (OR 180 POUNDS PER 1,000 SQUARE FEET) FOR CLAY, CLAY LOAM AND HIGH ORGANIC SOIL; 3 TONS PER ACRE (OR 135 POUNDS PER 1,000 SQUARE FEET) FOR SANDY LOAM, LOAM, OR SILT LOAM; AND 2 TONS PER ACRE (OR 90 POUNDS PER 1,000 SQUARE FEET) LOAMY SAND OR SAND.
11.

EXISTING OR PROPOSED STORMWATER DRAINAGE STRUCTURES THAT MAY BE SUBJECT TO SEDIMENTATION SHALL BE PROTECTED WITH STAKED STRAW BALES, WATTLES, SILT FENCE, SILT SACKS, OR OTHER APPROVED MEASURES THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD.
12.

WASTE DISPOSAL: MATERIALS WHICH COULD BE A POTENTIAL SOURCE OF STORMWATER POLLUTION SUCH AS GASOLINE, DIESEL FUEL, HYDRAULIC OIL, ETC., SHALL BE STORED AT THE END OF EACH DAY IN A STORAGE TRAILER OR COVERED LOCATION AND TAKEN OFF-SITE AND PROPERLY DISPOSED OF. ALL TYPES OF WASTE GENERATED AT THIS SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND/OR REGULATIONS. UPON REQUEST, SUBMIT DISPOSAL RECORDS TO THE NATICK CONSERVATION COMMISSION.
13.

GOOD HOUSEKEEPING: THE PROJECT SITE SHALL PROVIDE FOR THE MINIMIZATION OF EXPOSURE OF CONSTRUCTION DEBRIS (INCLUDING, BUT NOT LIMITED TO, INSULATION, WIRING, PAINTS AND PAINT CANS, SOLVENTS, WALL BOARD, ETC.) TO PRECIPITATION BY MEANS OF DISPOSAL AND/OR PROPER SHELTER OR COVER. CONSTRUCTION WASTE MUST BE PROPERLY DISPOSED OF IN ORDER TO AVOID EXPOSURE TO PRECIPITATION AT THE END OF EACH WORKING DAY.
14.

UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROL MEASURES. CLEAN SEDIMENT AND DEBRIS FROM TEMPORARY MEASURES AND FROM PERMANENT STORM DRAIN AND SANITARY SEWER SYSTEMS.

UTILITIES

1.

THE TYPE, SIZE AND LOCATION OF DEPICTED UNDERGROUND UTILITIES ARE APPROXIMATE REPRESENTATIONS OF INFORMATION OBTAINED FROM FIELD LOCATIONS OF VISIBLE FEATURES, EXISTING MAPS AND PLANS OF RECORD, UTILITY MAPPING, AND OTHER SOURCES OF INFORMATION OBTAINED BY THE ENGINEER. ASSUME NO GUARANTEE AS TO THE COMPLETENESS, SERVICEABILITY, EXISTENCE, OR ACCURACY OF UNDERGROUND FACILITIES. FIELD VERIFY THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES.
- 1.1.

PERFORM EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF NECESSARY. BE RESPONSIBLE FOR REPAIRING, AT NO EXPENSE TO THE OWNER, EXISTING UTILITIES DAMAGED DURING CONSTRUCTION
2.

TERMINATE EXISTING UTILITIES IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. COORDINATE UTILITY SERVICE DISCONNECTS WITH UTILITY REPRESENTATIVES.
3.

PAY ALL FEES AND COSTS ASSOCIATED WITH UTILITY MODIFICATIONS AND CONNECTIONS, REGARDLESS OF THE ENTITY THAT PERFORMS THE WORK.
4.

COORDINATE THE WORK AND WORK SCHEDULE WITH UTILITY COMPANIES. PROVIDE ADEQUATE NOTICE TO UTILITIES TO PREVENT DELAYS IN CONSTRUCTION.

SITE RESTORATION

1.

PROVIDE 6 INCHES OF LOAM BORROW AND SEED IN AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED AS IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) UNLESS OTHERWISE NOTED. SUPPLEMENT EXISTING TOPSOIL WITH IMPORTED TOPSOIL AS REQUIRED TO ACHIEVE DEPTH.
2.

REPAIR DAMAGES RESULTING FROM CONSTRUCTION LOADS, AT NO ADDITIONAL COST TO OWNER.
3.

RESTORE AREAS DISTURBED BY CONSTRUCTION OPERATIONS TO THEIR ORIGINAL CONDITION OR BETTER, AT NO ADDITIONAL COST TO OWNER.

TOWN OF NATICK, MA

GENERAL NOTES

WEST NATICK FIRE STATION 4

SIGNAL IMPROVEMENTS

NATICK

SCALE:

HORZ.:
VERT.:
DATUM:
HORZ.:
VERT.:
0
GRAPHIC SCALE

FUSS & O'NEILL

108 MYRTLE STREET, SUITE 502
QUINCY, MA 02171
(617) 282-4673
www.fandob.com

PROJ. No.: 20170065.S10
DATE: 5/13/2020

CN0.01

DESIGNER

REVIEWER

DATE

DESCRIPTION

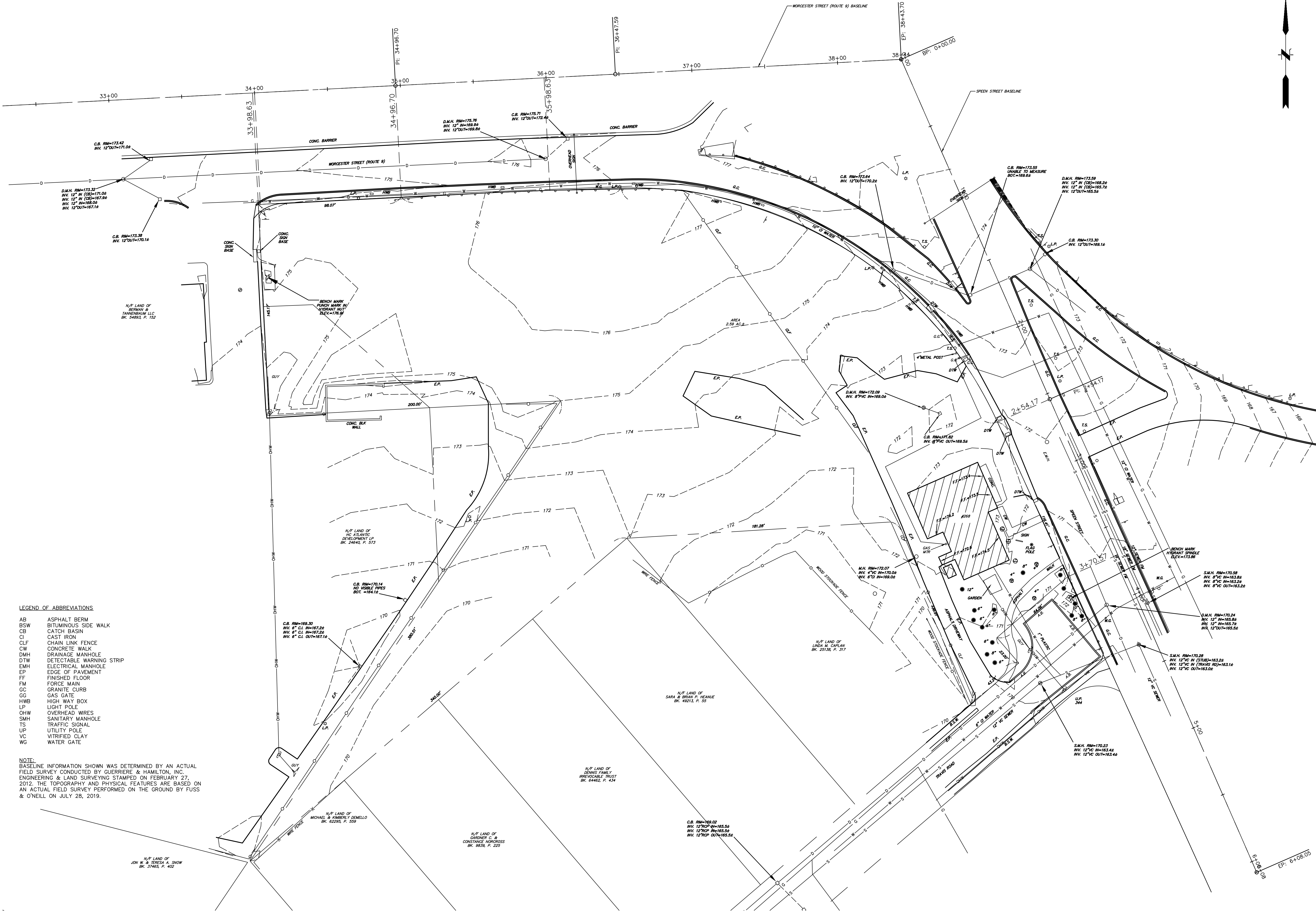
1.

No

LEGEND OF ABBREVIATIONS

- | | |
|-----|--------------------------|
| AB | ASPHALT BERM |
| BSW | BITUMINOUS SIDE WALK |
| CB | CATCH BASIN |
| CI | CAST IRON |
| CLF | CHAIN LINK FENCE |
| CW | CONCRETE WALK |
| DMH | DRAINAGE MANHOLE |
| DTW | DETECTABLE WARNING STRIP |
| EMH | ELECTRICAL MANHOLE |
| EP | EDGE OF PAVEMENT |
| FF | FINISHED FLOOR |
| FM | FORCE MAIN |
| GC | GRANITE CURB |
| GS | GAS GATE |
| HWB | HIGH WAY BOX |
| LP | LIGHT POLE |
| SMH | SANITARY MANHOLE |
| TS | TRAFFIC SIGNAL |
| UP | UTILITY POLE |
| VC | VITRIFIED CLAY |
| WG | WATER GATE |

NOTE:
BASELINE INFORMATION SHOWN WAS DETERMINED BY AN ACTUAL
FIELD SURVEY CONDUCTED BY GUERRIERE & HAMILTON, INC.
ENGINEERING & LAND SURVEYING STAMPED ON FEBRUARY 27,
2012. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON
AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY FUSS
& O'NEILL ON JULY 28, 2019.



TOWN OF NATICK, MA

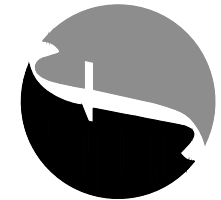
EXISTING CONDITIONS PLAN

WEST NATICK FIRE STATION 4

SIGNAL IMPROVEMENTS

NATICK

FUSS & O'NEILL



108 MYRTLE STREET, SUITE 502
QUINCY, MA 02171
617.283.4673
www.fussandoneill.com

SCALE: HORIZ.: 1" = 40'

VERT.: 1" = 40'

DATUM: NAD 83

HORIZ.: 1" = 40'

VERT.: 1" = 40'

GRAPHIC SCALE

No.

DATE

DESCRIPTION

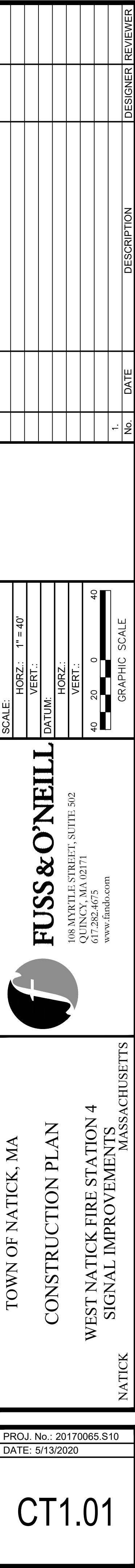
DESIGNER

REVIEWER

PROJ. No.: 20170065.S10

DATE: 5/13/2020

CI0.01



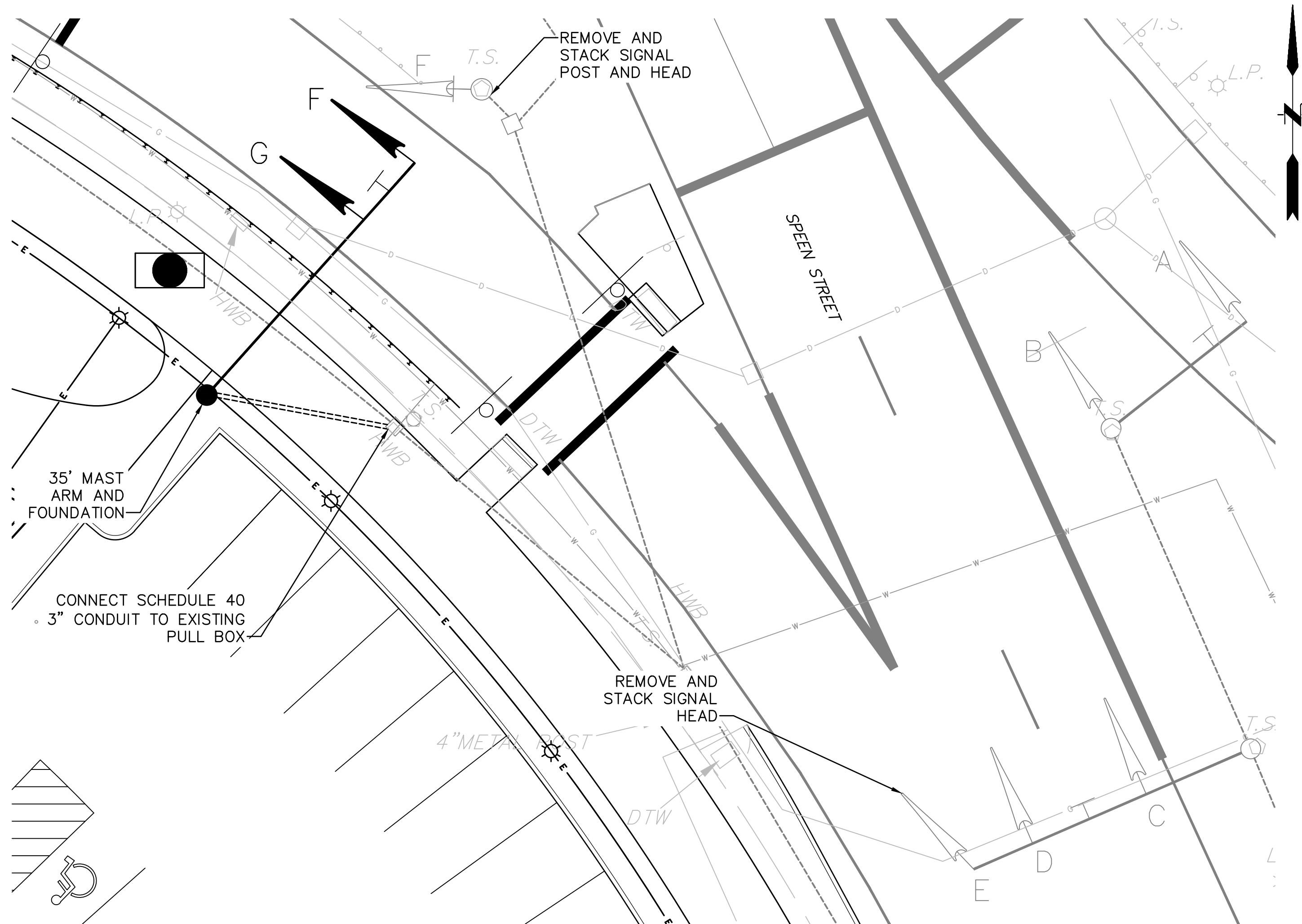
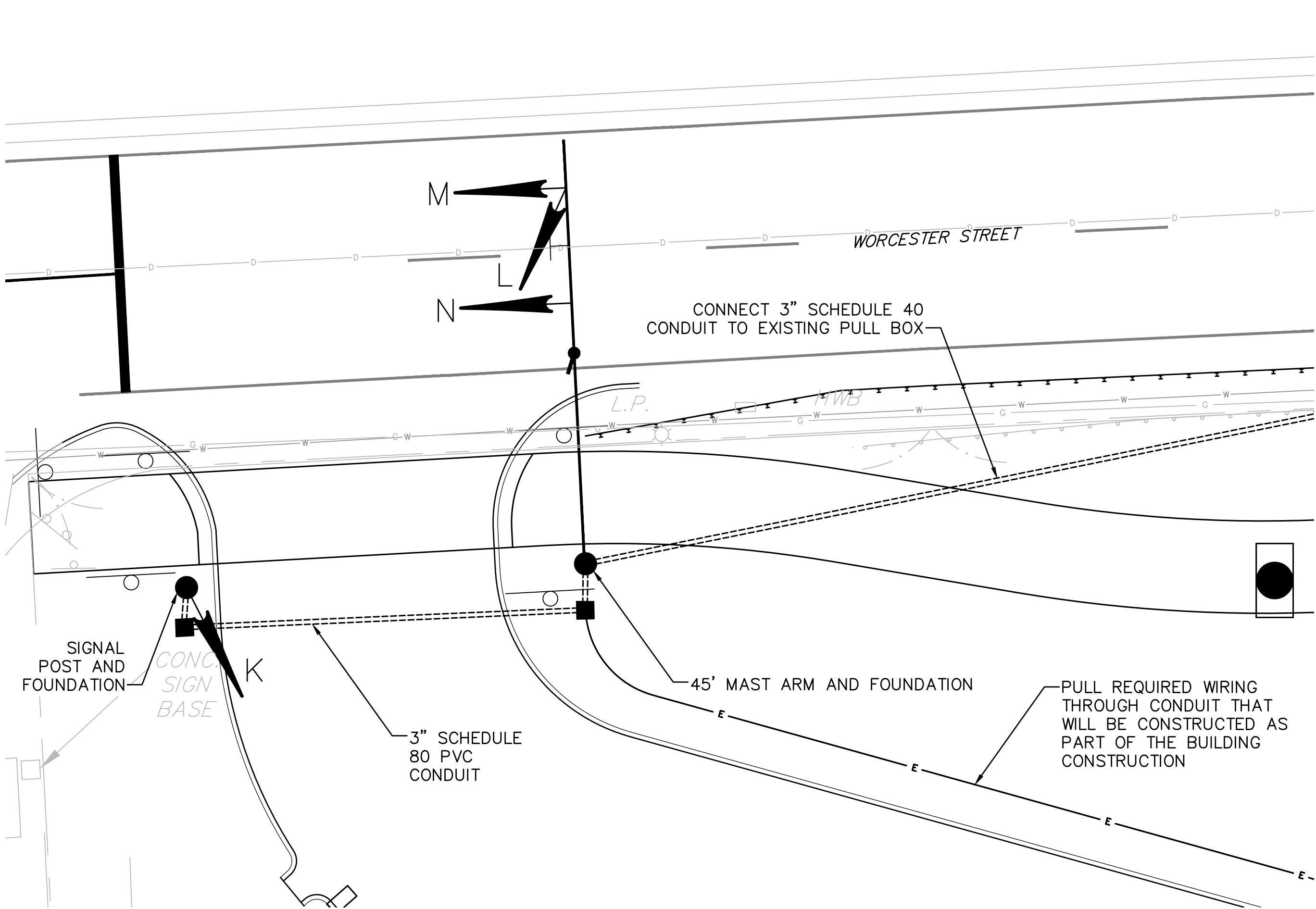
MS VIEW: LAYER STATE: Plotter: ---- CTB File: ---- User: sironi

LAYER STATE: Plotter: ---- CTB File: ----

MS VIEW:

NOTES:

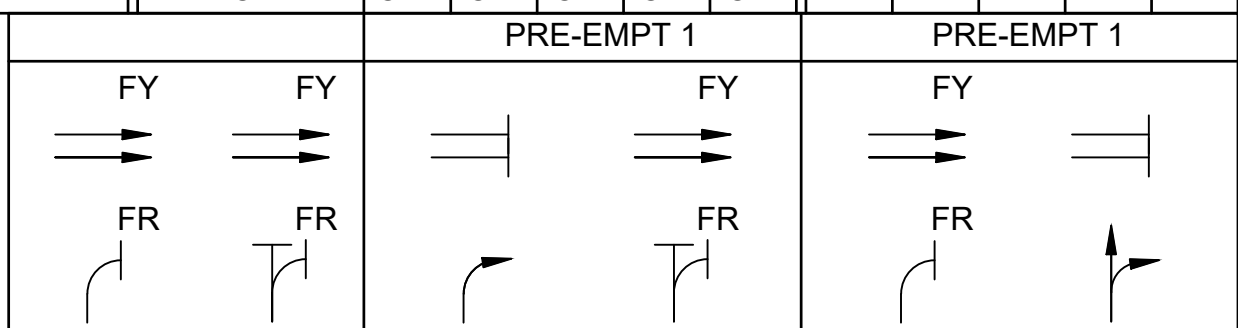
1. DIGSAFE IS TO BE CONTACTED BEFORE COMMENCING ANY CONSTRUCTION. COORDINATION WITH UTILITY COMPANIES REQUIRED.
2. ALL SIGNAL EQUIPMENT SHALL BE INSTALLED PER THE CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND THE CURRENT MASSDOT SPECIFICATIONS, OR AS AMENDED IN THE SPECIAL PROVISIONS.
3. EVERSOURCE TO BE CONTACTED REGARDING POWER SUPPLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INSTALLATION AND SERVICE CONNECTION CHARGES.
4. THE LOCATIONS OF ALL EQUIPMENT SHOWN ARE APPROXIMATE. FINAL LOCATIONS SHALL BE DETERMINED AND CONFIRMED IN THE FIELD.
5. THE CONTRACTOR SHALL COORDINATE ALL SIGNALIZATION AND STRIPING WORK WITH MASSDOT DISTRICT 3.
6. MISCELLANEOUS WIRE, DUCT, CABLE, LABOR, AND EQUIPMENT (NOT SHOWN) NECESSARY TO COMPLETE THE INSTALLATION AND PROVIDING AND OPERATING TRAFFIC CONTROL SIGNAL, AS SHOWN ARE REQUIRED (PAYMENT TO BE INCIDENTAL).
7. ALL MAST ARMS ARE 90° TO THE CENTER LINE UNLESS NOTED.
8. SIGNAL SYSTEM SHALL INCLUDE A UPS/BATTERY BACKUP SYSTEM ATTACHED TO THE EXISTING CONTROLLER CABINET TO ACT AS A LINE VOLTAGE CONDITIONER AS WELL AS TO PROVIDE EMERGENCY POWER TO THE CONTROLLER AND SIGNAL SYSTEM.
9. EXISTING SIGNS TO BE REMOVE SHALL BE RETURNED TO MASS DOT. REMOVAL OF EXISTING SIGNS SHALL BE INCIDENTAL.
10. CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF FIRE STATION PANEL WITH BUILDING CONTRACTOR, OWNER AND ENGINEER.



SEQUENCE AND TIMING FOR FULL ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	NORMAL OPERATION	FIRE PRE-EMPTION WEST DRIVEWAY					FIRE PRE-EMPTION EAST DRIVEWAY					CONFLICT FLASHING OPERATION
				PRE-CLEAR	ALL RED	HOLD	CLEAR	ALL RED	PRE-CLEAR	ALL RED	HOLD	CLEAR	ALL RED	
PRE-EMPT INTERVAL				4	3	●	4	1	4	3	●	4	1	
SPEEN STREET	SB	A,B,C,D	8" FY	12" Y	R	R	R	R	12" Y	R	R	R	R	12" FY
ROUTE 9 OFF-RAMP	EB	F,G	8" FY	FY	FY	FY	Y	R	Y	R	R	R	R	12" FY
FIRE STATION EAST DRIVEWAY	EB	H,J	FR	FR	FR	FR	FR	FR	FR	FR	G	Y	FR	FR
SPEEN STREET W3-5A WARNING SIGN	SB		OFF	FR	R	R	R	R	FR	R	R	R	R	OFF
FIRE STATION WEST DRIVEWAY	NB	K,L	FR	FR	FR	G	Y	FR	FR	FR	FR	FR	FR	FR
ROUTE 9 FRONTAGE ROAD	EB	M,N	8" FY	12" Y	R	R	R	R	FY	FY	FY	Y	R	12" FY
FRONTAGE ROAD W3-5A WARNING SIGN	EB		OFF	OFF	OFF	OFF	OFF	OFF	FR	R	R	R	R	OFF

NOTE:
GREEN ARROW OR WALK INDICATIONS TO REMAIN ENERGIZED DURING CLEARANCE INTERVALS IF NEXT PHASE CALLS FOR SAME INDICATIONS.



PRE-EMPTION PHASING & PRIORITY

DETECTOR PHASING & PRIORITY	PRE-EMPT PHASE ASSIGNMENT	MOVEMENT	VEHICLE PHASE ASSIGNMENTS	HOLD (SEE NOTE 3)
D1,D2,D3	2	→	PRE-EMPT	10 SEC
HARDWARE	3	→	PRE-EMPT	-
WIRELESS	4	→	PRE-EMPT	30 SEC

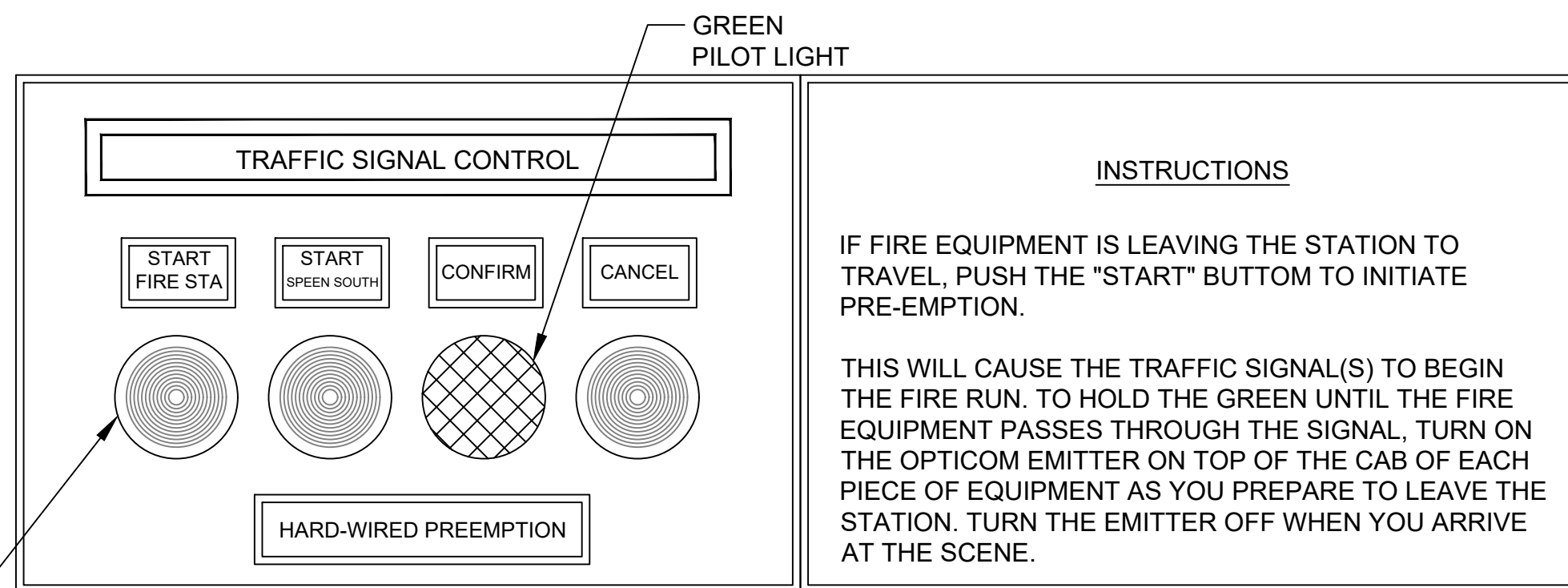
EMERGENCY VEHICLE PRE-EMPTION PHASING AND PRIORITY NOTES:

- EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTOR(S) LOCATED AT THE INTERSECTION.
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY OPTICAL DETECTOR D1 THE CONTROLLER SHALL ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PRE-EMPTION PHASE #1 FOR A MINIMUM OF TEN (10) SECONDS OR UNTIL PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCES FOR THE ASSOCIATED PHASE AS SHOWN IN THE SEQUENCE AND TIMING CHART (SHEET XX OF XX, (DATE) REVISED PLANS) AND SERVICE THE SUBSEQUENT EMERGENCY VEHICLE PRE-EMPTION PHASES AS NECESSARY.
- ONCE PRE-EMPTION SIGNAL CEASES, THE CONTROLLER SHALL HOLD THE CALL FOR ADDITIONAL TEN (10) SECONDS BEFORE TIMING PRE-EMPTION PHASE CLEARANCES.
- NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED PRIOR TO SERVICING THE PRE-EMPTION DEMAND.
- OPTICAL BASED PRE-EMPTION AND HARDWARE BASED PRE-EMPTION SHALL OVERRIDE WIRELESS PRE-EMPTION.

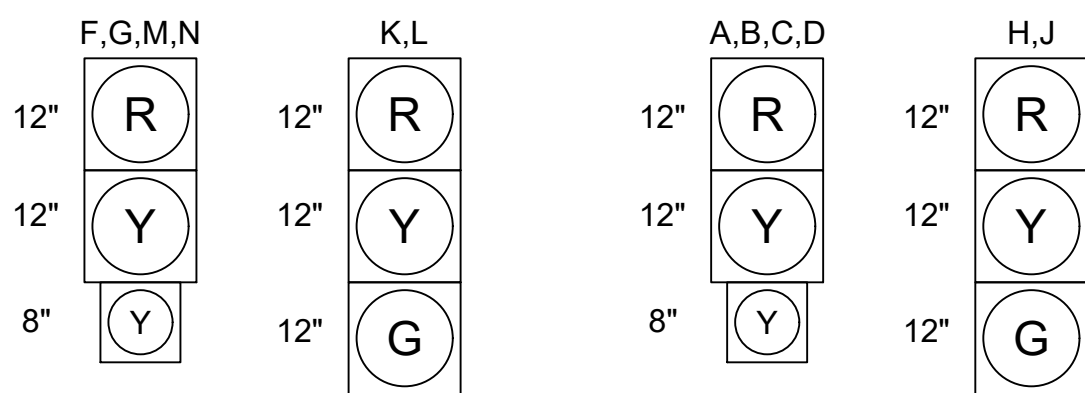
LEGEND

- PROPOSED MAST ARM & POLE
- PROPOSED SIGNAL POST
- PROPOSED SIGNAL HEAD
- PROPOSED OPTICALLY PROGRAMMED HEAD
- PROPOSED 12X12 PULL BOX
- PROPOSED 13X24X36 HAND HOLE
- PROPOSED 3" PVC CONDUIT TYPE NM
- PROPOSED VIDEO DETECTOR
- PROPOSED PREEMPTION OPTICAL DETECTOR

MOMENTARY ON PUSH BUTTON (TYP)



FIRE STATION PANEL DETAIL (NEMA ENCLOSURE) NTS



PROPOSED SIGNAL INDICATIONS

- ALL SIGNAL HEADS SHALL BE HAVE CUT AWAY VISORS.
- SIGNALS F, G, K, L, M, & N SHALL HAVE 12" LED WITH 5" LOUVERED BACK PLATES.

