

Project Manual

Volume 1 of 1

Strathmore Mill Asbestos and Hazardous Materials Abatement & Stack Demolition

**20 Canal Road
Turners Falls, MA**

February 2020

**Town of Montague
One Avenue A
115 Pleasant Street
Turners Falls, MA 01376**

Tighe&Bond

**PROJECT SCHEDULE
STRATHMORE MILL ASBESTOS AND HAZARDOUS MATERIALS
ABATEMENT & STACK DEMOLITION
TURNERS FALLS, MA**

1. Contract Documents Available for Bidders – Wednesday, February 12, 2020
2. Mandatory Pre-Bid Meeting – Tuesday February 18, 2020, 10:00 AM
3. Contractor Questions Due By - 4:00 PM on Tuesday, February 25, 2020
4. Answers to Contractor Questions on Friday, February 28, 2020
5. Bids Due - On or before 2:00 PM Tuesday, March 3, 2020
6. Approximately 10 Days to issue a Contract
7. Anticipated Notice to Proceed on or around – Monday, March 16, 2020
8. Substantial Completion – On or before May 29, 2020
9. Final Completion – On or before June 30, 2020

**Strathmore Mill Asbestos and Hazardous Materials Abatement
& Stack Demolition
Turners Falls, Massachusetts
Town of Montague**

Table of Contents

Section Title

Division 0 – Bidding and Contract Requirements

00100	Advertisement for Bids
00200	Instructions to Bidders
00410	Form for General Bid
00520	Agreement Between Owner and Contractor
00610	Performance Bond
00615	Payment Bond
00700	General Conditions
00800	Supplementary Conditions
	Attachments to Supplementary Conditions
	A. Federal Davis-Bacon Wage Rates
	B. Massachusetts State Wage Rates
	C. Town of Montague Order of Conditions

Division 1 – General Requirements

01110	Summary of Work
01140	Work Restrictions
01290	Application and Certification for Payment
	A. EJCDC Application
01295	Schedule of Values
01350	Health and Safety
01510	Temporary Facilities
01520	Construction Facilities
01570	Temporary Controls
01725	Preservation and Restoration of Site Features

Division 2 – Existing Conditions

02220	Demolition (Alternate 1 and 2 Stack Demolition)
-------	---

Division 13 – Special Construction

13281	Asbestos Abatement
	A. Asbestos Abatement Schedule
13283	Hazardous Waste and Universal Materials Abatement
	A. Hazardous Materials / Universal Waste Materials Schedule

ATTACHMENTS:

Attachment A: FirstLight Travel Way Restriction Requirements Letter

Attachment B: Photographic Log of Building Conditions

Attachment C: Site Detail Drawings (4 Sheets) Bound Separately

TOWN OF MONTAGUE
SELECTBOARD
MONTAGUE, MASSACHUSETTS
ADVERTISEMENT FOR BIDS

Sealed Bids for the Strathmore Mill Asbestos and Hazardous Materials Abatement & Stack Demolition in Turners Falls, Massachusetts will be received by the SelectBoard at the Town Hall, 1 Avenue A, Turners Falls, MA 01376 until 2:00 p.m. local time on Tuesday, March 3, 2020 at which time the Bids received will be publicly opened and read. Sealed Bids must have outer envelope marked as “Strathmore Mill Asbestos and Hazardous Materials Abatement & Stack Demolition”.

The work includes furnishing all labor, equipment and materials required to perform site wide asbestos and hazardous materials abatement & stack demolition at the Strathmore Mill site in Turners Falls, Massachusetts. The project includes, but is not limited to, interior asbestos and hazardous materials abatement and disposal, boiler demolition to access all ACMs and stack demolition. Bids shall be on a lump sum basis, with alternate bid items as indicated in the Bid Form.

All Bids for this project are subject to the provisions of Massachusetts General Laws Chapter 149, Section 44A - 44J inclusive as amended.

In accordance with Section 44D of Chapter 149 of the General Laws of Massachusetts as amended, the prospective General Bidders must submit with their Bid, a certificate of eligibility issued by the Division of Capital Asset Management and Maintenance (DCAMM), showing that the Bidder has been approved to bid on projects of the size and nature as advertised herein. Prospective General Bidders must also submit an updated statement summarizing their record for the period between the latest DCAMM certificate and the date of the Bid submittal. The DCAMM certificate of eligibility to be submitted by the General Bidder shall be for the category of work defined as “Asbestos Removal”.

Bidding Documents may be examined and/or obtained at the office of the SelectBoard at the Town Hall, 1 Avenue A, Turners Falls, MA 01376 between the hours of 8:00 a.m. and 5:00 p.m., Monday through Thursday, legal holidays excluded. Bidders may also obtain Contract Documents through the Towns web site, www.montague-ma.gov/BIDS.

Bidding Documents will be mailed upon request via UPS Ground Service delivery for a non-refundable handling and postage charge of \$25.00. Alternatively, plan holders can provide either a UPS or FedEx account number to handle shipping charges. All deposit, handling, and postage charges shall be prepaid.

All Bidders shall furnish with their Bid a bid deposit in the form of a bid bond, cash or a certified check, treasurer’s check or cashier’s check issued by a responsible bank or trust company, in the amount of 5% of the total amount of the bid and made payable to the Town of Montague, Massachusetts.

Performance and Payment Bonds, in the full amount of the Contract price, will be required of the Successful Bidder.

No Bid may be withdrawn within sixty (60) days after the date of the opening of bids.

Disadvantaged Business Enterprise (DBE) goals are applicable to the total dollars paid to the construction contract. The goals for this project are a minimum of 3.40 percent D/MBE participation and 3.80 percent D/WBE participation by certified DBEs.

Minimum Wage Rates as determined by the Commissioner of Department of Workforce Development under the provision of the Massachusetts General Laws, Chapter 149, Section 26 to 27D, as amended, apply to this project. It is the responsibility of the Contractor, before Bid opening, to request if necessary, any additional information on Minimum Wage Rates for those trades people who may be employed for the proposed Work under this Contract. Federal Minimum Wage Rates as determined by the United States Department of Labor under the Davis-Bacon Act also apply to this project.

Provide all questions via email or written, within the questioning period as identified in these Documents to the Town of Montague's Consultant:

Brian F. Day

Tighe & Bond, Inc.

120 Front Street, Suite 7

Worcester, MA 01608

bfd@tighebond.com

A MANDATORY Pre-Bid conference will be held at the site on Tuesday, February 18, 2020 at 10:00 AM.

TOWN OF MONTAGUE, MASSACHUSETTS

END OF SECTION

SECTION 00200

INSTRUCTIONS TO BIDDERS

TABLE OF ARTICLES

1. Defined Terms
2. Copies of Bidding Documents
3. Qualifications of Bidders
4. Site and Other Areas; Existing Site Conditions; Examination of Site; Owner's Safety Program; Other Work at the Site
5. Pre-Bid Conference
6. Interpretations and Addenda
7. Bid Deposit
8. Contract Times
9. Liquidated Damages
10. Substitute and "Or Equal" Items
11. Preparation of Bid
12. Basis of Bid
13. Submittal of Bid
14. Modification or Withdrawal of Bid
15. Opening of Bids
16. Disqualification of Bidders
17. Bids to Remain Subject to Acceptance
18. Evaluation of Bids and Award of Contract
19. Contract Securities
20. Contract Insurance
21. Signing of Agreement
22. Sales Taxes
23. Federal (Davis-Bacon) Wage Rates
24. Massachusetts Prevailing Wage Rates
25. Competitive Bidding

ARTICLE 1 DEFINED TERMS

- 1.1 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions.

ARTICLE 2 COPIES OF BIDDING DOCUMENTS

- 2.1 Refer to Advertisement for Bids for information on examination and procurement of documents.
- 2.2 Complete sets of Bidding 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 Bidding Documents.
- 2.3 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3 QUALIFICATIONS OF BIDDERS

- 3.1 Bidders shall be experienced in the kind of Work to be performed, shall have the necessary equipment, and shall possess sufficient capital to properly execute the Work within the time allowed. Bids received from Bidders who have previously failed to complete Work within the time required, or who have previously performed similar Work in an unsatisfactory manner, may be rejected. A Bid may be rejected if Bidder cannot show that he has the necessary ability, plant and equipment to commence the Work at the time prescribed and thereafter to prosecute and complete the Work at the rate or within the time specified. A Bid may be rejected if Bidder is already obligated for the performance of other Work which would delay the commencement, prosecution or completion of the Work.
- 3.2 Bidders shall have a minimum of 5 years of experience and shall have successfully completed 5 asbestos abatement projects of similar scope within the past 5 years. Submit with the bid a summary of experience and representative projects to show compliance with these qualifications.
- 3.3 Bidders may be investigated by Owner to determine if they are qualified to perform the Work. All Bidders shall be prepared to submit within five days of Owner's or Engineer's request, written evidence of such information and data necessary to make this determination. The investigation of a Bidder will seek to determine whether the organization is adequate in size, is authorized to do business in the jurisdiction where the project is located, has had previous experience and whether available equipment and financial resources are adequate to assure Owner that the Work will be completed in accordance with the terms of the Agreement. Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of such Bidder fails to satisfy Owner that such Bidder is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein.
- 3.4 In accordance with Section 44D of Chapter 149 of the General Laws of Massachusetts as amended, the prospective General Bidders and Filed Sub-Bidders must submit, to Owner with their bid, a certificate of eligibility issued by the Division of Capital Asset Management & Maintenance (DCAMM), showing that the Bidder has been approved to bid on projects of the size and nature as advertised herein. Prospective General Bidders and Filed Sub-Bidders must also submit an updated statement summarizing their record for the period between the latest DCAMM certificate and the date of the bid submittal. The DCAMM certificate of eligibility to be submitted by Prospective General Bidder shall be for the category of Work defined as "Asbestos Removal".

ARTICLE 4 SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

- 4.1 The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any

additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment are to be obtained and paid for by Contractor.

4.2 Existing Site Conditions

A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. The Supplementary Conditions identify:
 - a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.
 - b. those drawings known to Owner of physical conditions in or relating to existing surface and subsurface structures at the Site (except Underground Facilities).
 - c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
 - d. Technical Data contained in such reports and drawings.
2. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions or information contained in such reports or shown or indicated in such drawings.
3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in paragraph 5.06 of the General Conditions.

4.3 Site Visit and Testing by Bidders

- A. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.

- B. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.
- C. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- D. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.4 Owner's Safety Program

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

ARTICLE 5 BIDDER'S REPRESENTATIONS

5.1 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, including any Addenda, data, and referenced items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, or performance of the Work;
- D. carefully study all reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or adjacent to the Site which have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and carefully study all reports and drawings relating to a Hazardous Environmental Condition, if any, at or adjacent to the Site which have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports;
- E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on 1) the cost, progress, and performance of the Work; 2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, , and 3) Bidder's safety precautions and programs;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations,

explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;

- G. become aware of the general nature of the Work to be performed by Owner and others at the site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and finishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 6 PRE-BID CONFERENCE

- 6.1 A **MANDATORY** pre-Bid conference will be held at the time and location stated in the invitation or advertisement to bid. Representatives of the Owner and Engineer will be present to discuss the Project. Bidders are required to attend and participate in the conference due to the complex nature of this project with respect to interior site conditions and stack location. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective. Failure to attend the mandatory pre-Bid conference will disqualify you as a bidder.

ARTICLE 7 INTERPRETATIONS AND ADDENDA

- 7.1 All questions about the meaning or intent of the Bidding Documents shall be submitted in writing to the Engineer via email to Brian F. Day at bfd@tighebond.com. Prospective bidders are responsible for ensuring their questions are received by the Engineer. In order to receive consideration, questions must be received by Engineer at least five days prior to the date fixed for the opening of Bids. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda to all parties recorded by Engineer as having received the Bidding Documents not later than three days prior to the date fixed for the opening of Bids. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.2 Addenda may be issued to clarify, correct, supplement or change the Bidding Documents. Such Addenda, if any, will be issued in the manner and within the time period stated in paragraph 7.2.
- 7.3 The Bidder must acknowledge receipt of each Addendum, if any, in the space provided on the Bid Form.

ARTICLE 8 BID DEPOSIT

- 8.1 A Bid must be accompanied by Bid deposit made payable to Owner in an amount of 5% of Bidder's maximum Bid price (including any additive alternates) and in the form of a certified check, bank money order, cash, or a Bid bond (on the form included in the Bidding

Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.

- 8.2 All Bid deposits of General Bidders, except those under consideration by Owner, will be returned within 5 days, excluding Saturdays, Sundays and legal holidays, after the opening of General Bids. Other Bid deposits will be returned upon the execution and delivery of the Agreement. The Bid deposit of the Successful Bidder will be retained until such bidder has furnished the required contract security and executed the Agreement, whereupon the bid deposit shall be returned. If the Successful Bidder fails to furnish the required contract security within 15 days after the Notice of Award and execute the Agreement within 5 days after receipt from Owner, Owner may annul the Notice of Award and the Bid deposit of that Bidder will be forfeited to Owner as liquidated damages for such failure.

ARTICLE 9 CONTRACT TIMES

- 9.1 The number of days within which, or the dates by which, the Work is to be:
- A. substantially completed, and/or
 - B. completed and ready for final payment are set forth in the Agreement.

ARTICLE 10 LIQUIDATED DAMAGES

- 10.1 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 SUBSTITUTE AND "OR EQUAL" ITEMS

- 11.1 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the effective date of the Contract.

ARTICLE 12 SUBCONTRACTORS, SUPPLIERS, AND OTHERS (NOT USED)

ARTICLE 13 PREPARATION OF BID

- 13.1 A Bid must be made on the Bid form included with the Project Manual. The Bid form shall not be altered in any way. Each hard copy of the Bidding Documents contains a separate, unbound copy of the Bid form to be used for submittal.
- 13.2 The Bid form must be completed in ink. Blank spaces in the Bid form must be filled in correctly where indicated, and the Bidder must state, both in words and numerals, the prices for which he proposes to complete each and every item of Work. Ditto marks shall not be used.
- 13.3 A Bidder shall execute his Bid as stated below.
- A. A Bid by an individual shall show the Bidder's name and official address.
 - B. A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature) accompanied by evidence of authority to sign. The official address of the partnership shall be shown.

- C. A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature) and must be accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the corporate secretary. The state of incorporation and the official corporate address shall be shown.
 - D. A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
 - E. A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
 - F. All names must be printed in ink below the signature.
- 13.4 The Bid shall contain an acknowledgment of the receipt of all Addenda in the space provided on the Bid form.
- 13.5 Postal and email addresses and telephone number to which communications regarding the Bid are to be directed shall be shown.
- 13.6 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.
- 13.7 In order to be considered for selection, the Bidder must submit a complete bid package in accordance with these Bidding Documents. Partial Bids will not be accepted. Refer to the Bid Form for a list of documents that shall be submitted in addition to the Bid Form.
- 13.8 Any deviations in completion of the Bid Form and accompanying documents from the instructions provided in this Article may be cause for rejection of the Bid.

ARTICLE 14 BASIS OF BID

14.1 Unit Price

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
- D. Unit prices for identical item numbers that are in more than one bid schedule shall be equal. Discrepancies will be resolved in favor of the lowest unit price.

- E. The price for alternates included in the Bid form will be the amount [added to] [deleted from] the base Bid if Owner selects the alternate. In the evaluation of Bids, alternates will be applied in the same order as listed in the Bid form. The award will be based on the lowest eligible Bid including all selected alternates.

14.2 Allowances

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents in accordance with paragraph 13.02 of the General Conditions.

ARTICLE 15 SUBMITTAL OF BID

- 15.1 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement for Bids and shall be enclosed in an opaque sealed envelope plainly marked with the Project title, the name and address of Bidder, and shall be accompanied by the Bid deposit and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED". When using the mail or other delivery system, the Bidder is totally responsible for the mail or other delivery system delivering the Bid at the place and prior to the time indicated in the Advertisement for Bids. A mailed Bid shall be addressed to Owner at the address in the Advertisement for Bids.
- 15.2 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 MODIFICATION OR WITHDRAWAL OF BID

16.1 Withdrawal Prior to Bid Opening

- A. A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

16.2 Modification Prior to Bid Opening

- A. If a Bidder wishes to modify its Bid prior to the Bid opening, Bidder must withdraw its initial Bid in the manner specified in paragraph 16.1.A and submit a new Bid prior to the date and time for the opening of Bids.

ARTICLE 17 OPENING OF BIDS

- 17.1 Bids will be opened as indicated in the Advertisement for Bids and publicly read aloud.
- 17.2 In order to be considered for selection, Bids must arrive at the designated location on or before the date and time specified in the Advertisement for Bids. Bidders mailing their Bids should allow for normal mail delivery time to ensure timely receipt of their Bids by Owner.
- 17.3 Bids received by mail or otherwise after the time specified for the opening of Bids will not be accepted and will be returned to the Bidder unopened.
- 17.4 No responsibility will attach to Owner, its employees or the Engineer for premature opening of a Bid not properly addressed and identified in accordance with the Bidding Documents.

ARTICLE 18 DISQUALIFICATION OF BIDDERS

- 18.1 More than one Bid for the same Work from an individual, or a firm, partnership, corporation or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder is interested.

ARTICLE 19 BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 19.1 All Bids will remain subject to acceptance for the period of time stated in the Bid form, but Owner may, in its sole discretion, release any Bid and return the Bid deposit prior to the end of this period.

ARTICLE 20 EVALUATION OF BIDS AND AWARD OF CONTRACT

- 20.1 Owner reserves the right to reject any and all Bids, to waive any and all informalities, and the right to disregard all nonconforming, nonresponsive or conditional Bids.
- 20.2 Owner reserves the right to reject any Bid not accompanied by specified documentation and Bid deposit.
- 20.3 Owner reserves the right to reject any Bid if it shows any omissions, alterations of form, additions not called for, conditions or qualifications, or irregularities of any kind.
- 20.4 Owner reserves the right to reject any Bid that, in his sole discretion, is considered to be unbalanced or unreasonable as to the amount bid for any lump sum or unit price item.
- 20.5 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 20.6 In evaluating whether a Bidder is responsible, Owner will consider the qualifications the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 20.7 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.
- 20.8 If the Owner awards the Contract for the Work, such award shall be to the responsible Bidder (who has neither been disqualified nor rejected pursuant to Article 18 or this Article 20) submitting the lowest responsive Bid.
- 20.9 Contents of the Bid of the Successful Bidder will become part of any contract awarded.

ARTICLE 21 CONTRACT SECURITIES

- 21.1 Performance and payment bonds shall be furnished by the successful Bidder. The amounts of and other requirements for performance and payment bonds are stated in Article 6 of the General Conditions. Performance and payment bonds submitted shall be posted by a recognized surety company having a place of business in the Commonwealth of Massachusetts. All performance and payment bonds signed by an agent must be accompanied by a certified copy of the authority to act. Performance Bonds and Payment Bonds shall be submitted on the forms included in Sections 00610 and 00615, respectively, of the Contract

Documents. Additional requirements may be stated in the General or Supplementary Conditions.

21.2 Within fifteen days of receiving the Agreement, Saturdays, Sundays and legal holidays excluded, the Successful Bidder shall deliver to Owner and Engineer, for review and approval, the performance bond and the payment bond he proposes to furnish at the time of the execution of the Agreement.

21.3 The required contract securities will become part of the Contract Documents.

ARTICLE 22 CONTRACT INSURANCE

22.1 The requirements for insurance to be provided by the Successful Bidder are stated in Article 6 of the General Conditions and in the Supplementary Conditions.

22.2 Within five days of receiving the Agreement, Saturdays, Sundays and legal holidays excluded, the Successful Bidder shall deliver evidence of required insurance to Owner and Engineer.

22.3 The required insurance certificates will become part of the Contract Documents.

ARTICLE 23 SIGNING OF AGREEMENT

23.1 The Owner will transmit the required number of unsigned Agreements to the Successful Bidder with the Notice of Award. Within five days of receiving the Agreement, Saturdays, Sundays and legal holidays excluded, the Successful Bidder shall sign the Agreements and return them to the Owner. The Owner will return one executed Contract to the Successful Bidder.

ARTICLE 24 SALES TAXES

24.1 Owner is exempt from Massachusetts State sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Bid. The exemption certificate will be provided to the Successful Bidder.

ARTICLE 25 FEDERAL (DAVIS-BACON) WAGE RATES

25.1 Federal Minimum Wage Rates as determined by the United States Department of Labor under the Davis-Bacon Act apply to this project. The Federal Minimum Wages at the time of printing of this document are included in Part II of the Supplementary Conditions.

25.2 It is the responsibility of the Bidder before the Bid opening to request any additional information on Federal Wage Rates for those tradespeople who may be employed for the proposed Work under this Contract.

ARTICLE 26 MASSACHUSETTS PREVAILING WAGE RATES

26.1 Minimum Wage Rates as determined by the Commissioner of Department of Workforce Development under the provision of the Massachusetts General Laws, Chapter 149, Sections 26 to 27D, as amended, apply to this project. The Wage Rate Determination is included in Part II of the Supplementary Conditions.

26.2 It is the responsibility of the Bidder before bid opening to request any additional information on Minimum Wage Rates for those tradespeople who may be employed for the proposed Work under this Contract.

ARTICLE 27 COMPETITIVE BIDDING

27.1 The bidding and the Award of the Contract and Subcontracts shall be in full compliance with Chapter 149, Sections 44A to 44J inclusive of the General Laws of the Commonwealth of

Massachusetts as amended. Bids from General Contractors shall be for the complete project as specified and shall include the names of all Subcontractors designated in the Bid Form, and the General Contractor shall be selected on the basis of such Bid. Each General Bid shall be divided into two parts.

- A. Part I - The Work of the General Contractor being all Work other than that covered by Part II.
- B. Part II - The Work of all Subcontractors and the Bid prices therefore as listed in the Form for General Bid attached hereto.

ARTICLE 28 COMMONWEALTH OF MASSACHUSETTS DISADVANTAGED
BUSINESS ENTERPRISE REQUIREMENTS

- 28.1 Disadvantaged Business Enterprise (DBE) goals are applicable to the total dollars paid to the construction contract. The goals for this project are a minimum of **3.40 percent D/MBE participation and 3.80 percent D/WBE participation** by certified DBEs.