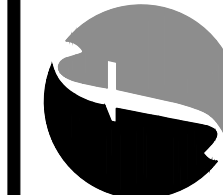
****ALL PROPOSED MAST ARMS, SIGNAL POSTS, BASES, BACKPLATES, AND BRACKETS SHALL BE FACTORY COATED BLACK****

EXISTING SIGNAL INDICATIONS

MAJOR ITEMS REQUIRED

PAY ITEM	QUANTITY	ITEM
811.31	2	PULL BOX 12" X 12"
816.01	1	35' MAST ARM - STEEL, INCL BASE & FOUNDATION
816.01	1	45' MAST ARM - STEEL, INCL BASE & FOUNDATION
816.01	1	SIGNAL POST & BASE STANDARD - 10' INCL FOUNDATION
816.01	4	SIGNAL HEAD 1 WAY - 3 SECTION 8"/12" LED LENS
816.01	2	SIGNAL HEAD 1 WAY - 3 SECTION 12" LED LENS
816.01	1	SINGLE CHANNEL PREEMPTION DETECTOR & CABLE
819.001	1	UPS BATTERY BACKUP SYSTEM
		PLUS ALL NECESSARY DUCT, CABLE, LABOR, AND MISCELLANEOUS.
		MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION.

FUSS & O'NEILL



108 MYRTLE STREET, SUITE 502
QUINCY, MA 02171
617.283.4673
www.fandn.com

TOWN OF NATICK, MA
CONSTRUCTION PLAN
WEST NATICK FIRE STATION 4
SIGNAL IMPROVEMENTS
NATICK MASSACHUSETTS

PROJ. No.: 20170065.S10
DATE: 5/13/2020

CT1.02

1. IF ANY STAGE REQUIRES MODIFICATION OF THE TRAFFIC SIGNAL OPERATION, THE CONTRACTOR SHALL SUBMIT A REVISED SIGNAL TIMING AND PHASING PLAN TO THE TOWN OF NATICK FOR APPROVAL BEFORE MODIFYING THE TRAFFIC SIGNAL.
2. ALL TRAFFIC MANAGEMENT CONFIGURATIONS SHALL CONFORM TO THE STANDARD MassDOT DETAILS ON THE FOLLOWING SHEETS AND APPLY TO ALL LOCATIONS INCLUDED IN THE CONTRACT.
3. THE CONTRACTOR SHALL BE PERMITTED TO PERFORM TEMPORARY ROADWAY OR LANE CLOSURES FROM 8:00 A.M. TO 3:00 P.M. CHANGES TO THESE TIMES REQUIRE APPROVAL FROM THE TOWN OF NATICK.
4. ALL TRENCHES IN THE ROADWAY SHALL EITHER BE BACKFILLED AND PATCHED WITH HOT MIX ASPHALT, COVERED WITH BEVELED EDGES STEEL PLATES, OR HOT MIX ASPHALT AROUND STEEL PLATES BEFORE REOPENING THE ROADWAY TO TRAFFIC. UNBEVELED STEEL PLATE MAY BE USED IF HMA WEDGES ARE PLACED IN ACCORDANCE WITH THE LONGITUDINAL DROP OFF DETAIL.
5. COVER ALL EXISTING SIGNAGE THAT CONFLICTS WITH THE TRAFFIC MANAGEMENT SETUP IN PLACE.
6. TO THE MAXIMUM EXTENT PRACTICABLE THE EXISTING SIDEWALK AND GUARDRAIL WILL BE MAINTAINED THROUGHOUT THE PROJECT LIMITS UNTIL THE PROPOSED SIDEWALK HAS BEEN COMPLETED.
7. PORTABLE CHANGEABLE MESSAGE BOARDS (PCMB) SHALL BE USED ON THE PROJECT SITE; THESE SIGNS SHALL ADVISE MOTORISTS TO EXPECT DELAYS, AND ADVISE TRAILER TRUCKS OF RESTRICTED LANE WIDTHS (AND POSSIBLE DETOUR ROUTES) ON SPECIFIC APPROACHES DURING CERTAIN STAGES OF CONSTRUCTION.
8. THE CONTRACTOR SHALL PLACE TWO PORTABLE CHANGEABLE MESSAGE BOARDS (PCMB) ON THE PROJECT SITE, FOR SEVEN DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
9. ALL ADVANCED SIGNAGE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT.

THE DIMENSIONS FOR A* & B* MAY REQUIRE FIELD
ADJUSTMENTS DUE TO THE URBAN NATURE OF THE PROJECT AREA.

10. IF FLAGGERS ARE USED FOR TRAFFIC CONTROL, THE FLAGGER SIGN (W20-7a) SHALL BE SUBSTITUTED FOR THE POLICE OFFICER AHEAD (W20-7b) SIGN.
11. FOR EXISTING OR TEMPORARY CROSSWALKS IN A PEDESTRIAN BYPASS AREA (E.G. FIGURE PED-3 STANDARD DETAILS) THERE SHALL BE A PEDESTRIAN WARNING SIGN WITH PLACARD (W11-2 AND W16-7P) ON EACH APPROACH (TRAVEL DIRECTION) AT THE CROSSWALK.



FIGURE DIV-2
DIVIDED HIGHWAY / LANE CLOSURE
(SHORT TERM)
NOT TO SCALE



FIGURE DIV-3

**DIVIDED HIGHWAY
STATIONARY LANE CLOSURE
(LONG TERM AND INTERMEDIATE)
NOT TO SCALE**




FIGURE R-5
PARTIAL EXIT RAMP CLOSURE
NOT TO SCALE



FIGURE R-6
PARTIAL EXIT RAMP CLOSURE
NOT TO SCALE

[illegible]

HORZ.:
VERT.:
DATUM:
HORZ.:
VERT.:



GRAPHIC SCALE

FUSS & O'NEILL
108 MYRTLE STREET SUITE 502

100 MITCHELL STREET, SUITE 302
QUINCY, MA 02171
617.282.4675
www.fando.com

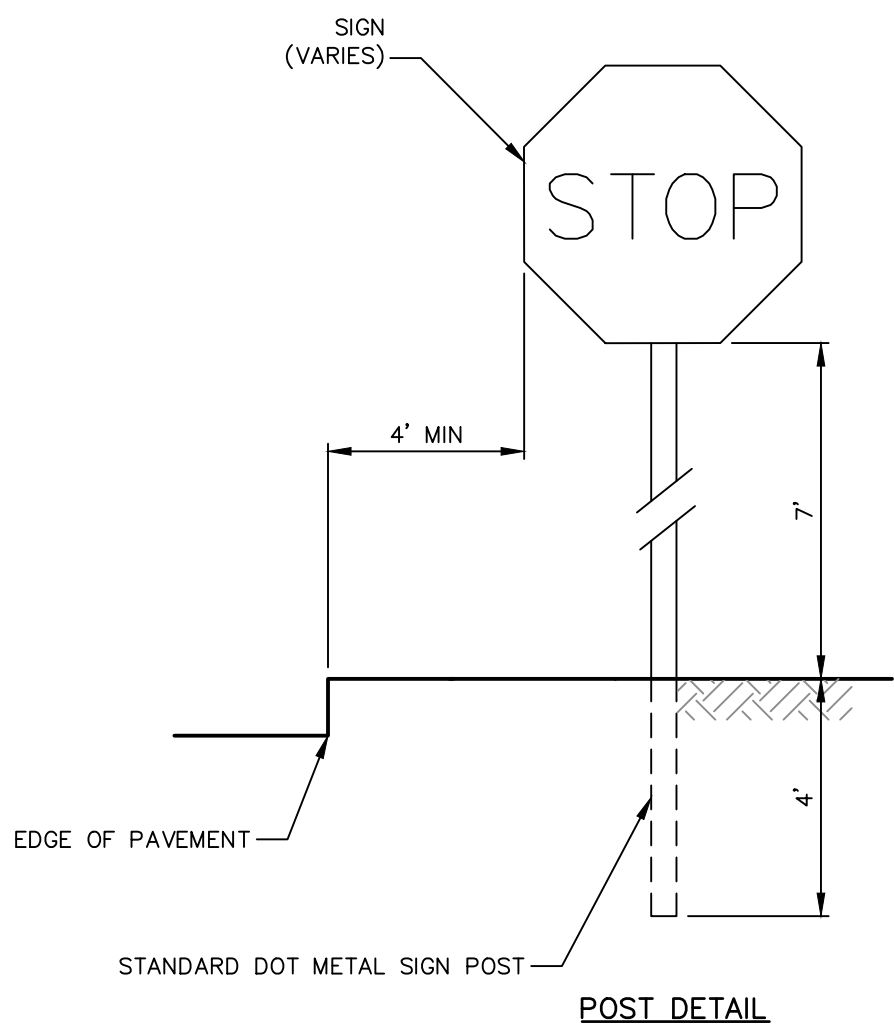
TRAFFIC MANAGEMENT PLANS

WEST NATICK FIRE STATION 4
SIGNAL IMPROVEMENTS
MASSACHUSETTS

No.: 20170065.S10
5/13/2020

CT2.02

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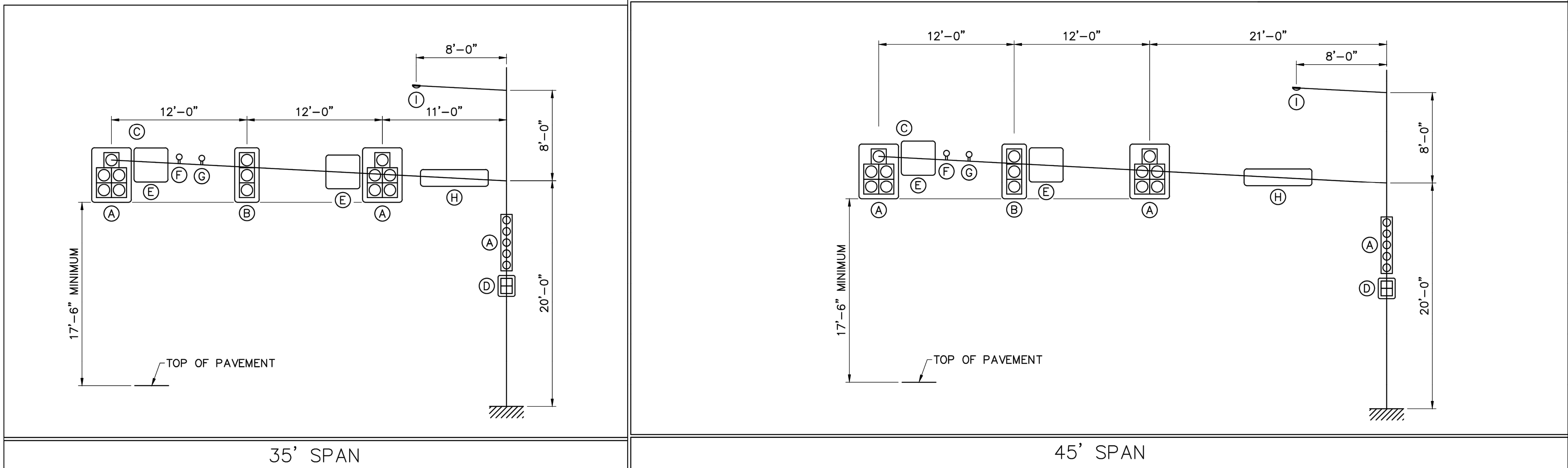
SIGNS
NOT TO SCALE

MASSDOT STANDARD DRAWING – OVERHEAD SIGNAL STRUCTURE& FOUNDATION – MAST ARM LOAD DIAGRAMS

SCALE: NOT TO SCALE

IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		SIGN GRAPHIC	TEXT DIMENSIONS			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MRK.		BACKGROUND	LEGEND	BORDER			
R5-11	30	24		MUTCD STANDARD			2	WHITE	BLACK	BLACK	P5, 3 REQUIRED	5.00	10.00
R9-3	18	18		MUTCD STANDARD			2	WHITE	BLACK AND RED	BLACK	P5, 2 REQUIRED	2.25	4.50
R10-6L	24	36		MUTCD STANDARD			2	WHITE	BLACK	BLACK	P5, 2 REQUIRED	6.00	12.00
R10-13	42	30		MUTCD STANDARD			2	WHITE	BLACK	BLACK	P5, MOUNT ON MAST ARM	8.75	17.50
W11-2	36	36		MUTCD STANDARD			2	YELLOW	BLACK	BLACK	P5, 4 REQUIRED	9.00	18.00
W11-8	36	36		MUTCD STANDARD			3	YELLOW	BLACK	BLACK	P5, 6 REQUIRED	9.00	27.00
W11-12P	36	30		MUTCD STANDARD			2	YELLOW	BLACK	BLACK	P5, MOUNT WITH W11-8	7.50	15.00
W16-2aP	24	12		MUTCD STANDARD			1	YELLOW	BLACK	BLACK	P5, MOUNT WITH W11-8	2.00	2.00
W16-7P	24	12		MUTCD STANDARD			2	YELLOW	BLACK	BLACK	P5, MOUNT WITH W11-2	2.00	4.00
W16-9P	24	12		MUTCD STANDARD			1	YELLOW	BLACK	BLACK	P5, MOUNT WITH W11-8	2.00	2.00

DESIGN LOADING							
DEVICE	DESCRIPTION	PROJ. AREA (FT^2)	WEIGHT (LBS)	DEVICE	DESCRIPTION	PROJ. AREA (FT^2)	WEIGHT (LBS)
(A)	5 SECTION, 1 WAY SIGNAL	13.33	110	(F)	DETECTOR	1.00	10
(B)	3 SECTION, 1 WAY SIGNAL	8.67	74	(G)	STROBE	1.00	10
(C)	DAMPENER PLATE (NOT SHOWN)	0.00	9	(H)	72" X 18" STREET NAME SIGN	9.00	12
(D)	DUAL PEDESTRIAN SIGNAL	8.00	80	(I)	OPTIONAL LUMINAIRE	3.30	75
(E)	36" X 36" REGULATORY SIGN	9.00	12				
NOTE: ALL SIGNALS HAVE 5.0" NON-LOUVERED BACKPLATES WITH REFLECTIVE BORDERS							



DESIGNER REVIEWER

DATE

DESCRIPTION

No. 1.

SCALE:

HORIZ. VERT. DATUM: HORIZ. VERT. 0

GRAPHIC SCALE

FUSS & O'NEILL

108 MYRTLE STREET, SUITE 502
QUINCY, MA 02171
617.283.4673
www.fandb.com

TOWN OF NATICK, MA

DETAILS

WEST NATICK FIRE STATION 4

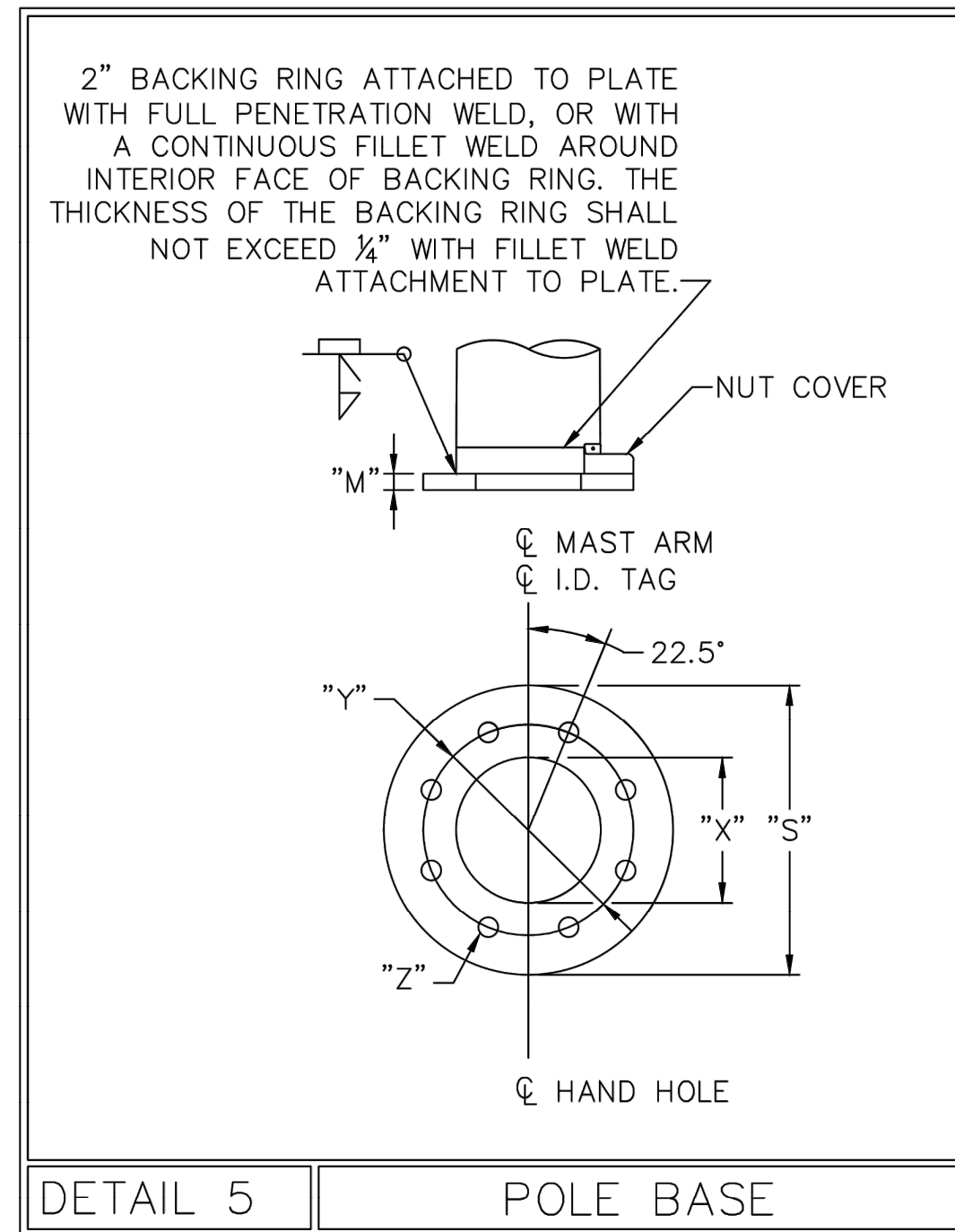
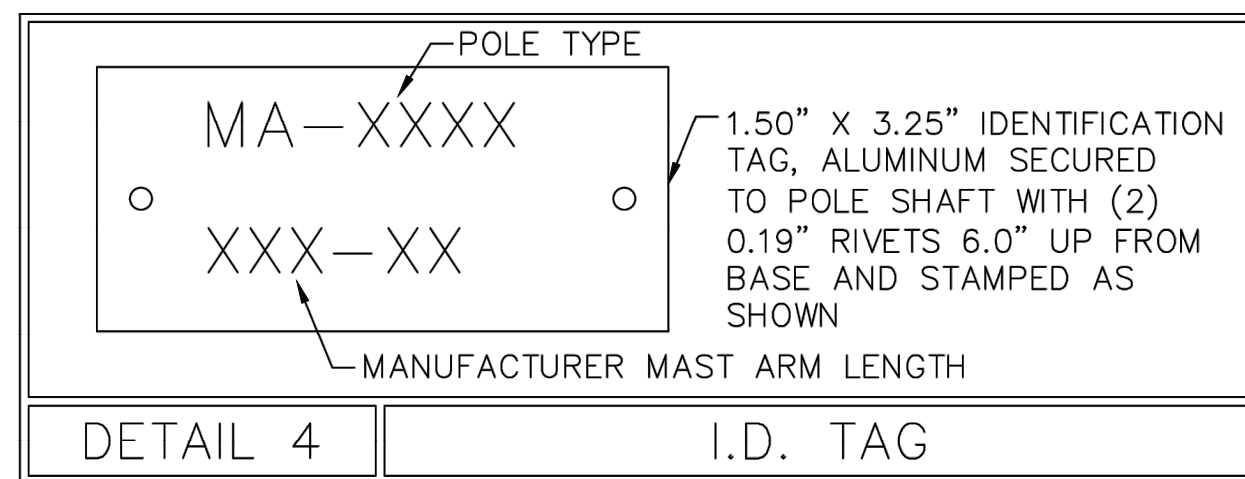
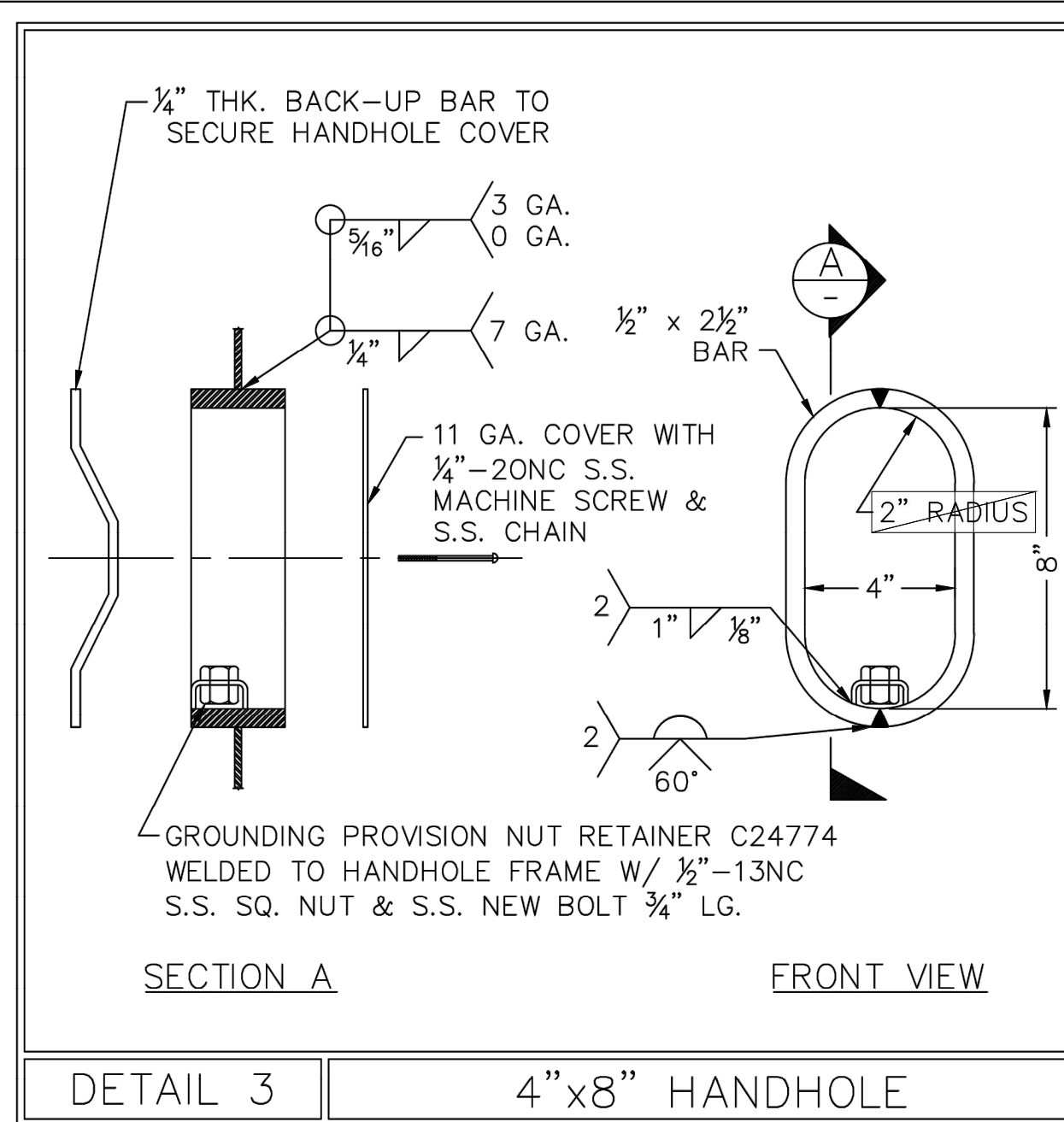
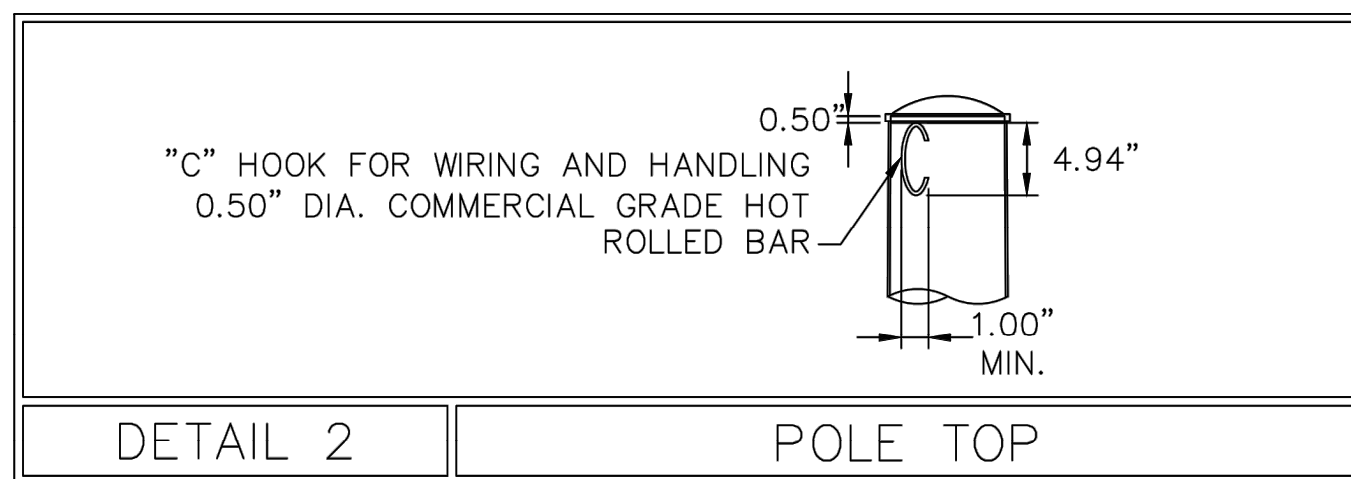
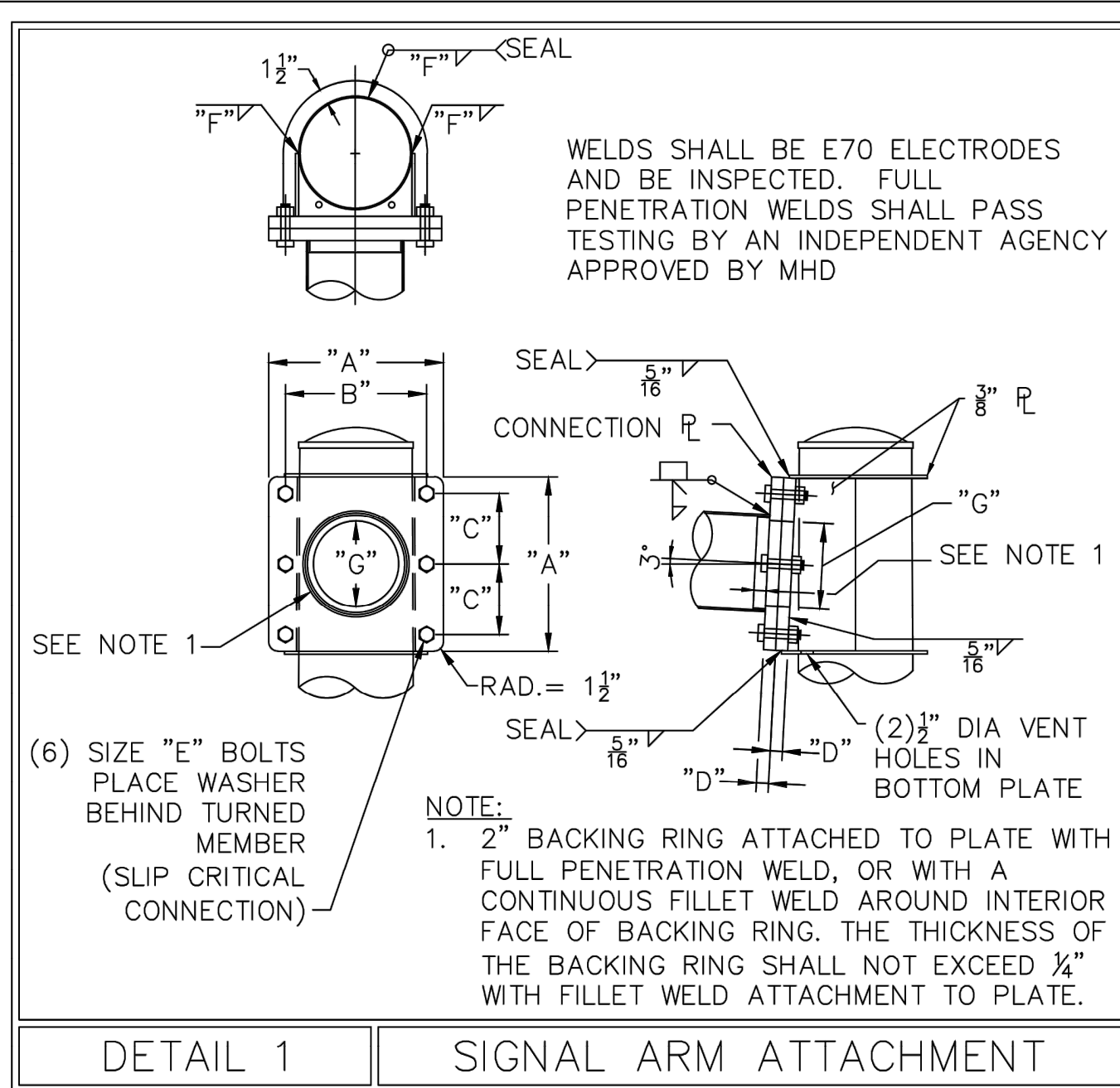
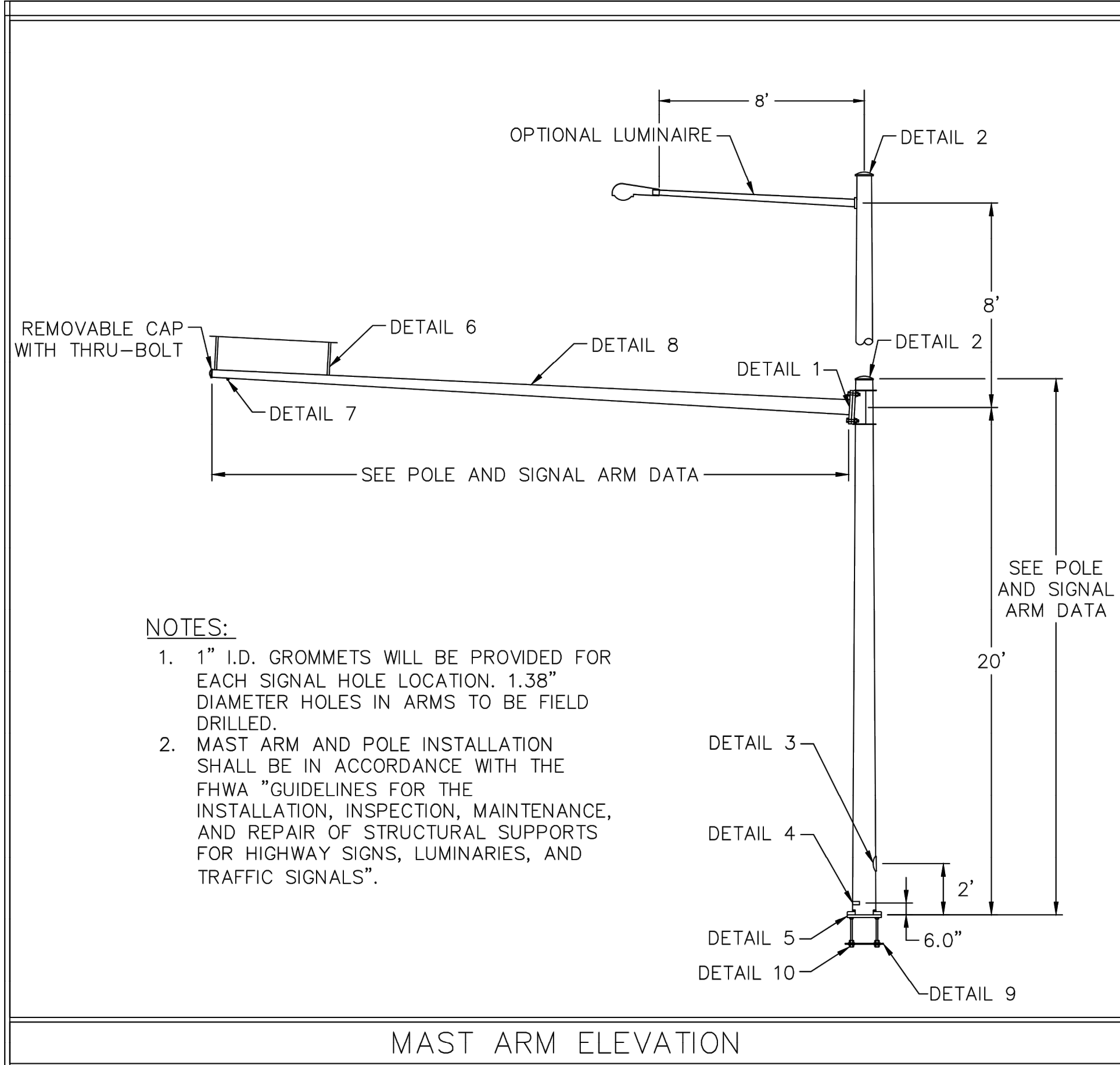
SIGNAL IMPROVEMENTS

NATICK MASSACHUSETTS

PROJ. No.: 20170065.S10

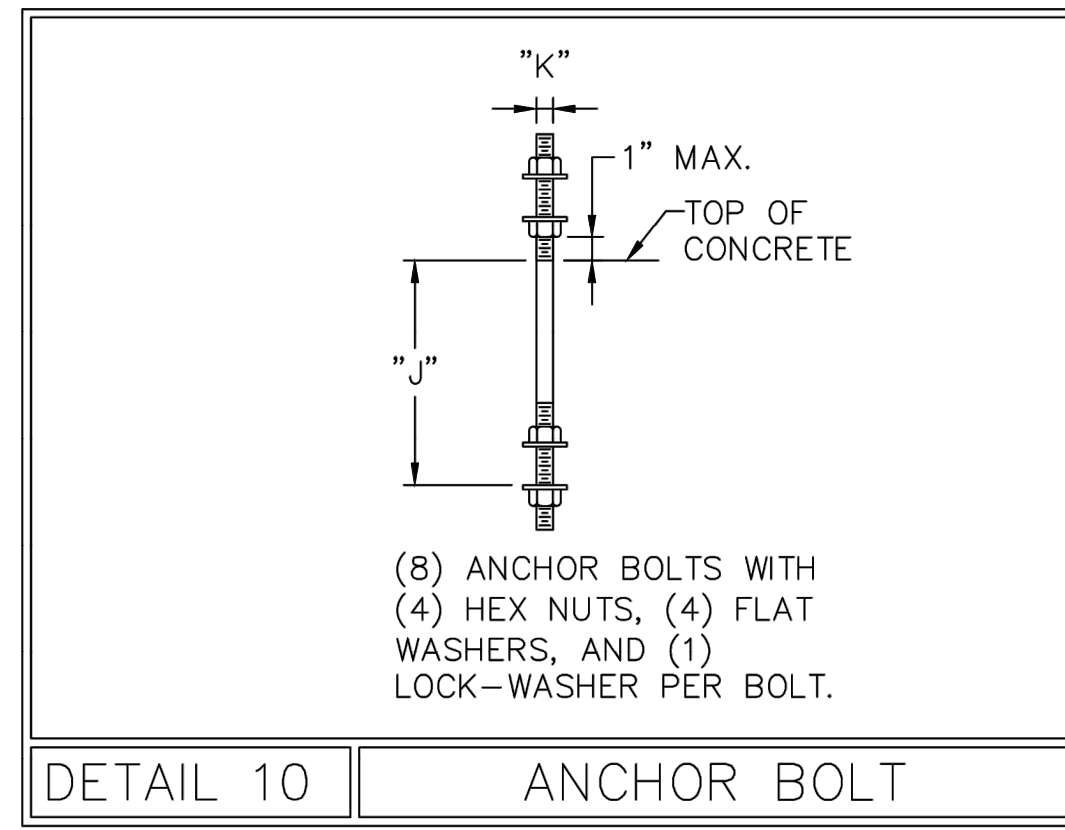
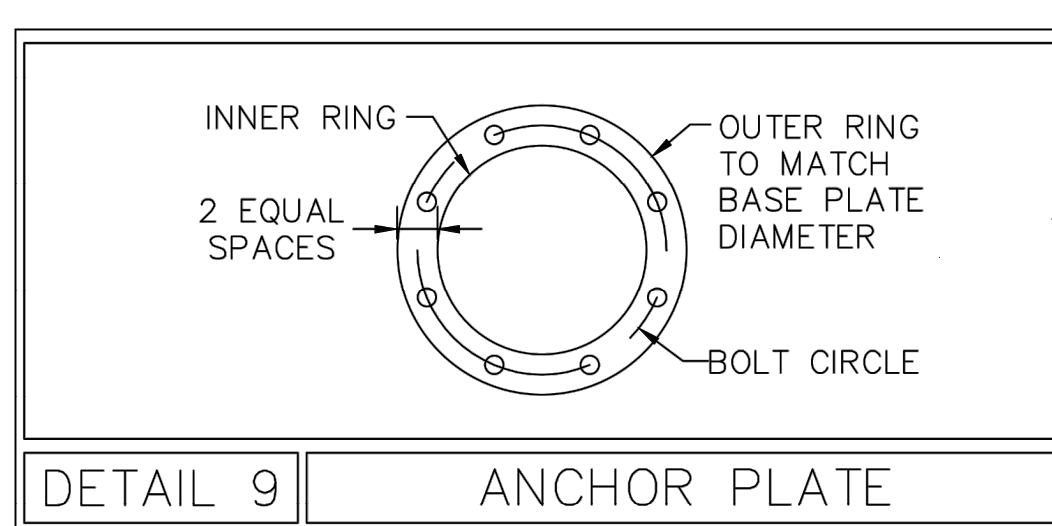
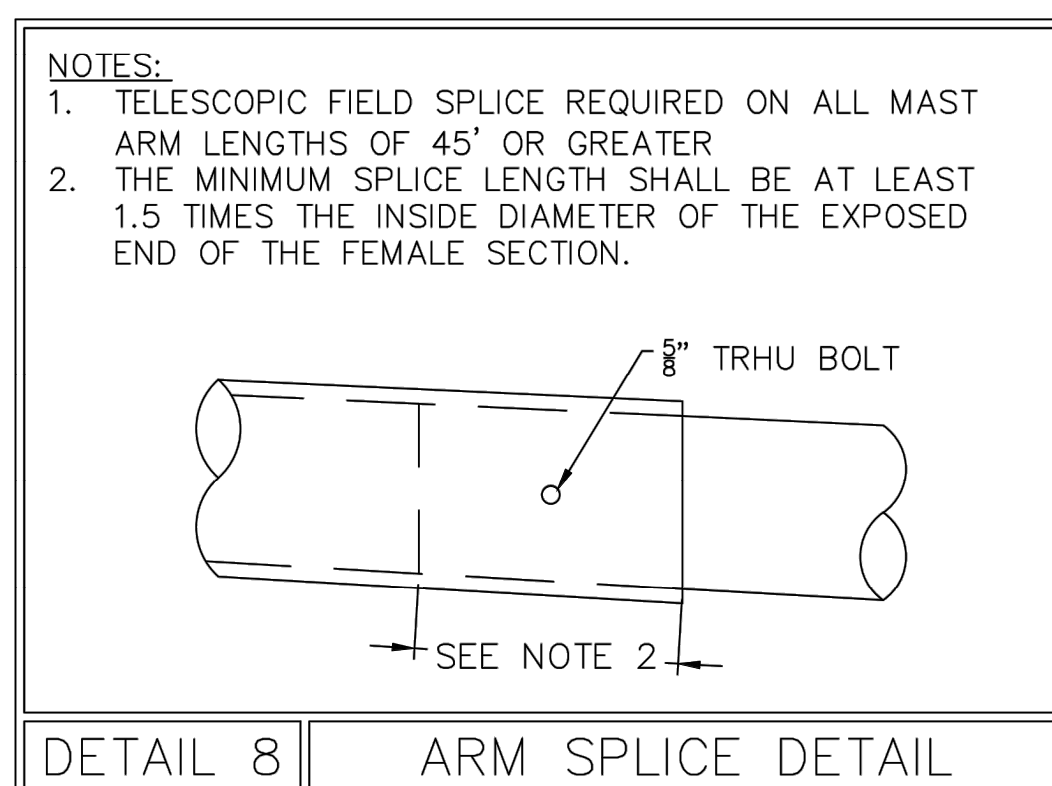
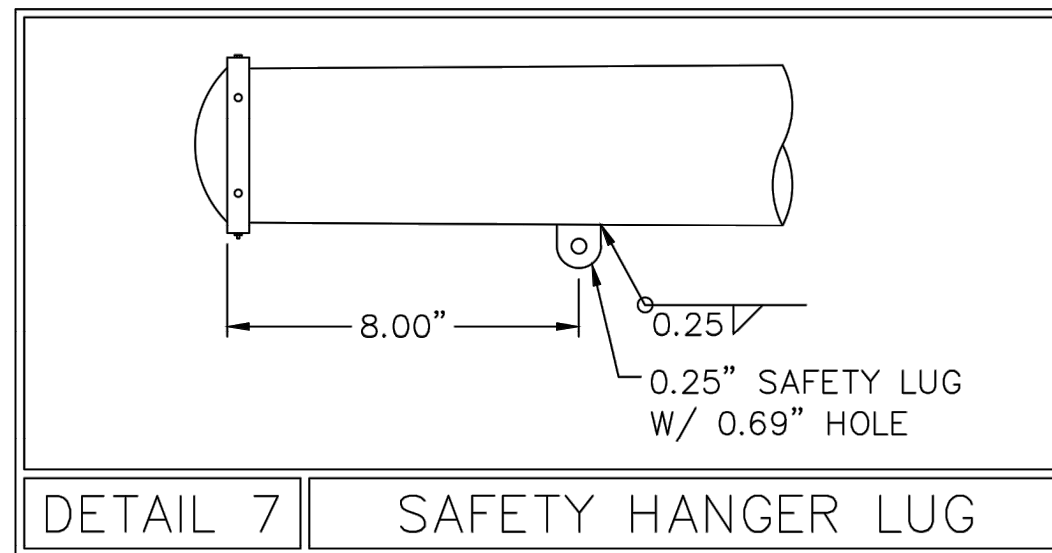
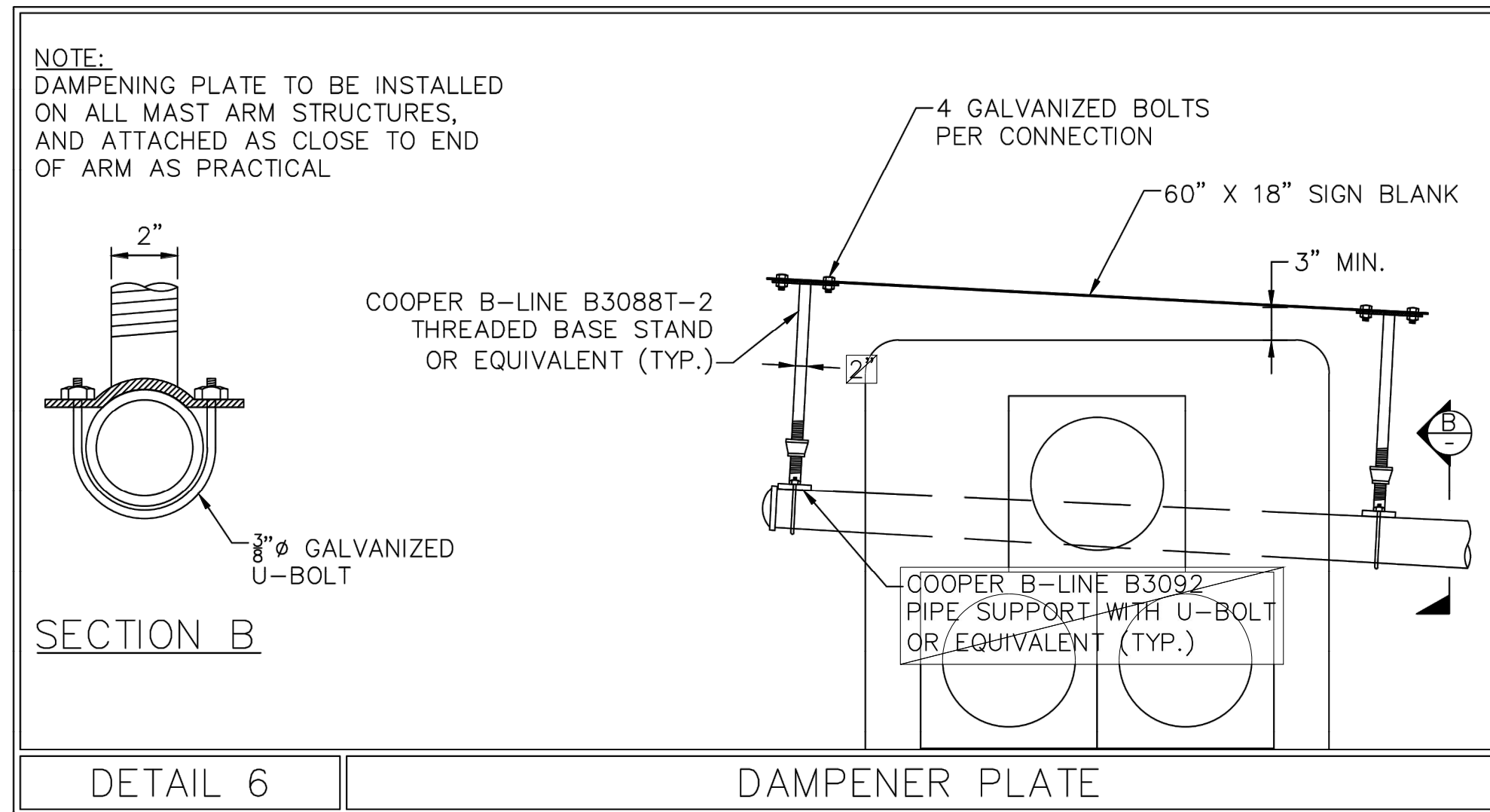
DATE: 5/13/2020

CD5.01



MATERIAL DATA		
COMPONENT	DESIGNATION	YIELD (KSI)
POLE TUBE	ASTM A595 GR. A	55
POLE BASE PLATE	AASHTO M270, OR ASTM A709	50
ANCHOR BOLTS	AASHTO M314, OR ASTM A307 GR. C	55
GALVANIZING	AASHTO M111 OR M232	
ARM TUBE	ASTM A595 GR. A	55
ARM CONNECTION PLATE	AASHTO M270, OR ASTM A709	50
ARM CONNECTING BOLTS	AASHTO M164, OR ASTM A325 **	

** BOLTS WHICH ACCUMULATE RUST OR DIRT SHALL BE DISCARDED.



POLE AND SIGNAL ARM DATA																						
LOCATIONS	SIGNAL ARM TUBE				POLE TUBE				POLE BASE					ANCHOR BOLT		SIGNAL ARM ATTACHMENT DATA						
	SPAN (FT)	FIXED END DIA. (IN)	FREE END DIA. (IN)	WALL THK.	BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	WALL THK.	PLATE CIRCLE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE "Z" (IN)	HOLE "X" (IN)	DIA. "K" (IN)	EMBED. LENGTH "J" (IN)	"A" (IN)	"B" (IN)	"C" (IN)	"D" (IN)	"E" (IN)	"F" (IN)	"G" (IN)
	15.00	9.00	6.90	7 GA.	13.00	9.92	22.00	7 GA.	24.00	19.00	2.00	1.50	10.00	1.25	36.00	17.25	14.00	7.00	2.00	1.00	0.188	7.00
	20.00	9.00	6.20	7 GA.	13.00	9.92	22.00	3 GA.	27.00	22.00	2.00	1.75	10.00	1.50	36.00	17.75	14.50	7.25	2.00	1.00	0.250	7.00
	25.00	10.00	6.50	7 GA.	13.00	9.92	22.00	3 GA.	27.00	22.00	2.00	1.75	10.00	1.50	36.00	18.25	15.00	7.50	2.00	1.00	0.250	7.50
	30.00	11.00	6.80	7 GA.	13.50	10.42	22.00	3 GA.	27.00	22.00	2.00	1.75	10.50	1.50	36.00	18.75	15.50	7.75	2.00	1.00	0.250	8.75
	35.00	12.00	7.10	3 GA.	15.00	11.92	22.00	3 GA.	27.00	22.00	2.00	1.75	12.50	1.50	36.00	20.25	17.00	8.50	2.00	1.25	0.313	6.50
	40.00	13.00	7.40	3 GA.	16.00	12.92	22.00	3 GA.	29.00	24.00	2.00	2.00	12.00	1.75	36.00	21.25	18.00	9.00	2.00	1.25	0.313	6.75
	45.00	13.50	7.20	3 GA.	17.50	14.42	22.00	3 GA.	29.00	24.00	2.00	2.00	12.00	1.75	48.00	22.25	19.00	9.50	2.25	1.25	0.313	8.00
	50.00	14.50	7.50	3 GA.	17.00	13.92	22.00	0 GA.	29.00	24.00	2.00	2.00	12.00	1.75	48.00	22.75	19.50	9.75	2.25	1.25	0.313	8.50
	55.00	16.00	8.30	3 GA.	18.00	14.92	22.00	0 GA.	31.00	26.00	2.00	2.25	12.00	2.00	48.00	23.75	20.00	10.00	2.25	1.25	0.313	8.75
	60.00	16.00	8.00	0 GA.	19.50	16.42	22.00	0 GA.	31.00	26.00	2.00	2.25	14.00	2.00	48.00	25.75	22.00	11.00	2.50	1.50	0.313	7.50

massDOT
Massachusetts Department of Transportation
Highway Division

STANDARD DRAWINGS
OVERHEAD SIGNAL STRUCTURE & FOUNDATION
MAST ARM DETAILS

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

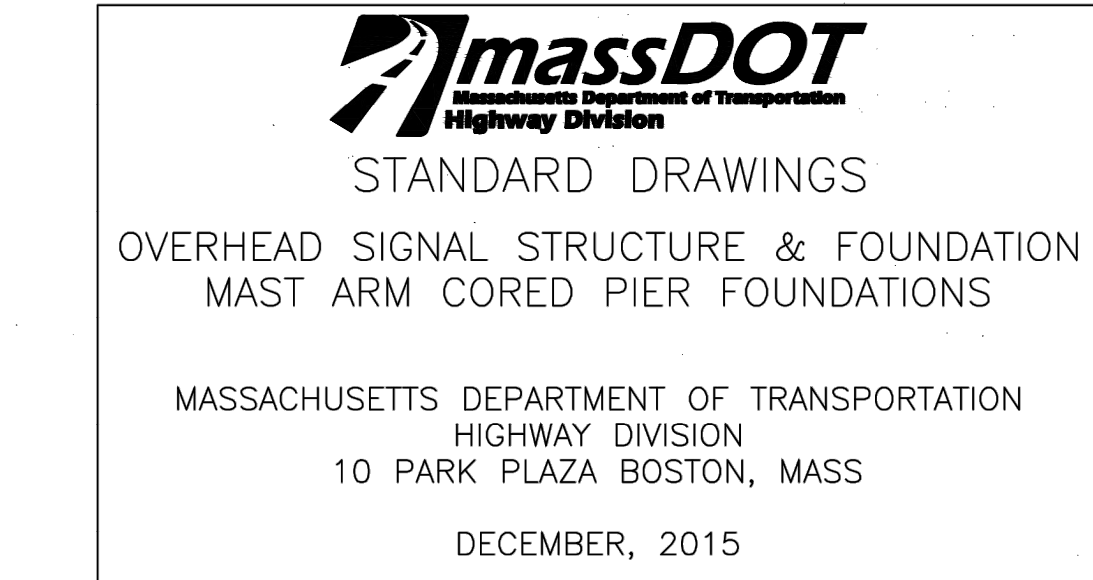
DECEMBER, 2015

SHEET 4 OF 7 SHEETS

SOIL TYPE	15' & 20' MAST ARMS				25' & 30' MAST ARMS				35' & 40' MAST ARMS				45' & 50' MAST ARMS				55' & 60' MAST ARMS			
	DIAMETER	DEPTH	VERT. BARS	TIE BARS	DIAMETER	DEPTH	VERT. BARS	TIE BARS	DIAMETER	DEPTH	VERT. BARS	TIE BARS	DIAMETER	DEPTH	VERT. BARS	TIE BARS	DIAMETER	DEPTH	VERT. BARS	TIE BARS
DRY SAND (LOOSE)	3'-6"	10'-0"	18-#8 #5 @ 12"		3'-6"	10'-6"	18-#8 #5 @ 12"		3'-6"	13'-6"	18-#8 #5 @ 8"		4'-0"	14'-6"	18-#9 #5 @ 6"		4'-6"	15'-6"	18-#10 #5 @ 5"	
DRY SAND (DENSE)	3'-6"	8'-6"	18-#8 #5 @ 12"		3'-6"	9'-0"	18-#8 #5 @ 12"		3'-6"	10'-0"	18-#8 #5 @ 8"		4'-0"	11'-0"	18-#9 #5 @ 6"		4'-6"	11'-6"	18-#10 #5 @ 5"	
WET SAND (LOOSE)	3'-6"	11'-6"	18-#8 #5 @ 12"		3'-6"	13'-6"	18-#8 #5 @ 12"		3'-6"	17'-0"	18-#8 #5 @ 8"		4'-0"	18'-6"	18-#9 #5 @ 6"		4'-6"	19'-6"	18-#10 #5 @ 5"	
WET SAND (DENSE)	3'-6"	10'-0"	18-#8 #5 @ 12"		3'-6"	10'-0"	18-#8 #5 @ 12"		3'-6"	12'-6"	18-#8 #5 @ 8"		4'-0"	13'-6"	18-#9 #5 @ 6"		4'-6"	14'-6"	18-#10 #5 @ 5"	
CLAY (SOFT TO MEDIUM STIFF)	3'-6"	12'-6"	18-#8 #5 @ 12"		3'-6"	13'-0"	18-#8 #5 @ 12"		3'-6"	14'-0"	18-#8 #5 @ 8"		4'-0"	16'-0"	18-#9 #5 @ 6"		4'-6"	17'-6"	18-#10 #5 @ 5"	
CLAY (STIFF)	3'-6"	11'-0"	18-#8 #5 @ 12"		3'-6"	11'-0"	18-#8 #5 @ 12"		3'-6"	12'-0"	18-#8 #5 @ 8"		4'-0"	13'-0"	18-#9 #5 @ 6"		4'-6"	14'-0"	18-#10 #5 @ 5"	

NOTES:

1. FOUNDATIONS SHALL BE 4000 PSI, 565 MASSDOT APPROVED MIX DESIGN.
2. FOUNDATIONS SHALL BE INSTALLED IN ACCORDANCE WITH MASSDOT STANDARD SPECIFICATIONS ITEM 945 – DRILLED SHAFTS
3. REINFORCEMENT SHALL BE ASTM A615 GRADE 60.
4. ANCHOR BOLTS SHALL BE SET BY TEMPLATE.
5. PROVIDE FOR ELECTRICAL CONDUIT.
6. EXCAVATION SHALL BE BY THE AUGER METHOD TO THE NEAT LINES OF THE OUTSIDE DIMENSION OF THE FOUNDATIONS WITHOUT DISTURBING THE SOIL AROUND AND BELOW THE PROPOSED FOUNDATION BOTTOM. ALTERNATE METHODS OF EXCAVATION MAY BE SUBMITTED TO MASSDOT FOR APPROVAL IF THEY MEET THE REQUIREMENTS LISTED IN NOTES 6, 7, AND 8.
7. THE EARTH WALLS OF THE FOUNDATION SHALL BE ADEQUATELY AND SECURELY PROTECTED AT ALL TIMES AGAINST CAVE-INS, DISPLACEMENT OF THE SURROUNDING EARTH AND FOR THE EXCLUSION OF GROUND WATER. THIS MAY BE DONE BY THE USE OF STEEL CYLINDER LINERS OR CASINGS THAT ARE APPROVED BY MASSDOT. IF LINERS ARE USED THEY MAY BE RECLAIMED PROVIDED THAT THEY ARE WITHDRAWN AS THE CONCRETE IS BEING PLACED, MAINTAINING A SUFFICIENT HEAD OF CONCRETE WITHIN THE LINER TO PREVENT REDUCTION IN THE FOUNDATION DIAMETER AND TO PREVENT EXTRANEOUS MATERIAL FROM FALLING IN FROM THE SIDES AND MIXING WITH THE CONCRETE.
8. IF THE SOIL IS DISTURBED OR REMOVED BEYOND THE NEAT LINES OF THE OUTSIDE DIMENSION OF THE FOUNDATION, IT SHALL BE REPLACED WITH CONCRETE. ANY ADDITIONAL COST FOR THE CONCRETE SHALL BE PAID FOR BY THE CONTRACTOR.
9. SPECIAL CARE SHOULD BE GIVEN TO AREAS WHERE WET SOIL IS ENCOUNTERED, TO INSURE THAT THE PREAUGERED HOLE DOES NOT COLLAPSE. THIS MAY REQUIRE THE USE OF STEEL CYLINDER LINERS OR CASINGS TO HOLD THE SOIL IN PLACE UNTIL READY FOR CONCRETE PLACEMENT, UPON APPROVAL FROM THE MASSDOT. THE STEEL CYLINDERS OR CASINGS SHALL BE WITHDRAWN AS THE FOUNDATION CONCRETE IS PLACED.
10. IF LEDGE OR UNSUITABLE SOIL IS ENCOUNTERED (I.E. ONE WHICH DOES NOT APPLY TO THE DESIGN TABLES SHOWN ON THIS SHEET), AN ALTERNATIVE DESIGN SHALL BE PROVIDED BY THE DESIGN ENGINEER. IF UTILITIES OR OTHER UNDERGROUND OBSTRUCTIONS ARE ENCOUNTERED, THE CONTRACTOR SHALL BACKFILL THE AREA TO ITS ORIGINAL CONDITION UNTIL AN ALTERNATE DESIGN HAS BEEN PROVIDED BY THE DESIGN ENGINEER AND APPROVED BY MASSDOT. SPECIAL FOUNDATIONS SHALL BE DESIGNED IN ACCORDANCE WITH BASIS OF DESIGN TABLE ABOVE.
11. A GALVANIZED WIRE MESH SCREEN SHALL BE INSTALLED AT BASE OF POLE. SCREEN SHALL BE PRESS-FORMED OF 3 OR 4 MESH, 21 GAGE OR HEAVIER, STAINLESS STEEL OR HOT DIPPED GALVANIZED WIRE SCREEN OR APPROVED EQUIVALENT. SCREEN SHALL BE SCREWED INTO POLE BASE PLATE, AND SHALL BE FLUSH WITH THE TOP OF THE PIER FOUNDATION.
12. SANDY SOILS WITH STANDARD PENETRATION VALUES GREATER THAN 20 BLOWS PER FOOT SHALL BE CLASSIFIED AS DENSE DRY SAND AND DENSE WET SAND. SANDY SOILS WITH STANDARD PENETRATION VALUES RANGING FROM 6 TO 20 BLOWS PER FOOT SHALL BE CLASSIFIED LOOSE DRY SAND AND LOOSE WET SAND. SANDY SOILS WITH FEWER THAN 6 BLOWS PER FOOT SHALL REQUIRE SPECIAL FOUNDATION DESIGNS BY THE DESIGN ENGINEER AND APPROVED BY MASSDOT. SPECIAL FOUNDATIONS SHALL BE DESIGNED IN ACCORDANCE WITH BASIS OF DESIGN TABLE ABOVE.
13. CLAYS WITH STANDARD PENETRATION VALUES GREATER THAN 6 BLOWS PER FOOT SHALL BE CLASSIFIED AS STIFF CLAY. CLAYS WITH STANDARD PENETRATION VALUES RANGING FROM 2 TO 6 BLOWS PER FOOT SHALL BE CLASSIFIED AS SOFT TO MEDIUM STIFF CLAY. CLAYS WITH FEWER THAN 2 BLOWS PER FOOT SHALL REQUIRE SPECIAL FOUNDATION DESIGNS BY THE DESIGN ENGINEER AND APPROVED BY MASSDOT. SPECIAL FOUNDATIONS SHALL BE DESIGNED IN ACCORDANCE WITH BASIS OF DESIGN TABLE ABOVE.
14. A SANDY SOIL SHALL ONLY BE CLASSIFIED AS 'DRY' IF THE ENTIRE DRY SAND SHAFT LENGTH SITS ABOVE WET SOILS ACCORDING TO THE BORING LOGS. IF ANY PART OF THE SHAFT LENGTH IS CAST AT OR BELOW THE GROUNDWATER LEVEL, THE SOIL SHALL BE CLASSIFIED AS 'WET'.
15. WHERE THE PREDOMINATING SOIL TYPE IS INORGANIC SILT, THE SOIL SHOULD BE TREATED AS CLAY OR WET LOOSE SAND, WHICHEVER LEADS TO A MORE CONSERVATIVE FOUNDATION. INORGANIC SILTS WITH STANDARD PENETRATION N-VALUES LESS THAN 2 BLOWS PER FOOT, ORGANIC SILTS, AND PEAT SHALL REQUIRE SPECIAL FOUNDATION DESIGNS BY THE DESIGN ENGINEER AND APPROVED BY MASSDOT. SPECIAL FOUNDATIONS SHALL BE DESIGNED IN ACCORDANCE WITH BASIS OF DESIGN TABLE ABOVE.
16. WHERE FILL CONTAINS CLAY OR SILT, IT SHOULD BE TREATED AS SOFT CLAY.
17. MAST ARM FOUNDATIONS ARE DESIGNED TO SUPPORT MAST ARMS WITH OR WITHOUT OPTIONAL LUMINAIRE.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT FOUNDATION DIAMETER IS AT LEAST 17.5" GREATER THAN BOLT CIRCLE DIAMETER FOR ALL STRUCTURES
19. IN ORDER TO CREATE A FLUSH SURFACE, CONTRACTOR SHALL REFER TO THE FINAL ELEVATIONS SHOWN ON THE DESIGN PLANS WHEN INSTALLING FOUNDATIONS IMMEDIATELY ADJACENT TO OR WITHIN A SIDEWALK AREA.