END OF SECTION

SECTION 00410

FORM FOR GENERAL BID

PROJECT IDENTIFICATION:

Strathmore Mill Asbestos and Hazardous Materials Abatement & Stack Demolition
Montague, Massachusetts

TABLE OF ARTICLES

1. Bid Recipient
2. Bidder's Acknowledgements
3. Bidder's Representations
4. Bidder's Certifications
5. Basis of Bid
6. Time of Completion
7. Attachments to This Bid
8. Bid Submittal

ARTICLE 1 - BID RECIPIENT

- 1.1 This Bid is submitted to:

Town of Montague
Town Hall, 1 Avenue A,
Turners Falls, MA 01376

- 1.2 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDER'S ACKNOWLEDGEMENTS

- 2.1 Bidder accepts all of the terms and conditions of the Advertisement for Bids and Instructions to Bidders, including without limitation, those dealing with the disposition of Bid deposit. The Bid will remain subject to acceptance for 30 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

- 3.1 In submitting this Bid, Bidder represents, as set forth in the Agreement, that:
- A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents and hereby acknowledges the receipt of all Addenda.

- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and has satisfied itself as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 - BIDDER'S CERTIFICATION

- 4.1 Bidder certifies that Bidder 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 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, and that Bidder will comply fully with all laws and regulations applicable to awards made subject to MGL Chapter 149, Section 44A.

- 4.2 Pursuant to M.G.L.c.62C, s49A I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all state tax returns and paid all State Taxes required under law.
- 4.3 Pursuant to M.G.L.c.62C, s49A, bidder hereby certifies under the penalties of perjury, to the best of Bidder's knowledge and belief, that Bidder has complied with all laws of the commonwealth related to taxes, reporting of employees and contractors, and withholding and remitting of child support.
- 4.4 Bidder hereby certifies under the penalties of perjury, to the best of Bidder's knowledge and belief, that Bidder has filed all State tax returns and paid all State taxes required by law.
- 4.5 Bidder certifies that, under penalties of perjury, there have been no substantial changes in Bidder's financial position or business organization other than those changes noted within the application since the applicant's most recent prequalification statement and that the Bid is in all respects bona fide, fair and made without collusion or fraud with any other person. "Person" here means any natural person, joint venture, partnership, corporation or other business or legal entity which sells materials, equipment or supplies used in or for, or engages in the performance of, the same or similar construction, reconstruction, installation, demolition, maintenance or repair work or any part thereof.
- 4.6 Bidder certifies that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
- 4.7 Bidder certifies that Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
- 4.8 Bidder certifies that Bidder has not solicited or induced any individual or entity to refrain from bidding.
- 4.9 Bidder certifies that Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph:
 - A. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
 - B. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of the Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - C. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - D. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 - BASIS OF BID

5.1 Bidder proposes to furnish all labor and materials required for the project, in accordance with the accompanying Bidding Documents prepared by Tighe & Bond, Inc., for the Contract Price specified below, subject to additions and deductions according to the terms of the Bidding Documents.

5.2 This Bid includes Addenda numbered _____.

The proposed Contract Price (sum of Items 1 and 2) is:

_____ dollars
 (words)
 (\$ _____) (figures)

Alternate No. 1, \$ _____;

Alternate No. 2, \$ _____;

5.3 The proposed Contract Price (base bid) is as follows:

Item Number	Item Name and Prices Written in Words and Figures	Estimated Quantity	Total Amount of Item (in figures)
1	Abatement and lawful disposal of all inventoried asbestos as specified herein per the lump sum price of: _____ (\$ _____)	Lump Sum =	\$ _____
2	Hazardous/universal waste materials collection, remediation and lawful reclamation, disposal and/or recycling as specified herein for the lump sum price of: _____ (\$ _____)	Lump Sum =	\$ _____
		Total =	\$ _____

BID ALTERNATE #1 –Interior Built-up ash removal/disposal and Stack Demolition to Pedestal

Item Number	Item Name and Prices Written in Words and Figures	Estimated Quantity	Total Amount of Item (in figures)
1	Interior ash removal / disposal and demolition of smoke stack as specified herein for the lump sum price of:		
	(\$ _____)	Lump Sum =	\$ _____

BID ALTERNATE #2 –Stack Pedestal Demolition and Stack Debris Disposal

Item Number	Item Name and Prices Written in Words and Figures	Estimated Quantity	Total Amount of Item (in figures)
1	The demolition of the stack pedestal and off-site disposal of smoke stack demolition debris as specified herein for the lump sum price of:		
	(\$ _____)	Lump Sum =	\$ _____

ARTICLE 6 - TIME OF COMPLETION

- 6.1 Bidder agrees that the Work will be substantially completed and ready for final payment in accordance with paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.2 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times as stated in the Agreement.

ARTICLE 7 - ATTACHMENTS TO THIS BID

- 7.1 The following documents are attached to and made a condition of this Bid:
- A. Bid deposit in the amount of _____ dollars (\$ _____), consisting of a bid bond in the amount of five percent of the total amount of Bid
 - B. Evidence of authority to sign
 - C. List of Project References. Bidders shall have a minimum of 5 years' experience and shall have successfully completed 5 asbestos abatement projects of similar size and scope within the past 10 years. Submit with the bid a summary of experience and representative projects to show compliance with these qualifications.
 - D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids

- E. A list of adversarial proceedings in which the bidder is or was a party within the past 5 years that relate to the procurement or performance of any public or private construction contract together with a brief statement as to outcome if concluded or status if pending.
- F. A list of any projects on which the firm was terminated or failed to complete the work within the past 5 years, including a brief explanation for each instance listed.
- G. DCAMM Certificate of Eligibility
- H. DCAMM Update Statement
- I. MBE/WBE participation forms

ARTICLE 8 - BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:

[Signature]

[Printed name]

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature]

[Printed name]

Title:

Submittal Date:

Address for giving notices:

Telephone Number:

Fax Number:

Contact Name and e-mail address:

Bidder's License No.:

(where applicable)

END OF SECTION

SECTION 00520

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION
CONTRACT

This Agreement is by and between the Town of Montague, as requested by its SelectBoard hereinafter called Owner and _____ hereinafter called Contractor.

Owner and Contractor hereby agree as follows:

ARTICLE 1 WORK

- 1.1 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described with the following title: "Strathmore Mill Asbestos and Hazardous Materials Abatement & Stack Demolition".

ARTICLE 2 ENGINEER

- 2.1 The part of the Project that pertains to the Work has been designed by Tighe & Bond, Inc
- 2.2 It is expected that the Owner will retain Tighe & Bond ("Engineer") to act as Owner's representative, assuming all duties and responsibilities, rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 3 CONTRACT TIMES

- 3.1 Time of the Essence
- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 3.2 Substantial Completion and Final Payment
- A. The Work will be substantially completed on or before May 29, 2020, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before June 30, 2020.
- 3.3 Contractor and Owner recognize that time is of the essence as stated in Paragraph 3.1 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 3.2 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
- A. Substantial Completion: Contractor shall pay Owner \$(NOT APPLICABLE) for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 3.1 above for Substantial Completion until the Work is substantially complete.

ARTICLE 4 CONTRACT PRICE

- 4.1 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount equal to the prices stated in Contractor's Bid, attached hereto as an exhibit, subject to adjustment under the Contract.
- 4.2 The total amount will be based on the inclusion of Bid Alternate _____.

ARTICLE 5 PAYMENT PROCEDURES

- 5.1 Applications for Payment shall be processed in accordance with Article 15 of the General Conditions and in accordance with Massachusetts General Law.
- 5.2 Owner shall make progress payments on account of the Contract Price on the basis of processed Applications for Payment monthly during construction, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All progress payments will be measured by the Schedule of Values established as provided in the General Conditions, or in the event there is no schedule of values, as provided elsewhere in the Contract.
- 5.3 Owner shall retain from progress payments 5 percent of the value of Work completed.
- 5.4 Substantial Completion
- A. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to ninety-nine percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.
- 5.5 Final Payment
- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 6 CONTRACTOR'S REPRESENTATIONS

- 6.1 Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
- B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the

Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 7 CONTRACT DOCUMENTS

7.1 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 00520-1 to 00520-7; inclusive);
 - 2. Performance Bond (pages 1 to 3, inclusive);
 - 3. Payment Bond (pages 1 to 3, inclusive);
 - 4. General Conditions (title pages, table of contents, and pages 1 to 72, inclusive);
 - 5. Supplementary Conditions (pages 00800-1 to 00800-11 plus attachments, inclusive);
 - 6. Specifications (Divisions 1 through 13);
 - 7. Attachments A, B, and C and Site Detail Drawings (pages G-000 to G-003, inclusive)
 - 8. Addenda (numbers _____ to _____, inclusive);
 - 9. Exhibits to this Agreement (enumerated as follows):

- a. Contractor's Bid (pages 00410-1 to 00410-7, inclusive);
- 10. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed;
 - b. Work Change Directives;
 - c. Change Order(s);
 - d. Field Orders
- B. The documents listed in Paragraph 7.1.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 8 MISCELLANEOUS

8.1 Terms

- A. Terms used in this Agreement will have the meanings indicated in the General Conditions and the Supplementary Conditions.

8.2 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

8.3 Successors and Assigns

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

8.4 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

8.5 Contractor Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.5:
1. “corrupt practice” means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.
- B. Awarding Contractor agrees to review the Debarment Lists before soliciting or considering bids, contracting or negotiating with any sub-contractor for work under this agreement and [Contractor] will not knowingly solicit or consider bids, contract or negotiate with, or approve a subcontract with any vendor listed as debarred or suspended on the Debarment Lists.
- C. Awarding Contractor agrees that any sub-contracts for work under this agreement will: (i) include a certification that the sub-contractor is not listed as debarred or suspended on the Debarment Lists, and (ii) require that the sub-contractor confirm that it will review the Debarment Lists and not knowingly solicit or consider bids, contract or negotiate with, or approve a subcontract with any vendor listed as debarred or suspended on the Debarment Lists.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. This Agreement will be effective on _____, _____ (which is the Effective Date of the Contract).

OWNER:

By: _____

Title: _____

[CORPORATE SEAL]

Attest _____

Title: _____

Address for giving notices:

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution of other documents authorizing execution of Owner-Contractor Agreement.)

CONTRACTOR:

By: _____

Title: _____

[CORPORATE SEAL]

Attest _____

Title: _____

Address for giving notices:

License No. _____

(Where applicable)

(If Contractor is a corporation or a partnership, attach evidence of authority to sign.)

As required by M.G.L. Chapter 44 Section 31c, this is to certify that the Town of Montague has an appropriation which is adequate to cover the cost of this Contract.

Certified as to the availability of funds:

Date

Signed

Title

END OF SECTION

PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a

qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)

Contractor's Name and Corporate Seal

By: _____

Signature

Print Name

Title

Attest: _____

Signature

Title

(seal)

Surety's Name and Corporate Seal

By: _____

Signature *(attach power of attorney)*

Print Name

Title

Attest: _____

Signature

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the

Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



Copyright © 2013:

National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
www.asce.org

The copyright for this document is owned jointly by the three sponsoring organizations listed above. The National Society of Professional Engineers is the Copyright Administrator for the EJCDC documents; please direct all inquiries regarding EJCDC copyrights to NSPE.

NOTE: EJCDC publications may be purchased at www.ejcdc.org, or from any of the sponsoring organizations above.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page
Article 1 – Definitions and Terminology	1
1.01 Defined Terms	1
1.02 Terminology	5
Article 2 – Preliminary Matters	6
2.01 Delivery of Bonds and Evidence of Insurance	6
2.02 Copies of Documents	6
2.03 Before Starting Construction	6
2.04 Preconstruction Conference; Designation of Authorized Representatives	7
2.05 Initial Acceptance of Schedules	7
2.06 Electronic Transmittals	7
Article 3 – Documents: Intent, Requirements, Reuse	8
3.01 Intent	8
3.02 Reference Standards	8
3.03 Reporting and Resolving Discrepancies	8
3.04 Requirements of the Contract Documents	9
3.05 Reuse of Documents	10
Article 4 – Commencement and Progress of the Work	10
4.01 Commencement of Contract Times; Notice to Proceed	10
4.02 Starting the Work	10
4.03 Reference Points	10
4.04 Progress Schedule	10
4.05 Delays in Contractor’s Progress	11
Article 5 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions	12
5.01 Availability of Lands	12
5.02 Use of Site and Other Areas	12
5.03 Subsurface and Physical Conditions	13
5.04 Differing Subsurface or Physical Conditions	14
5.05 Underground Facilities	15

5.06	Hazardous Environmental Conditions at Site.....	17
Article 6 – Bonds and Insurance		19
6.01	Performance, Payment, and Other Bonds	19
6.02	Insurance—General Provisions	19
6.03	Contractor’s Insurance	20
6.04	Owner’s Liability Insurance	23
6.05	Property Insurance.....	23
6.06	Waiver of Rights	25
6.07	Receipt and Application of Property Insurance Proceeds	25
Article 7 – Contractor’s Responsibilities		26
7.01	Supervision and Superintendence	26
7.02	Labor; Working Hours	26
7.03	Services, Materials, and Equipment.....	26
7.04	“Or Equals”	27
7.05	Substitutes	28
7.06	Concerning Subcontractors, Suppliers, and Others	29
7.07	Patent Fees and Royalties	31
7.08	Permits	31
7.09	Taxes	32
7.10	Laws and Regulations.....	32
7.11	Record Documents.....	32
7.12	Safety and Protection.....	32
7.13	Safety Representative	33
7.14	Hazard Communication Programs	33
7.15	Emergencies	34
7.16	Shop Drawings, Samples, and Other Submittals.....	34
7.17	Contractor’s General Warranty and Guarantee.....	36
7.18	Indemnification	37
7.19	Delegation of Professional Design Services	37
Article 8 – Other Work at the Site		38
8.01	Other Work	38
8.02	Coordination	39
8.03	Legal Relationships.....	39

Article 9 – Owner’s Responsibilities.....	40
9.01 Communications to Contractor.....	40
9.02 Replacement of Engineer	40
9.03 Furnish Data	40
9.04 Pay When Due.....	40
9.05 Lands and Easements; Reports, Tests, and Drawings	40
9.06 Insurance	40
9.07 Change Orders.....	40
9.08 Inspections, Tests, and Approvals	41
9.09 Limitations on Owner’s Responsibilities	41
9.10 Undisclosed Hazardous Environmental Condition.....	41
9.11 Evidence of Financial Arrangements.....	41
9.12 Safety Programs	41
Article 10 – Engineer’s Status During Construction.....	41
10.01 Owner’s Representative.....	41
10.02 Visits to Site.....	41
10.03 Project Representative.....	42
10.04 Rejecting Defective Work.....	42
10.05 Shop Drawings, Change Orders and Payments.....	42
10.06 Determinations for Unit Price Work	42
10.07 Decisions on Requirements of Contract Documents and Acceptability of Work	42
10.08 Limitations on Engineer’s Authority and Responsibilities.....	42
10.09 Compliance with Safety Program.....	43
Article 11 – Amending the Contract Documents; Changes in the Work	43
11.01 Amending and Supplementing Contract Documents	43
11.02 Owner-Authorized Changes in the Work	44
11.03 Unauthorized Changes in the Work	44
11.04 Change of Contract Price	44
11.05 Change of Contract Times	45
11.06 Change Proposals	45
11.07 Execution of Change Orders.....	46
11.08 Notification to Surety.....	47
Article 12 – Claims.....	47

12.01	Claims	47
Article 13 – Cost of the Work; Allowances; Unit Price Work.....		48
13.01	Cost of the Work	48
13.02	Allowances	50
13.03	Unit Price Work	51
Article 14 – Tests and Inspections; Correction, Removal or Acceptance of Defective Work.....		52
14.01	Access to Work.....	52
14.02	Tests, Inspections, and Approvals	52
14.03	Defective Work.....	53
14.04	Acceptance of Defective Work.....	53
14.05	Uncovering Work	53
14.06	Owner May Stop the Work	54
14.07	Owner May Correct Defective Work.....	54
Article 15 – Payments to Contractor; Set-Offs; Completion; Correction Period		55
15.01	Progress Payments	55
15.02	Contractor’s Warranty of Title	58
15.03	Substantial Completion	58
15.04	Partial Use or Occupancy	59
15.05	Final Inspection	59
15.06	Final Payment.....	59
15.07	Waiver of Claims	61
15.08	Correction Period	61
Article 16 – Suspension of Work and Termination		62
16.01	Owner May Suspend Work	62
16.02	Owner May Terminate for Cause	62
16.03	Owner May Terminate For Convenience	63
16.04	Contractor May Stop Work or Terminate	63
Article 17 – Final Resolution of Disputes		64
17.01	Methods and Procedures	64
Article 18 – Miscellaneous		64
18.01	Giving Notice	64
18.02	Computation of Times.....	64
18.03	Cumulative Remedies	64

18.04	Limitation of Damages	65
18.05	No Waiver	65
18.06	Survival of Obligations	65
18.07	Controlling Law	65
18.08	Headings.....	65

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. 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, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 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. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document 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, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice 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.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *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.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
35. *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.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *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, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *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.
40. *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.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *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 a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *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 but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *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; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated 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 information in the Contract Documents and with the design concept of the 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 Article 10 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 15.03 or 15.04).
- 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. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that 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. *Bonds*: 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 Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), 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;
 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.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- 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 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *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 2.03.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 the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, 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.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, 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, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract 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, reference standard, 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 part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, 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 part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then 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 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
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 had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); 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 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers 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 its consultants, including electronic media editions, or reuse any 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 adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions 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.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *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 Contract 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 Contract. 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 Contract, whichever date is earlier.

4.02 *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 such date.

4.03 *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.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 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 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. 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, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, 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 Times and Contract Price. 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.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. 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. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *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.
- 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 permanent improvements are to be made 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.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all 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 directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent 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 and adjacent areas 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 of 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 structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, 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.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site 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 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; 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 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, 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 fall within any one or more of the categories described in Paragraph 5.04.A;
 - 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 Paragraph 13.03; and,

- c. 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.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a 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 otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent 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 do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; 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 information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then 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 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - 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 Paragraph 13.03;
 - c. 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; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors 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 removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) 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. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. 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, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. 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, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, 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 (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, 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 failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, 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. 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 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then 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 bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, 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.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. 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.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against 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. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, 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 (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
 - 1. include at least the specific coverages provided in this Article.
 - 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 - 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 - 5. be appropriate for the Work being performed and provide protection from claims that 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.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, 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.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable 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 Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, 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 insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, 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 Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, 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 or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, 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 occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.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, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, 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 builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *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.
- 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.

7.02 *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, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *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, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work 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.

7.04 "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 Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item 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 is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that 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, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, 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
 - 4) it is not objectionable to Owner.
 - 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.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. 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:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether 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
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
- d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable 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.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. 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 the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. 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.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. 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.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. 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 create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *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, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors 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 specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, 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.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, 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 the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *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.

7.10 *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 or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, 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 such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. 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, other work in progress, 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 Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.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 at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer 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).
 - F. Contractor's duties and responsibilities for safety and protection 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 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *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.

7.14 *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.

7.15 *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.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
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 of that submittal, and that Contractor approves the 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 set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- 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 7.16.D.

2. *Samples:*

- a. Contractor shall submit the number of Samples required in the Specifications.
- b. Contractor shall 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 7.16.D.

3. 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. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

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 or to safety precautions or programs incident thereto.
3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample 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 7.16.A.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 will document any such approved variation from the requirements of the Contract Documents in a Field Order.
5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

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.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *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 officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on 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;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, 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 officers, directors, members, partners, employees, agents, consultants, or subcontractors 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 7.18.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 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, 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.

7.19 *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 Laws and Regulations.
- 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, 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, 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 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. 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 such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, 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.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. 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.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all 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 damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *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.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *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.

10.02 *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 10.08. 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.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. 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.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. 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, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, 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 15.06.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 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes 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. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-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. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *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, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. 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, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

- C. *Contractor's Fee*: When applicable, 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 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.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 Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - 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 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. 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;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety 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), 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.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 Cost of the Work

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
 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 on the Work. 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, and 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 13.01.
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, as 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 6.05), 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 communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *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 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here 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 Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole 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, Change Proposal, Claim, set-off, or other 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 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, 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.

13.02 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*: Contractor agrees that:
 - 1. 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
 - 2. 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*: 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.

13.03 *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. Payments to Contractor for Unit Price Work will be based on actual quantities.
- 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. 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 the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price 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;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it 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 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- 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, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. 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, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then 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, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages 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 pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. 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, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *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, then 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.

14.07 *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, 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, then 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 14.07, 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, 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 incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. 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 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 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 during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *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, a warehouse bond, 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.
- C. *Review of Applications:*
 - 1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, 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 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, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and 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; or
 - b. 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 money 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 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. 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;
 - l. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, 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, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *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 and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- 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 preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- 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. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work 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 15.03 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 6.05 regarding builder's risk or other property insurance.

15.05 *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, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *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, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, 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, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

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 have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. 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 15.07. 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. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.
- D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *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 Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 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 to 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. 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 repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- 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, 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 are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *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 written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and 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);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, 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 complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.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 the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds 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.

- F. 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, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *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; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) 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 16.03.
- 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 are not intended to preclude Contractor from submitting a Change Proposal 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 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *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, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract 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.

18.03 *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. 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.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SECTION 00800

SUPPLEMENTARY CONDITIONS

PART 1 AMENDMENTS TO GENERAL CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC C-700, 2013 Edition) 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.

The terms used in these Supplementary Conditions have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings indicated below, which are applicable to both the singular and plural thereof.

The address system used in the Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix “SC” added thereto.

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

SC-1.01 Add the following after paragraph 1.01A.4:

- 1.01A.4.a. Filed Sub-Bidder – The individual or entity who submits a Bid to the General Bidder for projects subject to MGL Chapter 149, Section 44F.
- 1.01A.4.b. General Bidder – The individual or entity who submits a Bid directly to the Owner for projects subject to MGL Chapter 149, Section 44E.
- 1.01A.4.c. General Contractor – The individual or entity with whom the Owner has entered into the Agreement for projects subject to MGL Chapter 149, Section 44E.

ARTICLE 2 – PRELIMINARY MATTERS

SC-2.02 Delete paragraph 2.02A in its entirety and insert the following in its place:

- 2.02A Owner shall furnish to Contractor up to one printed or hard copy of the Drawings and Project Manual, and one copy in electronic portable document format (PDF). Additional copies will be furnished upon request at the cost of reproduction.

ARTICLE 3 –DOCUMENTS: INTENT, REQUIREMENTS, REUSE

SC-3.01 Replace paragraph 3.01E with the following paragraph:

- 3.01E In the event of conflicts, inconsistencies or discrepancies among the Contract Documents, to the extent applicable, the better quality or greater quantity of work shall be provided without change to the Contract Price. In the event of such conflicts, inconsistencies or discrepancies which do not relate to the quality or quantity of work, the Contractor shall request clarifications or interpretations from the Engineer as provided herein.