Town of Natick, Massachusetts

IFB: Traffic Signals West Natick Fire Station

ADDENDUM NO. 1

TO: Prospective Bidders

PROJECT: IFB: Signals West Natick Fire Station

FROM: Bryan R. Le Blanc
Procurement Officer
Natick Public Works
75 West Street
Natick, MA 01760
(508)- 647-6438

DATE: May 21, 2020

Please also acknowledge via return correspondence upon receipt.

This addendum shall be acknowledged as indicated on the bid form, which is included with the IFB, and which shall be submitted to the Town. Failure to acknowledge Addendum No. 1 in the bid form may result in rejection of your firm's bid.

This addendum consists of fourteen (14) pages (including this one).

REVISIONS TO SOLICITATION

"Appendix C, MassDOT Permit 3-2018-0459" has been added to Appendices in Table of Contents.

"1.8. B Existing Permits – 1. Comply with the requirements of MassDOT Permit 3-2018-0459. A copy of this permit is included in Appendix C." has been added to Division 1 – General Requirements, Section 01110 – Summary of Work.

Appendix C, MassDOT Permit 3-2018-0459 has been added to the Project Manual.

No other addenda have been issued to date. All other terms of the bid remain unaltered.

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- A Prevailing Wage Rates
- B Contract Drawings (separately bound)
- C [MassDOT Permit 3-2018-0459](#)

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01110 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 Summary

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Work under separate contracts.
 - 4. Access to site.
 - 5. Coordination with occupants.
 - 6. Work restrictions.

1.3 Project Information

- A. Project Identification: West Natick Fire Station 4 Signal Improvements Project.
 - 1. Project Location: 268 Speen Street, Natick, MA.

- B. Owner:
 - Town of Natick
 - 13 East Central Street
 - Natick, MA 01760
 - Contact: Ms. Melissa Malone, Town Administrator
 - Telephone: (508) 647-6400

- C. Owner's Representative:
 - The Vertex Companies, Inc.
 - 400 Libbey Parkway
 - Weymouth, MA 02189
 - Contact: Mr. William C. Nangle
 - Telephone: (508) 277-0129
 - Email: wnangle@vertexeng.com

- D. Engineer:
 - Fuss & O'Neill, Inc.
 - 108 Myrtle Street, Suite 502
 - Quincy, MA 02021
 - Contact: Mr. Kevin C. McGarry, PE

Telephone: (617) 282-4675
Email: kmcgarry@fando.com

- E. Architect:
TectonArchitects
34 Sequassen Street, Suite 200
Hartford, CT 06106
Contact: Ms. Rebecca Hopkins, AIA, NCARB, EDAC
Telephone: (860) 990-6492
Email: rebeccah@tectonpc.com

- F. Fire Station General Contractor
Castagna Construction
100 Conifer Hill Drive, Unit 507
Danvers MA. 01923
Contact: Abe Hafiani
Telephone: (978) 465-2800
Email: ahafiani@castagnaconstruction.com

1.4 Work Covered By Contract Documents

- A. The Work of Project is defined by the Contract Documents and consists of furnishing all necessary labor, tools, materials and equipment required for the following:
1. Construction of an emergency traffic signal for the West Natick Fire Station.
- B. The Work shall be performed in conformance with the following:
1. Commonwealth of Massachusetts Highway Department (MassDOT) Standard Specifications for Highways and Bridges 2020 Edition.
 2. The latest Manual on Uniform Traffic Control Devices (MUTCD) with Massachusetts Amendments.
 3. The MassDOT October 2017 Construction Standard Details
 4. The MassDOT 2015 Overhead Signal Structure and Foundation Standard Drawings
 5. The MassDOT 1990 standard drawings for signs and supports.
 6. The MassDOT 1968 Standard Drawings for Traffic Signals and Highway Lighting.
 7. The Special Provisions.

1.5 Work Under Separate Contracts

- A. Concurrent Work: Owner has awarded separate contract(s) for the following construction operations at Project site. Those operations will be conducted simultaneously with work under this Contract.
1. West Natick Fire Station 4: To Castagna Construction for the construction of a new fire station.
 2. Coordinate the work with Castagna Construction throughout the duration of the contract.

1.6 Access to Site

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated. Coordinate with Castagna Construction for site logistics.

1.7 Coordination With Occupants

- A. Maintain roadway services throughout the duration of the project unless specifically approved by the Owner and MassDOT.

1.8 Work Restrictions

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. [Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.](#)
- B. [Existing Permits:](#)
 - 1. [Comply with the requirements of MassDOT Permit 3-2018-0459. A copy of this permit is included in Appendix C.](#)

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

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Appendix C

MassDOT Permit 3-2018-0459

Permit Number: 3-2018-0459

NATICK

Subject to all of the terms, conditions and restrictions printed or written below, and on the reverse side hereof, permission is hereby granted to the **TOWN of NATICK** to enter upon the State Layout in the **TOWN OF NATICK** on the road known as **AUTO 9, 286 Speen Street** for the purpose of constructing curbing, guard rail and ADA compliant sidewalk, as indicated on the plan submitted and on file in the District Three Permits Office.

**PRIOR TO THE START OF ANY WORK BEING CONDUCTED WITHIN THE
STATE HIGHWAY LAYOUT CONTACT THE FOLLOWING 5 DAYS IN
ADVANCE:**

Dave Blodgett – District Permit Compliance Engineer @ 617-892-3640

Provide the Permit #, date work is to be started, contractor who will perform the work, name, address, and telephone number of person to be contact in case of emergency.

SPECIAL CONDITION:

- *All maintenance and repair work in regards to the sidewalk (including but not limited to snow removal) shall be the sole responsibility of the applicant.*

WORK HOURS:

No equipment, trucks, etc. shall occupy any part of the traveled way except between the hours of **9:00 AM and 3:30 PM from Monday through Friday**. No work shall be allowed on holidays or at any times between and including the day before or the day after a long weekend which involves a holiday without the permission of the District Maintenance Engineer.

All operations shall be conducted so as not to interfere with, interrupt, or endanger the general public or the traffic flow.

At any time during construction operations when a traffic delay of over twelve (12) minutes occurs and the situation is worsening, the Grantee or the Department shall begin to suspend operations. Continuously increasing delays of over twelve (12) minutes shall not be permitted. When it appears that delays are developing, one or more of the parties mentioned above shall drive the queue to determine the actual time of delay. Monitoring of traffic delays will be a continuous process until the job activity is complete and off the traveled way or until the determination is made to suspend operations.

In no case will operations commence prior to the specified hours of this Permit. This includes traffic set-ups that restrict the flow of traffic upstream of and through the construction zone.

GENERAL:

All work shall be performed in accordance with the 1988 Massachusetts Highway Department Standard Specifications for Highways and Bridges (English Edition); the Supplemental Specifications (English Edition), dated February 25, 2010; the 2010 Construction Standards; the current Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) with latest revisions; the 1990 Standard Drawings for Traffic Signals and Highway Lighting; and the American Standard for Nursery Stock Current Edition (ANSI Z-60.1-2004).

The equipment necessary to perform the proposed work shall be located off of the roadway as much as possible.

Only equipment to be used in the actual construction work shall be allowed within the State Highway location.

All personnel who are working in the State Highway Layout shall wear safety vests and hardhats.

Free flow of traffic shall be maintained at all times.

No metal drums are allowed within the State Highway Layout.

UNIFORMED POLICE OFFICERS SHALL BE IN ATTENDANCE TO DIRECT TRAFFIC.

All excavated material, including bituminous concrete, cement concrete, stone, gravel, etc., shall be removed from the State Highway Layout. No stockpiling will be allowed within the State Highway Layout.

All required signs and traffic warning devices, **including the use of arrowboard(s)**, shall be furnished by the Grantee. All signs and devices shall be in accordance with the current edition of the F.H.W.A. Manual on Uniform Traffic Control Devices. The number and location of all signs and devices shall be as deemed necessary by the Engineer for the safe and efficient performance of the work and the safety of the traveling public.

All warning devices shall be subject to removal, replacement and/or repositioning by the Grantee as often as deemed necessary by the Engineer.

Cones or non-reflectorized warning devices shall not be left in operational position on the highway when the daytime operations have closed. If it becomes necessary for the MassDOT Highway Division to remove any warning devices or appurtenances from the project due to negligence by the Grantee, all costs for this work will be charged to the Grantee.

All vehicles excepting passenger cars which are assigned to the permitted project and which operate on the site at speeds of 25 mph or less shall have an official SLOW MOVING VEHICLE emblem displayed.

The shoulder area shall be restored to as good condition as existed prior to the construction work.

All grassed areas where disturbed shall be restored to as good condition as found by loaming and seeding.

Care shall be exercised to protect existing underground structures.

The bounds marked MHB shall not be disturbed or buried.

All street approaches and driveways where disturbed shall be replaced conforming to original alignment, grade and materials.

The Grantee shall exercise this permit subject to all the rules and regulations made from time to time by the said MassDOT Highway Division and nothing in the permit shall be construed as authorizing any installation or maintenance thereof except in strict conformity with all Federal, State and Municipal laws, ordinances and regulations.

The Grantee shall indemnify and save harmless the Commonwealth and its MassDOT Highway Division against all suits, claims or liability of every name and nature arising at any time out of or in consequence of the Acts of the Grantee in the performance of the work covered by this permit and/or failure to comply with the terms and conditions of this permit whether by itself or its employees or subcontractors.

A copy of this permit will be made available at the project site at all times during the progress of work for inspection by Department Personnel. Should the Grantee or contractor not have a copy at the site, the work will be stopped until such permit is made available.

This office will be notified prior to the start of work under the provisions of this permit.

ALL OF SAID WORK SHALL BE DONE AS DIRECTED AND TO THE SATISFACTION OF THE ENGINEER FROM THIS DEPARTMENT.

No work shall be done under this permit until the Grantee shall have communicated with and received instructions from the District Highway Director of the MassDOT Highway Division listed below.

"FOLLOWING CONDITIONS APPLY TO PERMITS"

Conditions Relating Particularly to Permits for the Laying of Pipes, Conduits, etc.

After any pipes, conduits, drains or other underground structures are laid, or any excavation is made in the roadway, the trenches or openings shall be properly backfilled with suitable material, the back-filling shall be thoroughly tamped, and the surface of the

road over said structures shall be left even with the adjoining ground. If the work is done in cold weather no frozen material shall be used for back-filling.

Wherever the hardened surface of the roadway, gutters, or any part of the surface of the highway is disturbed it shall be replaced in as good condition as before it was disturbed, and if new materials are required they shall correspond with those already in place on the road. Where service pipes are to cross the highway the connections shall be made without disturbing the hardened surface of the roadway, by driving the pipes under the roadway, or the service pipes shall be carried under and across the road in a larger pipe, unless otherwise ordered by the Director.

The Grantee shall maintain the surface of the roadway over said structures as long as MassDOT may deem necessary, until all signs of the trenches shall have been eliminated. Conditions Relating Particularly to Permits for the Erection of Poles, Wires, and Overhead Structures, and the Cutting and Trimming of Trees In the erection of pole lines, unless otherwise herein provided, no trees located within the limits of the State Highway shall be cut or trimmed. No guy wires shall be attached to trees without a special permit from MassDOT, and in no event shall they be so attached as to girdle the trees or in any way interfere with their growth. The wires shall be so protected at all time and places that they shall not interfere with or injure the trees either inside or outside the location of the highway.

Where the cutting or trimming of trees is authorized by this permit, only such cutting and trimming shall be done as may be designated by the Director. In the construction or reconstruction of pole lines no guy wires shall be erected nearer to the surface of the ground than six feet; provided, however, that the owners of such lines may maintain such guy wires at a lower elevation than six feet from the ground until such time as MassDOT shall notify them to remove said wires or to the elevation first stated.

In order to protect the trees through which any wires may pass, said wires shall be insulated and such other tree guards used as may be directed by the Director. Where high tension wires are erected under this permit, they shall be so located that, under conditions of maximum severity as regards a coating of ice or snow, there shall be a space of at least eight feet between such high tension wires and other wires.

The Grantee shall, within sixty days from the date of completion of the work, file in the office of MassDOT a plan showing the location of each pole erected in accordance with the permit, said plan to be of such size and in such form as MassDOT may direct.

General and Additional Conditions

Whenever the word "MassDOT" is used herein it shall mean the Massachusetts Department of Transportation of the Commonwealth of Massachusetts. Whenever the word "Director" is used herein it shall mean the District Highway Director or other authorized representative of MassDOT. Whenever the word "Grantee" is used herein it shall mean the person or persons, corporation or municipality to whom this permit is granted, or their legal representatives. During the progress of the work all structures underground and above ground shall be properly protected from damage or injury; such

barriers shall be erected and maintained as may be necessary for the protection of the traveling public; the same shall be properly lighted at night; and the Grantee shall be responsible for the damages to persons or property due to or resulting from any work done under this permit. Except as herein authorized, no excavation shall be made or obstacle placed within the limits of the State highways in such a manner as to interfere unnecessarily with the travel over said road. If any grading of sidewalk work done under this permit interferes with the drainage of the State highway in any way, such catch basins and outlets shall be constructed as may be necessary, in the opinion of the Director, to take proper care of such drainage.

Wherever the hardened surface of the roadway is disturbed and the Director may consider it necessary or advisable to do so, said surface will be restored by the employees of MassDOT, at such time as MassDOT may direct, and the expense thereof shall be borne by the Grantee, who shall purchase and deliver on the road the materials necessary for said work if and when directed by the Director. All payments to the supplier and Page 2 of 3 District 3, 403 Belmont Street Worcester, MA 01604 Tel: (508) 929-3800, FAX: (508) 799-9763 www.mass.gov/orgs/highway-division laborers, inspectors, etc., employed by MassDOT for or on account of the work herein contemplated shall be made by said Grantee forthwith on receipt of written orders, pay rolls, or vouchers approved by MassDOT.

IF THE GRANTEE DOES ANY WORK CONTRARY TO THE ORDERS OF THE DIRECTOR, AND, AFTER DUE NOTICE, FAILS TO CORRECT SUCH WORK OR TO REMOVE STRUCTURES OR MATERIALS ORDERED TO BE REMOVED, OR FAILS TO COMPLETE WITHIN THE SPECIFIED TIME THE WORK AUTHORIZED BY TIDS PERMIT, MASSDOT MAY, WITH OR WITHOUT NOTICE, CORRECT OR COMPLETE SUCH WORK IN WHOLE OR IN PART, OR REMOVE SUCH STRUCTURES OR MATERIALS, AND THE GRANTEE SHALL REIMBURSE

MASSDOT FOR ANY EXPENSE INCURRED IN CORRECTING AND/OR COMPLETING THE WORK OR REMOVING THE STRUCTURES OR MATERIALS.

ALL OF THE WORK HEREIN CONTEMPLATED SHALL BE DONE UNDER THE SUPERVISION AND TO THE SATISFACTION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, AND THE ENTIRE EXPENSE THEREOF SHALL BE BORNE BY THE GRANTEE.

On the completion of the work herein contemplated all rubbish and debris shall be removed and the roadway and roadsides shall be left neat and presentable and satisfactory to the Director. MassDOT hereby reserves the right to order the change of location or the removal of any structure or structures authorized by this permit at any time, said change or removal to be made by and at the expense of the Grantee or its I their successors or assigns. This permit may be modified or revoked at any time by MassDOT without rendering said MassDOT or the Commonwealth of Massachusetts liable in any way.

The Grantee shall pay the salary, subsistence and travel expenses of any inspector appointed by MassDOT to supervise the work herein contemplated. All of the above



Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, Secretary & CEO
Jonathan L. Gulliver, Highway Administrator



Approved Signature

A handwritten signature in cursive script, appearing to read "Barry Lorion", written over a horizontal line.

Barry Lorion by J.G.
District Highway Director

Date of Issue: May 6, 2020

Permit Expiration: Tuesday, April 27, 2021

Town of Natick, Massachusetts

IFB: Traffic Signals West Natick Fire Station

ADDENDUM NO. 2

TO: Prospective Bidders

PROJECT: IFB: Signals West Natick Fire Station

FROM: Bryan R. Le Blanc
Procurement Officer
Natick Public Works
75 West Street
Natick, MA 01760
(508)- 647-6438

DATE: May 27, 2020

Please also acknowledge via return correspondence upon receipt.

This addendum shall be acknowledged as indicated on the bid form, which is included with the IFB, and which shall be submitted to the Town. Failure to acknowledge Addendum No. 2 in the bid form may result in rejection of your firm's bid.

This addendum consists of twenty-eight (28) pages (including this one).

REVISIONS TO SOLICITATION

“Appendix D, Traffic Signal As-Built, Natick, Massachusetts” and “Appendix E, Bidder’s Questions” have been added to Appendices in Table of Contents.

Appendix D, Traffic Signal As-Built, Natick, Massachusetts, has been added to the Project Manual.

Appendix E, Bidder’s Questions, has been added to the Project Manual

Addendum No. 1 was issued on May 21, 2020. All other terms of the bid remain unaltered.

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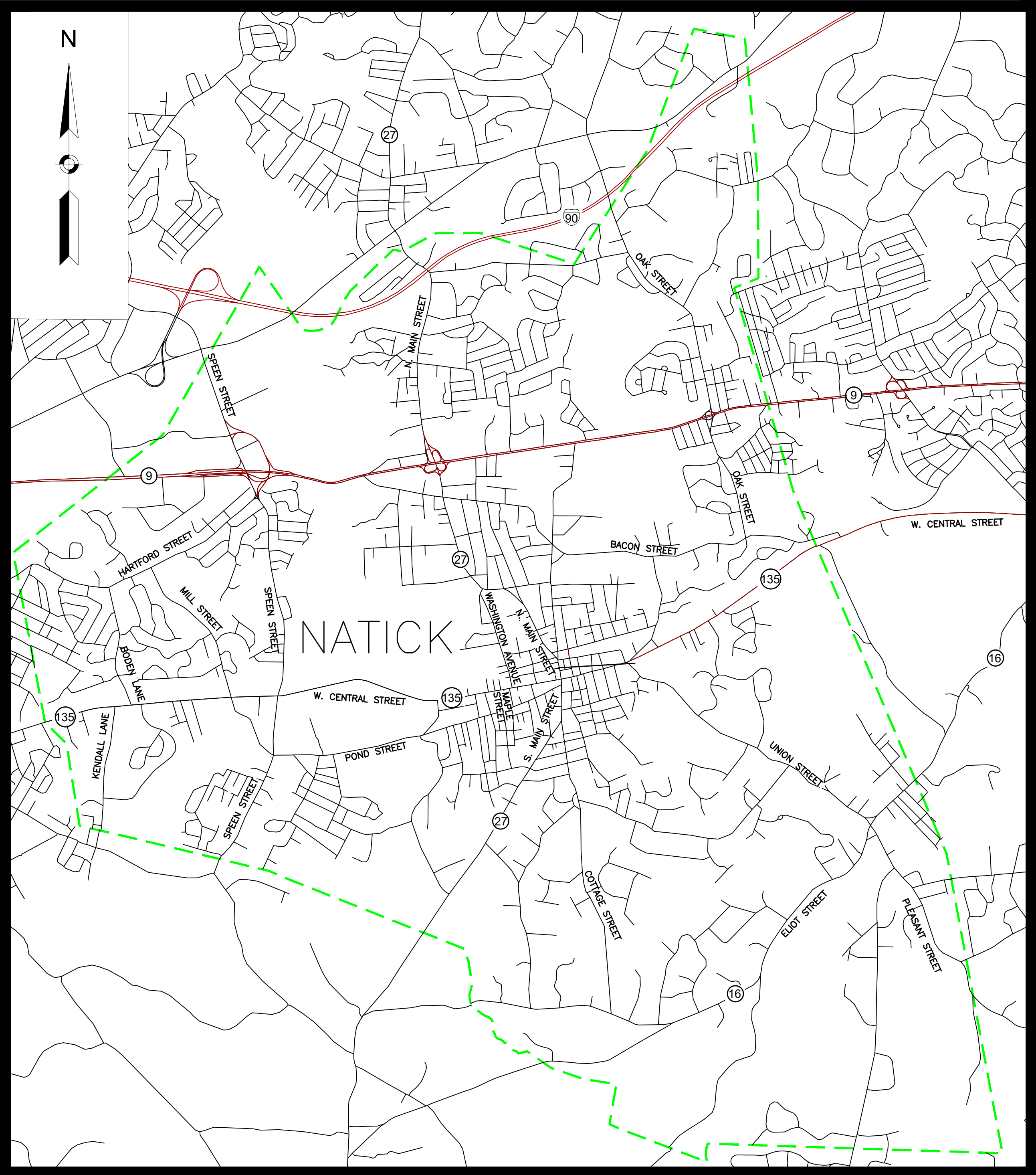
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 - C MassDOT Permit 3-2018-0459
 - [D Traffic Signal As-Built, Natick, Massachusetts](#)
 - [E Bidder's Questions](#)

Appendix D

Traffic Signal As-Built, Natick, Massachusetts

TRAFFIC SIGNAL AS-BUILT

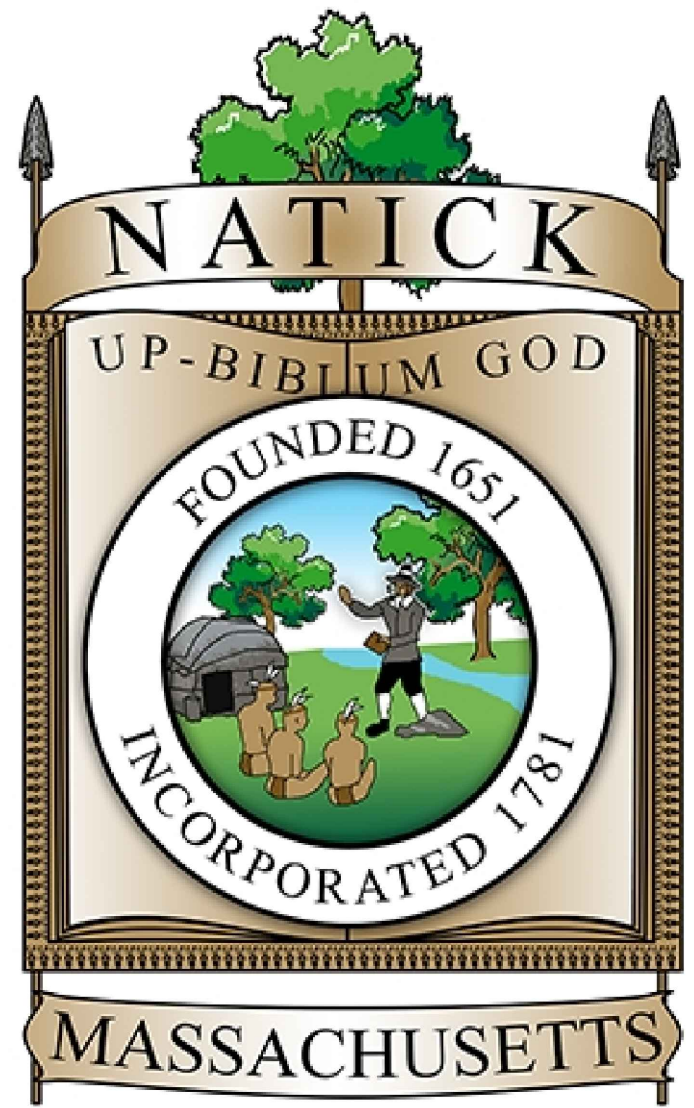
NATICK, MASSACHUSETTS



SCALE 1" = 2000'

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4	LOC. 04 - HARTFORD ST @ MILL ST
5	LOC. 05 - E. CENTRAL ST (RTE 135) @ MARIAN ST/UNION ST
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14	LOC. 14 - SPEEN ST @ NOUVELLE WAY
15	LOC. 15 - SPEEN ST @ CHRYSLER RD
16	LOC. 16 - W. CENTRAL ST/E. CENTRAL ST (RTE 135) @ N. MAIN ST/S. MAIN ST (RTE 27)
17	LOC. 17 - W. CENTRAL ST (RTE 135) @ WASHINGTON AVE
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19	LOC. 19 - W. CENTRAL ST (RTE 135) @ MILL ST
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21	LOC. 21 - COMMONWEALTH RD (RTE 30) @ T.JX DRIVE
22	LOC. 22 - W. CENTRAL ST (RTE 135) @ W. NATICK MBTA STATION



GPI Greenman-Pedersen, Inc.
Engineers, Architects, Planners, Construction Engineers & Inspectors

181 Ballardvale Street, Suite 202, Wilmington, MA 01887
Tel: (978) 570-2999 Fax: (978) 658-3044
<http://www.gpinet.com>



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PREPARED FOR
DEPT. OF PUBLIC WORKS
75 WEST ST
NATICK, MA

TRAFFIC SIGNAL INVENTORY

NATICK, MASSACHUSETTS

REVISIONS

[illegible]

NO.	REVISION	DATE
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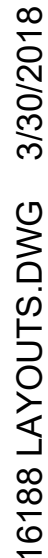
3/30/18

DRAWN/DESIGN BY CTW	CHECKED BY JWD
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TITLE SHEET & INDEX

SCALE:
AS NOTED

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RING STRUCTURE

Barriers

```
graph TD
    subgraph Ring1 [Ring 1]
        a((a)) --> 1[1]
        1 --> 3[3]
        3 --> 2[2]
        2 --> a
    end
    subgraph Ring2 [Ring 2]
        b((b)) --> n1[ ]
        n1 --> n2[ ]
        n2 --> b
    end
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        B1[ ]
        B2[ ]
        B1 --- B2
    end
    B1 --> B2
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Ring 1 a →

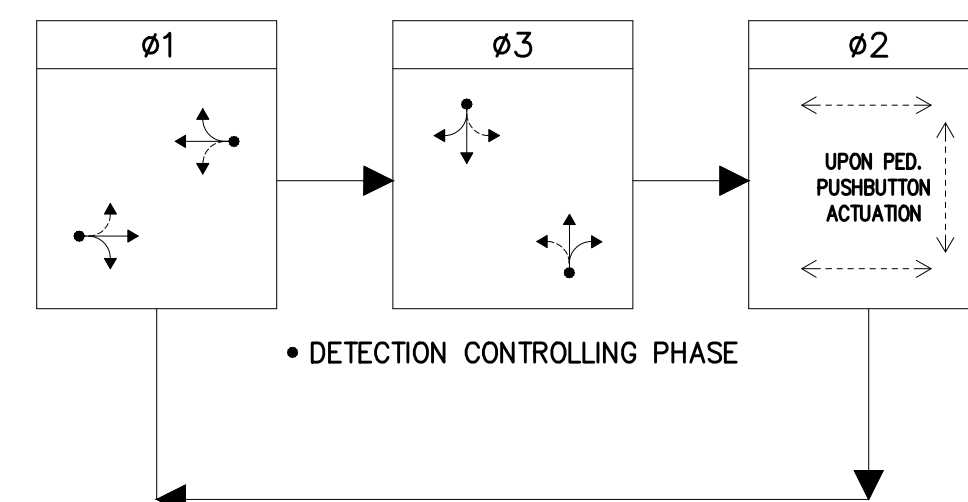
Ring 2 b →

1	3	2	

→ return to a

→ return to b

PREFERENTIAL PHASE SEQUENCE



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DEPT. OF PUBLIC WORKS
75 WEST ST
NATICK, MA

TRAFFIC SIGNAL INVENTORY

NATICK, MASSACHUSETTS

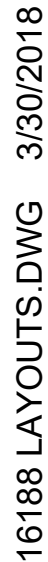
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3/30/18		
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TRAFFIC SIGNAL AS-BUILT





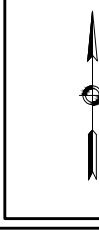
LOCATION 1

SCALE: 1"=20'

2 OF 22



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PRE-TIMED	<input type="checkbox"/>	WIRE	<input checked="" type="checkbox"/> TBCU <input type="checkbox"/>

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	FLASH OPER.
EAST CENTRAL STREET	EB	A,B	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
EAST CENTRAL STREET	EB	C,D	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR
EAST CENTRAL STREET	WB	E,F	FY	Y	R	R	R	R	R	R	R	R	R	R	FY
FIRE STATION	SB	G,H	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR
HAYES STREET	SB	J,K	FR	FR	FR	R	R	R	FR	FR	FR	G	Y	R	FR
PEDESTRIAN	ALL	P1-P6	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	OUT

	7					7			2		
MINIMUM INITIAL	2.7					2.7			2.4		
PASSAGE	29					29			16		
MAXIMUM 1	56					56			16		
MAXIMUM 2		3.0	1.0				3.0	1.0		3.0	1.0
CHANGE					5.0	12.0	0.0				
PEDESTRIAN											
RECALL											
MEMORY											

MIN

NON-LOCKING

OFF

LOCKING

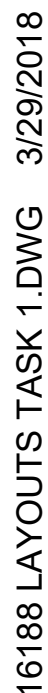
OFF

NON-LOCKING

OFF

NON-LOCKING

EMERGENCY



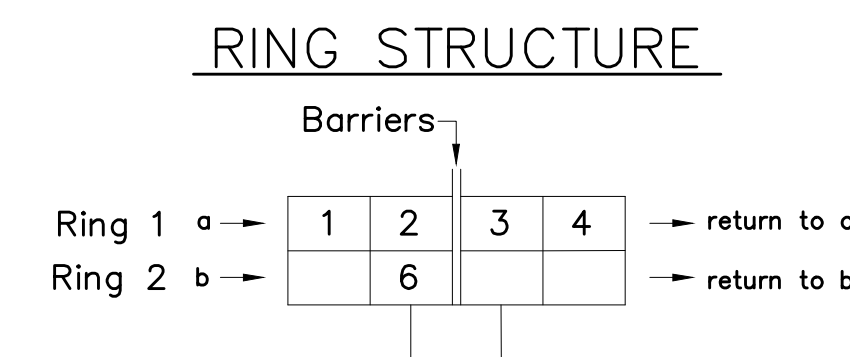
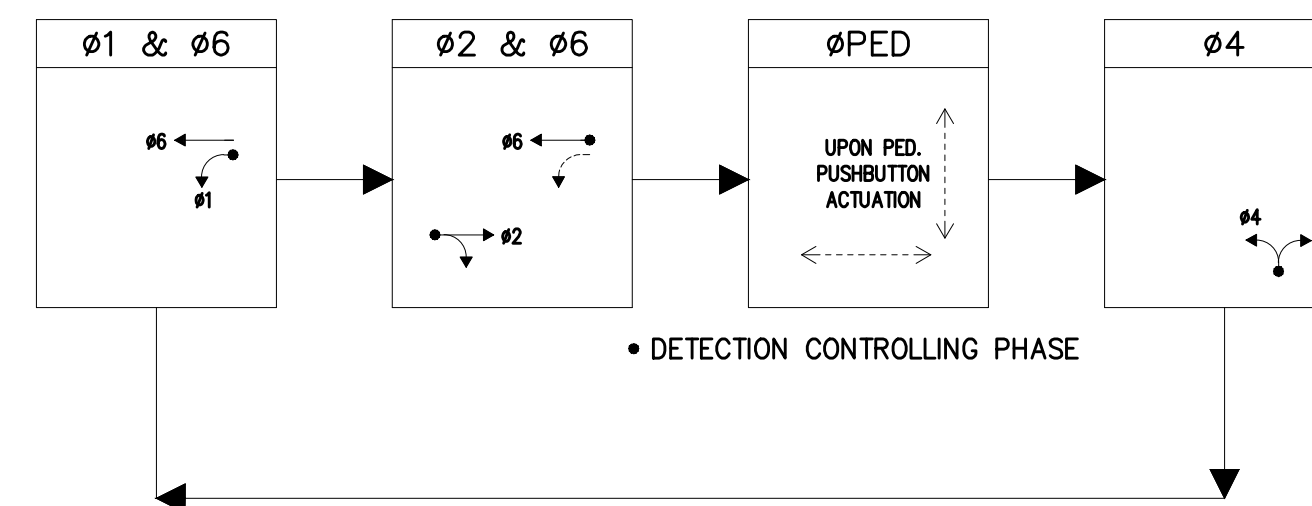
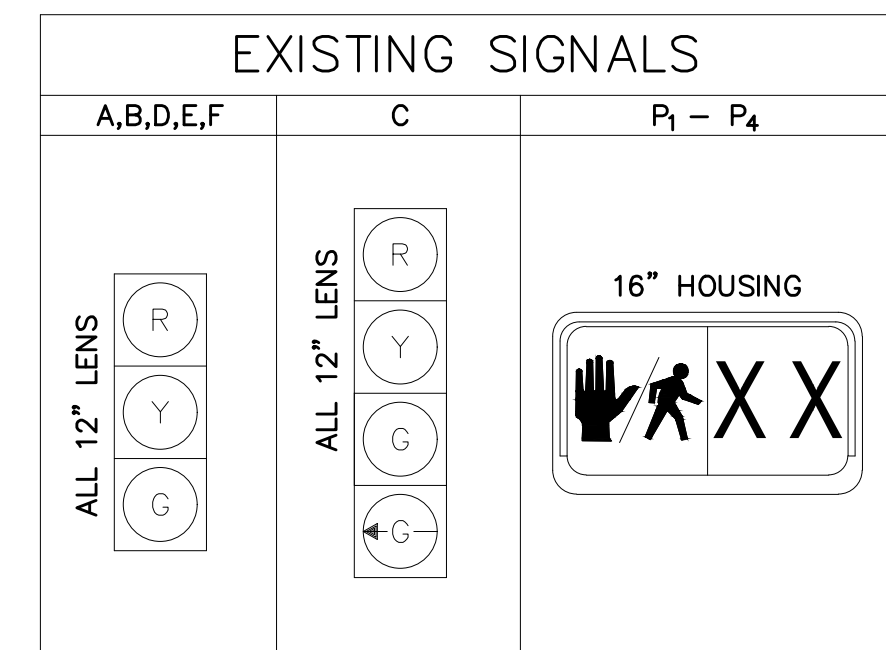
LEGEND:

- ☒ SIGNAL CONTROLLER AND CABINET
- ↖ VEHICULAR SIGNAL
- ⏏ PEDESTRIAN SIGNAL
- ⦿ PEDESTRIAN PUSH BUTTON
- ◀ PREEMPTION RECEIVER
- ✱ PREEMPTION STROBE LIGHT

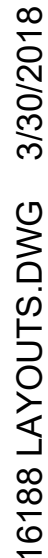
TRAFFIC CONTROLLER DATA	
PARAMETER	SELECTION
PHASE ASSIGNMENTS	STD. NEMA
OVERLAPS	STD. NEMA
RINGS	DUAL
DUAL ENTRY	ON (02 & 06) (04 & 08)
SIMULTANEOUS GAP OUT DISABLED	YES (02 & 06) (04 & 08)
MINIMUM YELLOW IN SECONDS	3
MAX II BY INTERNAL CLOCK	YES
NIGHT TIME FLASH BY INTERNAL CLOCK	NOT USED

LOOP DETECTOR DATA								
DETECTOR NO.	NUMBER AND SIZE	SPLICE PATTERN	NO. OF TURNS	ø CALLED	ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
①	2-6"x20'	PARALLEL	QUAD. TYPE	1	1+6	B	-	-
②	2-6"x20'	PARALLEL	QUAD. TYPE	2	2	B	-	-
④	2-6"x20'	PARALLEL	QUAD. TYPE	4	4	B	-	-
⑥	2-6"x20'	PARALLEL	QUAD. TYPE	6	6	B	-	-

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR TCT LSM-12
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
2	SPAN WIRE ASSEMBLY, BASE & FDN (75FT SPAN)
3	8' SIGNAL POST, BASE & FDN
2	10' SIGNAL POST, BASE & FDN
5	SIGNAL HEAD, 3 SECTION
1	SIGNAL HEAD, 4 SECTION
2	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
5	LOAD SWITCHES (12 SLOTS)
3	FLASH TRANSFER RELAYS (6 SLOTS)
7	PULL BOX 12"X12"
4	PEDESTRIAN HOUSING GRAPHIC LED WITH COUNTDOWN TIMER
4	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSH BUTTON INTEGRATED SIGN & SADDLE WITH LED CONFIRMATION LIGHT
8	ROADWAY VEHICLE LOOP DETECTOR (QUADRUPOLE TYPE)





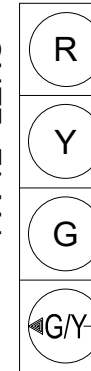

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SEMI-ACTUATED <input type="checkbox"/>		COORDINATED <input type="checkbox"/>																					
PRE-TIMED <input type="checkbox"/>		WIRE <input type="checkbox"/> TBCU <input type="checkbox"/>																					
SEQUENCE AND TIMING																							
STREET		DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	FLASH OPER.				
HARTFORD STREET		EB	A,B	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FY	
HARTFORD STREET		WB	C	G-GLY-YL	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	FY	
HARTFORD STREET		WB	D	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	FY	
MILL STREET		NB	E,F	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FR	
PEDESTRIAN			P1-P4	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT	
TIMING IN SECONDS																							
MINIMUM INITIAL				4				10					4				10						
PASSAGE				3				3					3				3						
MAXIMUM 1 (6:00AM - 10:00AM)				11				56					35				72						
MAXIMUM 2				11				36					25				52						
CHANGE					4.5	1.0			4.5	1.0				3.0	1.5			4.5	1.0				
PEDESTRIAN										7	13	4											
RECALL				OFF			MIN			OFF			OFF			MIN			EMERGENCY				
MEMORY				LOCKING			LOCKING			LOCKING			LOCKING			LOCKING							



NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

LEGEND:

- ☒ SIGNAL CONTROLLER AND CABINET
- ➔ VEHICULAR SIGNAL
- ⏏ PEDESTRIAN SIGNAL
- ⦿ PEDESTRIAN PUSH BUTTON
- ◊ PREEMPTION RECEIVER
- ✱ PREEMPTION STROBE LIGHT

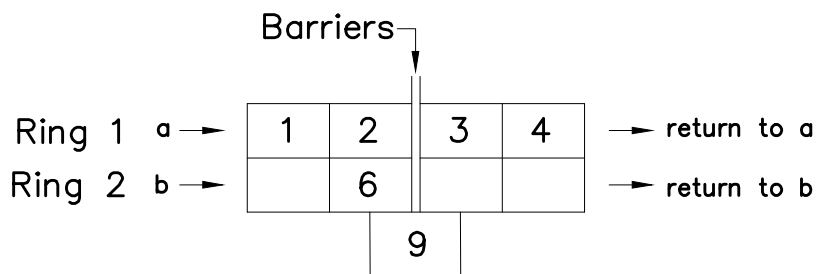
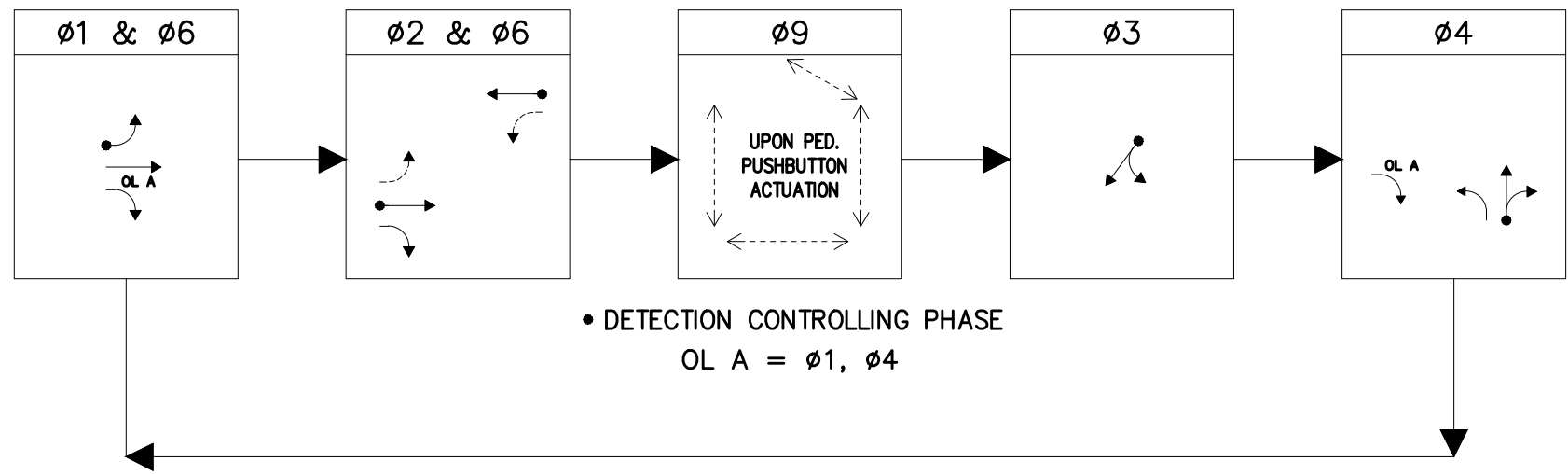
EXISTING SIGNALS			
B,D,E,F,G,H,K,J	A	C	P1-P8
<p>3 X 12" LENS</p> 	<p>4 X 12" LENS</p> 	<p>4 X 12" LENS</p> 	 <p>12" X 12" LENS</p>

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS2 TYPE 1 w/FDN
1	TRAFFIC CONTROLLER EPAC300
1	CONFLICT MONITOR EDI MMU-16
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
1	25' TYPE 2 MAST ARM ASSEMBLY
2	35' TYPE 2 MAST ARM ASSEMBLY
5	8' SIGNAL POST, BASE & FDN
11	SIGNAL HEAD
8	PEDESTRIAN HOUSING GRAPHIC LED
7	PEDESTRIAN PUSH BUTTON
	ROADWAY VEHICLE LOOP DETECTOR
8	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
7	LOAD SWITCHES (12 SLOTS)
3	FLASH TRANSFER RELAYS (6 SLOTS)
15	PULL BOX 12"x12" - SD2.031
4	RECEIVER
1	STROBE

EMERGENCY VEHICLE PREEMPTION			
EB	WB	NB	SWB
PREEMPT#1	PREEMPT#2	PREEMPT#3	PREEMPT#4

EAST CENTRAL STREET @ MARION/UNION STREET DAILY & WEEKLY PROGRAM			
	MONDAY - FRIDAY	SATURDAY	SUNDAY
PLAN 1	0600 - 0900	-	-
PLAN 2	0900 - 2000	1000 - 1900	-
PLAN 3	-	-	1000 - 1700
FREE OPERATION ALL OTHER TIMES			

EAST CENTRAL STREET @ MARION/UNION STREET COORDINATION DATA (ALL ENTRIES IN SECONDS)						
	PLAN 1		PLAN 2		PLAN 3	
CYCLE	110		110		80	
OFFSET	0		0		0	
	w/O Ø9	w/Ø9	w/O Ø9	w/Ø9	w/O Ø9	w/Ø9
SPLIT TIME Ø1	15	15	15	15	15	15
SPLIT TIME Ø2	43	18	37	16	36	15
SPLIT TIME Ø3	17	17	19	19	14	14
SPLIT TIME Ø4	39	39	39	39	15	15
SPLIT TIME Ø6	48	33	52	31	51	30
SPLIT TIME Ø9		21		21		21



FULLY-ACTUATED	<input checked="" type="checkbox"/>	ISOLATED	<input type="checkbox"/>
SEMI-ACTUATED	<input type="checkbox"/>	COORDINATED	<input checked="" type="checkbox"/>
PRE-TIMED	<input type="checkbox"/>	WIRE	<input type="checkbox"/> TBCU <input type="checkbox"/>

01

02

03

04

06

09

UPON PED. PUSHBUTTON ACTUATION

SEQUENCE AND TIMING

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	FLASH OPER.
EAST CENTRAL STREET	EB	A	G/GL	Y/YL	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FY
EAST CENTRAL STREET	EB	B	G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FY
EAST CENTRAL STREET	EB	C	G/GR	Y/YR	R	R	R	R	R	R	R	R/GR	R/YR	R	G	Y	R	R	R	R	FY
EAST CENTRAL STREET	WB	D, E	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
MARION STREET	SB	F, G, H	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	FR
UNION STREET	NB	J, K	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FR
PEDESTRIAN	ALL	P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	DW	FDW	DW	OUT

7

6

6

7

3.0

16

23

3.0

4.0

3.0

2.0

3.0

4.0

5.0

15.0

1.0

MINIMUM INITIAL

PASSAGE

MAXIMUM 1

MAXIMUM 2

CHANGE

PEDESTRIAN

RECALL

MEMORY

OFF

NON-LOCKING

SOFT

NON-LOCKING

OFF

NON-LOCKING

OFF

NON-LOCKING

SOFT

NON-LOCKING

OFF

NON-LOCKING

EMERGENCY

TRAFFIC SIGNAL INVENTORY

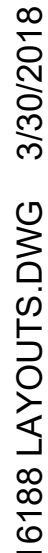
WATKINS, MASSACHUSETTS

REVISIONS		
NO.	REVISION	DATE
3/30/18		
DRAWN/DESIGN BY CTW		CHECKED BY JWD

TRAFFIC SIGNAL
AS-BUILT

LOCATION 5

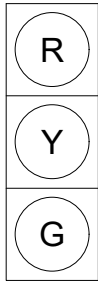
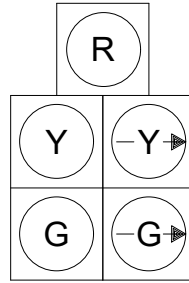
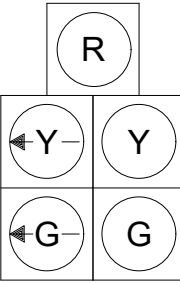

SCALE: 1"=20'







I6188 LAYOUTS.DWG 3/30/2018

LEGEND:

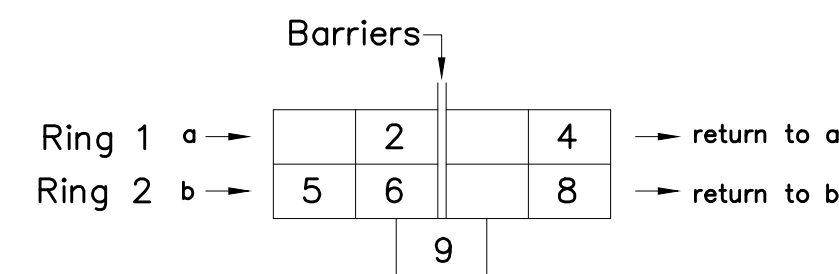
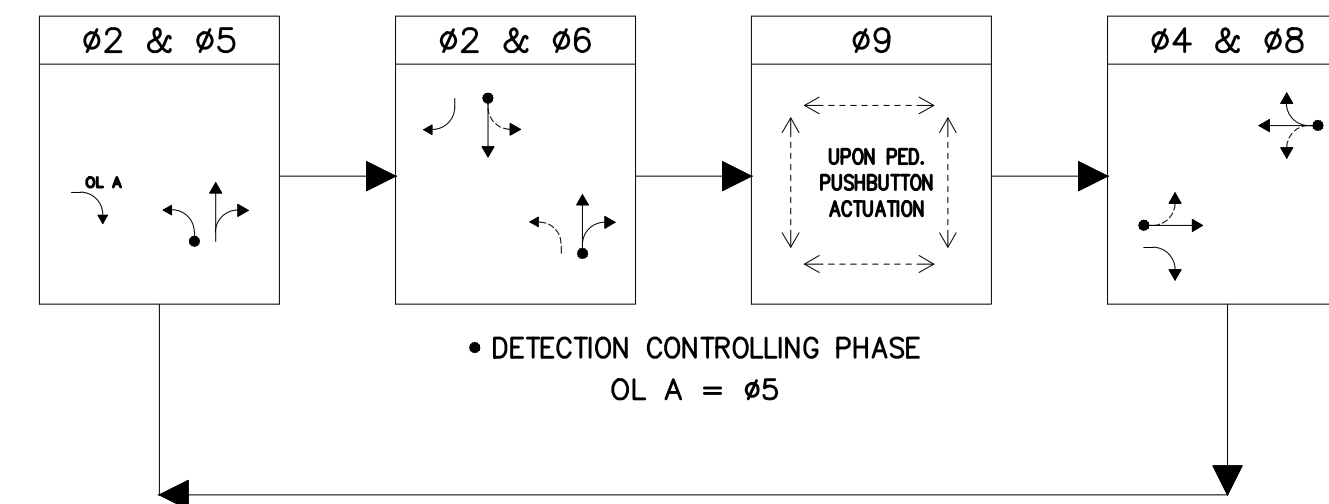
- ☒ SIGNAL CONTROLLER AND CABINET
- ← VEHICULAR SIGNAL
- ⤴ PEDESTRIAN SIGNAL
- Ⓢ PEDESTRIAN PUSH BUTTON
- ◊ PREEMPTION RECEIVER
- ✱ PREEMPTION STROBE LIGHT

EXISTING SIGNALS			
B,C,D,E,F,H,J,K	G	A	P1-P8
3 X 12" LENS 	5 X 12" LENS 	5 X 12" LENS 	 12" X 12" LENS

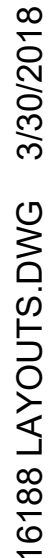
EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS2-TYPE 2 w/FDN
1	TRAFFIC CONTROLLER SIEMENS M50
1	CONFLICT MONITOR EDI MMU2-16LEip
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
3	25' TYPE 2 MAST ARM ASSEMBLY
1	30' TYPE 2 MAST ARM ASSEMBLY
2	8' SIGNAL POST, BASE & FDN
2	10' SIGNAL POST, BASE & FDN
8	SIGNAL HEAD, 3 SECTION
2	SIGNAL HEAD, 5 SECTION
8	PEDESTRIAN HOUSING GRAPHIC LED w/ COUNTDOWN TIMER
6	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSHBUTTON INTEGRATED SIGN & SADDLE w/ LED CONFIRMATION LIGHT
2	VIDEO PROCESSOR (2 CH)
4	VIDEO DETECTION CAMERA
1	9" PORTABLE LCD COLOR MONITOR AND POINTING DEVICE
2	"NO TURN ON RED" LED BLANK OUT SIGN w/ FIXED MOUNT
7	LOAD SWITCHES (12 SLOTS)
4	FLASH TRANSFER RELAYS (6 SLOTS)
5	PULL BOX 12"x12" - SD2.031
3	ELECTRIC HANDHOLE - SD2.022
4	OPTICAL DETECTOR, UNIDIRECTIONAL, SINGLE CHANNEL
2	2 CHANNEL PHASE SELECTOR
1	STROBE

EMERGENCY VEHICLE PREEMPTION			
NB	SB	EB	WB
PREEMPT#1	PREEMPT#2	PREEMPT#3	PREEMPT#4
<p>REC#1</p> 	<p>REC#2</p> 	<p>REC#3</p> 	<p>REC#4</p> 

TIME OF DAY PROGRAMMING	
	MONDAY - SUNDAY
MAX 2	1400 - 1900
None	0000 - 0700 1900 - 2400
FREE OPERATION ALL OTHER TIMES	



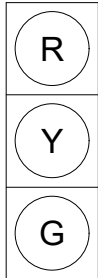
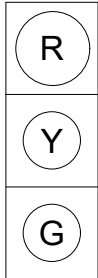



FULLY-ACTUATED <input checked="" type="checkbox"/>			ISOLATED <input checked="" type="checkbox"/>																					
SEMI-ACTUATED <input type="checkbox"/>			COORDINATED <input type="checkbox"/>																					
PRE-TIMED <input type="checkbox"/>			WIRE <input type="checkbox"/> TBCU <input type="checkbox"/>																					
SEQUENCE AND TIMING																								
STREET		DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	FLASH OPER.		
NORTH MAIN STREET		NB	A	G	Y	R	R	R	R	G/GL	Y/YL	R	R	R	R	R	R	R	R	R	R	R	FY	
NORTH MAIN STREET		NB	B	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY	
NORTH MAIN STREET		SB	C,D	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	FY	
GENERAL GREENE AVENUE		EB	E,F	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FR	
GENERAL GREENE AVENUE		EB	G	R	R	R	G	Y	R	R/GR	R/YR	R	R	R	R	R	R	R	R	R	R	R	FR	
GILBERT ROAD		WB	H, J, K	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	FR	
PEDESTRIAN		ALL	P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW			OUT	
TIMING IN SECONDS																								
MINIMUM INITIAL				10				5						10			5						EMERGENCY	
PASSAGE				1.3				1.1					1.3			1.1								
MAXIMUM 1				35				15					10			35			15					
MAXIMUM 2				48				15					10			38			15					
CHANGE						3.5	1.5			4.0	1.0			3.5	3.0			3.5	1.5			4.0		1.0