SC-3.01 Add the following new paragraph immediately after paragraph 3.01E:

3.01F Each and every provision of law and clause required by law to be inserted in these Contract Documents shall be deemed to be inserted herein, and they shall be read and enforced as though it were included herein, and if through mistake or otherwise, any such provision is not inserted, or if not correctly inserted, then upon the application of either party, the Contract Documents shall forthwith be physically amended to make such insertion.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.01 Delete paragraph 4.01A in its entirety and insert the following in its place:

4.01A The Contract Times will commence to run on the date specified in the Notice to Proceed.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.04 Add the following new paragraph immediately after paragraph 5.04D.4:

5.04D.5 Adjustment resulting from subsurface or latent physical conditions will be in accordance with Massachusetts General Law Chapter 30, Section 39N referenced in Part II of the Supplementary Conditions.

SC-5.06 Delete Paragraphs 5.06A and 5.06B in their entirety and insert the following:

5.06A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to the Owner other than previous asbestos survey inspection in which findings and data were incorporated into these Contract Documents.

5.06B. Not used.

ARTICLE 6 - BONDS AND INSURANCE

SC-6.03 Add the following new paragraph immediately after paragraph 6.03B.3:

6.03B.4 Insurance certificate(s) shall also contain the following:

1. Confirmation that the General Liability policy covers only the Work under this Contract, with project specific limits.
2. Confirmation that automobile insurance covers all Scheduled, Hired and Non-Owned vehicles.
3. Names of all additional insureds as specified herein.

SC-6.03 Add the words “and Paragraph 6.04” after the words “Paragraph 6.03” in Paragraph 6.03I.

SC 6.03 Add the following new paragraph immediately after Paragraph 6.03J:

6.03.K The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

Employer's Liability:

Bodily injury, each accident	<u>\$100,000</u>
Bodily injury by disease, each employee	<u>\$100,000</u>
Bodily injury/disease aggregate	<u>\$500,000</u>

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	<u>\$3,000,000</u>
Products - Completed Operations Aggregate	<u>\$3,000,000</u>
Personal and Advertising Injury Each Occurrence (Bodily Injury and Property Damage)	<u>\$1,000,000</u> <u>\$3,000,000</u>

3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

Bodily Injury:

Each person	<u>\$</u>
Each accident	<u>\$</u>

Property Damage:

Each accident	<u>\$</u>
---------------	-----------

[or]

Combined Single Limit of	<u>\$2,000,000</u>
--------------------------	--------------------

4. Excess or Umbrella Liability:

Per Occurrence	<u></u>
General Aggregate	<u>\$2,000,000</u>

5. Contractor's Pollution Liability:

Each Occurrence	<u>\$1,000,000</u>
General Aggregate	<u>\$3,000,000</u>

☐ If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

6. Additional Insureds: In addition to Owner, include as additional insureds the following:

- a. Tighe & Bond, Inc.
53 Southampton Rd.
Westfield, MA 01085
- b. Town of Montague
- c. Eagle Creek Renewable Energy, LLC
- d. FirstLight Hydro Generating Company, FirstLight Power
Resources Services, LLC and their directors, officers,
employees and affiliates
99 Millers Falls Road
Northfield, MA 01360

SC-6.04 Delete paragraph 6.04 in its entirety and insert the following in its place:

6.04 Contractor shall purchase and maintain a separate Owner's Protective Liability policy, issued to Owner at the expense of Contractor, including Owner as named insured. This insurance shall provide coverage for not less than the following amounts:

Bodily Injury	\$1,000,000	_____	Each Occurrence
	\$1,000,000	_____	Aggregate

Property Damage	\$1,000,000	_____	Each Occurrence
	\$1,000,000	_____	Aggregate

- A. Insurance coverage for the Contractor's Comprehensive General and Excess Liability policies and for the Owner's Protective Liability policy shall be written by one and the same insurance company to avoid the expense of duplicate and/or overlapping coverage and to facilitate and expedite the settlement of claims.
- B. The Owner's Protective Liability policy shall protect from claims which may arise from operations under the Contract, including operations performed for a named insured by independent contractors and general inspection or monitoring by a named insured. The policy also shall protect against Automobile Non-Ownership Liability in connection with the Contractor's operations under the Contract, whether such operations be by itself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

6.05 Not used.

SC-6.05 Add the following new subparagraph after subparagraph 6.05.A.1:

6.05.A.1.a In addition to Owner, Contractor, and all Subcontractors, include as insureds the following:

- 1) Tighe & Bond (53 Southampton Rd, Westfield, MA 01085)

ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES

SC-7.02 Add the following new paragraph immediately after paragraph 7.02B.

7.02C Whenever Owner shall notify Contractor in writing that any person on the Work appears to be incompetent, disorderly, or otherwise unsatisfactory, such person shall be removed from the Project and shall not again be employed on it except with the consent of Owner.

SC-7.06 Insert the following after Paragraph 7.06.A:

7.06A.1 The Contractor shall not award work valued at more than fifty percent of the Contract Price to Subcontractor(s), without prior written approval of the Owner.

SC-7.06 Add the following language at the end of paragraph 7.06O.2:

Contractor shall make payments to Subcontractors in accordance with Massachusetts General Law Chapter 30, Section 39F which is referenced in PART II of these Supplementary Conditions.

SC-7.06 Add the following language at the end of Paragraph 7.06L:

except as required otherwise by Massachusetts General Law Chapter 149, Section 44F.

SC-7.07 Delete paragraph 7.07B in its entirety and replace it with the following:

7.07.B The Owner has obtained the following permits and approvals for the Project. The Contractor is required to comply with the permit provisions. Copies of the permits are appended to this section.

A. Town of Montague Order of Conditions

SC-7.08 Delete the word "Owner" in the last sentence of Paragraph 7.08A and replace with the word "Contractor."

SC-7.09 Add the following sentence at the end of paragraph 7.09.A.

All materials provided under this Contract are exempt from the Sales and Use Taxes of the Commonwealth of Massachusetts. The exemption certificate will be provided to the Contractor.

SC-7.10 Add the following new paragraph immediately after paragraph 7.10C.

7.10D Contractor shall comply with all applicable provisions of Chapter 30, Section 39R of the Massachusetts General Laws regarding Contractor's records.

SC-7.18 Add the following new paragraph immediately after paragraph 7.18.C.

7.18D If, through acts of neglect on the part of Contractor, any other Contractor or any Subcontractor shall suffer loss or damage on the Work, Contractor

shall settle with such other Contractor or Subcontractor by agreement or arbitration if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor shall assert any claim against Owner on account of any such damage alleged to have been sustained, Owner shall notify Contractor, who shall indemnify, defend, and save harmless Owner against any such claim.

ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.A:

- B. On this Project, by agreement with the Owner, Engineer will not furnish a Resident Project Representative to represent Engineer at the Site or assist Engineer in observing the progress and quality of the Work.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

SC-11.04 Delete paragraph 11.04C.2.c in its entirety and insert the following in its place:

11.04C.2.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 12.01C.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 11.01A.1 and 11.01A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the Cost of the Work, not including any Subcontractor’s fee; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

SC-11.06 Insert the following sentence at the end of Paragraph 11.06.A.2:

If Engineer does not take action on the Change Proposal and neither Owner nor Contractor submit a letter to the other party indicating that the Change Proposal is deemed denied, then the Change Proposal shall be deemed denied after 60 days of Engineer’s receipt of the Contractor’s supporting data, thereby commencing the time for appeal of the denial under Article 12.

ARTICLE 13 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

SC-13.01 Delete the word “superintendents,” in the second sentence after the word “limitation,” in paragraph 13.01B.1.

SC-13.01 Delete paragraph 13.01B.5.c in its entirety and replace with the following:

13.01B.5.c The fair rental and operating cost of all machinery and equipment used on the extra work for the period of such use. The fair rental and operating cost for all machinery and equipment shall be based upon the most recent edition of “Rental Rate Bluebook for Construction Equipment” (the “Bluebook”), published by Equipment Watch (equipmentwatch.com), or a similar publication approved by Engineer and adjusted for regional and age adjustments as specified in the “Bluebook.” Rental periods

corresponding to the overall period of use shall be used, except if a piece of equipment used on extra work is already on the job, or has previously been rented for a long period of time (months), then the long-term rental rate (monthly) shall be used in determining costs. The hourly rental rate for long-term rental equipment will be determined by the monthly rental rate divided by 176.

For the situation where equipment is on the job and available for use but cannot be used due to a delay or suspension of a portion or all of the Contract activities, a rental standby rate may be paid if the Contractor can conclusively demonstrate to the satisfaction of the Engineer that: (1) the equipment cannot be used elsewhere on the Project or demobilized and remobilized at a cost lower than the cost of standby time, (2) that the equipment cannot be put in use due to factors beyond the Contractor's control, and (3) the equipment on standby would have been used as part of the Work that is suspended or put on hold. The standby rate will be calculated as no more than 50% of the rental rate as listed in the "Bluebook" and adjusted for regional and age adjustments. Lesser standby rates may apply if the Owner or Engineer can demonstrate that the Contractor's standby cost is less than this rate. The standby rate will not include operating costs. A standby rate will not be paid for equipment which is being employed for portions of the Work which are still underway. A standby rate will also not be paid for equipment which is readily demobilized including construction equipment categorized as "shop tools" or "miscellaneous" in the "Bluebook." Standby rates for durations of less than four hours will not be considered.

SC-13.01 Insert in the first sentence after the word "architects," the word "superintendents," in paragraph 13.01C.1

SC-13.01 Add the following new paragraph immediately after paragraph 13.01C.5:

13.01C.6 Costs of or rental of small tools; costs of or rental of buildings.

SC-13.03 Delete Paragraph 13.03B in its entirety and replace it with the following:

13.03B Since subject to change upon determination of actual quantities, estimated quantities of items of Unit Price Work are not guaranteed and serve to facilitate comparison of Bids and to determine an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

ARTICLE 14 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

SC-14.02 Insert after the word "notice" the words "(minimum 24 hours)" in paragraph 14.02A.

SC-14.03 Delete paragraph 14.03B in its entirety and replace with the following:

14.03B *Engineer's Authority:* At any time during the progress of the Work, Engineer shall have the authority to determine whether Work is defective,

and reject defective Work, even though such work has been previously inspected and paid for.

SC-14.06 Add the following new paragraph immediately after paragraph 14.06A.

14.06B If Owner stops work under Paragraph 14.06, Contractor shall not be entitled to an extension of Contract Time nor to an increase in Contract Price.

ARTICLE 15 - PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

SC-15.01 Delete paragraph 15.01D.1 in its entirety and insert the following in its place:

15.01D.1 Thirty days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

SC-15.03 Delete the second sentence in Paragraph 15.03A in its entirety.

SC-15.03 Delete paragraph 15.03C in its entirety and insert the following in its place:

15.03C If, after consultation with Owner, Engineer considers and the Owner agrees that the Work is substantially complete, Engineer will prepare and deliver to Contractor, in a form approved by Owner, a Certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be included with the certificate a list of items to be completed or corrected before final payment.

SC-15.03 Delete the word "preliminary" from paragraph 15.03D.

SC-15.04 Add the following new paragraph immediately after paragraph 15.04A.3:

15.04A.4 Owner may at any time request Contractor in writing to permit Owner to take over operation of any part of the Work although it is not substantially complete. A copy of such request will be sent to Engineer, and within a reasonable time thereafter Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If Contractor does not object in writing to Owner and Engineer that such part of the Work is not ready for separate operation by Owner, Engineer will finalize the list of items to be completed or corrected and will deliver such lists to Owner and Contractor together with a written recommendation as to the division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, maintenance, utilities, insurance, warranties, and guarantees for that part of the Work which will become binding upon Owner and Contractor at the time when Owner takes over such operation (unless they shall have otherwise agreed in writing and so informed Engineer). During such operation and prior to Substantial Completion of such part of the Work, Owner shall allow Contractor

reasonable access to complete or correct items on said list and to complete other related Work.

Paragraph 15.04.A.4 shall be renumbered to 15.04.A.5

SC-15.06 Delete paragraph 15.06.D in its entirety and insert the following in its place:

- D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, or other time period in accordance with applicable laws and regulations, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

ARTICLE 16 - SUSPENSION OF WORK AND TERMINATION

SC-16.01 Delete paragraph 16.01.A in its entirety and insert the following in its place:

- 16.01.A Owner may order, at any time and without cause, suspension of the Work in accordance with Massachusetts General Law Chapter 30, Section 39O, which is referenced in Part II of the Supplementary Conditions.

SC- 16.02 Add the following new paragraph immediately after paragraph 16.02.A.4:

- 16.02.A.5 If Contractor abandons the Work, or sublets this Contract or any part thereof, without the previous written consent of Owner, or if the Contract or any claim thereunder shall be assigned by Contractor otherwise than as herein specified.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

SC-17.02 Add the following paragraph after paragraph 17.01:

- 17.02 Venue
A. Any suit by either party arising under this Contract shall be brought only in the Superior Court in the county where the Project is located. The parties hereto waive any argument that this venue is improper or that the forum is inconvenient.

ARTICLE 18 - MISCELLANEOUS

SC-18.08 Add the following new paragraphs immediately after paragraph 18.08.

- 18.09 Wage Rates
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 wage rates established in compliance with laws shall be a part of these Contract Documents. Copies of the wage schedules are included in Part II of these Supplementary Conditions. If 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 rates 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 in such trade or occupation.

- B. 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 those specified in the schedules shall be resolved by Contractor.
- C. Per MGL Chapter 149, Section 27, Contractor shall comply with annual updates to the prevailing wage schedule which shall be effective on the anniversary date of the execution of the Contract.
- D. The said schedules of wages shall continue to be the minimum rates to be paid during the life of this Agreement and a legible copy of said schedules shall be kept posted in a conspicuous place at the site of the work.
- E. Both Federal and State schedules of minimum wage rates are included in Part II of these Supplementary Conditions. Where rates differ, the higher rates shall apply as a minimum for that trade.

PART II – FEDERAL AND STATE GOVERNMENT PROVISIONS

Federal and State Government Provisions referenced or 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 also inserted herein in accordance with paragraph 3.01.F of the Supplementary Conditions.

1.0 FEDERAL GOVERNMENT PROVISIONS

1.1 Labor Standards Provisions for Federal and Federally Assisted Contracts

1.2 Federal Wage Rates

2.0 COMMONWEALTH OF MASSACHUSETTS PROVISIONS

- 2.1 The Owner and Contractor agree that the following Commonwealth of Massachusetts Provisions apply to the work to be performed under this Contract and that these provisions supersede any conflicting provisions of this Contract.
- 2.2 Applicable provisions of Massachusetts General Laws and Regulations and/or the United States Code and Code of Federal Regulations govern this Contract and any provision in violation of the foregoing shall be deemed null, void and of no effect. Where conflict between Code of Federal Regulations and State Laws and Regulations exist, the more stringent requirements shall apply.
- 2.3 Massachusetts General Laws

- 2.3.1 Chapter 30, Section 39F
- 2.3.2 Chapter 30, Section 39G
- 2.3.3 Chapter 30, Section 39I
- 2.3.4 Chapter 30, Section 39J
- 2.3.5 Chapter 30, Section 39K
- 2.3.6 Chapter 30, Section 39L
- 2.3.7 Chapter 30, Section 39M
- 2.3.8 Chapter 30, Section 39N
- 2.3.9 Chapter 30, Section 39O
- 2.3.10 Chapter 30, Section 39P
- 2.3.11 Chapter 30, Section 39Q
- 2.3.12 Chapter 30, Section 39R
- 2.3.13 Chapter 44, Section 31C
- 2.3.14 Chapter 82, Section 40
- 2.3.15 Chapter 149, Section 34
- 2.3.16 Chapter 149, Section 44F
- 2.3.17 Chapter 149, Section 44G
- 2.3.18 Chapter 149, Section 44J
- 2.4 520 CMR 14.00 Excavation Trench Safety
- 2.5 State Wage Rates
- 2.6 Federal Wage Rates

END OF SECTION

ATTACHMENTS TO SUPPLEMENTARY CONDITIONS

**ATTACHMENT A
MASSACHUSETTS STATE WAGE RATES**



CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

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

Prevailing Wage Rates

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

ROSALIN ACOSTA
Secretary
WILLIAM D MCKINNEY
Director

Awarding Authority: Town of Montague
Contract Number: **City/Town:** MONTAGUE
Description of Work: Strathmore Mill Complex - Asbestos and Hazardous Materials Abatement from Buildings #2, #3, #5/5A, #6/6A, #7 and #8
Job Location: Canal Street, Montague, 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

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 3)</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 3 (BUILDING & SITE)</i>	12/02/2019	\$32.25	\$8.10	\$14.78	\$0.00	\$55.13
For apprentice rates see "Apprentice- LABORER"						
AIR TRACK OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2019	\$32.25	\$8.10	\$12.72	\$0.00	\$53.07
	06/01/2020	\$33.06	\$8.10	\$12.72	\$0.00	\$53.88
	12/01/2020	\$33.87	\$8.10	\$12.72	\$0.00	\$54.69
	06/01/2021	\$34.71	\$8.10	\$12.72	\$0.00	\$55.53
	12/01/2021	\$35.54	\$8.10	\$12.72	\$0.00	\$56.36
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
ASBESTOS WORKER (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)</i>	12/01/2019	\$33.30	\$12.50	\$8.35	\$0.00	\$54.15
	06/01/2020	\$34.20	\$12.50	\$8.35	\$0.00	\$55.05
	12/01/2020	\$35.10	\$12.50	\$8.35	\$0.00	\$55.95
ASPHALT RAKER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
ASPHALT RAKER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2019	\$31.75	\$8.10	\$12.72	\$0.00	\$52.57
	06/01/2020	\$32.56	\$8.10	\$12.72	\$0.00	\$53.38
	12/01/2020	\$33.37	\$8.10	\$12.72	\$0.00	\$54.19
	06/01/2021	\$34.21	\$8.10	\$12.72	\$0.00	\$55.03
	12/01/2021	\$35.04	\$8.10	\$12.72	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$35.40	\$11.94	\$14.35	\$0.00	\$61.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER OPERATOR <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$35.40	\$11.94	\$14.35	\$0.00	\$61.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
BATCH/CEMENT PLANT - ON SITE <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$34.87	\$11.94	\$14.35	\$0.00	\$61.16
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$32.25	\$8.10	\$14.78	\$0.00	\$55.13
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2019	\$32.25	\$8.10	\$12.72	\$0.00	\$53.07
	06/01/2020	\$33.06	\$8.10	\$12.72	\$0.00	\$53.88
	12/01/2020	\$33.87	\$8.10	\$12.72	\$0.00	\$54.69
	06/01/2021	\$34.71	\$8.10	\$12.72	\$0.00	\$55.53
	12/01/2021	\$35.54	\$8.10	\$12.72	\$0.00	\$56.36
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2019	\$44.71	\$7.07	\$17.72	\$0.00	\$69.50
	01/01/2020	\$46.10	\$7.07	\$17.98	\$0.00	\$71.15

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - BOILERMAKER - Local 29
Effective Date - 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$29.06	\$7.07	\$11.52	\$0.00	\$47.65
2	65	\$29.06	\$7.07	\$11.52	\$0.00	\$47.65
3	70	\$31.30	\$7.07	\$12.40	\$0.00	\$50.77
4	75	\$33.53	\$7.07	\$13.30	\$0.00	\$53.90
5	80	\$35.77	\$7.07	\$14.18	\$0.00	\$57.02
6	85	\$38.00	\$7.07	\$15.07	\$0.00	\$60.14
7	90	\$40.24	\$7.07	\$15.95	\$0.00	\$63.26
8	95	\$42.47	\$7.07	\$16.84	\$0.00	\$66.38

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
2	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
3	70	\$32.27	\$7.07	\$12.59	\$0.00	\$51.93
4	75	\$34.58	\$7.07	\$13.49	\$0.00	\$55.14
5	80	\$36.88	\$7.07	\$14.38	\$0.00	\$58.33
6	85	\$39.19	\$7.07	\$15.29	\$0.00	\$61.55
7	90	\$41.49	\$7.07	\$16.18	\$0.00	\$64.74
8	95	\$43.80	\$7.07	\$17.09	\$0.00	\$67.96

Notes:
Apprentice to Journeyworker Ratio:1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	08/01/2019	\$42.81	\$10.75	\$19.41	\$0.00	\$72.97
BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	02/01/2020	\$43.36	\$10.75	\$19.41	\$0.00	\$73.52
	08/01/2020	\$44.71	\$10.75	\$19.56	\$0.00	\$75.02
	02/01/2021	\$45.26	\$10.75	\$19.56	\$0.00	\$75.57
	08/01/2021	\$46.66	\$10.75	\$19.72	\$0.00	\$77.13
	02/01/2022	\$47.19	\$10.75	\$19.72	\$0.00	\$77.66

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	------------------------------	------------

Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Springfield/Pittsfield

Effective Date - 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.41	\$10.75	\$19.41	\$0.00	\$51.57
2	60	\$25.69	\$10.75	\$19.41	\$0.00	\$55.85
3	70	\$29.97	\$10.75	\$19.41	\$0.00	\$60.13
4	80	\$34.25	\$10.75	\$19.41	\$0.00	\$64.41
5	90	\$38.53	\$10.75	\$19.41	\$0.00	\$68.69

Effective Date - 02/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.68	\$10.75	\$19.41	\$0.00	\$51.84
2	60	\$26.02	\$10.75	\$19.41	\$0.00	\$56.18
3	70	\$30.35	\$10.75	\$19.41	\$0.00	\$60.51
4	80	\$34.69	\$10.75	\$19.41	\$0.00	\$64.85
5	90	\$39.02	\$10.75	\$19.41	\$0.00	\$69.18

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/POWER SHOVEL/TREE SHREDDER /CLAM SHELL OPERATING	12/01/2019	\$35.40	\$11.94	\$14.35	\$0.00	\$61.69
ENGINEERS LOCAL 98 For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN LABORERS - FOUNDATION AND MARINE	12/01/2019	\$40.25	\$8.10	\$16.80	\$0.00	\$65.15
	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 LABORERS - FOUNDATION AND MARINE	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"						
CAISSON & UNDERPINNING TOP MAN LABORERS - FOUNDATION AND MARINE	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"						
CARBIDE CORE DRILL OPERATOR LABORERS - ZONE 3 (BUILDING & SITE)	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CARPENTER	09/02/2019	\$37.54	\$7.84	\$16.87	\$0.00	\$62.25
CARPENTERS LOCAL 336 - HAMPDEN HAMPSHIRE FRANKLIN	03/01/2020	\$38.04	\$7.84	\$16.87	\$0.00	\$62.75
	09/01/2020	\$38.54	\$7.84	\$16.87	\$0.00	\$63.25
	03/01/2021	\$39.04	\$7.84	\$16.87	\$0.00	\$63.75
	09/01/2021	\$39.54	\$7.84	\$16.87	\$0.00	\$64.25
	03/01/2022	\$40.04	\$7.84	\$16.87	\$0.00	\$64.75
	09/01/2022	\$40.54	\$7.84	\$16.87	\$0.00	\$65.25
	03/01/2023	\$41.04	\$7.84	\$16.87	\$0.00	\$65.75