PEDESTRIAN																					7.0	17.0		4.0
RECALL								MIN		OFF			OFF			MIN		OFF			OFF			
MEMORY								NON-LOCKING		NON-LOCKING			NON-LOCKING			NON-LOCKING		NON-LOCKING			NON-LOCKING			



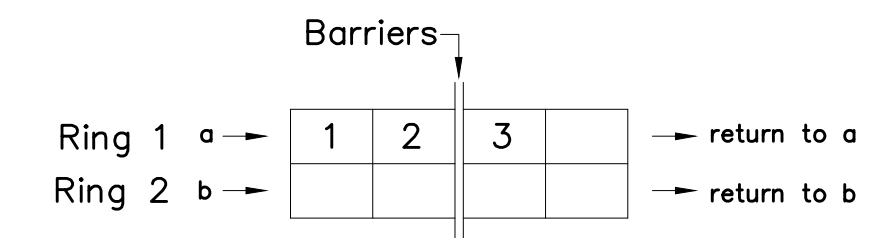
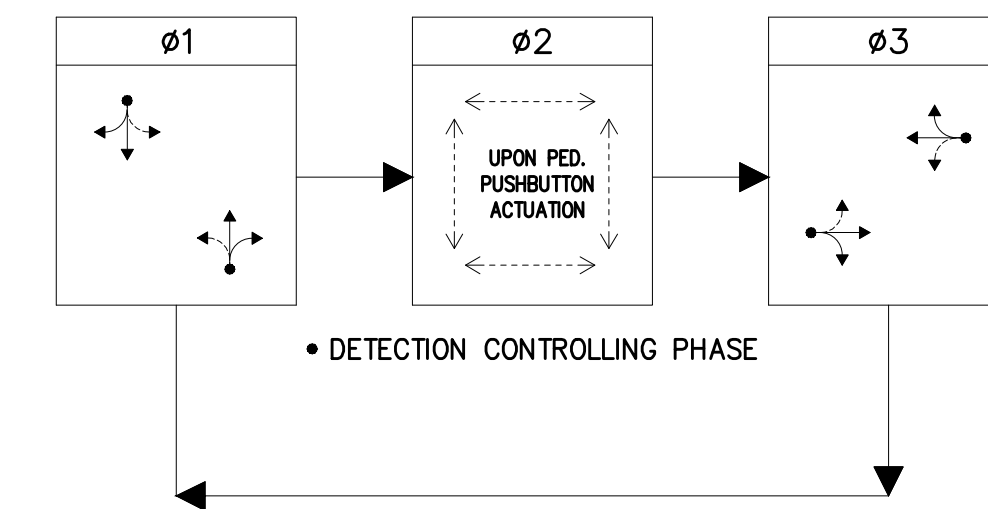
NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.








LEGEND:

- ☒ SIGNAL CONTROLLER AND CABINET
- ← VEHICULAR SIGNAL
- ⊞ PEDESTRIAN SIGNAL
- ⊞ PEDESTRIAN PUSH BUTTON
- ◊ PREEMPTION RECEIVER
- ✱ PREEMPTION STROBE LIGHT

EXISTING SIGNALS				
B,C,D,E,F,G,H	A	P3-P5	P1,P2,P6,P8	P7
3 X 12" LENS 	1 X 12" LENS  2 X 8" LENS	 12" X 12" LENS	 12" X 12" LENS	 12" X 12" LENS

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI NSM-6
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
1	30' TYPE 2 MAST ARM ASSEMBLY
5	10' SIGNAL POST, BASE & FDN
8	SIGNAL HEAD
8	PEDESTRIAN HOUSING GRAPHIC LED
6	PEDESTRIAN PUSH BUTTON
	ROADWAY VEHICLE LOOP DETECTOR
2	SINGLE CHANNEL LOOP DETECTOR AMPLIFIER
3	LOAD SWITCHES (8 SLOTS)
2	FLASH TRANSFER RELAYS (4 SLOTS)



FULLY-ACTUATED		<input checked="" type="checkbox"/>	ISOLATED		<input checked="" type="checkbox"/>								
SEMI-ACTUATED		<input type="checkbox"/>	COORDINATED		<input type="checkbox"/>								
PRE-TIMED		<input type="checkbox"/>	WIRE		<input type="checkbox"/>	TBCU		<input type="checkbox"/>					

SEQUENCE AND TIMING													
STREET		DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	FLASH OPER
NORTH MAIN STREET		NB/SB	E, F, G, H	G	Y	R	R	R	R	R	R	R	FY
BACON STREET		EB/WB	A, B, C, D	R	R	R	R	R	R	G	Y	R	FR
PEDESTRIAN		ALL	P1-P8	DW	DW	DW	W	FDW	DW	DW	DW	DW	OUT

TIMING IN SECONDS																
MINIMUM INITIAL		8									5					
PASSAGE		4.0									3.0					
MAXIMUM 1		59									25					
MAXIMUM 2		59									25					
CHANGE					4.0		1.0						4.0		1.0	
PEDESTRIAN								7.0		8.0		5.0				
RECALL					MIN			OFF			OFF					
MEMORY					LOCKING			LOCKING			LOCKING					

EMERGENCY

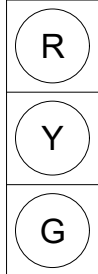
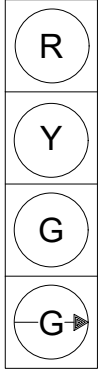
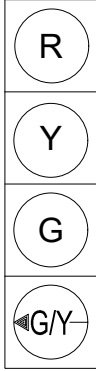


[illegible]



NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

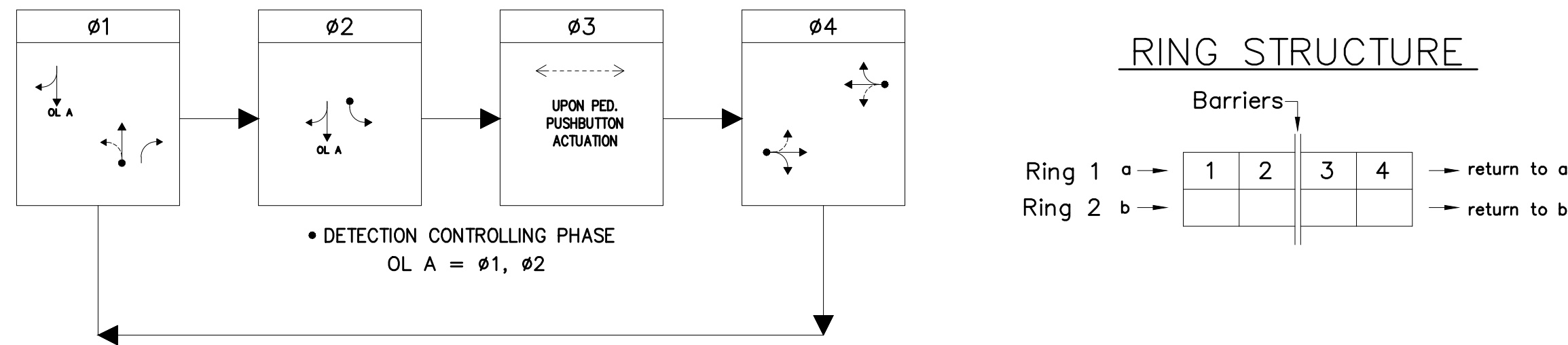
LEGEND:

- ☒ SIGNAL CONTROLLER AND CABINET
- ➔ VEHICULAR SIGNAL
- ⬇ PEDESTRIAN SIGNAL
- ⬇ PEDESTRIAN PUSH BUTTON
- ⬇ PREEMPTION RECEIVER
- ✳ PREEMPTION STROBE LIGHT

EXISTING SIGNALS				
A,B,C,E,F,H	D	G	P1	P2
<p>3 X 12" LENS</p> 	<p>4 X 12" LENS</p> 	<p>4 X 12" LENS</p> 	 <p>12" X 12" LENS</p>	 <p>12" X 12" LENS</p>

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI SSM-6LE
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
2	30' TYPE 2 MAST ARM ASSEMBLY
1	8' SIGNAL POST, BASE & FDN
2	10' SIGNAL POST, BASE & FDN
8	SIGNAL HEAD
2	PEDESTRIAN HOUSING GRAPHIC LED
2	PEDESTRIAN PUSH BUTTON
	ROADWAY VEHICLE LOOP DETECTOR
2	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
5	LOAD SWITCHES (8 SLOTS)
3	FLASH TRANSFER RELAYS (4 SLOTS)

TIME OF DAY PROGRAMMING	
	MONDAY - FRIDAY
MAX 2	1530 - 1830
FREE OPERATION ALL OTHER TIMES	



FULLY-ACTUATED <input checked="" type="checkbox"/>		ISOLATED <input checked="" type="checkbox"/>		Ø1		Ø2		Ø3		Ø4		
SEMI-ACTUATED <input type="checkbox"/>		COORDINATED <input type="checkbox"/>										
PRE-TIMED <input type="checkbox"/>		WIRE <input type="checkbox"/> TBCU <input type="checkbox"/>										

SEQUENCE AND TIMING															
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	FLASH OPER.
MAIN STREET	NB/SB	E, F, H	G	Y	R	R	R	R	R	R	R	R	R	R	FY
MAIN STREET	SB	G	G	Y	R	G/GL	Y/YL	R	R	R	R	R	R	R	FY
STAPLE'S/MEGCONKO ROAD	EB/WB	A, B, C	R	R	R	R	R	R	R	R	R	G	Y	R	FR
STAPLE'S	EB	D	R	R	R	R	R	R	R	R	R	G/GR	Y	R	FR
PEDESTRIAN	ALL	P1-P2	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	OUT
TIMING IN SECONDS															
MINIMUM INITIAL			7			4						4			EMERGENCY
PASSAGE			4.8			3.5						3.5			
MAXIMUM 1			50			7						22			
MAXIMUM 2			65			7						22			
CHANGE				5.0	1.0		3.0	1.0					3.0	1.0	
PEDESTRIAN									8.0	9.0	0.0				
RECALL			SOFT			OFF			OFF			OFF			
MEMORY			LOCKING			NON-LOCKING			LOCKING			LOCKING			

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DEPT. OF PUBLIC WORKS
75 WEST ST
NATICK, MA

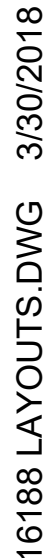
TRAFFIC SIGNAL INVENTORY

NATICK, MASSACHUSETTS

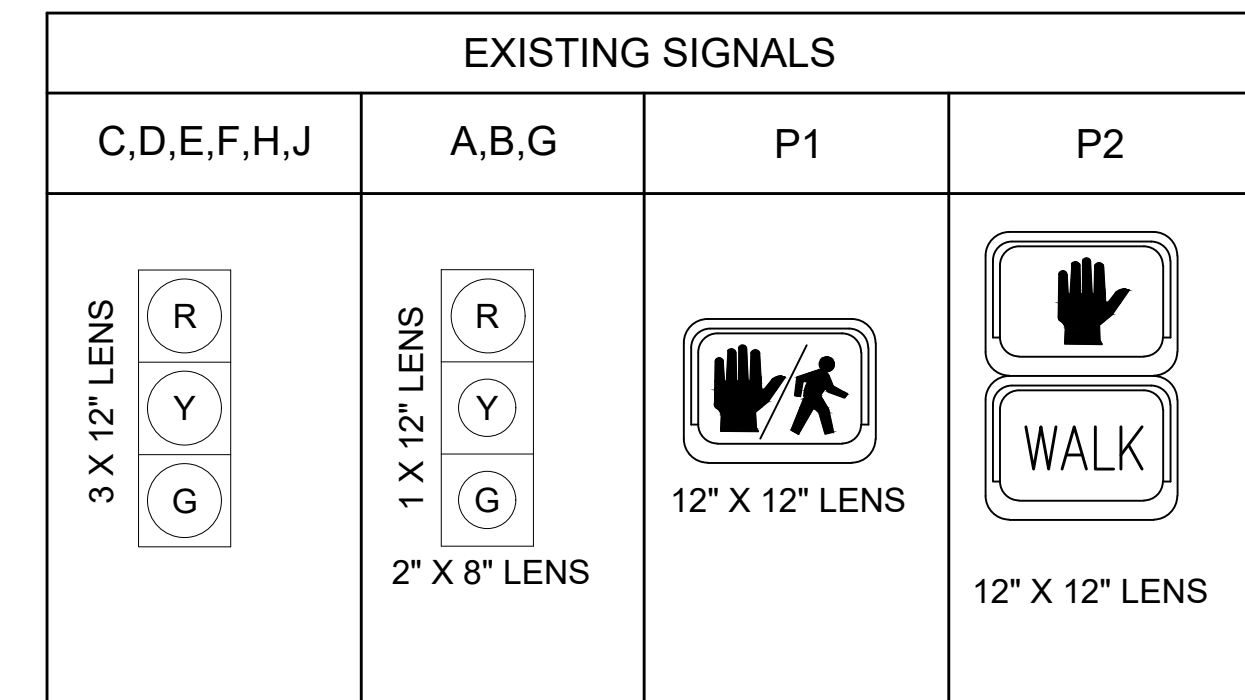
REVISIONS		
NO.	REVISION	DATE
3/30/18		
DRAWN/DESIGN BY CTW		CHECKED BY JWD

TRAFFIC SIGNAL
AS-BUILT
LOCATION 8

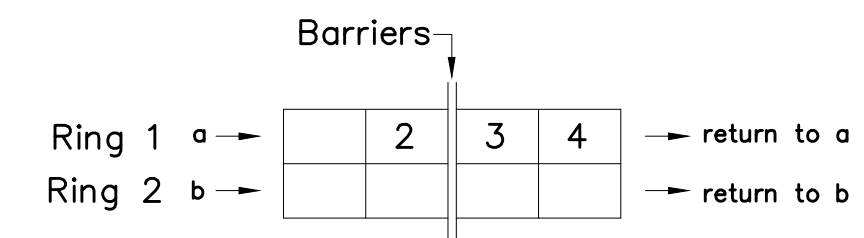
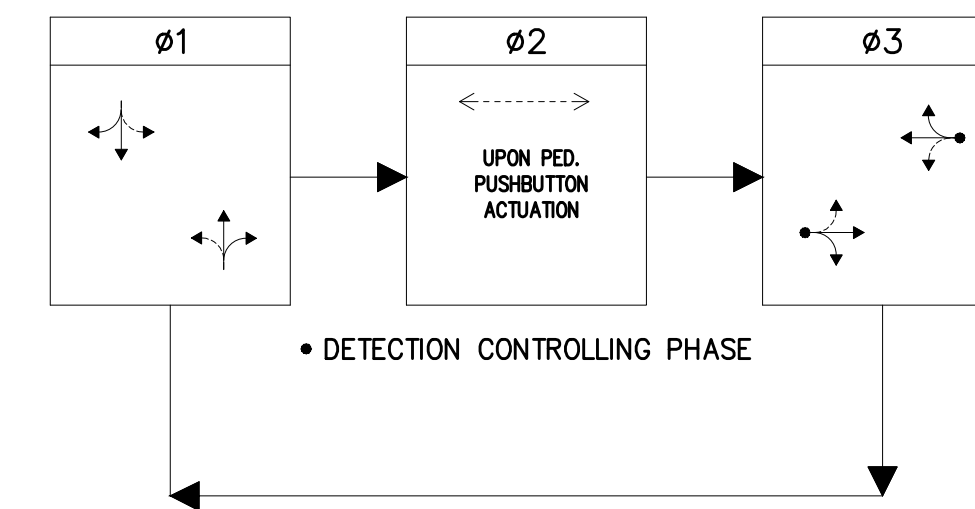
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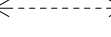


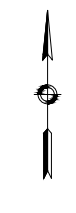


NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.



EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS2-TYPE 1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI NSM-6
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
2	20' TYPE 1 MAST ARM ASSEMBLY
2	10' SIGNAL POST, BASE & FDN
9	SIGNAL HEAD, 3 SECTION
2	PEDESTRIAN HOUSING GRAPHIC LED
2	PEDESTRIAN PUSH BUTTON
	ROADWAY VEHICLE LOOP DETECTOR
1	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
3	LOAD SWITCHES (8 SLOTS)
3	FLASH TRANSFER RELAYS (4 SLOTS)



FULLY-ACTUATED	<input type="checkbox"/>	ISOLATED	<input checked="" type="checkbox"/>	 	 UPON PED. PUSHBUTTON ACTUATION	 	
SEMI-ACTUATED	<input checked="" type="checkbox"/>	COORDINATED	<input type="checkbox"/>				
PRE-TIMED	<input type="checkbox"/>	WIRE	<input type="checkbox"/>				

SEQUENCE AND TIMING												
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	FLASH OPER
NORTH MAIN STREET	NB/SB	E, F, G, H, J	G	Y	R	R	R	R	R	R	R	FY
EVERGREEN ROAD/EAST EVERGREEN ROAD	EB/WB	A, B, C, D	R	R	R	R	R	R	G	Y	R	FR
PEDESTRIAN	ALL	P1-P2	DW	DW	DW	W	FDW	DW	DW	DW	DW	OUT

TIMING IN SECONDS												
MINIMUM INITIAL	45								5			EMERGENCY
PASSAGE	2.0								5.0			
MAXIMUM 1	45								35			
MAXIMUM 2	45								35			
CHANGE		4.0	2.0							4.0	2.0	
PEDESTRIAN					7.0	9.0	0.0					
RECALL	MAX				OFF				OFF			
MEMORY	NON-LOCKING				LOCKING				NON-LOCKING			

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TRAFFIC SIGNAL INVENTORY

NATICK, MASSACHUSETTS

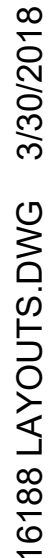
REVISIONS		
NO.	REVISION	DATE
3/30/18		
DRAWN/DESIGN BY CTW		CHECKED BY JWD

TRAFFIC SIGNAL AS-BUILT

LOCATION 9

SCALE: 1"=20'

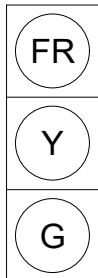
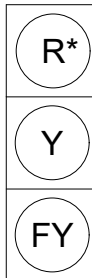

9 OF 22



NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

LEGEND:

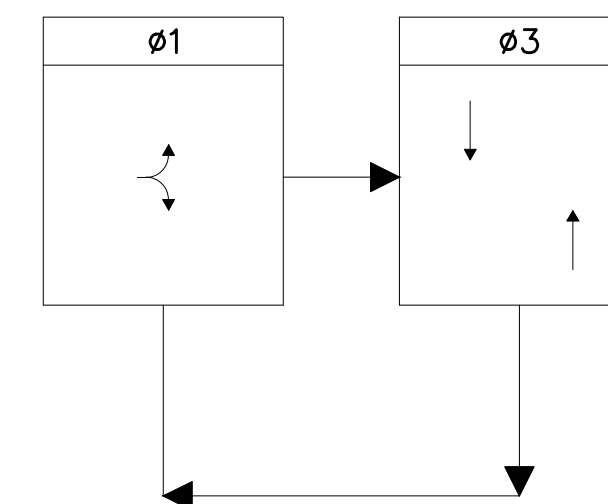
- ☒ SIGNAL CONTROLLER AND CABINET
- ← VEHICULAR SIGNAL
- ⬇ PEDESTRIAN SIGNAL
- ⬇ PEDESTRIAN PUSH BUTTON
- ◊ PREEMPTION RECEIVER
- * PREEMPTION STROBE LIGHT



EXISTING SIGNALS		
A,B	C,D,F,G	E
3 X 12" LENS 	3 X 12" LENS 	3 X 12" LENS 

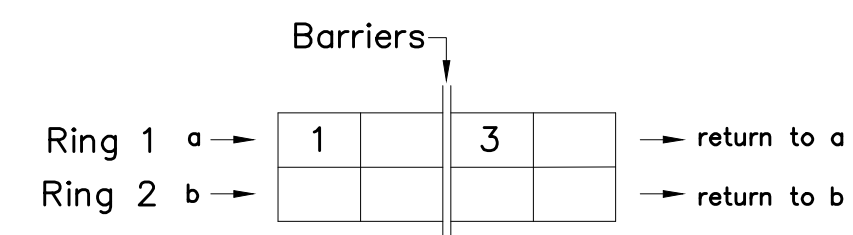
OPTICALLY PROGRAMMED

*WHITE STROBE IN RED SIGNAL, ACTIVE DURING PHASE 1

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS2-TYPE 1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR PEEK DOUBLE DIAMOND
1	25' TYPE 2 MAST ARM ASSEMBLY
1	10' SIGNAL POST, BASE & FDN
7	SIGNAL HEAD, 3 SECTION
2	LOAD SWITCHES (12 SLOTS)
2	FLASH TRANSFER RELAYS (6 SLOTS)
2	RECEIVER



EMERGENCY VEHICLE PREEMPTION	
EB	NB
PREEMPT#1	PREEMPT#2
	



FULLY-ACTUATED	<input type="checkbox"/>	ISOLATED	<input checked="" type="checkbox"/>			
SEMI-ACTUATED	<input type="checkbox"/>	COORDINATED	<input type="checkbox"/>			
PRE-TIMED	<input checked="" type="checkbox"/>	WIRE	<input type="checkbox"/>			

SEQUENCE AND TIMING									
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	FLASH OPER
FIRE STATION DRIVE	EB	A, B	G	Y	R	FR	R	R	FR
OAK STREET	NB/SB	C, D, E, F, G	R	R	R	FY	Y	R	FY

TIMING IN SECONDS									
MINIMUM INITIAL			5			5			EMERGENCY
PASSAGE			3.0			3.0			
MAXIMUM 1			10			10			
MAXIMUM 2			10			10			
CHANGE				4.0	2.0		4.0	2.0	
PEDESTRIAN									
RECALL			OFF			MAX			
MEMORY			LOCKING			LOCKING			

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NATICK, MA

TRAFFIC SIGNAL INVENTORY

NATICK, MASSACHUSETTS

REVISIONS		
NO.	REVISION	DATE

3/30/18

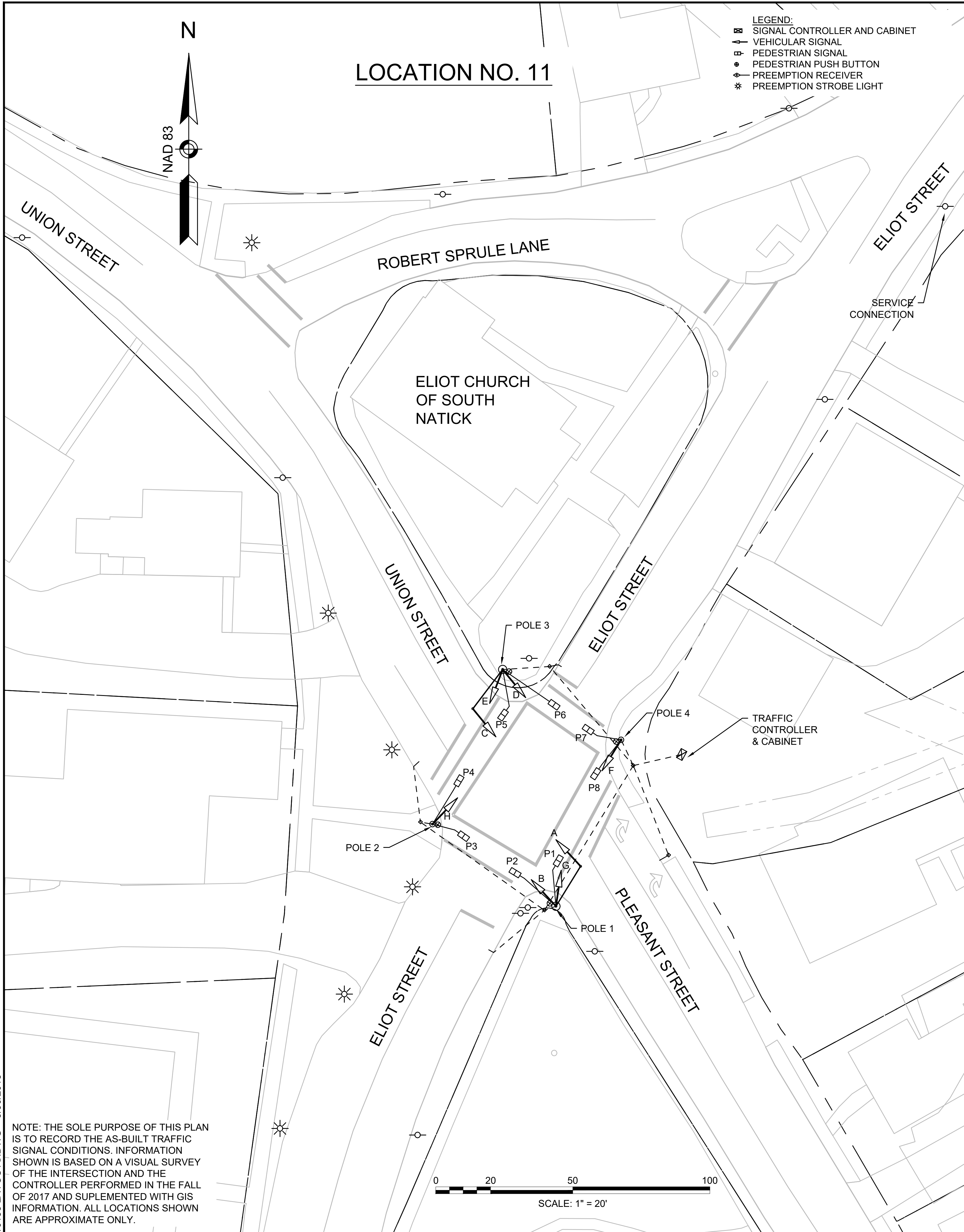
DRAWN/DESIGN BY CTW	CHECKED BY JWD
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TRAFFIC SIGNAL AS-BUILT

LOCATION 10

SCALE: 1"=20'

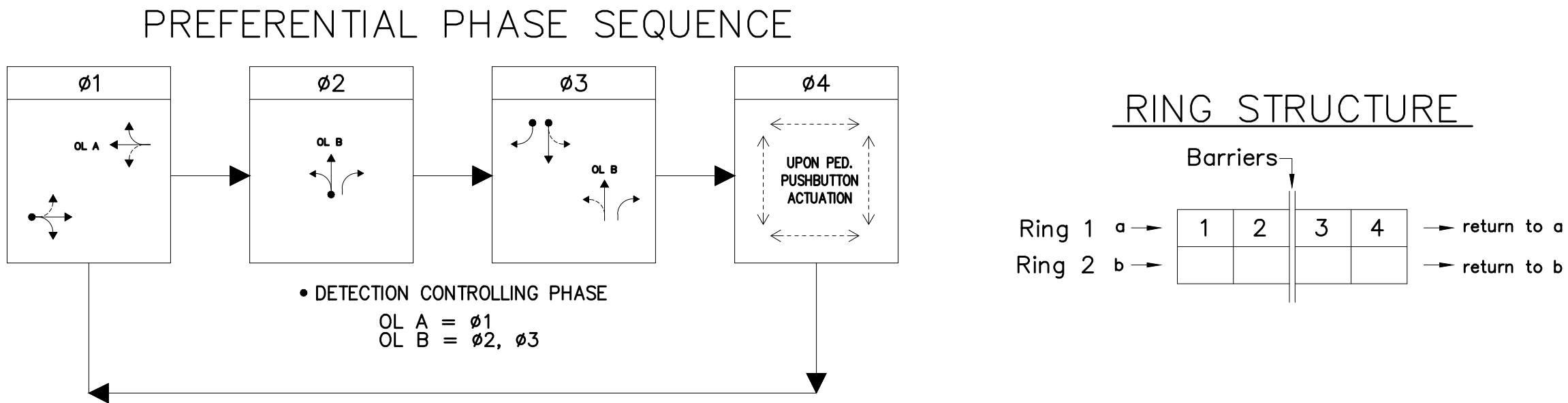
NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.



- LEGEND:
- SIGNAL CONTROLLER AND CABINET
 - VEHICULAR SIGNAL
 - PEDESTRIAN SIGNAL
 - PEDESTRIAN PUSH BUTTON
 - PREEMPTION RECEIVER
 - PREEMPTION STROBE LIGHT

EXISTING SIGNALS		
A,B,D,E,F,G,H	C	P1-P8
3 X 12" LENS R Y G	4 X 12" LENS R Y G GY	12" X 12" LENS

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI NSM-6
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
2	20' TYPE 2 ORNAMENTAL MAST ARM ASSEMBLY
2	10' ORNAMENTAL SIGNAL POST, BASE & FDN
7	3 SECTION SIGNAL HEAD
1	4 SECTION SIGNAL HEAD
8	PEDESTRIAN HOUSING GRAPHIC LED
4	PEDESTRIAN PUSH BUTTON
	ROADWAY VEHICLE LOOP DETECTOR
3	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
6	LOAD SWITCHES (8 SLOTS)
4	FLASH TRANSFER RELAYS (4 SLOTS)
5	PULLBOX



FULLY-ACTUATED	<input checked="" type="checkbox"/>	ISOLATED	<input checked="" type="checkbox"/>									
SEMI-ACTUATED	<input type="checkbox"/>	COORDINATED	<input type="checkbox"/>									
PRE-TIMED	<input type="checkbox"/>	WIRE	<input type="checkbox"/>	TBCU	<input type="checkbox"/>							

SEQUENCE AND TIMING															
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	FLASH OPER.
ELIOT STREET	EB/WB	E, F, G, H	G	Y	R	R	R	R	R	R	R	R	R	R	FY
PLEASANT STREET	NB	C	R	R	R	G/GL	Y/YL	R	G	Y	R	R	R	R	FR
PLEASANT STREET	NB	D	R	R	R	G	Y	R	G	Y	R	R	R	R	FR
UNION STREET	SB	A, B	R	R	R	R	R	R	G	Y	R	R	R	R	FR
PEDESTRIAN	ALL	P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OUT

TIMING IN SECONDS															
MINIMUM INITIAL	6				6			6							
PASSAGE	3.0							3.0							
MAXIMUM 1	56							31							
MAXIMUM 2	47						11								
CHANGE			4.0	2.0			3.0	1.0		4.0	1.0				
PEDESTRIAN												7.0	12.0	4.0	
RECALL	SOFT					OFF					OFF				
MEMORY						NON-LOCKING					NON-LOCKING				

EMERGENCY

GPI Greenman-Pedersen, Inc.
Engineers, Architects, Planners, Construction Engineers & Inspectors
181 Ballardvale Street, Suite 202, Wilmington, MA 01887
Tel: (978) 570-2999 Fax: (978) 658-3044
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75 WEST ST
NATICK, MA

TRAFFIC SIGNAL INVENTORY
NATICK, MASSACHUSETTS

REVISIONS

NO.	REVISION	DATE
	3/30/18	

DRAWN/DESIGN BY
CTW

CHECKED BY
JWD

TRAFFIC SIGNAL
AS-BUILT
LOCATION 11

SCALE:
1"=20'

11 OF 22



NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

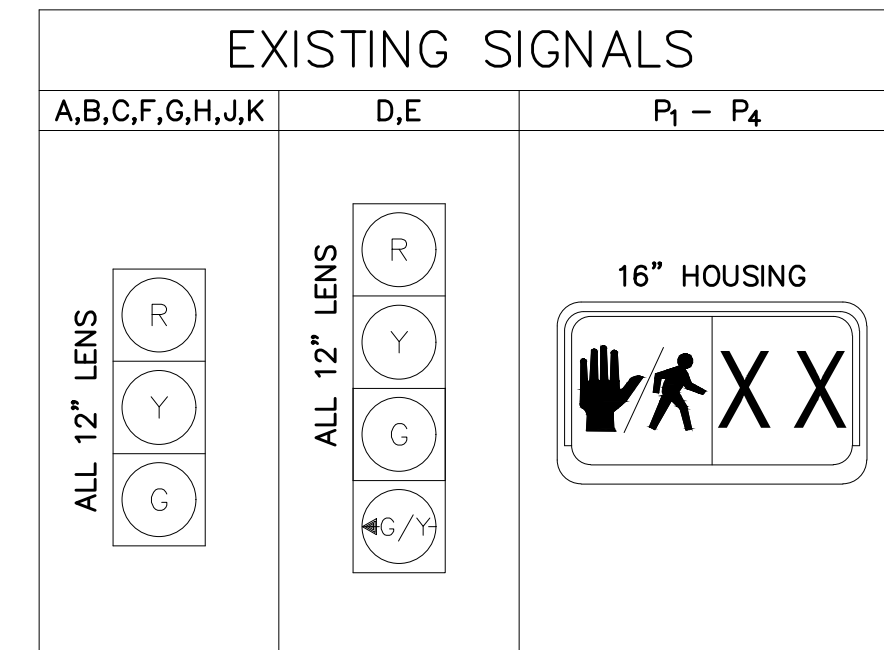
LEGEND:





- ☒ SIGNAL CONTROLLER AND CABINET
- ➔ VEHICULAR SIGNAL
- ⏏ PEDESTRIAN SIGNAL
- ⦿ PEDESTRIAN PUSH BUTTON
- ◊— PREEMPTION RECEIVER
- ✱ PREEMPTION STROBE LIGHT

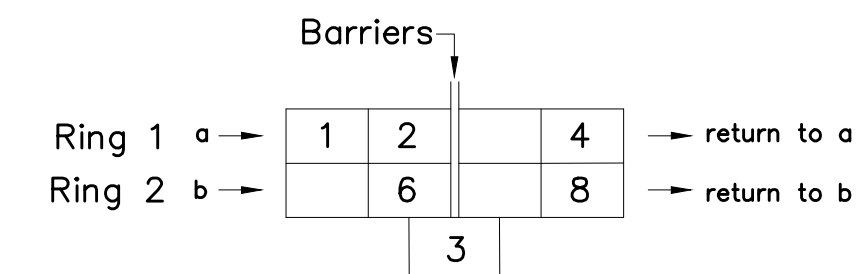
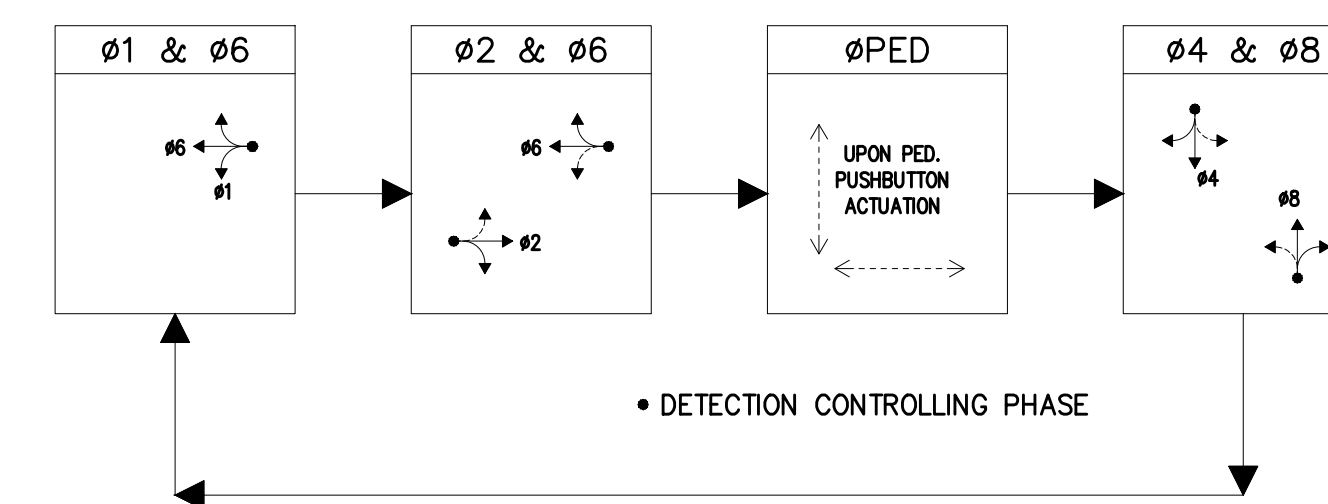
LOOP DETECTOR DATA								
DETECTOR NO.	NUMBER AND SIZE	SPLICE PATTERN	NO. OF TURNS	Ø CALLED	Ø EXT.	MODE A=PULSE B=PPRS.	DELAY TIME	EXT. TIME
1	1-6"x20'	PARALLEL	QUAD. TYPE	1	1+6	B	-	-
2	2-6"x20'	PARALLEL	QUAD. TYPE	2	2	B	-	-
4	2-6"x20'	PARALLEL	QUAD. TYPE	4	4	B	-	-
6	1-6"x20'	PARALLEL	QUAD. TYPE	6	6	B	-	-
8	2-6"x20'	PARALLEL	QUAD. TYPE	8	8	B	-	-

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI NSM-6
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
1	30' MAST ARM ASSEMBLY, BASE & FDN
1	8' SIGNAL POST, BASE & FDN
3	10' SIGNAL POST, BASE & FDN
8	SIGNAL HEAD, 3 SECTION
2	SIGNAL HEAD, 4 SECTION
2	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
6	LOAD SWITCHES (8 SLOTS)
3	FLASH TRANSFER RELAYS (4 SLOTS)
8	PULL BOX 12"x12"
4	PEDESTRIAN HOUSING GRAPHIC LED WITH COUNTDOWN TIMER
4	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSH BUTTON INTEGRATED SIGN & SADDLE WITH LED CONFIRMATION LIGHT
8	ROADWAY VEHICLE LOOP DETECTOR (QUADRUPOLE TYPE)

TRAFFIC CONTROLLER DATA	
PARAMETER	SELECTION
PHASE ASSIGNMENTS	STD. NEMA
OVERLAPS	STD. NEMA
RINGS	DUAL
DUAL ENTRY	ON (ø2 & ø6) (ø4 & ø8)
SIMULTANEOUS GAP OUT DISABLED	YES (ø2 & ø6) (ø4 & ø8)
MINIMUM YELLOW IN SECONDS	3
MAX II BY INTERNAL CLOCK	YES
NIGHT TIME FLASH BY INTERNAL CLOCK	NOT USED



EMERGENCY VEHICLE PREEMPTION			
WB	NB	EB	SB
PREEMPT#1	PREEMPT#2	PREEMPT#3	PREEMPT#4
REC#1 	REC#2 	REC#3 	REC#4 



FULLY—ACTUATED <input checked="" type="checkbox"/>		ISOLATED <input checked="" type="checkbox"/>																					
SEMI—ACTUATED <input type="checkbox"/>		COORDINATED <input type="checkbox"/>																					
PRE—TIMED <input type="checkbox"/>		WIRE <input type="checkbox"/> TBCU <input type="checkbox"/>																					
SEQUENCE AND TIMING																							
STREET		DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	FLASH OPER	
MILL STREET		EB	A,B,C	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FR	
POND STREET		WB	D,E	G—GLY—YL		R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR	
SPEEN STREET		NB	F,G,H	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	FY	
SPEEN STREET		SB	J,K	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY	
PEDESTRIAN		ALL	P1—P4	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT	
				TIMING IN SECONDS																			
MINIMUM GREEN				3			6						6			6			6				
EXTENSION				4									3			3			3				
MAXIMUM 1 (6:00AM — 10:00AM)				3			28						55			36			55				
MAXIMUM 2				15			27						44			47			44				
CHANGE					4.0	1.0		4.0	1.0					3.5	1.0		4.0	1.0		3.5	1.0		
PEDESTRIAN										7	13	4											
RECALL				OFF		OFF		OFF		MIN		OFF		MIN		OFF		MIN		OFF		MIN	
MEMORY				NON—LOCKING		NON—LOCKING		LOCKING		LOCKING		NON—LOCKING		NON—LOCKING		NON—LOCKING		NON—LOCKING		NON—LOCKING		NON—LOCKING	

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75 WEST ST
NATICK, MA

**TRAFFIC SIGNAL INVENTORY
NATICK, MASSACHUSETTS**

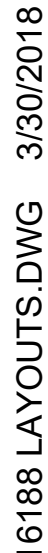
REVISIONS		
NO.	REVISION	DATE

3/30/18	
DRAWN/DESIGN BY CTW	CHECKED BY JWD

TRAFFIC SIGNAL
AS-BUILT
LOCATION 12

SCALE: 1"=20'



12 OF 22



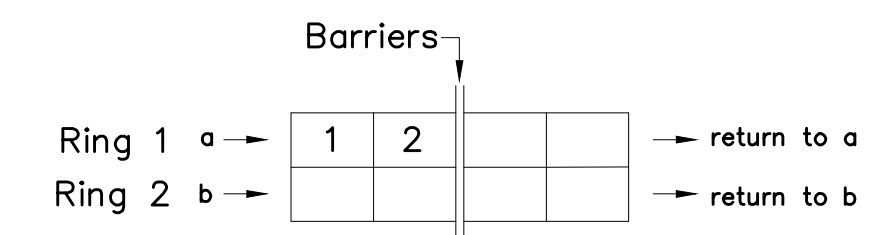
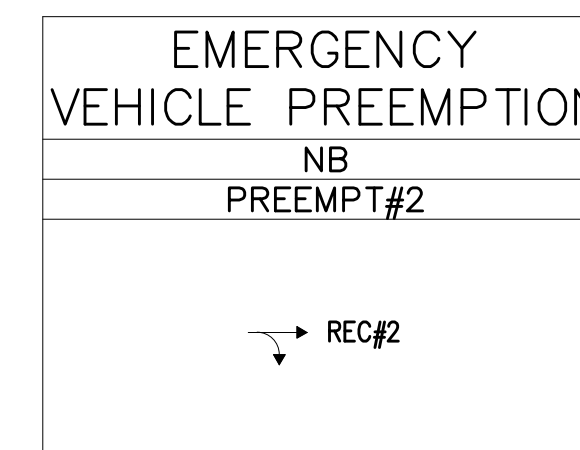
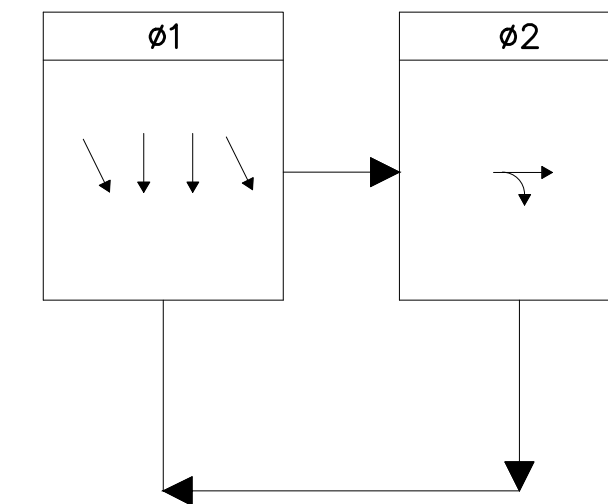
NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

LOCATION NO. 13

- LEGEND:**
- ☒ SIGNAL CONTROLLER AND CABINET
 - ➔ VEHICULAR SIGNAL
 - Ⓟ PEDESTRIAN SIGNAL
 - Ⓢ PEDESTRIAN PUSH BUTTON
 - ⚡ PREEMPTION RECEIVER
 - ✱ PREEMPTION STROBE LIGHT

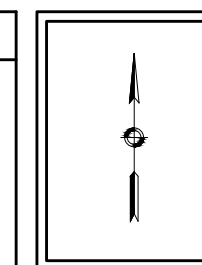
EXISTING SIGNALS	
A,B,C,D,E,F,G	H,J
<p>2 X 12" LENS</p>  <p>1 X 8' LENS</p>	<p>3 X 12" LENS</p> 

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS2 TYPE 2 w/FDN
1	TRAFFIC CONTROLLER MCCAIN ATC EX
1	CONFLICT MONITOR EDI MMU-16E
1	SERVICE CONNECTION (FROM FIRE STATION)
1	35' TYPE 2 MAST ARM ASSEMBLY
1	20' TYPE 2 MAST ARM ASSEMBLY
4	10' SIGNAL POST, BASE & FDN
9	SIGNAL HEAD
2	LOAD SWITCHES (12 SLOTS)
1	FLASH TRANSFER RELAYS (6 SLOTS)
7	PULLBOX
2	RECEIVER



FULLY-ACTUATED		<input type="checkbox"/>	ISOLATED		<input checked="" type="checkbox"/>	<div>Ø1</div> <div><div><div></div><div></div><div></div></div></div>		<div>Ø2</div> <div><div><div></div><div></div><div></div></div></div>		<div><div><div></div><div></div><div></div></div></div>	
SEMI-ACTUATED		<input type="checkbox"/>	COORDINATED		<input type="checkbox"/>						
PRE-TIMED		<input checked="" type="checkbox"/>	WIRE		<input type="checkbox"/>						
SEQUENCE AND TIMING											
STREET			DIRECTION	HOUSINGS	1	2	3	4	5	6	FLASH OPER
SPEEN STREET			SB	A, B, C, D, E, F, G	FY	Y	R	R	R	R	FY
FIRE STATION 4			EB	H, J	R	R	R	G	Y	R	FR
TIMING IN SECONDS											
MINIMUM INITIAL					10				30		
PASSAGE					2.0				5.0		
MAXIMUM 1					15				30		
MAXIMUM 2					15				45		
CHANGE						4.0	3.0		4.0	3.0	
PEDESTRIAN											
RECALL					MIN			OFF			
MEMORY					NON-LOCKING			NON-LOCKING			

EMERGENCY



GPI Greenman-Pedersen, Inc.
Engineers, Architects, Planners, Construction Engineers & Inspectors
181 Ballardvale Street, Suite 202, Wilmington, MA 01887
Tel: (978) 570-2999 Fax: (978) 658-3044
<http://www.gpinet.com>

PREPARED FOR
DEPT. OF PUBLIC WORKS
75 WEST ST
NATICK, MA

TRAFFIC SIGNAL INVENTORY

NATICK, MASSACHUSETTS

REVISIONS		
NO.	REVISION	DATE

3/30/18

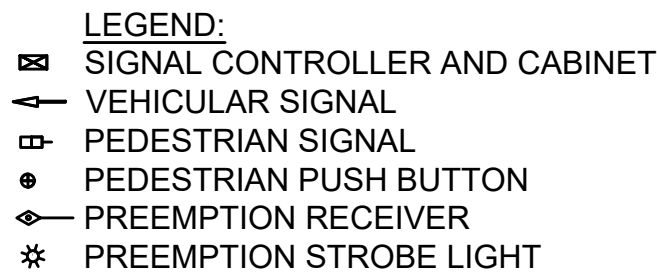
DRAWN/DESIGN BY CTW	CHECKED BY JWD
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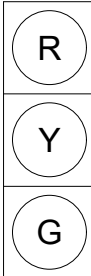
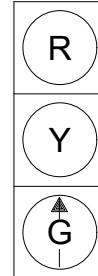
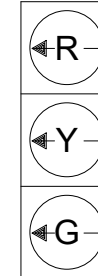

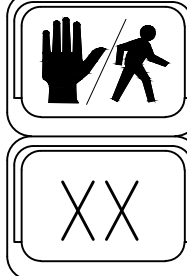
TRAFFIC SIGNAL AS-BUILT

LOCATION 13

SCALE: 1"=20'

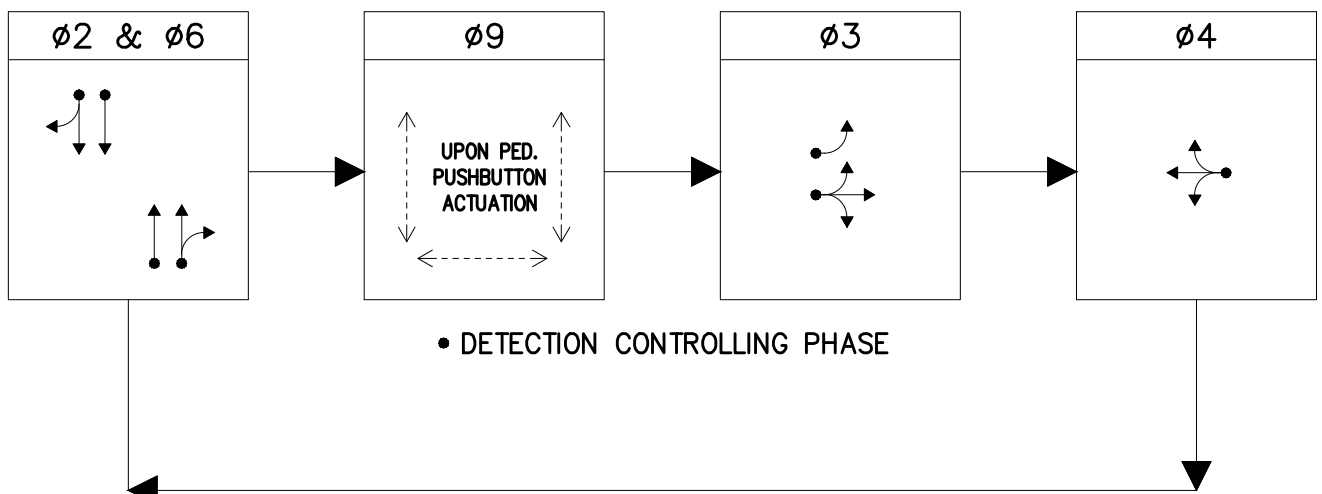
13 OF 22









EXISTING SIGNALS				
D,F,H	E,G	A	B,C	P1-P8
<p>3 X 12" LENS</p> 	<p>3 X 12" LENS</p> 	<p>3 X 12" LENS</p> 	<p>4 X 12" LENS</p> 	 <p>12" X 12" LENS</p>

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS2 TYPE 2 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI MMU-16
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
2	45' TYPE 2 MAST ARM ASSEMBLY
1	10' SIGNAL POST, BASE & FDN
2	8' SIGNAL POST, BASE & FDN
6	3 SECTION SIGNAL HEAD
2	4 SECTION SIGNAL HEAD
8	PEDESTRIAN HOUSING GRAPHIC LED
4	PEDESTRIAN PUSH BUTTON
4	VIDEO CAMERA VEHICLE DETECTOR
1	DUAL CHANNEL VIDEO DETECTOR CARD
	ROADWAY VEHICLE LOOP DETECTOR
5	LOAD SWITCHES (12 SLOTS)
3	FLASH TRANSFER RELAYS (6 SLOTS)
7	PULLBOX
3	PREEMPTION RECEIVER
1	PREEMPTION STROBE LIGHT

PREFERENTIAL PHASE SEQUENCE






SPEEN STREET @ NOUVELLE WAY COORDINATION DATA (ALL ENTRIES IN SECONDS)								
	PLAN 1		PLAN 2		PLAN 3		PLAN 4	
CYCLE	80		90		90		90	
OFFSET	57		68		65		70	
	w/O 09	w/09	w/O 09	w/09	w/O 09	w/09	w/O 09	w/09
SPLIT TIME 02	55	30	63	38	60	35	65	40
SPLIT TIME 03	13	13	15	15	18	18	13	13
SPLIT TIME 04	12	12	12	12	12	12	12	12
SPLIT TIME 06	55	30	58	33	58	33	65	40
SPLIT TIME 09		25		25		25		25

				Ø2	Ø3	Ø4	Ø6	Ø9	
FULLY-ACTUATED	<input checked="" type="checkbox"/>	ISOLATED	<input type="checkbox"/>						
SEMI-ACTUATED	<input type="checkbox"/>	COORDINATED	<input checked="" type="checkbox"/>						
PRE-TIMED	<input type="checkbox"/>	WIRE <input checked="" type="checkbox"/>	TBCU <input type="checkbox"/>						

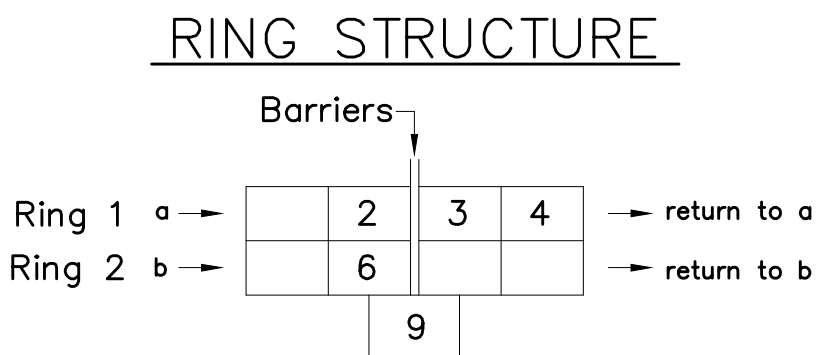
SEQUENCE AND TIMING																		
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	FLASH OPER.
SPEED STREET	NB	E, F	G/GT	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
SPEED STREET	SB	G, H	R	R	R	R	R	R	R	R	G/GT	Y	R	R	R	R	R	FY
NOUVELLE WAY	EB	A	RL	RL	RL	GL	YL	RL	R	RL	RL	RL	RL	RL	RL	RL	RL	FR
NOUVELLE WAY	EB	B	R	R	R	G/GL	Y	R	R	R	G/GL	Y	R	R	R	R	R	FR
MALL DRIVE	WB	C, D	R	R	R	R	R	R	R	G/GL	Y	R	R	R	R	R	R	FR
PEDESTRIAN	ALL	P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OUT

[illegible]

EMERGENCY VEHICLE PREEMPTION		
NB	SB	EB
PREEMPT#1	PREEMPT#2	PREEMPT#3
		





JANUARY 2ND THROUGH NOVEMBER 26TH			
SPEEN STREET DAILY & WEEKLY PROGRAM			
	MONDAY - FRIDAY	SATURDAY	SUNDAY
1/1/1	0600 - 1100	-	-
2/1/1	1100 - 2100	-	-
3/1/1	-	0900 - 2100	1100 - 1900
FREE OPERATION ALL OTHER TIMES			

NOVEMBER 27TH THROUGH JANUARY 1ST			
SPEEN STREET DAILY & WEEKLY PROGRAM			
	MONDAY - FRIDAY	SATURDAY	SUNDAY
1/1/1	0600 - 1100	-	-
2/1/1	1100 - 1700	-	-
4/1/1	1700-2200	0900 - 2100	1100 - 1900
FREE OPERATION ALL OTHER TIMES			



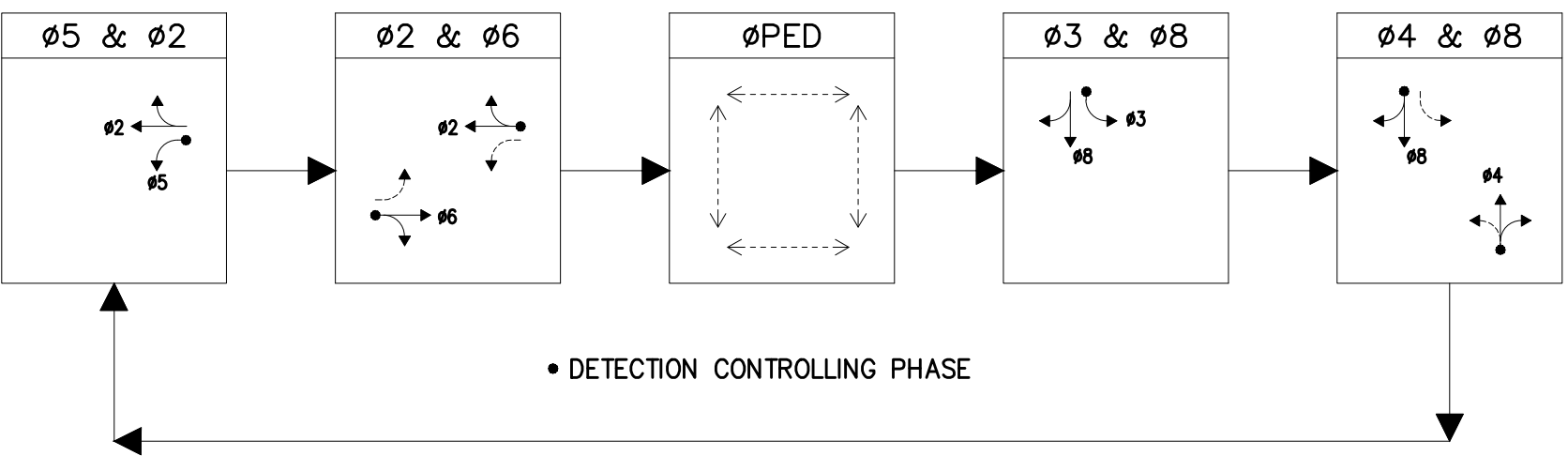
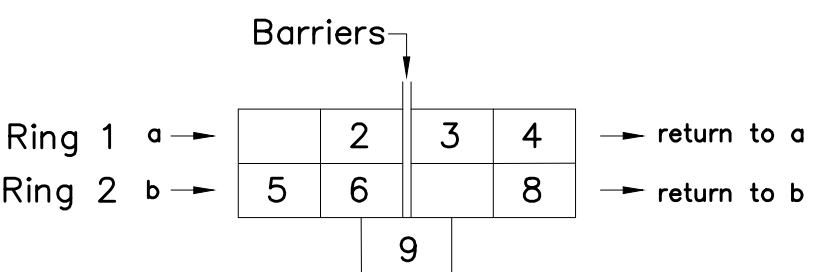
NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.










EMERGENCY VEHICLE PREEMPTION			
WB	EB	NB	SB
PREEMPT#1	PREEMPT#2	PREEMPT#3	PREEMPT#4
 REC#1	 REC#2	 REC#3	 REC#4

CENTRAL STREET @ MAIN STREET DAILY & WEEKLY PROGRAM			
	MONDAY - FRIDAY	SATURDAY	SUNDAY
PLAN 1	0600 - 0900	-	-
PLAN 2	0900 - 2000	1000 - 1900	-
PLAN 3	-	-	-
FREE OPERATION ALL OTHER TIMES			

CENTRAL STREET @ MAIN STREET COORDINATION DATA (ALL ENTRIES IN SECONDS)						
	PLAN 1		PLAN 2		PLAN 3	
CYCLE	100		100		80	
OFFSET	42		45		43	
	w/O Ø9	w/Ø9	w/O Ø9	w/Ø9	w/O Ø9	w/Ø9
SPLIT TIME Ø2	58	30	59	31	52	24
SPLIT TIME Ø3	12	12	12	12	12	12
SPLIT TIME Ø4	30	30	29	29	16	16
SPLIT TIME Ø5	12	12	14	14	12	12
SPLIT TIME Ø6	46	18	45	17	40	12
SPLIT TIME Ø8	30	30	29	29	16	16
SPLIT TIME Ø9		28		28		28




FULLY-ACTUATED	<input checked="" type="checkbox"/>	ISOLATED	<input type="checkbox"/>	Ø2	Ø3	Ø4	Ø5	Ø6	Ø8	Ø9	
SEMI-ACTUATED	<input type="checkbox"/>	COORDINATED	<input checked="" type="checkbox"/>								
PRE-TIMED	<input type="checkbox"/>	WIRE	<input checked="" type="checkbox"/>	TBCU	<input type="checkbox"/>						


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EMERGENCY VEHICLE PREEMPTION		
EB	WB	SB
PREEMPT#1	PREEMPT#2	PREEMPT#3



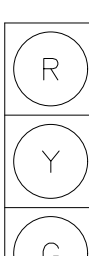
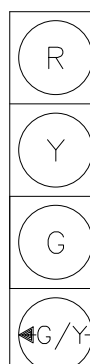
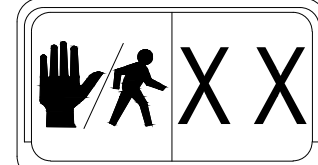
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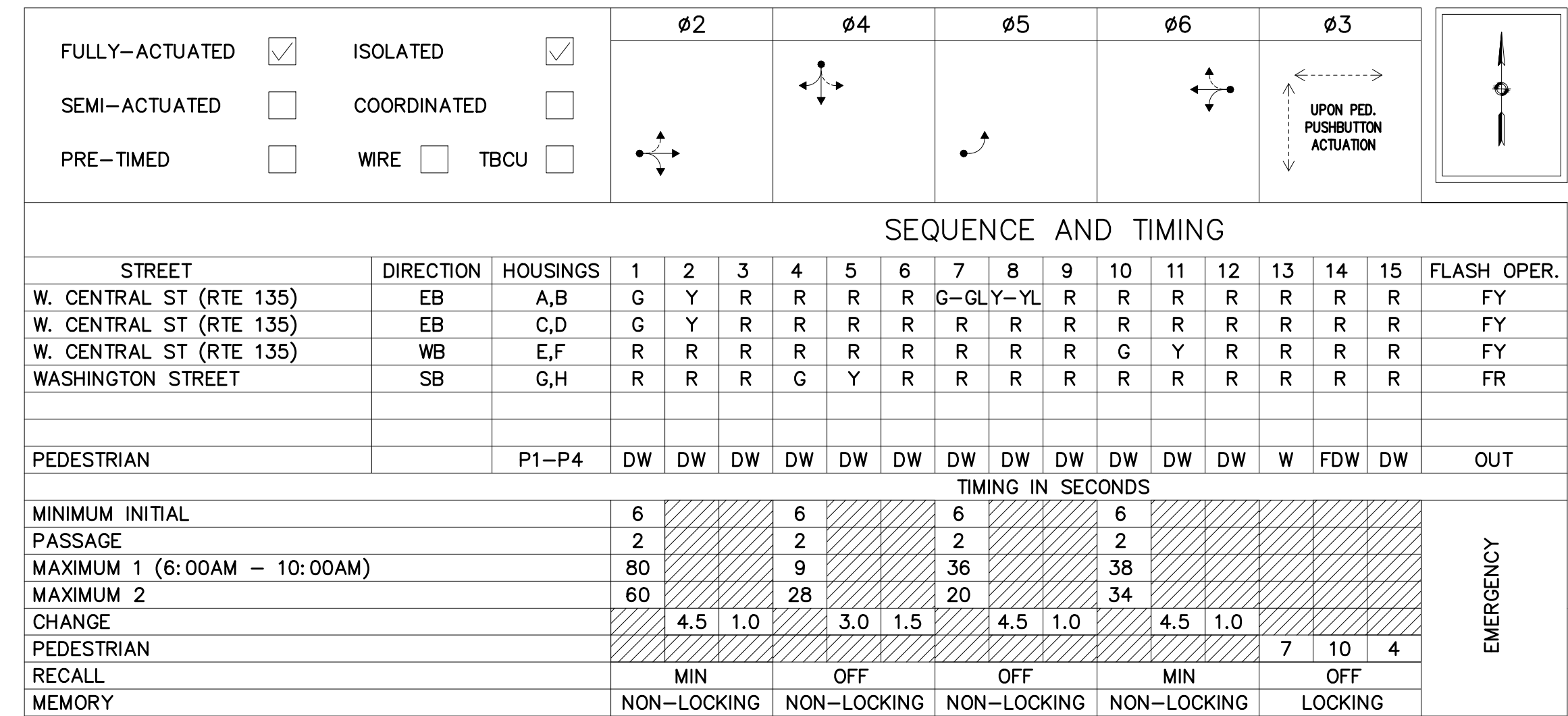


REC#2



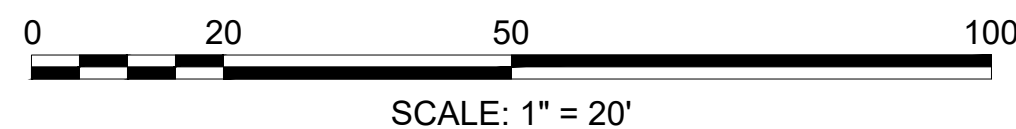
REC#3

EXISTING SIGNALS		
C,D,E,F,G,H	A,B	P ₁ - P ₄
<p>ALL 12" LENS</p> 	<p>ALL 12" LENS</p> 	<p>16" HOUSING</p> 



16188 LAYOUTS TASK 1.DWG 3/29/2018

NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.



WEST CENTRAL STREET
(ROUTE 135)

LOCATION NO. 18

SPEEN STREET

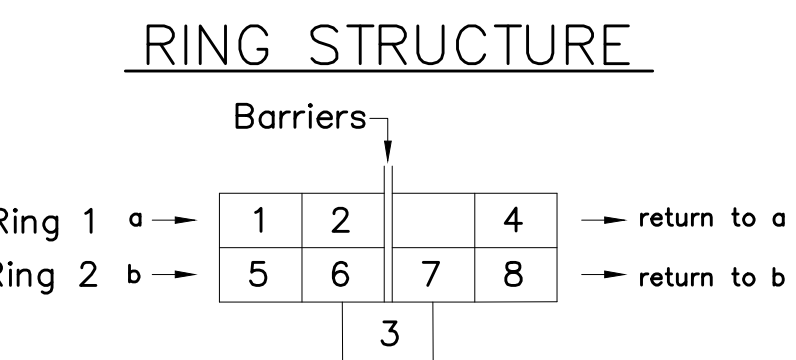
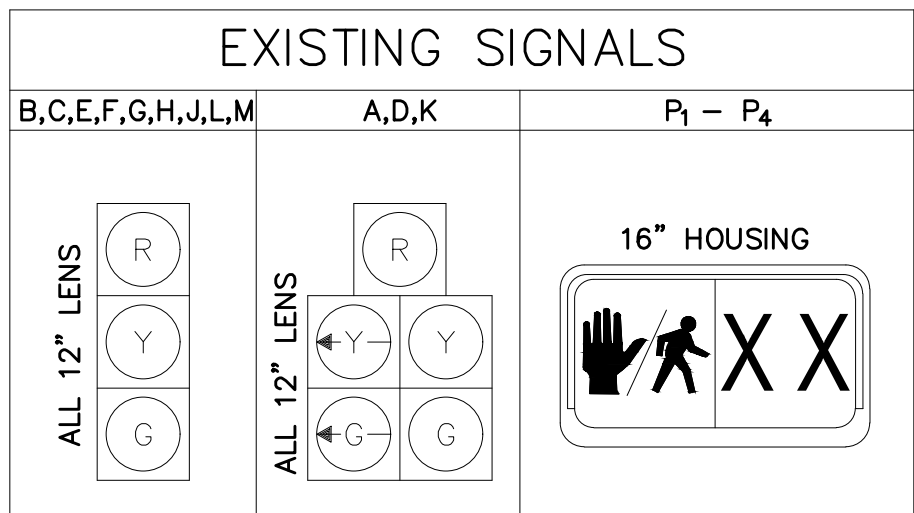
WEST CENTRAL STREET
(ROUTE 135)

SPEEN STREET

LEGEND:
[Symbol] SIGNAL CONTROLLER AND CABINET
[Symbol] VEHICULAR SIGNAL
[Symbol] PEDESTRIAN SIGNAL
[Symbol] PEDESTRIAN PUSH BUTTON
[Symbol] PREEMPTION RECEIVER
[Symbol] PREEMPTION STROBE LIGHT

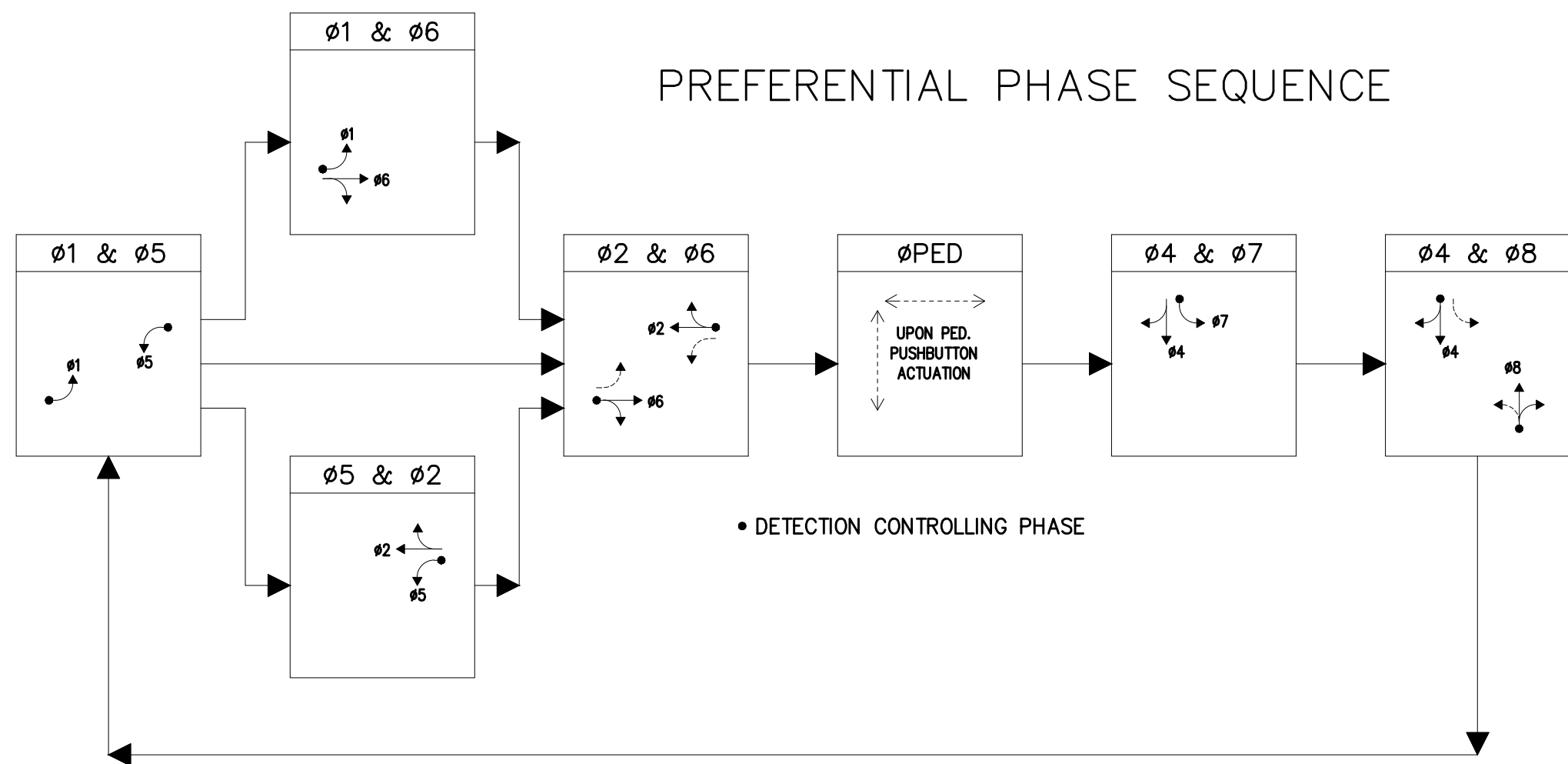
LOOP DETECTOR DATA									
DETECTOR NO.	NUMBER AND SIZE	SPLICE PATTERN	NO. OF TURNS	ø CALLED	ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME	
1	2-6'x20'	PARALLEL	QUAD. TYPE	1	1+6	B	-	-	
2	2-6'x20'	PARALLEL	QUAD. TYPE	2	2	B	-	-	
4	2-6'x20'	PARALLEL	QUAD. TYPE	4	4	B	-	-	
5	2-6'x20'	PARALLEL	QUAD. TYPE	5	5+2	B	-	-	
6	2-6'x20'	PARALLEL	QUAD. TYPE	6	6	B	-	-	
7	2-6'x20'	PARALLEL	QUAD. TYPE	7	7+4	B	-	-	
8	2-6'x20'	PARALLEL	QUAD. TYPE	8	8	B	-	-	

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI NSM-12
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
2	SPAN WIRE ASSEMBLY, BASE & FDN (100FT SPAN)
3	8' SIGNAL POST, BASE & FDN
1	10' SIGNAL POST, BASE & FDN
9	SIGNAL HEAD, 3 SECTION
3	SIGNAL HEAD, 5 SECTION
4	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
8	LOAD SWITCHES (12 SLOTS)
6	FLASH TRANSFER RELAYS (6 SLOTS)
9	PULL BOX 12"x12"
4	PEDESTRIAN HOUSING GRAPHIC LED WITH COUNTDOWN TIMER
4	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSH BUTTON INTEGRATED SIGN & SADDLE WITH LED CONFIRMATION LIGHT
14	ROADWAY VEHICLE LOOP DETECTOR (QUADRUPOLE TYPE)



FULLY-ACTUATED <input checked="" type="checkbox"/>		ISOLATED <input checked="" type="checkbox"/>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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PREFERENTIAL PHASE SEQUENCE