Apprentice - CARPENTER - Local 336 Hampden Hampshire Franklin

Effective Date - 09/02/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.77	\$7.84	\$1.32	\$0.00	\$27.93
2	60	\$22.52	\$7.84	\$1.32	\$0.00	\$31.68
3	70	\$26.28	\$7.84	\$12.91	\$0.00	\$47.03
4	75	\$28.16	\$7.84	\$12.91	\$0.00	\$48.91
5	80	\$30.03	\$7.84	\$14.23	\$0.00	\$52.10
6	80	\$30.03	\$7.84	\$14.23	\$0.00	\$52.10
7	90	\$33.79	\$7.84	\$15.55	\$0.00	\$57.18
8	90	\$33.79	\$7.84	\$15.55	\$0.00	\$57.18

Effective Date - 03/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.02	\$7.84	\$1.32	\$0.00	\$28.18
2	60	\$22.82	\$7.84	\$1.32	\$0.00	\$31.98
3	70	\$26.63	\$7.84	\$12.91	\$0.00	\$47.38
4	75	\$28.53	\$7.84	\$12.91	\$0.00	\$49.28
5	80	\$30.43	\$7.84	\$14.23	\$0.00	\$52.50
6	80	\$30.43	\$7.84	\$14.23	\$0.00	\$52.50
7	90	\$34.24	\$7.84	\$15.55	\$0.00	\$57.63
8	90	\$34.24	\$7.84	\$15.55	\$0.00	\$57.63

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
Step 1&2 \$26.05/ 3&4 \$31.09/ 5&6 \$48.35/ 7&8 \$53.42

Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME	10/01/2019	\$23.49	\$7.07	\$7.86	\$0.00	\$38.42
CARPENTERS LOCAL 336 - HAMPDEN HAMPSHIRE FRANKLIN						
All Aspects of New Wood Frame Work						

Apprentice - CARPENTER (Wood Frame) - 336 Hampden Hampshire**Effective Date - 10/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$14.09	\$7.07	\$0.00	\$0.00	\$21.16
2	60	\$14.09	\$7.07	\$0.00	\$0.00	\$21.16
3	65	\$15.27	\$7.07	\$7.86	\$0.00	\$30.20
4	70	\$16.44	\$7.07	\$7.86	\$0.00	\$31.37
5	75	\$17.62	\$7.07	\$7.86	\$0.00	\$32.55
6	80	\$18.79	\$7.07	\$7.86	\$0.00	\$33.72
7	85	\$19.97	\$7.07	\$7.86	\$0.00	\$34.90
8	90	\$21.14	\$7.07	\$7.86	\$0.00	\$36.07

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
 Step 1&2 \$17.64/ 3&4 \$24.74/ 5&6 \$31.37/ 7&8 \$33.72

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING

07/01/2019

\$40.46

\$12.70

\$17.64

\$0.62

\$71.42

BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)

01/01/2020

\$41.94

\$12.70

\$17.64

\$0.62

\$72.90

Apprentice - CEMENT MASONRY/PLASTERING - Springfield/Pittsfield**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.23	\$12.70	\$15.41	\$0.00	\$48.34
2	60	\$24.28	\$12.70	\$17.64	\$0.62	\$55.24
3	65	\$26.30	\$12.70	\$17.64	\$0.62	\$57.26
4	70	\$28.32	\$12.70	\$17.64	\$0.62	\$59.28
5	75	\$30.35	\$12.70	\$17.64	\$0.62	\$61.31
6	80	\$32.37	\$12.70	\$17.64	\$0.62	\$63.33
7	90	\$36.41	\$12.70	\$17.64	\$0.62	\$67.37

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.97	\$12.70	\$15.41	\$0.00	\$49.08
2	60	\$25.16	\$12.70	\$17.64	\$0.62	\$56.12
3	65	\$27.26	\$12.70	\$17.64	\$0.62	\$58.22
4	70	\$29.36	\$12.70	\$17.64	\$0.62	\$60.32
5	75	\$31.46	\$12.70	\$17.64	\$0.62	\$62.42
6	80	\$33.55	\$12.70	\$17.64	\$0.62	\$64.51
7	90	\$37.75	\$12.70	\$17.64	\$0.62	\$68.71

Notes:

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

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$34.87	\$11.94	\$14.35	\$0.00	\$61.16
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CRANE OPERATOR <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$38.90	\$11.94	\$14.35	\$0.00	\$65.19
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 3</i>	07/01/2019	\$50.66	\$8.20	\$21.45	\$0.00	\$80.31
	01/01/2020	\$50.96	\$8.20	\$22.10	\$0.00	\$81.26
	07/01/2020	\$52.06	\$8.20	\$22.10	\$0.00	\$82.36
	01/01/2021	\$53.16	\$8.20	\$22.10	\$0.00	\$83.46

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.33	\$8.20	\$0.00	\$0.00	\$33.53
2	55	\$27.86	\$8.20	\$5.78	\$0.00	\$41.84
3	60	\$30.40	\$8.20	\$6.30	\$0.00	\$44.90
4	65	\$32.93	\$8.20	\$6.83	\$0.00	\$47.96
5	70	\$35.46	\$8.20	\$18.30	\$0.00	\$61.96
6	75	\$38.00	\$8.20	\$18.83	\$0.00	\$65.03
7	80	\$40.53	\$8.20	\$19.35	\$0.00	\$68.08
8	90	\$45.59	\$8.20	\$20.40	\$0.00	\$74.19

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.48	\$8.20	\$0.00	\$0.00	\$33.68
2	55	\$28.03	\$8.20	\$5.94	\$0.00	\$42.17
3	60	\$30.58	\$8.20	\$6.48	\$0.00	\$45.26
4	65	\$33.12	\$8.20	\$7.02	\$0.00	\$48.34
5	70	\$35.67	\$8.20	\$18.51	\$0.00	\$62.38
6	75	\$38.22	\$8.20	\$19.05	\$0.00	\$65.47
7	80	\$40.77	\$8.20	\$19.59	\$0.00	\$68.56
8	90	\$45.86	\$8.20	\$20.67	\$0.00	\$74.73

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN <i>LABORERS - ZONE 3 (BUILDING & SITE)</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 3 (BUILDING & SITE)</i>	12/01/2019	\$40.30	\$8.10	\$16.60	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: BURNERS <i>LABORERS - ZONE 3 (BUILDING & SITE)</i> For apprentice rates see "Apprentice- LABORER"	12/01/2019	\$40.05	\$8.10	\$16.60	\$0.00	\$64.75
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i> For apprentice rates see "Apprentice- LABORER"	12/01/2019	\$40.30	\$8.10	\$16.60	\$0.00	\$65.00
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 3 (BUILDING & SITE)</i> For apprentice rates see "Apprentice- LABORER"	12/01/2019	\$40.05	\$8.10	\$16.60	\$0.00	\$64.75
DEMO: WRECKING LABORER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i> For apprentice rates see "Apprentice- LABORER"	12/01/2019	\$39.30	\$8.10	\$16.60	\$0.00	\$64.00
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 3)</i> For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2019	\$68.52	\$9.90	\$21.15	\$0.00	\$99.57
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 3)</i> For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 3)</i> For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2019	\$73.41	\$9.90	\$21.15	\$0.00	\$104.46
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 3)</i> For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
ELECTRICIAN (Including Core Drilling) <i>ELECTRICIANS LOCAL 7</i>	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01

Classification

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

Apprentice - *ELECTRICIAN - Local 7*

Effective Date - 06/30/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.06	\$5.85	\$0.51	\$0.00	\$23.42
2	45	\$19.20	\$5.85	\$0.58	\$0.00	\$25.63
3	50	\$21.33	\$10.75	\$6.94	\$0.00	\$39.02
4	55	\$23.46	\$10.75	\$7.00	\$0.00	\$41.21
5	65	\$27.73	\$10.75	\$8.13	\$0.00	\$46.61
6	70	\$29.86	\$10.75	\$9.20	\$0.00	\$49.81

Effective Date - 12/29/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.36	\$6.00	\$0.52	\$0.00	\$23.88
2	45	\$19.53	\$6.00	\$0.59	\$0.00	\$26.12
3	50	\$21.71	\$11.00	\$6.95	\$0.00	\$39.66
4	55	\$23.88	\$11.00	\$7.02	\$0.00	\$41.90
5	65	\$28.22	\$11.00	\$8.15	\$0.00	\$47.37
6	70	\$30.39	\$11.00	\$9.21	\$0.00	\$50.60

Notes:

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

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

ELEVATOR CONSTRUCTOR	01/01/2019	\$53.11	\$15.58	\$17.51	\$0.00	\$86.20
ELEVATOR CONSTRUCTORS LOCAL 41	01/01/2020	\$54.85	\$15.73	\$18.41	\$0.00	\$88.99
	01/01/2021	\$56.69	\$15.88	\$19.31	\$0.00	\$91.88
	01/01/2022	\$58.62	\$16.03	\$20.21	\$0.00	\$94.86

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	------------------------------	------------

Apprentice - ELEVATOR CONSTRUCTOR - Local 41

Effective Date - 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.56	\$15.58	\$0.00	\$0.00	\$42.14
2	55	\$29.21	\$15.58	\$17.51	\$0.00	\$62.30
3	65	\$34.52	\$15.58	\$17.51	\$0.00	\$67.61
4	70	\$37.18	\$15.58	\$17.51	\$0.00	\$70.27
5	80	\$42.49	\$15.58	\$17.51	\$0.00	\$75.58

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.43	\$15.73	\$0.00	\$0.00	\$43.16
2	55	\$30.17	\$15.73	\$18.41	\$0.00	\$64.31
3	65	\$35.65	\$15.73	\$18.41	\$0.00	\$69.79
4	70	\$38.40	\$15.73	\$18.41	\$0.00	\$72.54
5	80	\$43.88	\$15.73	\$18.41	\$0.00	\$78.02

Notes:

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

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER	01/01/2019	\$37.18	\$15.58	\$17.51	\$0.00	\$70.27
ELEVATOR CONSTRUCTORS LOCAL 41	01/01/2020	\$38.40	\$15.73	\$18.41	\$0.00	\$72.54
	01/01/2021	\$39.68	\$15.88	\$19.31	\$0.00	\$74.87
	01/01/2022	\$41.03	\$16.03	\$20.21	\$0.00	\$77.27
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"						
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY)	12/01/2019	\$31.75	\$8.10	\$12.72	\$0.00	\$52.57
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	06/01/2020	\$32.56	\$8.10	\$12.72	\$0.00	\$53.38
	12/01/2020	\$33.37	\$8.10	\$12.72	\$0.00	\$54.19
	06/01/2021	\$34.21	\$8.10	\$12.72	\$0.00	\$55.03
	12/01/2021	\$35.04	\$8.10	\$12.72	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY	06/01/1999	\$18.84	\$4.80	\$4.10	\$0.00	\$27.74
OPERATING ENGINEERS LOCAL 98						
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY	06/01/1999	\$21.33	\$4.80	\$4.10	\$0.00	\$30.23
OPERATING ENGINEERS LOCAL 98						
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY	06/01/1999	\$22.33	\$4.80	\$4.10	\$0.00	\$31.23
OPERATING ENGINEERS LOCAL 98						
FIRE ALARM INSTALLER	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
ELECTRICIANS LOCAL 7	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
/ COMMISSIONINGELECTRICIANS	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01
LOCAL 7						
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN	12/01/2019	\$34.87	\$11.94	\$14.35	\$0.00	\$61.16
OPERATING ENGINEERS LOCAL 98						

Apprentice - OPERATING ENGINEERS - Local 98 Class 3

Effective Date - 12/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.92	\$11.94	\$14.35	\$0.00	\$47.21
2	70	\$24.41	\$11.94	\$14.35	\$0.00	\$50.70
3	80	\$27.90	\$11.94	\$14.35	\$0.00	\$54.19
4	90	\$31.38	\$11.94	\$14.35	\$0.00	\$57.67

Notes:

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

Apprentice to Journeyworker Ratio:1:6

FLAGGER & SIGNALER (HEAVY & HIGHWAY)	12/01/2019	\$23.50	\$8.10	\$12.72	\$0.00	\$44.32
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	06/01/2020	\$23.50	\$8.10	\$12.72	\$0.00	\$44.32
	12/01/2020	\$24.50	\$8.10	\$12.72	\$0.00	\$45.32
	06/01/2021	\$24.50	\$8.10	\$12.72	\$0.00	\$45.32
	12/01/2021	\$24.50	\$8.10	\$12.72	\$0.00	\$45.32

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

FLOORCOVERER	09/01/2019	\$37.44	\$7.84	\$16.87	\$0.00	\$62.15
FLOORCOVERERS LOCAL 2168 ZONE III						

Apprentice - FLOORCOVERER - Local 2168 Zone III

Effective Date - 09/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.72	\$7.84	\$1.32	\$0.00	\$27.88
2	55	\$20.59	\$7.84	\$1.32	\$0.00	\$29.75
3	60	\$22.46	\$7.84	\$12.91	\$0.00	\$43.21
4	65	\$24.34	\$7.84	\$12.91	\$0.00	\$45.09
5	70	\$26.21	\$7.84	\$14.23	\$0.00	\$48.28
6	75	\$28.08	\$7.84	\$14.23	\$0.00	\$50.15
7	80	\$29.95	\$7.84	\$15.55	\$0.00	\$53.34
8	85	\$31.82	\$7.84	\$15.55	\$0.00	\$55.21

Notes: Steps are 750 hrs.

% After 09/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)

Step 1&2 \$26.01/ 3&4 \$31.03/ 5&6 \$48.28/ 7&8 \$53.34

Apprentice to Journeyworker Ratio:1:1

FORK LIFT	12/01/2019	\$35.09	\$11.94	\$14.35	\$0.00	\$61.38
OPERATING ENGINEERS LOCAL 98						

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GENERATORS/LIGHTING PLANTS	12/01/2019	\$31.64	\$11.94	\$14.35	\$0.00	\$57.93
OPERATING ENGINEERS LOCAL 98						

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	06/01/2019	\$38.18	\$10.60	\$9.90	\$0.00	\$58.68
GLAZIERS LOCAL 1333	06/01/2020	\$39.18	\$10.80	\$10.45	\$0.00	\$60.43

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - GLAZIER - Local 1333
Effective Date - 06/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.09	\$10.60	\$1.80	\$0.00	\$31.49
2	56	\$21.48	\$10.60	\$1.80	\$0.00	\$33.88
3	63	\$23.86	\$10.60	\$2.40	\$0.00	\$36.86
4	69	\$26.25	\$10.60	\$2.40	\$0.00	\$39.25
5	75	\$28.64	\$10.60	\$2.90	\$0.00	\$42.14
6	81	\$31.02	\$10.60	\$2.90	\$0.00	\$44.52
7	88	\$33.41	\$10.60	\$9.90	\$0.00	\$53.91
8	94	\$35.79	\$10.60	\$9.90	\$0.00	\$56.29

Effective Date - 06/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.59	\$10.80	\$1.80	\$0.00	\$32.19
2	56	\$22.04	\$10.80	\$1.80	\$0.00	\$34.64
3	63	\$24.49	\$10.80	\$2.45	\$0.00	\$37.74
4	69	\$26.94	\$10.80	\$2.45	\$0.00	\$40.19
5	75	\$29.39	\$10.80	\$3.15	\$0.00	\$43.34
6	81	\$31.83	\$10.80	\$3.15	\$0.00	\$45.78
7	88	\$34.28	\$10.80	\$10.45	\$0.00	\$55.53
8	94	\$36.73	\$10.80	\$10.45	\$0.00	\$57.98

Notes:
Apprentice to Journeyworker Ratio:1:3

GRADER/TRENCHING MACHINE/DERRICK OPERATING ENGINEERS LOCAL 98	12/01/2019	\$35.40	\$11.94	\$14.35	\$0.00	\$61.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 63	07/01/2019	\$35.74	\$10.64	\$16.22	\$1.77	\$64.37
	01/01/2020	\$36.99	\$10.64	\$16.22	\$1.77	\$65.62
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 7	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 63	07/01/2019	\$35.74	\$10.64	\$16.22	\$1.77	\$64.37
	01/01/2020	\$36.99	\$10.64	\$16.22	\$1.77	\$65.62
For apprentice rates see "Apprentice- SHEET METAL WORKER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC (TESTING AND BALANCING -WATER) <i>PLUMBERS & PIPEFITTERS LOCAL 104</i>	09/17/2019	\$41.21	\$8.75	\$16.35	\$0.00	\$66.31
	03/17/2020	\$42.21	\$8.75	\$16.35	\$0.00	\$67.31
	09/17/2020	\$43.21	\$8.75	\$16.35	\$0.00	\$68.31
	03/17/2021	\$44.21	\$8.75	\$16.35	\$0.00	\$69.31
	09/17/2021	\$45.21	\$8.75	\$16.35	\$0.00	\$70.31
	03/17/2022	\$46.46	\$8.75	\$16.35	\$0.00	\$71.56
	09/17/2022	\$47.46	\$8.75	\$16.35	\$0.00	\$72.56
	03/17/2023	\$48.71	\$8.75	\$16.35	\$0.00	\$73.81
	09/17/2023	\$49.71	\$8.75	\$16.35	\$0.00	\$74.81
	03/17/2024	\$50.96	\$8.75	\$16.35	\$0.00	\$76.06
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PLUMBERS & PIPEFITTERS LOCAL 104</i>	09/17/2019	\$41.21	\$8.75	\$16.35	\$0.00	\$66.31
	03/17/2020	\$42.21	\$8.75	\$16.35	\$0.00	\$67.31
	09/17/2020	\$43.21	\$8.75	\$16.35	\$0.00	\$68.31
	03/17/2021	\$44.21	\$8.75	\$16.35	\$0.00	\$69.31
	09/17/2021	\$45.21	\$8.75	\$16.35	\$0.00	\$70.31
	03/17/2022	\$46.46	\$8.75	\$16.35	\$0.00	\$71.56
	09/17/2022	\$47.46	\$8.75	\$16.35	\$0.00	\$72.56
	03/17/2023	\$48.71	\$8.75	\$16.35	\$0.00	\$73.81
	09/17/2023	\$49.71	\$8.75	\$16.35	\$0.00	\$74.81
	03/17/2024	\$50.96	\$8.75	\$16.35	\$0.00	\$76.06
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2019	\$32.25	\$8.10	\$12.72	\$0.00	\$53.07
	06/01/2020	\$33.06	\$8.10	\$12.72	\$0.00	\$53.88
	12/01/2020	\$33.87	\$8.10	\$12.72	\$0.00	\$54.69
	06/01/2021	\$34.71	\$8.10	\$12.72	\$0.00	\$55.53
	12/01/2021	\$35.54	\$8.10	\$12.72	\$0.00	\$56.36
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
INSULATOR (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)</i>	09/01/2019	\$38.75	\$12.80	\$16.40	\$0.00	\$67.95

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

Effective Date - 09/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.38	\$12.80	\$11.90	\$0.00	\$44.08
2	60	\$23.25	\$12.80	\$12.80	\$0.00	\$48.85
3	70	\$27.13	\$12.80	\$13.70	\$0.00	\$53.63
4	80	\$31.00	\$12.80	\$14.60	\$0.00	\$58.40

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
IRONWORKER/WELDER	09/16/2019	\$35.10	\$8.00	\$20.75	\$0.00	\$63.85
IRONWORKERS LOCAL 7 (SPRINGFIELD AREA)	03/16/2020	\$35.95	\$8.00	\$20.75	\$0.00	\$64.70
	09/16/2020	\$36.85	\$8.00	\$20.75	\$0.00	\$65.60
	03/16/2021	\$37.70	\$8.00	\$20.75	\$0.00	\$66.45

Apprentice - IRONWORKER - Local 7 Springfield

Effective Date - 09/16/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$21.06	\$8.00	\$20.75	\$0.00	\$49.81
2	70	\$24.57	\$8.00	\$20.75	\$0.00	\$53.32
3	75	\$26.33	\$8.00	\$20.75	\$0.00	\$55.08
4	80	\$28.08	\$8.00	\$20.75	\$0.00	\$56.83
5	85	\$29.84	\$8.00	\$20.75	\$0.00	\$58.59
6	90	\$31.59	\$8.00	\$20.75	\$0.00	\$60.34

Effective Date - 03/16/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$21.57	\$8.00	\$20.75	\$0.00	\$50.32
2	70	\$25.17	\$8.00	\$20.75	\$0.00	\$53.92
3	75	\$26.96	\$8.00	\$20.75	\$0.00	\$55.71
4	80	\$28.76	\$8.00	\$20.75	\$0.00	\$57.51
5	85	\$30.56	\$8.00	\$20.75	\$0.00	\$59.31
6	90	\$32.36	\$8.00	\$20.75	\$0.00	\$61.11

Notes:

Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:

JACKHAMMER & PAVING BREAKER OPERATOR	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
LABORERS - ZONE 3 (BUILDING & SITE)						

For apprentice rates see "Apprentice- LABORER"

LABORER	12/02/2019	\$31.50	\$8.10	\$14.78	\$0.00	\$54.38
LABORERS - ZONE 3 (BUILDING & SITE)						

Apprentice - LABORER - Zone 3 Building & Site

Effective Date - 12/02/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.90	\$8.10	\$14.78	\$0.00	\$41.78
2	70	\$22.05	\$8.10	\$14.78	\$0.00	\$44.93
3	80	\$25.20	\$8.10	\$14.78	\$0.00	\$48.08
4	90	\$28.35	\$8.10	\$14.78	\$0.00	\$51.23

Notes:

Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2019	\$31.50	\$8.10	\$12.72	\$0.00	\$52.32
	06/01/2020	\$32.31	\$8.10	\$12.72	\$0.00	\$53.13
	12/01/2020	\$33.12	\$8.10	\$12.72	\$0.00	\$53.94
	06/01/2021	\$33.96	\$8.10	\$12.72	\$0.00	\$54.78
	12/01/2021	\$34.79	\$8.10	\$12.72	\$0.00	\$55.61

Apprentice - LABORER (Heavy & Highway) - Zone 3

Effective Date - 12/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.90	\$8.10	\$12.72	\$0.00	\$39.72
2	70	\$22.05	\$8.10	\$12.72	\$0.00	\$42.87
3	80	\$25.20	\$8.10	\$12.72	\$0.00	\$46.02
4	90	\$28.35	\$8.10	\$12.72	\$0.00	\$49.17

Effective Date - 06/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$19.39	\$8.10	\$12.72	\$0.00	\$40.21
2	70	\$22.62	\$8.10	\$12.72	\$0.00	\$43.44
3	80	\$25.85	\$8.10	\$12.72	\$0.00	\$46.67
4	90	\$29.08	\$8.10	\$12.72	\$0.00	\$49.90

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$31.50	\$8.10	\$14.78	\$0.00	\$54.38
For apprentice rates see "Apprentice- LABORER"						
LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/01/2019	\$31.60	\$8.10	\$14.78	\$0.00	\$54.48
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$32.50	\$8.10	\$14.78	\$0.00	\$55.38
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2019	\$31.75	\$8.10	\$12.72	\$0.00	\$52.57
	06/01/2020	\$32.56	\$8.10	\$12.72	\$0.00	\$53.38
	12/01/2020	\$33.37	\$8.10	\$12.72	\$0.00	\$54.19
	06/01/2021	\$34.21	\$8.10	\$12.72	\$0.00	\$55.03
	12/01/2021	\$35.04	\$8.10	\$12.72	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$31.50	\$8.10	\$14.78	\$0.00	\$54.38
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$31.50	\$8.10	\$14.78	\$0.00	\$54.38

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
This classification applies to all tree work associated with the removal of standing trees, and trimming and removal of branches and limbs when the work is not done for a utility company for the purpose of operation, maintenance or repair of utility company equipment. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2019	\$31.75	\$8.10	\$12.72	\$0.00	\$52.57
	06/01/2020	\$32.56	\$8.10	\$12.72	\$0.00	\$53.38
	12/01/2020	\$33.37	\$8.10	\$12.72	\$0.00	\$54.19
	06/01/2021	\$34.21	\$8.10	\$12.72	\$0.00	\$55.03
	12/01/2021	\$35.04	\$8.10	\$12.72	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE</i>	08/01/2019	\$35.17	\$10.75	\$18.87	\$0.00	\$64.79
	02/01/2020	\$35.67	\$10.75	\$18.87	\$0.00	\$65.29
	08/01/2020	\$36.67	\$10.75	\$18.99	\$0.00	\$66.41
	02/01/2021	\$37.17	\$10.75	\$18.99	\$0.00	\$66.91
	08/01/2021	\$38.17	\$10.75	\$19.12	\$0.00	\$68.04
	02/01/2022	\$38.62	\$10.75	\$19.12	\$0.00	\$68.49

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

Effective Date - 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.59	\$10.75	\$18.87	\$0.00	\$47.21
2	60	\$21.10	\$10.75	\$18.87	\$0.00	\$50.72
3	70	\$24.62	\$10.75	\$18.87	\$0.00	\$54.24
4	80	\$28.14	\$10.75	\$18.87	\$0.00	\$57.76
5	90	\$31.65	\$10.75	\$18.87	\$0.00	\$61.27

Effective Date - 02/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.84	\$10.75	\$18.87	\$0.00	\$47.46
2	60	\$21.40	\$10.75	\$18.87	\$0.00	\$51.02
3	70	\$24.97	\$10.75	\$18.87	\$0.00	\$54.59
4	80	\$28.54	\$10.75	\$18.87	\$0.00	\$58.16
5	90	\$32.10	\$10.75	\$18.87	\$0.00	\$61.72

Notes:

Apprentice to Journeyworker Ratio:1:5

MARBLE MASON/TILE LAYER(SP/PT)SeeBrick

BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE

See "BRICK/STONE/ARTIFICIAL MASONRY(INCL.MASONRY WATERPROOFING)

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$35.40	\$11.94	\$14.35	\$0.00	\$61.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANIC/WELDER/BOOM TRUCK <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$34.87	\$11.94	\$14.35	\$0.00	\$61.16
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
MILLWRIGHT (Zone 3) <i>MILLWRIGHTS LOCAL 1121 - Zone 3</i>	04/01/2019	\$37.11	\$9.90	\$18.50	\$0.00	\$65.51

Apprentice - MILLWRIGHT - Local 1121 Zone 3

Effective Date - 04/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$20.41	\$9.90	\$5.31	\$0.00	\$35.62
2	65	\$24.12	\$9.90	\$15.13	\$0.00	\$49.15
3	75	\$27.83	\$9.90	\$16.10	\$0.00	\$53.83
4	85	\$31.54	\$9.90	\$17.06	\$0.00	\$58.50

Notes:

Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER <i>LABORERS - ZONE 3 (BUILDING & SITE)</i>	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
--	------------	---------	--------	---------	--------	---------

For apprentice rates see "Apprentice- LABORER"

OILER <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$30.56	\$11.94	\$14.35	\$0.00	\$56.85
--	------------	---------	---------	---------	--------	---------

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OTHER POWER DRIVEN EQUIPMENT - CLASS VI <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$28.58	\$11.94	\$14.35	\$0.00	\$54.87
--	------------	---------	---------	---------	--------	---------

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS) <i>PAINTERS LOCAL 35 - ZONE 3</i>	07/01/2019	\$50.66	\$8.20	\$21.45	\$0.00	\$80.31
	01/01/2020	\$50.96	\$8.20	\$22.10	\$0.00	\$81.26
	07/01/2020	\$52.06	\$8.20	\$22.10	\$0.00	\$82.36
	01/01/2021	\$53.16	\$8.20	\$22.10	\$0.00	\$83.46

Classification

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

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.33	\$8.20	\$0.00	\$0.00	\$33.53
2	55	\$27.86	\$8.20	\$5.78	\$0.00	\$41.84
3	60	\$30.40	\$8.20	\$6.30	\$0.00	\$44.90
4	65	\$32.93	\$8.20	\$6.83	\$0.00	\$47.96
5	70	\$35.46	\$8.20	\$18.30	\$0.00	\$61.96
6	75	\$38.00	\$8.20	\$18.83	\$0.00	\$65.03
7	80	\$40.53	\$8.20	\$19.35	\$0.00	\$68.08
8	90	\$45.59	\$8.20	\$20.40	\$0.00	\$74.19

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.48	\$8.20	\$0.00	\$0.00	\$33.68
2	55	\$28.03	\$8.20	\$5.94	\$0.00	\$42.17
3	60	\$30.58	\$8.20	\$6.48	\$0.00	\$45.26
4	65	\$33.12	\$8.20	\$7.02	\$0.00	\$48.34
5	70	\$35.67	\$8.20	\$18.51	\$0.00	\$62.38
6	75	\$38.22	\$8.20	\$19.05	\$0.00	\$65.47
7	80	\$40.77	\$8.20	\$19.59	\$0.00	\$68.56
8	90	\$45.86	\$8.20	\$20.67	\$0.00	\$74.73

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SIGN, PICTORIAL & DISPLAY)	06/01/2013	\$25.81	\$7.07	\$7.05	\$0.00	\$39.93
PAINTERS LOCAL 35 - ZONE 3						

Classification

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

Apprentice - PAINTER SIGN - Local 35 Zone 3

Effective Date - 06/01/2013

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

Notes:

Steps are 4 mos.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	07/01/2019	\$34.03	\$8.20	\$17.55	\$0.00	\$59.78
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. <i>PAINTERS LOCAL 35 - ZONE 3</i>	01/01/2020	\$34.33	\$8.20	\$18.20	\$0.00	\$60.73
	07/01/2020	\$35.43	\$8.20	\$18.20	\$0.00	\$61.83
	01/01/2021	\$36.53	\$8.20	\$18.20	\$0.00	\$62.93

Apprentice - PAINTER Local 35 Zone 3 - Spray/Sandblast - New**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.02	\$8.20	\$0.00	\$0.00	\$25.22
2	55	\$18.72	\$8.20	\$3.63	\$0.00	\$30.55
3	60	\$20.42	\$8.20	\$3.96	\$0.00	\$32.58
4	65	\$22.12	\$8.20	\$4.29	\$0.00	\$34.61
5	70	\$23.82	\$8.20	\$15.57	\$0.00	\$47.59
6	75	\$25.52	\$8.20	\$15.90	\$0.00	\$49.62
7	80	\$27.22	\$8.20	\$16.23	\$0.00	\$51.65
8	90	\$30.63	\$8.20	\$16.89	\$0.00	\$55.72

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.17	\$8.20	\$0.00	\$0.00	\$25.37
2	55	\$18.88	\$8.20	\$3.80	\$0.00	\$30.88
3	60	\$20.60	\$8.20	\$4.14	\$0.00	\$32.94
4	65	\$22.31	\$8.20	\$4.49	\$0.00	\$35.00
5	70	\$24.03	\$8.20	\$15.78	\$0.00	\$48.01
6	75	\$25.75	\$8.20	\$16.13	\$0.00	\$50.08
7	80	\$27.46	\$8.20	\$16.47	\$0.00	\$52.13
8	90	\$30.90	\$8.20	\$17.16	\$0.00	\$56.26

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)

PAINTERS LOCAL 35 - ZONE 3

07/01/2019	\$31.35	\$8.20	\$17.55	\$0.00	\$57.10
01/01/2020	\$31.65	\$8.20	\$18.20	\$0.00	\$58.05
07/01/2020	\$32.75	\$8.20	\$18.20	\$0.00	\$59.15
01/01/2021	\$33.85	\$8.20	\$18.20	\$0.00	\$60.25

Classification

Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 3 - Spray/Sandblast - Repaint
Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$15.68	\$8.20	\$0.00	\$0.00	\$23.88
2	55	\$17.24	\$8.20	\$3.63	\$0.00	\$29.07
3	60	\$18.81	\$8.20	\$3.96	\$0.00	\$30.97
4	65	\$20.38	\$8.20	\$4.29	\$0.00	\$32.87
5	70	\$21.95	\$8.20	\$15.57	\$0.00	\$45.72
6	75	\$23.51	\$8.20	\$15.90	\$0.00	\$47.61
7	80	\$25.08	\$8.20	\$16.23	\$0.00	\$49.51
8	90	\$28.22	\$8.20	\$16.89	\$0.00	\$53.31

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$15.83	\$8.20	\$0.00	\$0.00	\$24.03
2	55	\$17.41	\$8.20	\$3.80	\$0.00	\$29.41
3	60	\$18.99	\$8.20	\$4.14	\$0.00	\$31.33
4	65	\$20.57	\$8.20	\$4.49	\$0.00	\$33.26
5	70	\$22.16	\$8.20	\$15.78	\$0.00	\$46.14
6	75	\$23.74	\$8.20	\$16.13	\$0.00	\$48.07
7	80	\$25.32	\$8.20	\$16.47	\$0.00	\$49.99
8	90	\$28.49	\$8.20	\$17.16	\$0.00	\$53.85

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, NEW) *

* If 30% or more of surfaces to be painted are new construction,
NEW paint rate shall be used. *PAINTERS LOCAL 35 - ZONE 3*

07/01/2019	\$32.63	\$8.20	\$17.55	\$0.00	\$58.38
01/01/2020	\$32.93	\$8.20	\$18.20	\$0.00	\$59.33
07/01/2020	\$34.03	\$8.20	\$18.20	\$0.00	\$60.43
01/01/2021	\$35.13	\$8.20	\$18.20	\$0.00	\$61.53

Apprentice - PAINTER - Local 35 Zone 3 - BRUSH NEW**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.32	\$8.20	\$0.00	\$0.00	\$24.52
2	55	\$17.95	\$8.20	\$3.63	\$0.00	\$29.78
3	60	\$19.58	\$8.20	\$3.96	\$0.00	\$31.74
4	65	\$21.21	\$8.20	\$4.29	\$0.00	\$33.70
5	70	\$22.84	\$8.20	\$15.57	\$0.00	\$46.61
6	75	\$24.47	\$8.20	\$15.90	\$0.00	\$48.57
7	80	\$26.10	\$8.20	\$16.23	\$0.00	\$50.53
8	90	\$29.37	\$8.20	\$16.89	\$0.00	\$54.46

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.47	\$8.20	\$0.00	\$0.00	\$24.67
2	55	\$18.11	\$8.20	\$3.80	\$0.00	\$30.11
3	60	\$19.76	\$8.20	\$4.14	\$0.00	\$32.10
4	65	\$21.40	\$8.20	\$4.49	\$0.00	\$34.09
5	70	\$23.05	\$8.20	\$15.78	\$0.00	\$47.03
6	75	\$24.70	\$8.20	\$16.13	\$0.00	\$49.03
7	80	\$26.34	\$8.20	\$16.47	\$0.00	\$51.01
8	90	\$29.64	\$8.20	\$17.16	\$0.00	\$55.00

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)

PAINTERS LOCAL 35 - ZONE 3

07/01/2019	\$29.95	\$8.20	\$17.55	\$0.00	\$55.70
01/01/2020	\$30.25	\$8.20	\$18.20	\$0.00	\$56.65
07/01/2020	\$31.35	\$8.20	\$18.20	\$0.00	\$57.75
01/01/2021	\$32.45	\$8.20	\$18.20	\$0.00	\$58.85

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - PAINTER Local 35 Zone 3 - BRUSH REPAINT
Effective Date - 07/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$14.98	\$8.20	\$0.00	\$0.00	\$23.18
2	55	\$16.47	\$8.20	\$3.63	\$0.00	\$28.30
3	60	\$17.97	\$8.20	\$3.96	\$0.00	\$30.13
4	65	\$19.47	\$8.20	\$4.29	\$0.00	\$31.96
5	70	\$20.97	\$8.20	\$15.57	\$0.00	\$44.74
6	75	\$22.46	\$8.20	\$15.90	\$0.00	\$46.56
7	80	\$23.96	\$8.20	\$16.23	\$0.00	\$48.39
8	90	\$26.96	\$8.20	\$16.89	\$0.00	\$52.05

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$15.13	\$8.20	\$0.00	\$0.00	\$23.33
2	55	\$16.64	\$8.20	\$3.80	\$0.00	\$28.64
3	60	\$18.15	\$8.20	\$4.14	\$0.00	\$30.49
4	65	\$19.66	\$8.20	\$4.49	\$0.00	\$32.35
5	70	\$21.18	\$8.20	\$15.78	\$0.00	\$45.16
6	75	\$22.69	\$8.20	\$16.13	\$0.00	\$47.02
7	80	\$24.20	\$8.20	\$16.47	\$0.00	\$48.87
8	90	\$27.23	\$8.20	\$17.16	\$0.00	\$52.59

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	12/01/2019	\$31.50	\$8.10	\$12.72	\$0.00	\$52.32
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	06/01/2020	\$32.31	\$8.10	\$12.72	\$0.00	\$53.13
	12/01/2020	\$33.12	\$8.10	\$12.72	\$0.00	\$53.94
	06/01/2021	\$33.96	\$8.10	\$12.72	\$0.00	\$54.78
	12/01/2021	\$34.79	\$8.10	\$12.72	\$0.00	\$55.61
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
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	\$43.79	\$9.90	\$21.15	\$0.00	\$74.84
PILE DRIVER LOCAL 56 (ZONE 3)						
For apprentice rates see "Apprentice- PILE DRIVER"						
PILE DRIVER	08/01/2019	\$43.79	\$9.90	\$21.15	\$0.00	\$74.84
PILE DRIVER LOCAL 56 (ZONE 3)						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Apprentice - PILE DRIVER - Local 56 Zone 3						
Effective Date - 08/01/2019						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<div> Notes: Apprentice wages shall be no less than the following Steps; (Same as set in Zone 1) 1\$54.34/2\$58.99/3\$63.65/4\$65.98/5\$68.31/6\$68.31/7\$72.96/8\$72.96 </div>						
Apprentice to Journeyworker Ratio:1:5						
<hr/>						
PIPELAYER	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
<i>LABORERS - ZONE 3 (BUILDING & SITE)</i>						
For apprentice rates see "Apprentice- LABORER"						
PIPELAYER (HEAVY & HIGHWAY)	12/01/2019	\$31.75	\$8.10	\$12.72	\$0.00	\$52.57
<i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>						
	06/01/2020	\$32.56	\$8.10	\$12.72	\$0.00	\$53.38
	12/01/2020	\$33.37	\$8.10	\$12.72	\$0.00	\$54.19
	06/01/2021	\$34.21	\$8.10	\$12.72	\$0.00	\$55.03
	12/01/2021	\$35.04	\$8.10	\$12.72	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
PLUMBER & PIPEFITTER	09/17/2019	\$41.21	\$8.75	\$16.35	\$0.00	\$66.31
<i>PLUMBERS & PIPEFITTERS LOCAL 104</i>						
	03/17/2020	\$42.21	\$8.75	\$16.35	\$0.00	\$67.31
	09/17/2020	\$43.21	\$8.75	\$16.35	\$0.00	\$68.31
	03/17/2021	\$44.21	\$8.75	\$16.35	\$0.00	\$69.31
	09/17/2021	\$45.21	\$8.75	\$16.35	\$0.00	\$70.31
	03/17/2022	\$46.46	\$8.75	\$16.35	\$0.00	\$71.56
	09/17/2022	\$47.46	\$8.75	\$16.35	\$0.00	\$72.56
	03/17/2023	\$48.71	\$8.75	\$16.35	\$0.00	\$73.81
	09/17/2023	\$49.71	\$8.75	\$16.35	\$0.00	\$74.81
	03/17/2024	\$50.96	\$8.75	\$16.35	\$0.00	\$76.06

Apprentice - PLUMBER/PIPEFITTER - Local 104**Effective Date - 09/17/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.54	\$8.75	\$9.60	\$0.00	\$36.89
2	50	\$20.61	\$8.75	\$9.60	\$0.00	\$38.96
3	55	\$22.67	\$8.75	\$9.60	\$0.00	\$41.02
4	60	\$24.73	\$8.75	\$9.60	\$0.00	\$43.08
5	65	\$26.79	\$8.75	\$9.60	\$0.00	\$45.14
6	70	\$28.85	\$8.75	\$9.60	\$0.00	\$47.20
7	75	\$30.91	\$8.75	\$9.60	\$0.00	\$49.26
8	80	\$32.97	\$8.75	\$9.60	\$0.00	\$51.32
9	80	\$32.97	\$8.75	\$16.35	\$0.00	\$58.07
10	80	\$32.97	\$8.75	\$16.35	\$0.00	\$58.07

Effective Date - 03/17/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.99	\$8.75	\$9.60	\$0.00	\$37.34
2	50	\$21.11	\$8.75	\$9.60	\$0.00	\$39.46
3	55	\$23.22	\$8.75	\$9.60	\$0.00	\$41.57
4	60	\$25.33	\$8.75	\$9.60	\$0.00	\$43.68
5	65	\$27.44	\$8.75	\$9.60	\$0.00	\$45.79
6	70	\$29.55	\$8.75	\$9.60	\$0.00	\$47.90
7	75	\$31.66	\$8.75	\$9.60	\$0.00	\$50.01
8	80	\$33.77	\$8.75	\$9.60	\$0.00	\$52.12
9	80	\$33.77	\$8.75	\$16.35	\$0.00	\$58.87
10	80	\$33.77	\$8.75	\$16.35	\$0.00	\$58.87

Notes: **1:1,2:5,3:9,4:12**Apprentice to Journeyworker Ratio:****

PNEUMATIC CONTROLS (TEMP.)	09/17/2019	\$41.21	\$8.75	\$16.35	\$0.00	\$66.31
PLUMBERS & PIPEFITTERS LOCAL 104	03/17/2020	\$42.21	\$8.75	\$16.35	\$0.00	\$67.31
	09/17/2020	\$43.21	\$8.75	\$16.35	\$0.00	\$68.31
	03/17/2021	\$44.21	\$8.75	\$16.35	\$0.00	\$69.31
	09/17/2021	\$45.21	\$8.75	\$16.35	\$0.00	\$70.31
	03/17/2022	\$46.46	\$8.75	\$16.35	\$0.00	\$71.56
	09/17/2022	\$47.46	\$8.75	\$16.35	\$0.00	\$72.56
	03/17/2023	\$48.71	\$8.75	\$16.35	\$0.00	\$73.81
	09/17/2023	\$49.71	\$8.75	\$16.35	\$0.00	\$74.81
	03/17/2024	\$50.96	\$8.75	\$16.35	\$0.00	\$76.06

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY)	12/01/2019	\$31.75	\$8.10	\$12.72	\$0.00	\$52.57
<i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	06/01/2020	\$32.56	\$8.10	\$12.72	\$0.00	\$53.38
	12/01/2020	\$33.37	\$8.10	\$12.72	\$0.00	\$54.19
	06/01/2021	\$34.21	\$8.10	\$12.72	\$0.00	\$55.03
	12/01/2021	\$35.04	\$8.10	\$12.72	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
POWDERMAN & BLASTER	12/02/2019	\$32.50	\$8.10	\$14.78	\$0.00	\$55.38
<i>LABORERS - ZONE 3 (BUILDING & SITE)</i>						
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	12/01/2019	\$32.50	\$8.10	\$12.72	\$0.00	\$53.32
<i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	06/01/2020	\$33.31	\$8.10	\$12.72	\$0.00	\$54.13
	12/01/2020	\$34.12	\$8.10	\$12.72	\$0.00	\$54.94
	06/01/2021	\$34.96	\$8.10	\$12.72	\$0.00	\$55.78
	12/01/2021	\$35.79	\$8.10	\$12.72	\$0.00	\$56.61
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
PUMP OPERATOR (CONCRETE)	12/01/2019	\$35.40	\$11.94	\$14.35	\$0.00	\$61.69
<i>OPERATING ENGINEERS LOCAL 98</i>						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER)	12/01/2019	\$34.87	\$11.94	\$14.35	\$0.00	\$61.16
<i>OPERATING ENGINEERS LOCAL 98</i>						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER	05/01/2019	\$21.74	\$10.87	\$6.50	\$0.00	\$39.11
<i>TEAMSTERS 404 - Construction Service (Northampton)</i>	05/01/2020	\$22.44	\$11.07	\$6.50	\$0.00	\$40.01
RIDE-ON MOTORIZED BUGGY OPERATOR	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
<i>LABORERS - ZONE 3 (BUILDING & SITE)</i>						
For apprentice rates see "Apprentice- LABORER"						
ROLLER OPERATOR	12/01/2019	\$34.26	\$11.94	\$14.35	\$0.00	\$60.55
<i>OPERATING ENGINEERS LOCAL 98</i>						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Coal tar pitch)	07/16/2019	\$32.66	\$10.05	\$16.20	\$0.00	\$58.91
<i>ROOFERS LOCAL 248</i>						
For apprentice rates see "Apprentice- ROOFER"						
ROOFER (Inc.Roofers Waterproofing &Roofers Damproofing)	07/16/2019	\$32.16	\$10.05	\$15.70	\$0.00	\$57.91
<i>ROOFERS LOCAL 248</i>						