TRAFFIC CONTROLLER DATA

PARAMETER	SELECTION
PHASE ASSIGNMENTS	STD. NEMA
OVERLAPS	STD. NEMA
RINGS	DUAL
DUAL ENTRY	ON (ø2 & ø6) (ø4 & ø8)
SIMULTANEOUS GAP OUT DISABLED	YES (ø2 & ø6) (ø4 & ø8)
MINIMUM YELLOW IN SECONDS	3
MAX II BY INTERNAL CLOCK	YES
NIGHT TIME FLASH BY INTERNAL CLOCK	NOT USED

PREPARED FOR
DEPT. OF PUBLIC WORKS
75 WEST ST
NATICK, MA

TRAFFIC SIGNAL INVENTORY
NATICK, MASSACHUSETTS

REVISIONS

NO.	REVISION	DATE

3/30/18

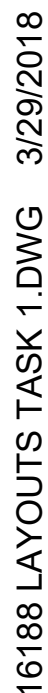
DRAWN/DESIGN BY
CTW

CHECKED BY
JWD

TRAFFIC SIGNAL
AS-BUILT

LOCATION 18

SCALE:
1"=20'



NOTE: THE SOLE PURPOSE OF THIS PLAN IS TO RECORD THE AS-BUILT TRAFFIC SIGNAL CONDITIONS. INFORMATION SHOWN IS BASED ON A VISUAL SURVEY OF THE INTERSECTION AND THE CONTROLLER PERFORMED IN THE FALL OF 2017 AND SUPPLEMENTED WITH GIS INFORMATION. ALL LOCATIONS SHOWN ARE APPROXIMATE ONLY.

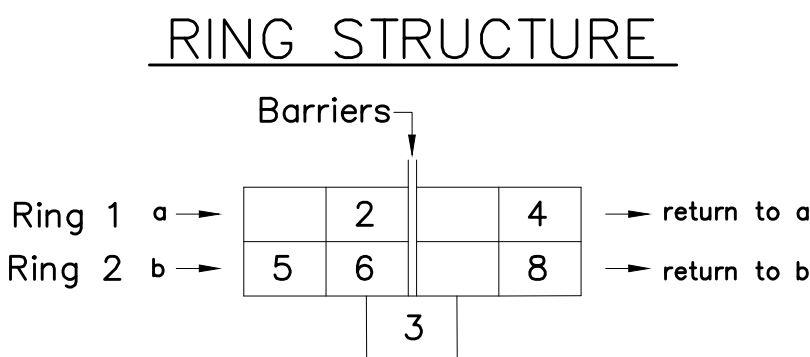
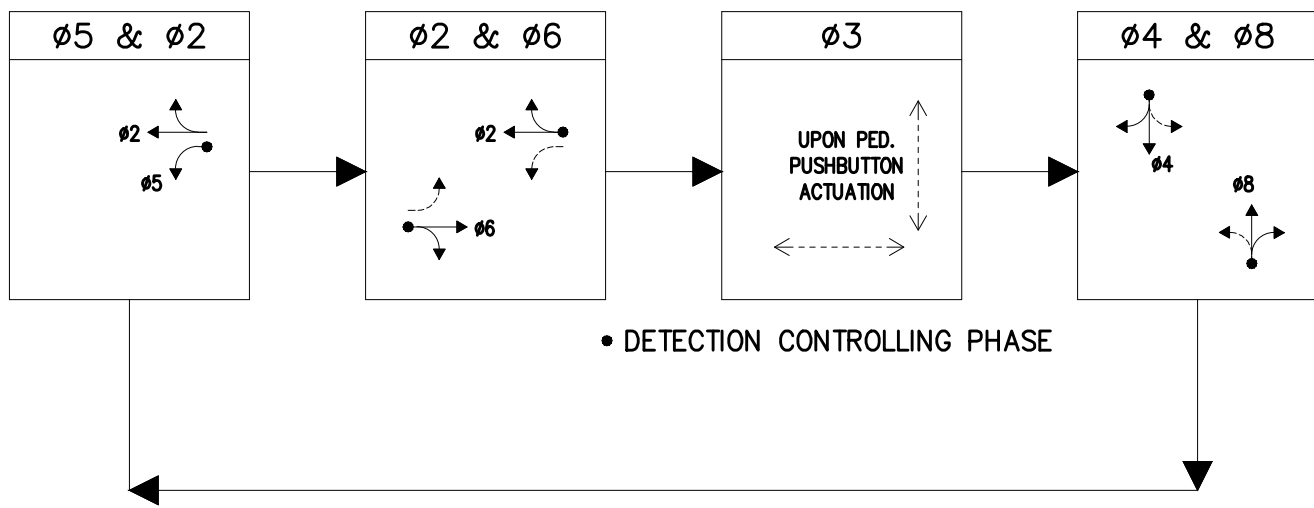
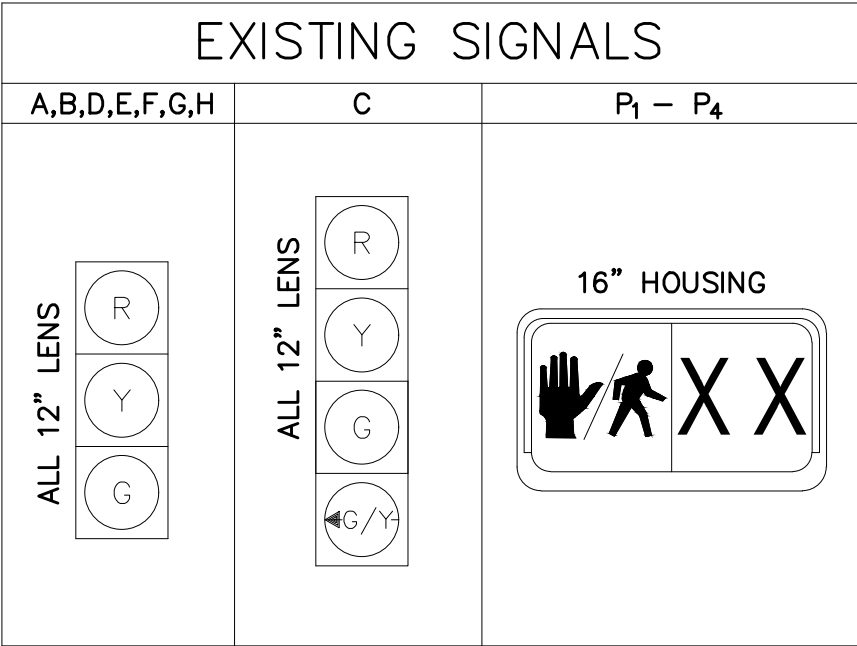
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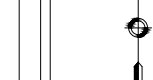
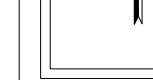
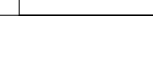

- ☒ SIGNAL CONTROLLER AND CABINET
- ➔ VEHICULAR SIGNAL
- ♿ PEDESTRIAN SIGNAL
- ⬇ PEDESTRIAN PUSH BUTTON
- ◊ PREEMPTION RECEIVER
- ✳ PREEMPTION STROBE LIGHT

TRAFFIC CONTROLLER DATA	
PARAMETER	SELECTION
PHASE ASSIGNMENTS	STD. NEMA
OVERLAPS	STD. NEMA
RINGS	DUAL
DUAL ENTRY	ON (#2 & #6) (#4 & #8)
SIMULTANEOUS GAP OUT DISABLED	YES (#2 & #6) (#4 & #8)
MINIMUM YELLOW IN SECONDS	3
MAX II BY INTERNAL CLOCK	YES
NIGHT TIME FLASH BY INTERNAL CLOCK	NOT USED

DETECTOR NO.	NUMBER AND SIZE	SPLICE PATTERN	NO. OF TURNS	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
2	2-6'x20'	PARALLEL	QUAD. TYPE	2	2	B	-	-
4	2-6'x20'	PARALLEL	QUAD. TYPE	4	4	B	-	-
5	2-6'x20'	PARALLEL	QUAD. TYPE	5	5+2	B	-	-
6	4-6'x20'	PARALLEL	QUAD. TYPE	6	6	B	-	-
8	2-6'x20'	PARALLEL	QUAD. TYPE	8	8	B	-	-
B1	6'x6'	BICYCLE TYPE D-2		4	4	B	-	-

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI MMU-12
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
1	35' MAST ARM ASSEMBLY, BASE & FDN
1	25' MAST ARM ASSEMBLY, BASE & FDN
1	8' SIGNAL POST, BASE & FDN
2	10' SIGNAL POST, BASE & FDN
7	SIGNAL HEAD, 3 SECTION
1	SIGNAL HEAD, 4 SECTION
4	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
6	LOAD SWITCHES (12 SLOTS)
4	FLASH TRANSFER RELAYS (6 SLOTS)
12	PULL BOX 12"X12"
4	PEDESTRIAN HOUSING GRAPHIC LED WITH COUNTDOWN TIMER
4	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSH BUTTON INTEGRATED SIGN & SADDLE WITH LED CONFIRMATION LIGHT
12	ROADWAY VEHICLE LOOP DETECTOR (QUADRUPOLE TYPE)
1	BICYCLE LOOP DETECTOR TYPE D2



FULLY—ACTUATED	<input checked="" type="checkbox"/>	ISOLATED	<input checked="" type="checkbox"/>
SEMI—ACTUATED	<input type="checkbox"/>	COORDINATED	<input type="checkbox"/>
PRE-TIMED	<input type="checkbox"/>	WIRE <input type="checkbox"/> TBCU <input type="checkbox"/>	
			

SEQUENCE AND TIMING

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	7	8	9	10	11	12	13	14	15	FLASH OPER.
W. CENTRAL ST (RT 135)	EB	A,B	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FY
W. CENTRAL ST (RT 135)	WB	C	G	Y	R	R	R	R	R	R	R	G-GLY-YL	R	R	R	R	R	R	R	R	FY
W. CENTRAL ST (RT 135)	WB	D	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
MILL STREET	NB	E,F	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	FR
MILL STREET	SB	G,H	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	FR
PEDESTRIAN		P1-P4	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT

TIMING IN SECONDS

	10					7			5			10			7						
MINIMUM INITIAL PASSAGE	4					3			3			4			3						
MAXIMUM 1 (6:00AM–10:00AM)	67					35			5			76			35						
MAXIMUM 2	51					41			5			60			41						
MAXIMUM 3	*					*			*			*			*						
CHANGE PEDESTRIAN RECALL MEMORY		4.0	1.0			7	10	4		4.0	2.0		3.0	1.0		4.0	1.0		4.0	2.0	
		MIN				OFF				OFF				MIN				OFF			
		NON-LOCKING				LOCKING				NON-LOCKING				NON-LOCKING				NON-LOCKING			

*NOT USED

PREPARED FOR
DEPT. OF PUBLIC WORKS
75 WEST ST
NATICK, MA

TRAFFIC SIGNAL INVENTORY

NATICK, MASSACHUSETTS

REVISIONS		
NO.	REVISION	DATE
3/30/18		
DRAWN/DESIGN BY CTW		CHECKED BY JWD

TRAFFIC SIGNAL AS-BUILT

LOCATION 19

SCALE: 1"=20'

19 OF 22



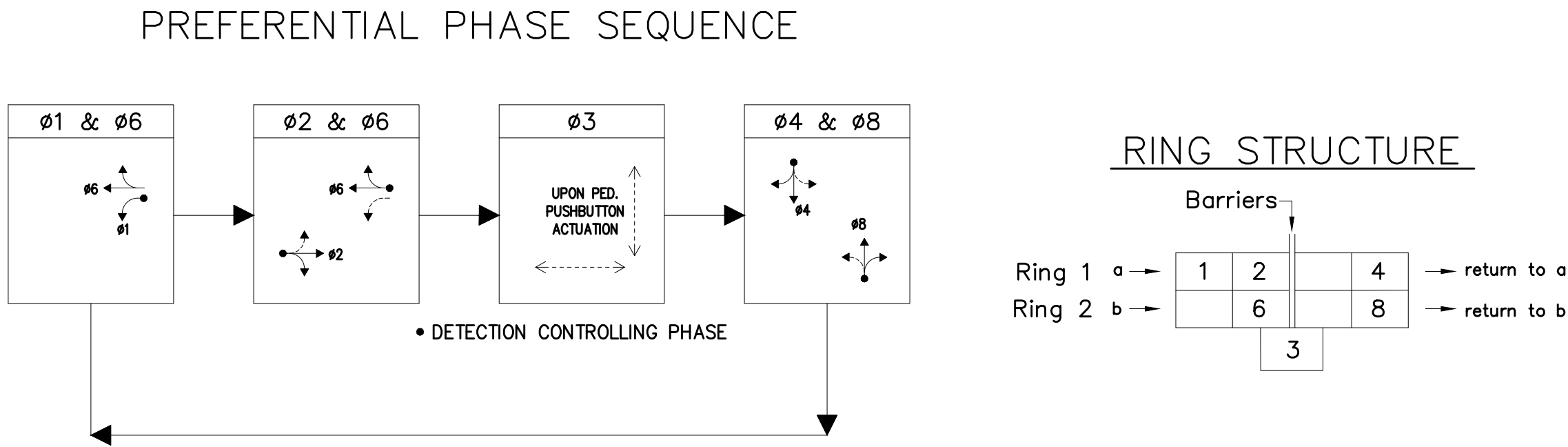
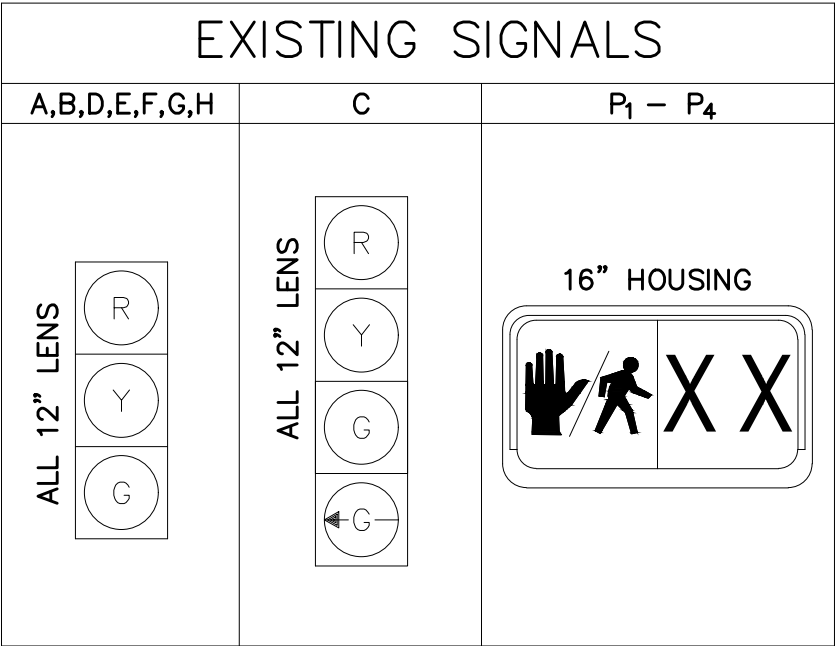
LEGEND:

- ☒ SIGNAL CONTROLLER AND CABINET
- ↑ VEHICULAR SIGNAL
- ⬆ PEDESTRIAN SIGNAL
- ⊙ PEDESTRIAN PUSH BUTTON
- ◊ PREEMPTION RECEIVER
- ✱ PREEMPTION STROBE LIGHT

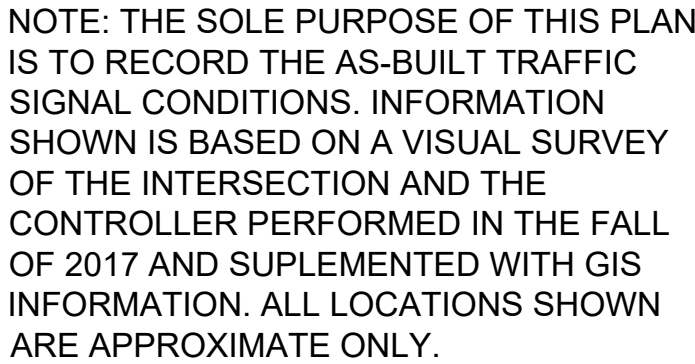
DETECTOR NO.	NUMBER AND SIZE	SPIUCE PATTERN	NO. OF TURNS	♂ CALLED	EXT.	MODE. A=PULSE B=PRE-S.	DELAY TIME	EXT. TIME
①	2-6"x20"	PARALLEL	QUAD. TYPE	1	1+6	B	-	-
②	2-6"x20"	PARALLEL	QUAD. TYPE	2	2	B	-	-
⑥	2-6"x20"	PARALLEL	QUAD. TYPE	6	6	B	-	-

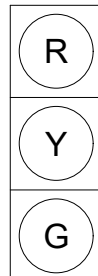
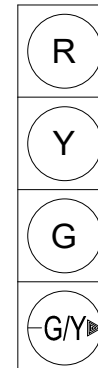
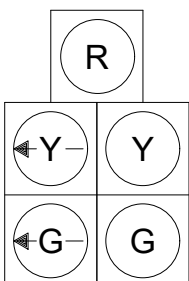

TRAFFIC CONTROLLER DATA	
PARAMETER	SELECTION
PHASE ASSIGNMENTS	STD. NEMA
OVERLAPS	STD. NEMA
RINGS	DUAL
DUAL ENTRY	ON (#2 & #6) (#4 & #8)
SIMULTANEOUS GAP OUT DISABLED	YES (#2 & #6) (#4 & #8)
MINIMUM YELLOW IN SECONDS	3
MAX II BY INTERNAL CLOCK	YES
NIGHT TIME FLASH BY INTERNAL CLOCK	NOT USED

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER TCT LMD 8000
1	CONFLICT MONITOR TCT 12
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
2	SPAN WIRE ASSEMBLY, BASE & FDN (120FT SPAN)
2	8' SIGNAL POST, BASE & FDN
2	10' SIGNAL POST, BASE & FDN
7	SIGNAL HEAD, 3 SECTION
1	SIGNAL HEAD, 4 SECTION
3	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
5	LOAD SWITCHES (12 SLOTS)
3	FLASH TRANSFER RELAYS (6 SLOTS)
8	PULL BOX 12"x12"
4	PEDESTRIAN HOUSING GRAPHIC LED WITH COUNTDOWN TIMER
4	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSH BUTTON INTEGRATED SIGN & SADDLE WITH LED CONFIRMATION LIGHT
8	ROADWAY VEHICLE LOOP DETECTOR (QUADRUPOLE TYPE)



FULLY-ACTUATED		<input checked="" type="checkbox"/>	ISOLATED		<input checked="" type="checkbox"/>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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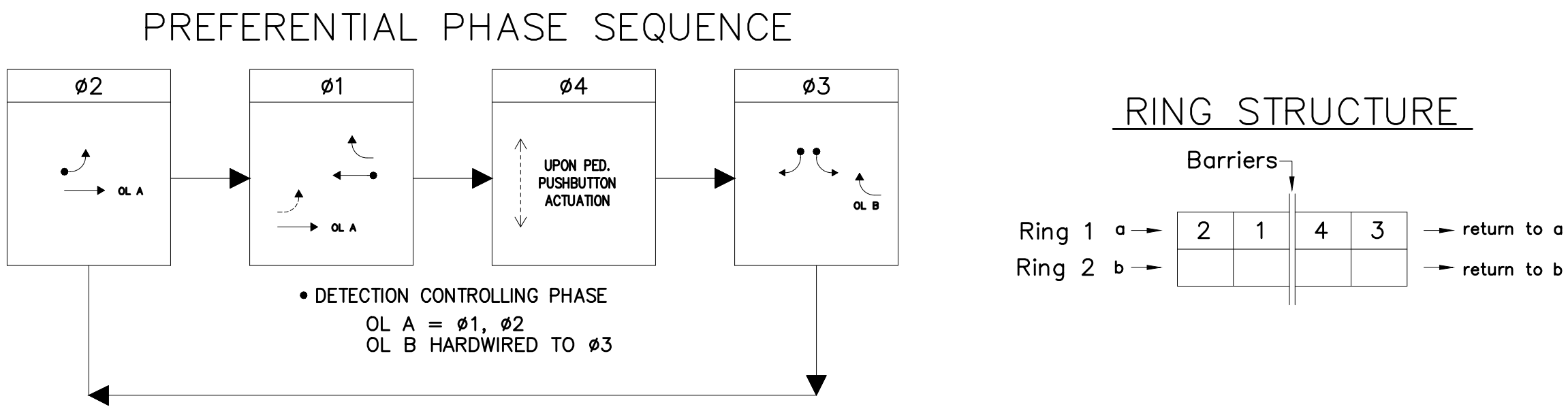


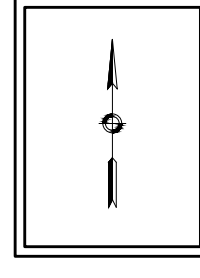
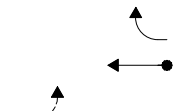
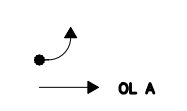
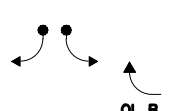

EXISTING SIGNALS			
B,C,D,E,G,H	F	A	P1-P2
<p>3 X 12" LENS</p> 	<p>4 X 12" LENS</p> 	<p>5 X 12" LENS</p> 	<p>12" HOUSING</p> 

COMMONWEALTH ROAD DAILY & WEEKLY PROGRAM			
	MONDAY - FRIDAY	SATURDAY	SUNDAY
PLAN 1	0700 - 1000	-	-
MAX2	1600 - 1800	-	-
PLAN 2	-	1000 - 1500	-
FREE OPERATION ALL OTHER TIMES			

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	CABINET NEMA TS1 w/FDN
1	TRAFFIC CONTROLLER EAGLE EPAC300
1	CONFLICT MONITOR EDI SSM6LE-C
1	SERVICE CONNECTION (OVERHEAD FROM UTILITY POLE)
1	25' TYPE 2 MAST ARM ASSEMBLY
1	30' TYPE 2 MAST ARM ASSEMBLY
1	10' SIGNAL POST, BASE & FDN
1	8' SIGNAL POST, BASE & FDN
6	3 SECTION SIGNAL HEAD
1	4 SECTION SIGNAL HEAD
1	5 SECTION SIGNAL HEAD
2	PEDESTRIAN HOUSING GRAPHIC LED
2	PEDESTRIAN PUSH BUTTON
	ROADWAY VEHICLE LOOP DETECTOR
3	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
5	LOAD SWITCHES (8 SLOTS)
3	FLASH TRANSFER RELAYS (4 SLOTS)
5	PULLBOX

COMMONWEALTH ROAD @ TJX DRIVEWAY COORDINATION DATA (ALL ENTRIES IN SECONDS)				
	PLAN 1		PLAN 2	
CYCLE	102		102	
OFFSET	60		69	
	w/O Ø9	w/Ø9	w/O Ø9	w/Ø9
SPLIT TIME Ø1	55	55	52	52
SPLIT TIME Ø2	25	25	20	20
SPLIT TIME Ø3	22	22	30	30
SPLIT TIME Ø4		0		0



FULLY-ACTUATED		<input checked="" type="checkbox"/>	ISOLATED		<input type="checkbox"/>	Ø1		Ø2		Ø3		Ø4				
SEMI-ACTUATED		<input type="checkbox"/>	COORDINATED		<input checked="" type="checkbox"/>	 QL A		 QL A		 QL B		 UPON PED. PUSHBUTTON ACTUATION				
PRE-TIMED		<input type="checkbox"/>	WIRE		<input type="checkbox"/>	TBCU		<input type="checkbox"/>								
SEQUENCE AND TIMING																
STREET		DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	FLASH OPER.
COMMONWEALTH ROAD		WB	C, D, E, F	G	Y	R	R	R	R	R	R	R	R	R	R	FY
COMMONWEALTH ROAD		WB	F	G	Y	R	R	R	R	R	R	R	R	R	R	FY
COMMONWEALTH ROAD		EB	A, B	G	Y	R	G/GL	YY/L	R	R/G/R	R/Y/R	R	R	R	R	FY
TJX DRIVEWAY		SB	G, H	R	R	R	R	R	R	G	Y	R	R	R	R	FR
PEDESTRIAN		ALL	P1-P2	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW		OUT
TIMING IN SECONDS																
MINIMUM INITIAL				12						6						EMERGENCY
PASSAGE				4.0					3.0							
MAXIMUM 1				50					15							
MAXIMUM 2				30					50							
CHANGE																
PEDESTRIAN									4.0	1.0			4.0	1.0		
RECALL																
MEMORY																
				MIN			OFF			OFF			OFF			
				LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			

PREPARED FOR
DEPT. OF PUBLIC WORKS
75 WEST ST
NATICK, MA

TRAFFIC SIGNAL INVENTORY

NATICK, MASSACHUSETTS

REVISIONS		
NO.	REVISION	DATE
3/30/18		
DRAWN/DESIGN BY CTW		CHECKED BY JWD

TRAFFIC SIGNAL
AS-BUILT
LOCATION 21

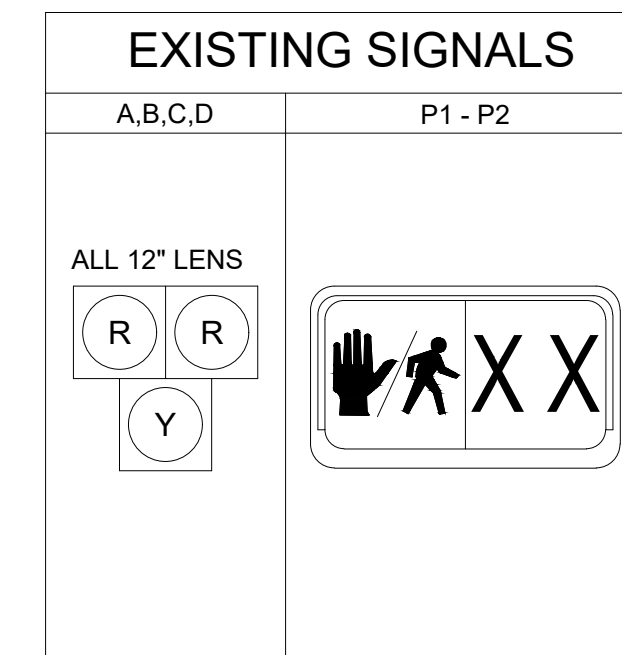
SCALE: 1"=20'



LEGEND:

- ☒ SIGNAL CONTROLLER AND CABINET
- ➡ VEHICULAR SIGNAL
- ⬇ PEDESTRIAN SIGNAL
- ⦿ PEDESTRIAN PUSH BUTTON
- ◊ PREEMPTION RECEIVER
- ✱ PREEMPTION STROBE LIGHT

EXISTING ITEMS	
QUANTITY	DESCRIPTION
1	TRAFFIC CONTROLLER & CABINET NEMA TS2-TYPE 1 w/FOUNDATION
1	SERVICE CONNECTION (OVERHEAD FROM EXIST. RISER, UTILITY POLE #XX)
1	8' SIGNAL POST, BASE & FDN.
1	40" MAST ARM ASSEMBLY, BASE & FDN.
4	SIGNAL HEAD, 3 SECTION (HYBRID BEACON: RED-RED-YELLOW)
2	PEDESTRIAN HOUSING GRAPHIC LED WITH COUNTDOWN TIMER
2	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSH BUTTON (APS TYPE) INTEGRATED R10-3e SIGN & SADDLE w/LED CONFIRMATION LIGHT
2	PULL BOX 12"x12" - SD2.031
PLUS ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL.	



*** UPON PEDESTRIAN
PUSH BUTTON ACTUATION**

FULLY-ACTUATED <input type="checkbox"/>	ISOLATED <input checked="" type="checkbox"/>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">Ø1</div> <div style="text-align: center;">* PED Ø</div> </div>
SEMI-ACTUATED <input checked="" type="checkbox"/>	COORDINATED <input type="checkbox"/>	
PRE-TIMED <input type="checkbox"/>	WIRE <input type="checkbox"/> TBCU <input type="checkbox"/>	

SEQUENCE AND TIMING

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	FLASH OPER.
W. CENTRAL STREET (ROUTE 135)	EB	A,B	DARK	FY	SY	SR	FR	DARK
W. CENTRAL STREET (ROUTE 135)	WB	C,D	DARK	FY	SY	SR	FR	DARK
PEDESTRIAN		P1-P2	DW	DW	DW	W	FDW	DARK

TIMING IN SECONDS

MINIMUM INITIAL PASSAGE	60				
MAXIMUM 1					
MAXIMUM 2					
CHANGE					
PEDESTRIAN					
RECALL	-	OFF			
MEMORY	-	LOCKING			

EMERGENCY

LEGEND

SY - STEADY YELLOW
FY - FLASHING YELLOW
SR - STEADY RED
FR - FLASHING RED (ALTERNATING)

Appendix E

Bidder's Questions

Bidder's Questions:

1. Does Natick have it owns(sic) traffic signal equipment specification it can provide or provide information on existing signal equipment used in the Town ?

Response: Refer to Appendix D – Traffic Signal As-Built, Natick Massachusetts, for information related to existing signal equipment used in the Town. Also, the Town of Natick uses opticom manufactured by GTT Opticom.

2. Have soil borings been performed at the locations of the mast arms ? If so can they be provided?

Response: Soil borings have not been performed at the mast arm locations. Test pit excavations have been performed adjacent to the proposed mast arm locations. Test pit logs are included in the plans on sheet CP1.01.