Apprentice - ROOFER - Local 248

Effective Date - 07/16/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$19.30	\$10.05	\$0.00	\$0.00	\$29.35
2	65	\$20.90	\$10.05	\$15.70	\$0.00	\$46.65
3	70	\$22.51	\$10.05	\$15.70	\$0.00	\$48.26
4	75	\$24.12	\$10.05	\$15.70	\$0.00	\$49.87
5	80	\$25.73	\$10.05	\$15.70	\$0.00	\$51.48
6	85	\$27.34	\$10.05	\$15.70	\$0.00	\$53.09
7	90	\$28.94	\$10.05	\$15.70	\$0.00	\$54.69
8	95	\$30.55	\$10.05	\$15.70	\$0.00	\$56.30

Notes:

Steps are 750 hrs.Roofer(Tear Off)1:1; Same as above

Apprentice to Journeyworker Ratio:1:3

ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 248	07/16/2019	\$32.66	\$10.05	\$16.20	\$0.00	\$58.91
For apprentice rates see "Apprentice- ROOFER"						
SCRAPER OPERATING ENGINEERS LOCAL 98	12/01/2019	\$34.87	\$11.94	\$14.35	\$0.00	\$61.16
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS) OPERATING ENGINEERS LOCAL 98	12/01/2019	\$34.26	\$11.94	\$14.35	\$0.00	\$60.55
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
SELF-PROPELLED POWER BROOM OPERATING ENGINEERS LOCAL 98	12/01/2019	\$31.64	\$11.94	\$14.35	\$0.00	\$57.93
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 63	07/01/2019	\$35.74	\$10.64	\$16.22	\$1.77	\$64.37
	01/01/2020	\$36.99	\$10.64	\$16.22	\$1.77	\$65.62

Apprentice - SHEET METAL WORKER - Local 63**Effective Date - 07/01/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$16.08	\$6.21	\$4.67	\$0.00	\$26.96
2	50	\$17.87	\$6.55	\$5.19	\$0.00	\$29.61
3	55	\$19.66	\$6.88	\$9.33	\$1.08	\$36.95
4	60	\$21.44	\$7.22	\$9.33	\$1.14	\$39.13
5	65	\$23.23	\$7.55	\$9.33	\$1.20	\$41.31
6	70	\$25.02	\$7.88	\$9.33	\$1.27	\$43.50
7	75	\$26.81	\$8.22	\$9.33	\$1.33	\$45.69
8	80	\$28.59	\$9.30	\$15.18	\$1.59	\$54.66
9	85	\$30.38	\$9.64	\$15.18	\$1.66	\$56.86
10	90	\$32.17	\$9.98	\$15.18	\$1.72	\$59.05

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$16.65	\$6.21	\$4.67	\$0.00	\$27.53
2	50	\$18.50	\$6.55	\$5.19	\$0.00	\$30.24
3	55	\$20.34	\$6.88	\$9.33	\$1.08	\$37.63
4	60	\$22.19	\$7.22	\$9.33	\$1.14	\$39.88
5	65	\$24.04	\$7.55	\$9.33	\$1.20	\$42.12
6	70	\$25.89	\$7.88	\$9.33	\$1.27	\$44.37
7	75	\$27.74	\$8.22	\$9.33	\$1.33	\$46.62
8	80	\$29.59	\$9.30	\$15.18	\$1.59	\$55.66
9	85	\$31.44	\$9.64	\$15.18	\$1.66	\$57.92
10	90	\$33.29	\$9.98	\$15.18	\$1.72	\$60.17

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

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 669</i>	01/01/2019	\$41.51	\$10.02	\$13.08	\$0.00	\$64.61

Apprentice - SPRINKLER FITTER - Local 669

Effective Date - 01/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.68	\$7.75	\$0.00	\$0.00	\$26.43
2	50	\$20.76	\$7.75	\$0.00	\$0.00	\$28.51
3	55	\$22.83	\$10.02	\$7.25	\$0.00	\$40.10
4	60	\$24.91	\$10.02	\$7.25	\$0.00	\$42.18
5	65	\$26.98	\$10.02	\$7.50	\$0.00	\$44.50
6	70	\$29.06	\$10.02	\$7.50	\$0.00	\$46.58
7	75	\$31.13	\$10.02	\$7.50	\$0.00	\$48.65
8	80	\$33.21	\$10.02	\$7.50	\$0.00	\$50.73
9	85	\$35.28	\$10.02	\$7.50	\$0.00	\$52.80
10	90	\$37.36	\$10.02	\$7.50	\$0.00	\$54.88

Notes:

Apprentice to Journeyworker Ratio:1:1

TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 7</i>	06/30/2019	\$42.66	\$10.75	\$12.33	\$0.00	\$65.74
	12/29/2019	\$43.41	\$11.00	\$12.60	\$0.00	\$67.01

Apprentice - TELECOMMUNICATION TECHNICIAN - Local 7**Effective Date - 06/30/2019**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.06	\$5.85	\$0.51	\$0.00	\$23.42
2	45	\$19.20	\$5.85	\$0.58	\$0.00	\$25.63
3	50	\$21.33	\$10.75	\$6.94	\$0.00	\$39.02
4	55	\$23.46	\$10.75	\$7.00	\$0.00	\$41.21
5	65	\$27.73	\$10.75	\$8.13	\$0.00	\$46.61
6	70	\$29.86	\$10.75	\$9.20	\$0.00	\$49.81

Effective Date - 12/29/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.36	\$6.00	\$0.52	\$0.00	\$23.88
2	45	\$19.53	\$6.00	\$0.59	\$0.00	\$26.12
3	50	\$21.71	\$11.00	\$6.95	\$0.00	\$39.66
4	55	\$23.88	\$11.00	\$7.02	\$0.00	\$41.90
5	65	\$28.22	\$11.00	\$8.15	\$0.00	\$47.37
6	70	\$30.39	\$11.00	\$9.24	\$0.00	\$50.63

Notes:

Steps are 800 hours

Apprentice to Journeyworker Ratio:1:1**TERRAZZO FINISHERS***BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE*

08/01/2019	\$53.34	\$10.75	\$21.30	\$0.00	\$85.39
02/01/2020	\$53.98	\$10.75	\$21.30	\$0.00	\$86.03
08/01/2020	\$55.33	\$10.75	\$21.45	\$0.00	\$87.53
02/01/2021	\$55.97	\$10.75	\$21.45	\$0.00	\$88.17
08/01/2021	\$57.37	\$10.75	\$21.61	\$0.00	\$89.73
02/01/2022	\$57.96	\$10.75	\$21.61	\$0.00	\$90.32

Classification

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

Apprentice - TERRAZZO FINISHER-Local 3 Marble/Tile (Spr/Ptt)

Effective Date - 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.67	\$10.75	\$21.30	\$0.00	\$58.72
2	60	\$32.00	\$10.75	\$21.30	\$0.00	\$64.05
3	70	\$37.34	\$10.75	\$21.30	\$0.00	\$69.39
4	80	\$42.67	\$10.75	\$21.30	\$0.00	\$74.72
5	90	\$48.01	\$10.75	\$21.30	\$0.00	\$80.06

Effective Date - 02/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.99	\$10.75	\$21.30	\$0.00	\$59.04
2	60	\$32.39	\$10.75	\$21.30	\$0.00	\$64.44
3	70	\$37.79	\$10.75	\$21.30	\$0.00	\$69.84
4	80	\$43.18	\$10.75	\$21.30	\$0.00	\$75.23
5	90	\$48.58	\$10.75	\$21.30	\$0.00	\$80.63

Notes:

Apprentice to Journeyworker Ratio:1:5

TERRAZZO MECHANIC	08/01/2019	\$54.42	\$10.75	\$21.30	\$0.00	\$86.47
BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	02/01/2020	\$55.05	\$10.75	\$21.30	\$0.00	\$87.10
	08/01/2020	\$56.40	\$10.75	\$21.45	\$0.00	\$88.60
	02/01/2021	\$57.04	\$10.75	\$21.45	\$0.00	\$89.24
	08/01/2021	\$58.44	\$10.75	\$21.61	\$0.00	\$90.80
	02/01/2022	\$59.01	\$10.75	\$21.61	\$0.00	\$91.37

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	------------------------------	------------

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

Effective Date - 08/01/2019

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.21	\$10.75	\$21.30	\$0.00	\$59.26
2	60	\$32.65	\$10.75	\$21.30	\$0.00	\$64.70
3	70	\$38.09	\$10.75	\$21.30	\$0.00	\$70.14
4	80	\$43.54	\$10.75	\$21.30	\$0.00	\$75.59
5	90	\$48.98	\$10.75	\$21.30	\$0.00	\$81.03

Effective Date - 02/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.53	\$10.75	\$21.30	\$0.00	\$59.58
2	60	\$33.03	\$10.75	\$21.30	\$0.00	\$65.08
3	70	\$38.54	\$10.75	\$21.30	\$0.00	\$70.59
4	80	\$44.04	\$10.75	\$21.30	\$0.00	\$76.09
5	90	\$49.55	\$10.75	\$21.30	\$0.00	\$81.60

Notes:

Apprentice to Journeyworker Ratio:1:5

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 <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2019	\$34.26	\$11.94	\$14.35	\$0.00	\$60.55
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 3 (BUILDING & SITE)</i>	12/02/2019	\$31.75	\$8.10	\$14.78	\$0.00	\$54.63
For apprentice rates see "Apprentice- LABORER"						
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY & HIGHWAY)</i>	12/01/2019	\$31.75	\$8.10	\$12.72	\$0.00	\$52.57
	06/01/2020	\$32.56	\$8.10	\$12.72	\$0.00	\$53.38
	12/01/2020	\$33.37	\$8.10	\$12.72	\$0.00	\$54.19
	06/01/2021	\$34.21	\$8.10	\$12.72	\$0.00	\$55.03
	12/01/2021	\$35.04	\$8.10	\$12.72	\$0.00	\$55.86
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WATER METER INSTALLER <i>PLUMBERS & PIPEFITTERS LOCAL 104</i>	09/17/2019	\$41.21	\$8.75	\$16.35	\$0.00	\$66.31
	03/17/2020	\$42.21	\$8.75	\$16.35	\$0.00	\$67.31
	09/17/2020	\$43.21	\$8.75	\$16.35	\$0.00	\$68.31
	03/17/2021	\$44.21	\$8.75	\$16.35	\$0.00	\$69.31
	09/17/2021	\$45.21	\$8.75	\$16.35	\$0.00	\$70.31
	03/17/2022	\$46.46	\$8.75	\$16.35	\$0.00	\$71.56
	09/17/2022	\$47.46	\$8.75	\$16.35	\$0.00	\$72.56
	03/17/2023	\$48.71	\$8.75	\$16.35	\$0.00	\$73.81
	09/17/2023	\$49.71	\$8.75	\$16.35	\$0.00	\$74.81
	03/17/2024	\$50.96	\$8.75	\$16.35	\$0.00	\$76.06
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						

Additional Apprentice Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. 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.

**ATTACHMENT B
FEDERAL WAGE RATES**

"General Decision Number: MA20190003 11/15/2019

Superseded General Decision Number: MA20180003

State: Massachusetts

Construction Type: Building

Counties: Berkshire, Franklin, Hampden and Hampshire Counties
in Massachusetts.

BUILDING CONSTRUCTION PROJECTS Does not include residential
construction consisting of single family homes and apartments
up to and including 4 stories)

Note: Under Executive Order (EO) 13658, an hourly minimum wage
of \$10.60 for calendar year 2019 applies to all contracts
subject to the Davis-Bacon Act for which the contract is
awarded (and any solicitation was issued) on or after January
1, 2015. If this contract is covered by the EO, the contractor
must pay all workers in any classification listed on this wage
determination at least \$10.60 per hour (or the applicable wage
rate listed on this wage determination, if it is higher) for
all hours spent performing on the contract in calendar year
2019. If this contract is covered by the EO and a

classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	02/01/2019
2	02/22/2019
3	05/17/2019
4	07/05/2019
5	08/02/2019
6	10/04/2019
7	11/15/2019

ASBE0006-011 09/01/2019

Rates Fringes

Insulator/asbestos worker

(Includes the application of
all insulating materials,
protective coverings,
coatings and finishes to all
types of mechanical systems).....\$ 38.75 29.90

BOIL0029-001 01/01/2017

	Rates	Fringes
BOILERMAKER.....	\$ 42.42	24.92

BRMA0001-001 02/01/2019

SPRINGFIELD/PITTSFIELD CHAPTER FRANKLIN, HAMPDEN, and
HAMPSHIRE COUNTIES

	Rates	Fringes
BRICKLAYER		
BRICKLAYERS; CEMENT		
MASONS; PLASTERERS; STONE		
MASONS; MARBLE, TILE &		
TERRAZZO WORKERS.....	\$ 41.96	29.80

BRMA0001-003 02/01/2019

SPRINGFIELD/PITTSFIELD
BERKSHIRE

	Rates	Fringes
BRICKLAYER		
BRICKLAYERS; CEMENT		
MASONS; PLASTERERS; STONE		
MASONS; MARBLE, TILE &		
TERRAZZO WORKERS.....	\$ 41.96	29.80

CARP0056-014 08/01/2018

	Rates	Fringes
PILEDRIVERMAN.....	\$ 46.07	32.25

CARP0107-009 09/01/2017

Franklin County (Erving, Orange, North Orange and Warwick)

	Rates	Fringes
CARPENTER.....	\$ 39.28	27.90

CARP0108-005 09/04/2017

HAMPDEN; HAMPSHIRE AND FRANKLIN (Remainder)

	Rates	Fringes
Carpenter/Lather/Drywall		
Applicator.....	\$ 35.56	23.76

CARP0108-011 09/04/2017

BERKSHIRE COUNTY

	Rates	Fringes
CARPENTER.....	\$ 35.56	23.76

CARP1121-001 10/01/2017

	Rates	Fringes
MILLWRIGHT.....	\$ 39.52	30.85

* CARP2168-003 09/01/2019

	Rates	Fringes
FLOOR LAYER: Carpet.....	\$ 46.25	29.45

ELEC0007-002 06/30/2019

HAMPDEN (Except Chester & Holyoke); HAMPSHIRE (Belchertown,
Ware)

	Rates	Fringes
ELECTRICIAN.....	\$ 42.66	23.68

ELEC0007-003 06/30/2019

BERKSHIRE; FRANKLIN; HAMPDEN (Chester, Holyoke); HAMPSHIRE
(Except Belchertown, Ware)

	Rates	Fringes
ELECTRICIAN.....	\$ 42.66	23.68

ELEC0007-006 06/30/2019

	Rates	Fringes
Teledata System Installer.....	\$ 42.66	23.68

ELEC0042-003 09/03/2017

	Rates	Fringes
Line Construction:		
Heavy Equipment Operator....	\$ 42.26	6.5%+19.81
Lineman, Cable Splicer and		
Dynamite Man.....	\$ 46.96	6.5%+22.00
Material Man, Tractor		
Trailer Driver, Equipment		
Operator.....	\$ 39.92	6.5%+19.21

ELEV0041-001 01/01/2019

Rates	Fringes
-------	---------

ELEVATOR MECHANIC.....\$ 53.11 34.125+a+b

FOOTNOTE:

- a.Vacation: 6%/under 5 years based on regular hourly rate for all hours worked. 8%/over 5 years based on regular hourly rate for all hours worked.
- b. PAID HOLIDAYS: New Year's Day; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; the Friday after Thanksgiving Day; and Christmas Day.

ENGI0098-001 12/01/2016

Rates Fringes

Power equipment operators:

(BUILDING & RESIDENTIAL)

Group	1.....	\$ 33.68	23.96+A
Group	2.....	\$ 33.37	23.96+A
Group	3.....	\$ 33.15	23.96+A
Group	4.....	\$ 32.54	23.96+A
Group	5.....	\$ 29.92	23.96+A
Group	6.....	\$ 28.80	23.96+A
Group	7.....	\$ 26.86	23.96+A
Group	8.....	\$ 305.95	23.962+A
Group	9.....	\$ 230.69	23.96+A
Group	10.....	\$ 35.17	23.96+A
Group	11.....	\$ 38.18	23.96+A
Group	12.....	\$ 39.68	23.96+A
Group	13.....	\$ 40.68	23.96+A
Group	14.....	\$ 41.68	23.96+A

Group 15.....\$ 43.18 23.96+A

HAZARDOUS WASTE PREMIUM \$2.00

FOOTNOTE FOR POWER EQUIPMENT OPERATORS:

Group 8 and Group 9 are per day wages.

A. Paid Holidays: New year's Day, Washington's Birthday,
Memorial Day, Independence Day, Labor Day, Columbus Day,
Veterans Day, Thanksgiving Day and Christmas Day

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1: Shovels; crawlers and truck cranes including all
tower; self-propelled hydraulic cranes 10 tons and over;
draglines; clam shells; cableways; shaft hoists; mucking
machines derricks; backhoes; bulldozers; gradalls;
elevating graders; pile drivers; concrete pavers; trenching
machines; front end loaders- 5 1/2 cu yds and over; dual
drum paver; automatic grader-excavator(C.M.I. or equal);
scrapers towing pan or wagon; tandem dozers or push cats(2
units in tandem); shotcrete machine; tunnel boring machine;
combination backhoe/loader 3/4 cu yd hoe or over; jet
engine dryer; tree shredder; post hole digger; post hole
hammer; post extractor; truck mounted concrete pump with
boom; roto-mill; Grader; Horizontal Drilling Machine; John
Henry Rock Drill and similar equipment.

Group 2: Rotary drill with mounted compressor; compressor
house (3 to 6 compressors); rock and earth boring machines
(excluding McCarthy and similar drills); front end loaders
4 cu yds to 5 1/2 cu yds); forklifts-7 ft lift and over 3
ton capacity; scraper 21 yds and over (struck load); sonic
hammer console; reclaimers road planer/milling machine; cal

tracks; ballast regulators; rail anchor machines; switch tampers, asphalt pavers; mechanic; welder and transfer machine.

Group 3: Combination backhoe/loader up to 3/4 cu yd; scrapers up to 21 cu yd (struck load, self propelled or tractor drawn); tireman; front end loaders up to 4 yds; well drillers; engineer or fireman on high pressure boiler; self-loading batch plant; well point operators electric pumps used in well point system; pumps, 16 inches and over (total discharge); compressor, one or two 900 cu ft and over; powered grease truck; tunnel locomotives and dingys; grout pumps; hydraulic jacks; boom truck; hydraulic cranes-up to 10 ton.

Group 4: Asphalt rollers; self-powered rollers and compactors; tractor without blade drawing sheepsfoot roller; rubber tire roller; vibratory roller or other type of compactors including machines for pulverizing and aerating soil; york rake.

Group 5: Hoists; conveyors; power pavement breakers; self-powered concrete pavement finishing machines; two bag mixers with skip; McCarthy and similar drills; batch plants (not self loading); bulk cement plants; self-propelled material spreaders; three or more 10 KW light plants; 30 KW or more generators; power broom.

Group 6: Compressor (one or two) 315 cu ft to 900 cu ft; pumps 4 inches to 16 inches (total discharge).

Group 7: Compressors up to 315 cu ft; small mixers with skip; pumps up to 4 inches; power heaters; oiler; A-frame trucks; forklifts-up to 7 ft. lift and up to 3 ton capacity; hydro broom; stud welder.

Group 8: Truck crane crews

Group 9: Oiler

Group 10: Master Mechanic

Group 11: Boom lengths over 150 feet including jib

Group 12: Boom lengths over 200 feet including jib

Group 13: Boom lengths over 250 feet including jib

Group 14: Boom lengths over 300 feet including jib

Group 15: Boom lengths over 350 feet including jib

IRON0007-014 03/16/2019

BERKSHIRE (Becket, East Otis, Hinsdale, Monterey, New Marlboro,
North Otis, Otis, Peru, Sandisfield, Savoy, Sheffield,
Washington, Windsor); FRANKLIN; HAMPDEN; HAMPSHIRE

	Rates	Fringes
IRONWORKER.....	\$ 34.20	31.20

IRON0012-003 07/01/2018

BERKSHIRE (Lee)

	Rates	Fringes
IRONWORKER.....	\$ 31.00	24.43

IRON0012-004 07/01/2018

BERKSHIRE (Remainder of County)

	Rates	Fringes
Ironworkers:		
Sheeter.....	\$ 31.25	24.43
Structural, Ornamental, Reinforcing, Fence Erector, Machinery Mover, Rigger, Rodman, Stone Derrickman.....	\$ 31.00	24.43

LAB00014-004 12/01/2017		

BERKSHIRE COUNTY

FRANKLIN COUNTY (the towns of Ashfield, Buckland, Charlemont,
Hawley, Heath, and Rowe only) HAMPSHIRE COUNTY (the towns of
Chesterfield, Cummington, Goshen, Middlefield, Plainfield, and
Worthington only)

	Rates	Fringes
Plasterer tender.....	\$ 26.10	20.90

LAB00014-005 12/01/2017		

HAMPDEN COUNTY

HAMPSHIRE COUNTY (with the exception of Chesterfield,
Cummington, Goshen, Middlefield, Plainfield, and Worthington)
FRANKLIN COUNTY (with the exception of Ashfield, Buckland,
Charlemont, Hauley, Heath, Orange, Rowe, and Warwick)

	Rates	Fringes
Plasterer tender.....	\$ 30.60	21.91

LAB00022-002 06/01/2018		

FRANKLIN (Orange, Warwick)

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 33.25	22.92
GROUP 2.....	\$ 33.50	22.92
GROUP 3.....	\$ 34.00	22.92
GROUP 4.....	\$ 34.25	22.92
GROUP 5.....	\$ 34.00	22.92
GROUP 6.....	\$ 34.25	22.92

LABORERS CLASSIFICATIONS

GROUP 1: Laborers; carpenter tenders; cement finisher
tenders, plasterer tenders

GROUP 2: Asphalt raker; fence and guard rail erector; laser
beam operator; mason tenmder; pipelayer; pneumatic drill
operator; pneumatic tool operator; wagon drill operator
jackhammer operator, pavement breaker, carbide core
drilling machine, chain saw operator, barco type jumping
tampers, concrete pump, motorized mortar miner, ride-on

motorized buggy

GROUP 3: Air track operator; block paver; rammer; curb
setter, hydraulic and similar self-powered drills

GROUP 4: Blaster; powderman

GROUP 5: Precast floor and roof, plank erector

GROUP 6: Asbestos Abatement, Toxic and Hazardous waste
laborers

LAB00473-001 06/01/2018

BERKSHIRE COUNTY, FRANKLIN COUNTY, (THE TOWNS OF ASHFIELD,
BUCKLAND, CHARLEMONT, HAWLEY, HEATH, AND ROWE ONLY) HAMPSHIRE
COUNTY (THE TOWNS OF CHESTERFIELD, CUMMINGTON, GOSHEN,
MIDDLEFIELD, PLAINFIELD, AND WORTHINGTON ONLY)

	Rates	Fringes
Laborers:.....	\$ 26.40	20.75

LAB00596-001 06/04/2018

HAMPDEN COUNTY, HAMPSHIRE COUNTY (WITH THE EXCEPTION OF
CHESTERFIELD, CUMMINNGTON, GOSHEN, MIDDLEFIELD, PLAINFIELD, AND
WORTHINGTON) FRANKLIN COUNTY (WITH THE EXCEPTION OF ASHFIELD,
BUCKLAND, CHARLEMONT, HAULY, HEATH, ORANGE, ROWE AND WARWICK)

Rates Fringes

Laborers:

GROUP 1.....	\$ 31.00	22.19
GROUP 2.....	\$ 31.25	22.19
GROUP 3.....	\$ 31.75	22.19
GROUP 4.....	\$ 31.75	22.19
GROUP 5.....	\$ 32.00	22.19

LABORERS CLASSIFICATIONS

GROUP 1: Laborers, carpenter tenders, wrecking laborers

GROUP 2: Asphalt rakers, carbide core driller operators,
chain saw operators, pipelayers, jackhammer and paving
breaker operators, Barco type jumping tampers, laser beam
operators, concrete pump operators, mason tenders,
motorized mortar mixers, ride-on motorized buggy operators,
wagon drill operators

GROUP 3: precast floor and roof plank erectors, sign
erectors, asbestos removal laborers, haz-mat laborers

GROUP 4: Air track operators, block pavers, rammers and curb
setters, hydraulic and similar self-powered drills

GROUP 5: Powderman and blaster

MARB0097-001 03/01/2012

	Rates	Fringes
MARBLE FINISHER.....	\$ 28.43	25.85

PAIN0011-008 06/01/2019

	Rates	Fringes
GLAZIER.....	\$ 38.18	21.80

FOOTNOTE:

A. PAID HOLIDAY: LABOR DAY (provided employee has worked any part of the week prior to Labor Day and any part of the week after Labor Day

PAIN0035-007 07/01/2019

	Rates	Fringes
PAINTER		
NEW CONSTRUCTION:		
Brush, Taper.....	\$ 32.33	26.35
Spray, Sandblast.....	\$ 34.03	27.00
REPAINT:		
Brush, Taper.....	\$ 29.65	26.35
Spray, Sandblast.....	\$ 31.35	27.00

PLUM0004-003 09/01/2019

FRANKLIN (Orange)

	Rates	Fringes
Plumber and Steamfitter.....	\$ 45.41	26.56

PLUM0104-004 03/17/2019

BERKSHIRE (Becket, Otis, Sandisfield); FRANKLIN (Except Monroe, Rowe, and the Western part of Charlemont); HAMPDEN; HAMPSHIRE

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 40.21	25.90

FOOTNOTE:

A. Two paid holidays, Independence Day and Labor Day, provided the employee has been employed seven days prior to the holiday by the same employer

PLUM0104-009 03/17/2019

BERKSHIRE (Except Otis, Becket, Sandisfield); FRANKLIN (Monroe, Rowe and the Western part of Charlemont)

Rates	Fringes
-------	---------

Plumber and Steamfitter.....	\$ 40.21	25.90
------------------------------	----------	-------

FOOTNOTE FOR PLUMBERS & STEAMFITTERS:

A. Paid holidays: Independence Day and Labor Day, provided the employee has been employed seven days prior to the holiday by the same employer.

ROOF0248-001 07/16/2019

All tear-off and/or removal (of any types of roofing), and all spudding, sweeping, vacuuming and/or cleanup of any and all areas of any type where a roof is to be relaid.

Rates	Fringes
-------	---------

Roofers:

Composition Roofers & Damp

Waterproofers.....	\$ 32.16	26.50
--------------------	----------	-------

Pitch,Slate, Tile and

Precast Concrete.....	\$ 32.66	27.00
-----------------------	----------	-------

* SFMA0550-003 10/01/2019

Rates	Fringes
-------	---------

SPRINKLER FITTER.....	\$ 54.43	30.23+a
-----------------------	----------	---------

a. PAID HOLIDAYS: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee

has been in the employment of a contractor 20 working days prior to any such paid holidays.

SHEE0063-001 01/01/2016

	Rates	Fringes
Sheet metal worker.....	\$ 31.57	28.12

TEAM0379-001 06/01/2019

	Rates	Fringes
Truck drivers:		
Group 1.....	\$ 34.08	25.1125+A+B
Group 2.....	\$ 34.25	25.1125+A+B
Group 3.....	\$ 34.32	25.1125+A+B
Group 4.....	\$ 34.44	25.1125+A+B
Group 5.....	\$ 34.54	25.1125+A+B
Group 6.....	\$ 34.83	25.1125+A+B
Group 7.....	\$ 35.12	25.1125+A+B

POWER TRUCKS \$.25 DIFFERENTIAL BY AXLE
TUNNEL WORK (UNDERGROUND ONLY) \$.40 DIFFERENTIAL BY AXLE
HAZARDOUS MATERIALS (IN HOT ZONE ONLY) \$2.00 PREMIUM

TRUCK DRIVERS CLASSIFICATIONS

Group 1: Station wagons; panel trucks; and pickup trucks

Group 2: Two axle equipment; & forklift operator

Group 3: Three axle equipment and tireman

Group 4: Four and Five Axle equipment

Group 5: Specialized earth moving equipment under 35 tons
other than conventional type trucks; low bed; vachual;
mechanics, paving restoration equipment

Group 6: Specialized earth moving equipment over 35 tons

Group 7: Trailers for earth moving equipment (double hookup)

FOOTNOTES:

A. PAID HOLIDAYS: New Year's Day, Washington's Birthday,
Memorial Day, Independence Day, Labor Day, Patriot's Day,
Columbus Day, Veteran's Day, Thanksgiving Day and Christmas
Day

B. PAID VACATION: Employees with 4 months to 1 year of
service receive 1/2 day's pay per month; 1 week vacation
for 1 - 5 years of service; 2 weeks vacation for 5 - 10
years of service; and 3 weeks vacation for more than 10
years of service

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"

**ATTACHMENT C
TOWN OF MONTAGUE ORDER OF CONDITIONS**



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 229-0253
 MassDEP File #
 eDEP Transaction #
 Montague
 City/Town

A. General Information

Please note:
 this form has
 been modified
 with added
 space to
 accommodate
 the Registry
 of Deeds
 Requirements

Important:
 When filling
 out forms on
 the
 computer,
 use only the
 tab key to
 move your
 cursor - do
 not use the
 return key.



1. From: Montague
 Conservation Commission
2. This issuance is for
 (check one): a. ☒ Order of Conditions b. ☐ Amended Order of Conditions
3. To: Applicant:

<u>Steven</u>	<u>Ellis</u>
a. First Name	b. Last Name
<u>Town of Montague</u>	
c. Organization	
<u>One Avenue A</u>	
d. Mailing Address	
<u>Turners Falls</u>	<u>MA</u>
e. City/Town	f. State
	<u>01376</u>
	g. Zip Code
4. Property Owner (if different from applicant):

<u></u>	<u></u>
a. First Name	b. Last Name
<u></u>	
c. Organization	
<u></u>	
d. Mailing Address	
<u></u>	<u></u>
e. City/Town	f. State
	g. Zip Code
5. Project Location:

<u>8 and 20 Canal Road</u>	<u>Turners Falls</u>
a. Street Address	b. City/Town
<u>Map 2</u>	<u>Lots 01 an 06</u>
c. Assessors Map/Plat Number	d. Parcel/Lot Number
<u></u>	<u></u>
Latitude and Longitude, if known:	<u>42d610m347s</u>
	d. Latitude
	<u>-72d558m318s</u>
	e. Longitude



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 229-0253
 MassDEP File #

eDEP Transaction #
 Montague
 City/Town

A. General Information (cont.)

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):
Franklin
 a. County 4972 b. Certificate Number (if registered land) 251
 c. Book 4972 d. Page 251
7. Dates: 4/2/2019 5/9/2019 5/13/2019
 a. Date Notice of Intent Filed b. Date Public Hearing Closed c. Date of Issuance
8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):
Strathmore Mill Complex Demolition and Abatement Design Notice of Intent Package
 a. Plan Title
Tighe & Bond, Inc.
 b. Prepared By c. Signed and Stamped by
April 2019 As Noted
 d. Final Revision Date e. Scale
April 2019
 f. Additional Plan or Document Title g. Date

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act:
- Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:
- a. ☒ Public Water Supply b. ☐ Land Containing Shellfish c. ☒ Prevention of Pollution
 d. ☐ Private Water Supply e. ☒ Fisheries f. ☒ Protection of Wildlife Habitat
 g. ☐ Groundwater Supply h. ☒ Storm Damage Prevention i. ☒ Flood Control
2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

Approved subject to:

- a. ☒ the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

229-0253

MassDEP File #

eDEP Transaction #

Montague

City/Town

B. Findings (cont.)

Denied because:

- b. ☐ the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**
- c. ☐ the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**
3. ☐ Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a) a. linear feet

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. <input type="checkbox"/> Bank	<u> </u> a. linear feet	<u> </u> b. linear feet	<u> </u> c. linear feet	<u> </u> d. linear feet
5. <input type="checkbox"/> Bordering Vegetated Wetland	<u> </u> a. square feet	<u> </u> b. square feet	<u> </u> c. square feet	<u> </u> d. square feet
6. <input type="checkbox"/> Land Under Waterbodies and Waterways	<u> </u> a. square feet	<u> </u> b. square feet	<u> </u> c. square feet	<u> </u> d. square feet
	<u> </u> e. c/y dredged	<u> </u> f. c/y dredged		
7. <input checked="" type="checkbox"/> Bordering Land Subject to Flooding	<u>8,510</u> a. square feet	<u> </u> b. square feet	<u>8,510</u> c. square feet	<u> </u> d. square feet
Cubic Feet Flood Storage	<u> </u> e. cubic feet	<u> </u> f. cubic feet	<u> </u> g. cubic feet	<u> </u> h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	<u> </u> a. square feet	<u> </u> b. square feet		
Cubic Feet Flood Storage	<u> </u> c. cubic feet	<u> </u> d. cubic feet	<u> </u> e. cubic feet	<u> </u> f. cubic feet
9. <input checked="" type="checkbox"/> Riverfront Area	<u>45,916</u> a. total sq. feet	<u> </u> b. total sq. feet		
Sq ft within 100 ft	<u>26,676</u> c. square feet	<u>26,676</u> d. square feet	<u> </u> e. square feet	<u> </u> f. square feet
Sq ft between 100-200 ft	<u>19,240</u> g. square feet	<u>19,240</u> h. square feet	<u> </u> i. square feet	<u> </u> j. square feet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 229-0253
 MassDEP File #

eDEP Transaction #
 Montague
 City/Town

B. Findings (cont.)

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
10. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below			
11. <input type="checkbox"/> Land Under the Ocean	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
12. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below			
13. <input type="checkbox"/> Coastal Beaches	a. square feet	b. square feet	c. nourishment cu yd	d. nourishment cu yd
14. <input type="checkbox"/> Coastal Dunes	a. square feet	b. square feet	c. nourishment cu yd	d. nourishment cu yd
15. <input type="checkbox"/> Coastal Banks	a. linear feet	b. linear feet		
16. <input type="checkbox"/> Rocky Intertidal Shores	a. square feet	b. square feet		
17. <input type="checkbox"/> Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet
18. <input type="checkbox"/> Land Under Salt Ponds	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
19. <input type="checkbox"/> Land Containing Shellfish	a. square feet	b. square feet	c. square feet	d. square feet
20. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above			
	a. c/y dredged	b. c/y dredged		
21. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	a. square feet	b. square feet		
22. <input type="checkbox"/> Riverfront Area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	g. square feet	h. square feet	i. square feet	j. square feet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 229-0253
 MassDEP File #

eDEP Transaction #
 Montague
 City/Town

B. Findings (cont.)

* #23. If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.5.c (BVW) or B.17.c (Salt Marsh) above, please enter the additional amount here.

23. ☐ Restoration/Enhancement *:

a. square feet of BVW

b. square feet of salt marsh

24. ☐ Stream Crossing(s):

a. number of new stream crossings

b. number of replacement stream crossings

C. General Conditions Under Massachusetts Wetlands Protection Act

The following conditions are only applicable to Approved projects.

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
 - a. The work is a maintenance dredging project as provided for in the Act; or
 - b. The time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
 - c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on 5/8/2022 unless extended in writing by the Department.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

229-0253

MassDEP File #

eDEP Transaction #

Montague

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act

8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.
9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]
"File Number 229-0253 "
11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands**

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

229-0253

MassDEP File #

eDEP Transaction #

Montague

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.
19. The work associated with this Order (the "Project")
 - (1) ☐ is subject to the Massachusetts Stormwater Standards
 - (2) ☒ is NOT subject to the Massachusetts Stormwater Standards

If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

- a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.
- b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:
 - i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
 - ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
 - iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 229-0253
 MassDEP File #

eDEP Transaction #
 Montague
 City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;

v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following:

i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and

ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

229-0253

MassDEP File #

eDEP Transaction #

Montague

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- g) The responsible party shall:
1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
 2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
 3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

See attached document titled Special Conditions NOI 2019-01

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 229-0253
 MassDEP File #

eDEP Transaction #
 Montague
 City/Town

D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Is a municipal wetlands bylaw or ordinance applicable? ☐ Yes ☐ No
2. The _____ hereby finds (check one that applies):
 Conservation Commission

- a. ☐ that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw, specifically:

1. Municipal Ordinance or Bylaw

2. Citation

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

- b. ☐ that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

1. Municipal Ordinance or Bylaw

2. Citation

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 229-0253
 MassDEP File #

eDEP Transaction #
 Montague
 City/Town

E. Signatures

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

Please indicate the number of members who will sign this form.

This Order must be signed by a majority of the Conservation Commission.

5/13/2019

1. Date of Issuance

5

2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

Mark Fairbrother

Lauree J. [Signature]
Josh [Signature]
[Signature]
Adrian [Signature]

☒ by hand delivery on

5/13/2019

Date

☐ by certified mail, return receipt requested, on

Date

F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

229-0253

MassDEP File #

eDEP Transaction #

Montague

City/Town

G. Recording Information

Prior to commencement of work, this Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Conservation Commission

Please be advised that the Order of Conditions for the Project at:

Project Location

MassDEP File Number

Has been recorded at the Registry of Deeds of:

County

Book

Page

for:

Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

DEP File Number: _____

**Request for Departmental Action Fee
Transmittal Form**

Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. Request Information

1. Location of Project

a. Street Address _____

b. City/Town, Zip _____

c. Check number _____

d. Fee amount _____

2. Person or party making request (if appropriate, name the citizen group's representative):

Name _____

Mailing Address _____

City/Town _____

State _____

Zip Code _____

Phone Number _____

Fax Number (if applicable) _____

3. Applicant (as shown on Determination of Applicability (Form 2), Order of Resource Area Delineation (Form 4B), Order of Conditions (Form 5), Restoration Order of Conditions (Form 5A), or Notice of Non-Significance (Form 6)):

Name _____

Mailing Address _____

City/Town _____

State _____

Zip Code _____

Phone Number _____

Fax Number (if applicable) _____

4. DEP File Number: _____

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



B. Instructions

1. When the Departmental action request is for (check one):

- ☐ Superseding Order of Conditions – Fee: \$120.00 (single family house projects) or \$245 (all other projects)
- ☐ Superseding Determination of Applicability – Fee: \$120
- ☐ Superseding Order of Resource Area Delineation – Fee: \$120



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

DEP File Number:

**Request for Departmental Action Fee
Transmittal Form**

Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Instructions (cont.)

Send this form and check or money order, payable to the *Commonwealth of Massachusetts*, to:

Department of Environmental Protection
Box 4062
Boston, MA 02211

2. On a separate sheet attached to this form, state clearly and concisely the objections to the Determination or Order which is being appealed. To the extent that the Determination or Order is based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.
3. Send a **copy** of this form and a **copy** of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/>).
4. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

SECTION 01110

SUMMARY OF WORK

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Work of the Contract is shown and described in Drawings and Project Manual entitled:

Strathmore Mill Asbestos and Hazardous Materials Abatement & Stack Demolition
Turners Falls, Massachusetts
February 2020

Tighe & Bond, Inc.
Consulting Engineers
Westfield, Massachusetts

2. The Work includes the following major items:
 - a. Abatement and disposal of inventoried asbestos materials from certain specified buildings.
 - b. Removal and disposal of inventoried oil and hazardous materials from certain specified buildings.
 - c. Built-up ash removal /disposal and Stack demolition.

B. Related Requirements

1. Section 00700, General Conditions
2. Section 00800, Supplementary Conditions

1.2 SUBMITTALS

A. Informational Submittals

1. Submit copies of permits or approvals required for the Work, prior to initiating the Work.

1.3 PROJECT/SITE CONDITIONS

A. Complete all Work within the Contract Time as set forth in the Agreement.

B. Permits

1. Obtain the permits and approvals listed below:
 - a. Permits and licenses of a temporary nature necessary to perform the Work, which at a minimum include an asbestos ANF-001 Notification.

- b. For stack demolition provide, at a minimum the MassDEP BWP AQ06 renovation / demolition permit and Town of Montague or Turners Falls demolition permit.
 - c. Other permits or licenses required for the Contractor's operations or required elsewhere in the Contract Documents and not included herein.
 - 2. Comply with the permits and approvals listed below:
 - a. FirstLight Travel Way Restriction Requirements letter which is appended to the Contract Documents.
 - b. Town of Montague Order of Conditions
 - 3. Obtain required time extensions to permits obtained by the Contractor, if construction authorized by permits has not been completed by the expiration date noted on these permits.
 - 4. Permits require that a representative of the permitting authority or the Owner be present on-site during construction or given the opportunity to observe conditions prior to backfilling or otherwise proceeding with construction. Notify the Owner, Engineer, and the permitting authority prior to performing Work that is governed by the permit.
 - 5. Obtain permits and approvals from appropriate jurisdictional agencies and property owners for use of premises not furnished by the Owner, and for all off-site areas.
 - 6. Submit copies of permits prior to performance of Work authorized by permits.
- C. Access Agreement and Other Approvals
- 1. Before beginning Work, coordinate with the Town of Montague, including the Police and Fire Department for site access.
- D. Existing Conditions
- 1. Use of Premises and Off-site Work
 - a. The Work shall occur only on the Owner's property within the Limits of Work Area shown on the Drawings.
 - b. Land owned by the Owner is available for staging and is shown on the Drawings.
 - c. Obtain permits and approvals for use of any land and access thereto that is deemed necessary for the Work, where such land is not available for use by the Owner, including land for temporary construction facilities, access and egress, or for storage of materials. Confine apparatus and storage to such additional areas.
 - d. Obtain permits and written approvals from appropriate jurisdictional agencies for the use of premises not available for use by the Owner, including all offsite staging areas, and waste areas. Submit copies of all permits and approvals to the Owner prior to using areas.

- e. Provide for the disposal of waste materials off-site in accordance with all applicable laws.
- f. Adhere to the limits of Work as indicated, to minimize obstruction to traffic and inconvenience to the Owner, general public, and businesses in the vicinity of the Work, and to protect people and property. Keep operating fire hydrants on or adjacent to the Work accessible to fire fighting equipment at all times.
- g. Make temporary provisions for the use of sidewalks as applicable and maintain functioning gutters, stormwater systems, drainage ditches, and culverts.
- h. Maintain public access to businesses and residences including driveways and parking lots at all times during the Work.

PART 2 PRODUCTS

2.1 MATERIALS FURNISHED BY OWNER

- A. The Owner will not furnish any materials, labor or equipment under this Contract.

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01140

WORK RESTRICTIONS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Work Schedule
 - 2. Construction Constraints
 - 3. Vehicle Access
 - 4. Available Work Area
 - 5. Site Usage Plan

1.2 SUBMITTALS

- A. Incorporate the requirements of this Section into the project schedule.
- B. Action Submittals
 - 1. Submit site usage plan after receiving the Notice to Proceed.

1.3 WORK SCHEDULE

- A. Conduct the Work during daylight hours on Monday through Saturday, and within the time between 7:00 a.m. and 5:00 p.m. No work is to be done on Owner's holidays, Sundays or outside of the work hours described above unless approved by the Town.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 CONSTRUCTION CONSTRAINTS

- A. Construction related to asbestos and hazardous materials abatement & stack demolition must be substantially complete by May 29, 2020 and be complete by June 30, 2020.

3.2 VEHICLE ACCESS

- A. Vehicles are to travel on the approved construction route, as shown on the Contract drawings. Be aware of Canal Road height, weight and width restrictions.
- B. All paved access roads to be cleaned/swept daily as needed.

3.3 AVAILABLE WORK AREA

- A. Limits of construction are defined on the Drawings. No work will be permitted to be performed outside these boundaries.

3.4 SITE USAGE PLAN

- A. Submit a site usage plan showing all proposed staging areas and locations of heavy machinery and supporting equipment.

END OF SECTION

SECTION 01290

APPLICATION AND CERTIFICATE FOR PAYMENT

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Definition and description of measurement and payment to be used for the Work
 - 2. Payment procedures
 - 3. Payment requests for stored materials
- B. Related Requirements
 - 1. Section 01295 - Schedule of Values

1.2 GENERAL

- A. The following paragraphs describe payment procedures for the work to be done under the respective items in the Bid Form.
- B. Each lump sum will be deemed to include an amount considered by the Contractor to be adequate to cover the Contractor's overhead and profit for each separately identified item.
- C. Except as provided for in Section 01295, no separate measurement or payment will be made for Work called for in Division 0 or Division 1 of the Contract Specifications, unless specifically covered under the Bid items listed below. All costs associated with this Work will be considered incidental to the Contract Bid price.
- D. Division 2 through Division 13 Work will be measured and paid for at the Contractor's lump sum Bid price as indicated on the Bid form. Those payable Work items, and related prices as Bid, will be the basis for all compensation to the Contractor for Work performed under this Contract. Work not specifically included as a Bid item, but which is required to properly and satisfactorily complete the Work is considered ancillary and incidental to the Bid item Work, and payment for such Work is considered to be included in the values as Bid for payable items.

1.3 LUMP SUM ITEMS

- A. Each lump sum price stated in the Bid form shall constitute full compensation for all labor, equipment and materials necessary and required to complete the work specified under that particular item, and also all costs for doing related work as set forth in the Contract Documents or implied in carrying out their intent.
- B. Items 1 and 2 – Asbestos and Hazardous Materials Abatement
 - 1. Measurement
 - a. There will be no measurement of quantities for lump sum items. Periodic partial payments for this Work, included under the Agreement, shall be based on the percent completion of each work item listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.

2. Payment
 - a. The lump sum payment shall be full compensation for furnishing all labor, materials, tools, equipment, and services necessary for the asbestos and hazardous materials abatement in its entirety as detailed in the Contract Documents.
- C. Alternate Item 1 – Built-up ash removal/disposal from stack base interior and Stack Demolition to Pedestal
 1. Measurement
 - a. There will be no measurement of quantities for lump sum items. Periodic partial payments for this Work, included under the Agreement, shall be based on the percent completion of each work item listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.
 2. Payment
 - a. The lump sum payment shall be full compensation for furnishing all labor, materials, tools, equipment, and services necessary for the ash disposal and stack demolition to its pedestal as detailed in the Contract Documents.
- D. Alternate Item 2 – Stack Pedestal Demolition and Stack Debris Disposal
 1. Measurement
 - a. There will be no measurement of quantities for lump sum items. Periodic partial payments for this Work, included under the Agreement, shall be based on the percent completion of each work item listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.
 2. Payment
 - a. The lump sum payment shall be full compensation for furnishing all labor, materials, tools, equipment, and services necessary for the stack pedestal demolition and stack debris disposal in its entirety as detailed in the Contract Documents.

1.4 PAYMENT PROCEDURES

- A. Informal submittal: Unless otherwise directed by the Engineer:
 1. Make an informal submittal of request for payment by filling in, with erasable pencil, pertinent portions of EJCDC C-620, Contractor's Application for Payment, plus continuation sheet or sheets.
 2. Make this preliminary submittal to the Engineer at the last regular job meeting of each month.
 3. Revise the preliminary submittal as approved by the Engineer and incorporate the approved payments into the formal submittal.
- B. Formal submittal: Unless otherwise directed by the Engineer:

1. Make formal submittal of request for payment by filling in the agreed data, by typewriter or electronically on EJCDC C-620, Contractor's Application for Payment, plus continuation sheet or sheets.
2. Sign and notarize the Application for Payment.
3. Submit the original of the Application for Payment, plus six identical copies of the continuation sheet or sheets, to the Engineer.
4. The Engineer will compare the formal submittal with the approved informal submittal and, if acceptable, will sign the Contractor's Application for Payment, and present the Application to the Owner.

END OF SECTION

Contractor's Application for Payment No. _____

Application Period:		Application Date:
To (Owner):	From (Contractor):	Via (Engineer):
Project:	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.:

Application For Payment Change Order Summary

Approved Change Orders			1. ORIGINAL CONTRACT PRICE.....	\$ _____
Number	Additions	Deductions	2. Net change by Change Orders.....	\$ _____
			3. Current Contract Price (Line 1 ± 2).....	\$ _____
			4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate).....	\$ _____
			5. RETAINAGE:	
			a. X _____ Work Completed.....	\$ _____
			b. X _____ Stored Material.....	\$ _____
			c. Total Retainage (Line 5a + Line 5b).....	\$ _____
			6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c).....	\$ _____
			7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application).....	\$ _____
			8. AMOUNT DUE THIS APPLICATION.....	\$ _____
			9. BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above).....	\$ _____
TOTALS				
NET CHANGE BY CHANGE ORDERS				

Contractor's Certification

The undersigned Contractor certifies that to the best of its knowledge: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By:

Date:

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ (Engineer) _____ (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ Funding Agency (if applicable) _____ (Date)

Progress Estimate - Lump Sum Work

Contractor's Application

[illegible]

SECTION 01295

SCHEDULE OF VALUES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Schedule of Values

1.2 SUBMITTALS

A. Action Submittals

1. Submit 3 copies of the Schedule of Values for approval within 10 days after the Effective Date of the Agreement.

1.3 SCHEDULE OF VALUES

- A. Schedule of Values shall be a detailed breakdown of the lump sum Work items showing values allocated to the various elements of the Work.
 1. Specific details related to the tunnel closures and in-fills shall be presented by individual closure locations (infill area, vent shafts, tunnel segments, etc.).
- B. The format of the Schedule of Values shall be a breakdown by Specification Section and content and shall be submitted on EJCDC C-620, Contractor's Application for Payment. The Engineer may require additional detailed documentation to support the values in the form of executed purchase orders, subcontracts, or other agreements.
- C. The Engineer will determine the level of breakdown and detail required. The breakdown shall include materials, installation, and start-up for equipment and controls where applicable. The final document will be the basis of payment requests for the duration of the Contract. No progress payment will be made until the Schedule of Values is approved by the Engineer.
- D. An unbalanced Schedule of Values providing overpayment on items of work performed first will not be accepted.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01350

HEALTH & SAFETY PLAN

PART 1 GENERAL

1.1 SUMMARY

A. The Contractor shall:

1. develop a site-specific Health and Safety Plan (HASP) specifically addressing the potential hazards that may be encountered at the work site. The HASP shall include the information described in this specification (as applicable) and meet all applicable OSHA requirements.
2. furnish all labor, equipment, materials, and employee training for effective implementation of the HASP and worker health and safety protection of all Contractor personnel.
3. furnish all labor, equipment, materials, and employee training to effectively complete any required air monitoring and/or decontamination.
4. review the requirements and data provided for the project and supplement the HASP with any additional measures deemed necessary to fully comply with applicable regulatory requirements and to adequately protect personnel on the site.
5. maintain a copy of the HASP at the worksite, accessible to employees working at the site.
6. post the emergency response plan section of the HASP, inclusive of emergency alerting and response procedures and directions to the nearest hospital, in a visible location for all workers to see.

B. Related Sections

1. 13281 – Asbestos Abatement
2. 13283 – Hazardous Materials Abatement
3. 02220 – Demolition (Smoke Stack)

1.2 SITE-SPECIFIC PROJECT CONDITIONS

- A. The Contractor shall review and understand all existing information as it relates to potential exposure to hazardous structure/building materials (e.g., asbestos, lead paint, and oil/hazardous materials containers). Site-specific information with respect to potential exposures to hazardous structure/building materials are included in applicable technical specifications contained herein.
- B. The nature of the materials present at the site may require use of special protective clothing and the possible use of respiratory protective equipment, which is intended to help minimize worker exposure to known or suspected site hazards.
 1. Levels of personal protection are established in reference standards and generally described for Levels C and D herein. It is anticipated that a majority of the Work

to be performed on this project may be performed at Personnel Protection Level C.

2. The Contractor shall be responsible for determining if a higher level of personnel protection is required based on the criteria outlined in the Contractor's HASP. In the event that the Contractor determines that a level of protection higher than Level C is required, the Contractor's personnel shall take the necessary steps outlined in the Contractor's HASP.
3. The Contractor shall notify the Engineer and Owner in writing prior to implementing any upgrades in personal protection. The Engineer will review the Contractor's notification and determine the need to notify other applicable agencies.

1.3 REFERENCES

- A. OSHA 29 CFR Part 1910 (General Industry standards)
- B. OSHA 29 CFR Part 1926 (Construction Standards)

1.4 DEFINITIONS

- A. CHMM: Certified Hazardous Materials Manager, as certified by the Institute of Hazardous Materials Management.
- B. CIH: Certified Industrial Hygienist, as certified by the American Board of Industrial Hygiene®.
- C. CSP: Certified Safety Professional, as certified by the Board of Certified Safety Professionals.
- D. Site Safety and Health Official (SSHO): The individual located at a job site who is responsible to the Contractor and has the authority and knowledge necessary to implement the HASP and verify compliance with applicable safety and health requirements.

1.5 SUBMITTALS

- A. On-site Work shall not begin until the HASP has been submitted by the Contractor and accepted by the Owner/Engineer.
- B. Informational Submittals
 1. Submit the following within thirty (30) days after the Effective Date of the Agreement.
 - a. A site-specific HASP, including the information described in this Specification as applicable.
 - 1) The HASP must be reviewed, approved, and signed by Contractor representative, with specific responsibility for safety for the Contracting company.
 - 2) The Engineer's review is only to determine if the HASP is consistent with the minimum requirements of this specification. Engineer has no control over contractor's health & safety and the means and methods of health & safety implementation. Engineer

also does not perform health & safety monitoring of Contractor's Work.

- 3) The review will not determine the adequacy of the HASP to address all potential hazards, as that remains the sole responsibility of the Contractor.

- b. Documentation of qualifications and experience of the SSHO.
- c. Applicable health and safety training records.

1.6 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor is solely responsible for the health and safety of workers employed by the Contractor, any subcontractor, vendors/manufacturers, site visitors and anyone directly or indirectly employed by any of them.
- B. Provide a designated SSHO for the project.
- C. Pre-arrange emergency medical care services at a nearby hospital or medical clinic, including establishment of an emergency notification process and emergency routes of travel.
- D. Conduct pre-entry and weekly safety meetings with all site personnel, documenting attendance and topics covered.
- E. Develop and implement the site-specific HASP, inclusive of the elements in contained in this specification.
- F. For projects where contaminated media are known, likely, or suspected to be encountered:
 1. monitor air quality in and around the work area using appropriate air monitoring equipment.
 2. develop and implement a respiratory protection program per 29 CFR §1910.134 and 29 CFR §1926.103 for all workers authorized to wear respirators.
 3. record all air quality readings and maintain records on site.
 4. stop work and/or upgrade respiratory protection or personal protective equipment levels if action levels established in the HASP are exceeded.
 5. ensure that the degree and type of respiratory protection provided is protective for the monitored concentrations and individual chemical parameters.
 6. lawfully dispose of all personal protective equipment that cannot be decontaminated.
- G. Provide a Lead Exposure Control Plan in accordance with 29 CFR §1926.62(e)(2) which can be made part of the HASP.

1.7 HEALTH & SAFETY PLAN (HASP) REQUIREMENTS

- A. The following items shall be included/addressed in the HASP:
 1. a safety and health risk or hazard analysis for each site task and operation in the workplan;

- a. a physical hazard evaluation and hazard control plan shall be included covering, but not limited to the following, as applicable:
 - 1) equipment operation;
 - 2) confined space entry;
 - 3) slips, trips, and falls;
 - 4) building collapse;
 - 5) falling debris;
 - 6) encountering unmarked utilities;
 - 7) cold and heat stress;
 - 8) hot work (cutting and welding);
 - 9) drum and container handling;
 - 10) trench and/or excavation entry.
- 2. the employee safety and health training program covering each site task and operation in the workplan.
- 3. personal protective equipment to be used for each site task and operation in the workplan.
- 4. site control measures to address visitors, delivery personnel, and to protect the worksite from unauthorized access.
- 5. an emergency response plan for the safe and effective response to foreseeable emergencies;
 - a. including, but not limited to the following:
 - 1) a map indicating the route to a nearby hospital or medical clinic for emergency medical care;
 - 2) procedures for emergency medical treatment and first aid;
 - 3) site evacuation routes and procedures;
 - 4) emergency alerting and response procedures.

PART 2 PRODUCTS

2.1 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- A. All PPE must conform to the OSHA requirements, as indicated in the previous Reference Standards Section. Various PPE to be furnished by the Contractor under different levels of protection for their own personnel and subcontractor's personnel include, but are not limited to, the following:
 - 1. Level D Protection:
 - a. Coveralls or Tyvek
 - b. Gloves

- c. Safety boots/shoes
 - d. Safety glasses
 - e. Hearing protection (for high noise operations)
 - f. Hard hat with optional face shield
2. Level C Protection:
- a. Air-purifying respirator
 - b. Chemical protective overalls or Coveralls (e.g., Saran coated Tyvek)
 - c. Gloves, inner (disposable, surgical type)
 - d. Gloves, outer (Neoprene, Nitrile, Viton or Butyl)
 - e. Boots, chemical protective, steel toe and shank (Neoprene or Nitrile)
 - f. Booties, chemical protective (disposable PVC)
 - g. Hard hat
 - h. Face shield (if necessary)
3. Levels B and A represent increased levels of personal protection and are described in the Reference Standards.
4. Contractor is fully responsible for all PPE selection (including the various stages of protection), proper use, maintenance, and continuous monitoring.

PART 3 EXECUTION

3.1 HEALTH AND SAFETY PLANNING AND IMPLEMENTATION

- A. Implement the HASP throughout the execution of all applicable work.
- B. The Contractor shall perform all monitoring as detailed in the HASP.
- C. Contractor(s) shall implement routine health and safety meetings and any follow-up supplemental briefings.
- D. Provide applicable health and safety training for all personnel who may come in contact with or be exposed to various dangerous, hazardous, or changing site conditions.
- E. Personnel who have not received applicable training and who are not equipped with the required PPE, shall not be permitted access to the site by the Contractor during the course of the work that may result in potential exposures to unsafe or hazardous site conditions.

3.2 PERSONNEL AND EQUIPMENT DECONTAMINATION

- A. All equipment shall be provided to the work site free of contamination. Engineer may prohibit from the site any equipment which in his opinion has not been thoroughly decontaminated prior to arrival. Any decontamination of Contractor's equipment prior to arrival at the site shall be at the expense of Contractor. Contractor is prohibited from decontaminating equipment on the project site which is not thoroughly decontaminated prior to arrival.
- B. Contractor shall furnish labor, materials, tools, and equipment for decontamination of all personnel, equipment and supplies which are used to handle contaminated materials.
- C. Properly store and dispose of contaminated PPE and all other generated decontamination waste.

3.3 INCIDENT REPORTING

- A. The Contractor shall comply with all accident and/or incident reporting requirements, including the following:
 - 1. Should any unforeseen safety-related factor, hazard, or condition become evident during the course of the work, the Contractor must immediately take action to establish, maintain, and secure the site and working conditions. This shall be followed by immediate notice to the Owner and Engineer.
 - 2. If injury to any person on-site occurs, the Contractor shall immediately report the incident to the Owner and Engineer. Corrective actions shall be implemented.

END OF SECTION

SECTION 01510

TEMPORARY UTILITIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Temporary electricity
 - 2. Temporary lighting for construction purposes
 - 3. Temporary water service
 - 4. Temporary fire protection

1.2 QUALITY ASSURANCE

- A. Maintain temporary utilities in proper and safe condition throughout the progress of the Work.

1.3 TEMPORARY ELECTRICITY

- A. Provide temporary electrical service capable of providing sufficient power throughout the site for both temporary power and temporary lighting for the Work. Temporary electrical service shall include all wiring, breakers, breaker boxes, supports and all other materials necessary for a totally operable system.
- B. Pay all charges for temporary electricity.
- C. Make all arrangements with the electric service company including all permits, securities and inspections fees to obtain the separately metered temporary services if available however at time of project design power to the entire site has been terminated.
- D. Furnish and connect the temporary electric service point to the utility and coordinate metering as required if available.
- E. All connection points and distribution systems shall be in conformance with applicable electrical codes, OSHA, and enforcement agencies having jurisdiction.
- F. Provide all outlets with circuit breaker protection and comply with ground fault protection requirements of the National Electric Code.
- G. Provide a portable power supply capable of providing sufficient power at the site for both temporary power and lighting throughout the project. Due to the potential risks of contamination from fuel spills, the use of all fuel-driven generator sets must be strictly controlled and monitored while on site.
- H. Refueling must be accomplished off-site when feasible and if fuel is transported to the site, it must be in approved containers with secondary containment. All gasoline driven pumps or diesel generators shall be underlain by sheets of polyethylene plastic and on-site refueling shall be accomplished by pumping or siphoning. Absorbent pads shall be available for immediate use in the event of an accidental spill. The Contractor shall be responsible for complete cleanup of any accidental spills.
- I. Maintain and service the portable power unit(s) throughout the duration of the project.

1.4 TEMPORARY LIGHTING

- A. Temporary general lighting system shall provide sufficient artificial light so that all Work may be done in a workmanlike manner within enclosed structures and chambers, where there is not sufficient daylight.
- B. Temporary general lighting systems shall consist of wiring, switches, necessary insulated supports, poles, fixtures, receptacles, lamps, guards, cut-outs, fuses, and other materials necessary for a totally operable system.

1.5 TEMPORARY TELEPHONE SERVICE

- A. Provide, maintain and pay for cellular telephone service at the time of mobilization for the duration of the Work.

1.6 TEMPORARY WATER SERVICE

- A. Temporary Drinking Water
 - 1. Provide adequate potable drinking water, so piped or transported as to keep it safe and fresh, and served from single service containers or satisfactory types of sanitary drinking stands or fountains.
 - 2. Provide all such facilities and services in strict accordance with existing and governing health regulations.
- B. Water for Construction Purposes
 - 1. The Contractor shall provide water for all asbestos abatement and demolition purposes.
 - 2. Currently there are no water sources available at the site. Contractor shall supply their own water for all site operations. Contractor shall be responsible for conveying water to and about the project site and usage /water rate shall be managed to comply with applicable federal National Emission Standards for Hazardous Air Pollutants (NESHAPs) and MassDEP air emission regulations.

1.7 TEMPORARY FIRE PROTECTION

- A. Comply with all applicable fire protection and prevention requirements that may be established by Federal, State or local governmental agencies.
- B. Prohibit smoking in hazardous areas. Post suitable warning signs in areas that are continuously or intermittently hazardous.
- C. Determine the fire protection adequacy of existing facilities related to the Work being performed and have standby fire protection available if needed.

1.8 TEMPORARY FUEL OIL

- A. Properly contain, label, and store all petroleum products off the ground with suitable secondary containment.
- B. Take all necessary precautions to avoid leakage and spillage of all petroleum products, including lubricating oils.
- C. In general, perform fueling and refueling of all equipment and vehicles off-site. In the event that on-site refueling is necessary and as approved by the Engineer, provide suitable secondary containment facilities to contain all potential spillage, including that resulting from over-filling.

- D. Inspect vehicles for leaks prior to entrance to the Work site. Vehicles with leaks are prohibited from entering the Work site. All vehicles, while on the work site, shall be underlain with polyethylene plastic sheets. Absorbent pads must be available on site for immediate use if needed.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01520

CONSTRUCTION FACILITIES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Temporary sanitary and first-aid facilities

1.2 QUALITY ASSURANCE

- A. Maintain temporary construction facilities in proper and safe condition throughout the progress of the Work.

1.3 TEMPORARY SANITARY AND FIRST AID FACILITIES

- A. Provide suitably enclosed chemical or self-contained toilets for the use of the labor force and Project Representatives employed on the Work. Toilets shall be located near the Work sites and secluded from observation insofar as possible. Toilets shall be serviced weekly, kept clean and supplied throughout the course of the Work.
- B. Contractor shall enforce proper use of sanitary facilities.
- C. Provide a first aid station at the site.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01570

TEMPORARY CONTROLS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Dust control
 - 2. Drainage and erosion control
 - 3. Sediment trapping devices
- B. Related Requirements
 - 1. Town of Montague Order of Conditions attached to the Contract Documents.

1.2 SUBMITTALS

- A. Informational Submittals
 - 1. Materials proposed for use in dust control
 - 2. Sediment trapping devices

PART 2 PRODUCTS

2.1 SEDIMENT TRAPPING DEVICES

- A. Sediment trapping devices shall be Siltsack®, Dandy Bag II®, or equal.

PART 3 EXECUTION

3.1 DUST CONTROL

- A. Control dust during the Work. Use a mechanical street sweeper as necessary.
- B. Prevent dust from becoming a nuisance or hazard.
- C. Control dust during the work on-site using calcium chloride and/or water.
- D. Ensure that the existing equipment, facilities, and occupied space adjacent to or nearby areas of the work do not come in contact with dust or debris as a result of demolition.
- E. Submit for approval materials proposed for use for dust control, prior to start of the Work.

3.2 DRAINAGE AND EROSION CONTROL

- A. Install sediment trapping devices in catch basins located in existing paved areas with sediment trapping devices to minimize the transport of sediment or fuel / oil through the subsurface stormwater collection system.
- B. Perform work in accordance with Town of Montague Conservation Commission Order of Conditions.
 - 1. Construct and maintain a project wetlands sign as described in the Order of Conditions.

2. Provide / coordinate regulatory personnel inspections as necessary to satisfy the Order of Conditions requirements.

3.3 CLEANING

- A. Clean sediment trapping devices periodically during the Work. Devices shall be cleaned as needed.

END OF SECTION

SECTION 01725

PRESERVATION AND RESTORATION OF PROJECT FEATURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Protection and replacement of signs, property markers, fences, and related project features requiring temporary removal for any construction means.
2. Taking precautions, providing programs, and taking actions necessary to protect public and private property and facilities that are outside the abatement and demolition scope from damage.

1.2 DEFINITIONS

A. Underground Structures

1. Underground structures are defined to include, but not be limited to, sewer, water, gas, and other piping, and manholes, chambers, electrical and signal conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.
2. Given the project scope, it is unlikely that underground structures known to the Engineer will not become disturbed as part of this Work. The Contractor shall be responsible for checking on the actual locations of water, sewer, gas and electric to avoid potential interferences.

B. Surface Structures

1. Surface structures are defined as existing buildings, structures and other facilities above the ground surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 REPAIR/RESTORATION

- A. Disturbance of any kind to waterways or vegetated areas is strictly prohibited.
- B. Signs, fences, property markers, walls, guard rails and other public or private property that are within and outside the demolition scope shall be replaced in kind if damaged. Supports and protective devices required shall be provided.
- C. Underground and Surface Structures
 1. In the event of damage, injury or loss to existing utilities and structures, whether shown on the Drawings or not, make all reasonable efforts to facilitate repairs and to mitigate the impact of such events upon the utility or structure owner's normal operations. Restore the existing utility or structure to the condition required by the owner of the utility or structure or at least to the condition found

immediately prior to the Work. In the event that the utility owner elects to make the repairs, provide all reasonable access and assistance, and reimburse the utility owner for the cost of repairs. If utility service is interrupted due to damage to facilities, alternate facilities shall be provided.

2. All other existing surface facilities, including but not limited to, guard rails, posts, guard cables, signs, poles, markers and curbs which are temporarily removed to facilitate the Work shall be replaced and restored to their original condition at the Contractor's expense unless otherwise indicated in other sections of these specifications.
3. Wherever water, sewer, gas or petroleum mains, electric or telephone lines, cables or other utilities and structures are encountered and may be in any way interfered with, inform the Engineer and the appropriate utility company. Cooperate with the Engineer and utility company in the protection, removal, relocation, and replacement of structures and facilities.
4. Prior to proceeding with any demolition or construction, notify in writing owners of utilities and structures within the vicinity of the proposed Work.
5. Work affecting water distribution systems, including the currently out of service hydrant distribution service, must be coordinated with the local fire department. The Contractor shall be prepared to restore fire flows in the event of an emergency or to provide for temporary fire flow service in accordance with the requirements of the local fire department.
6. Materials used for relocation or replacement of utilities and structures shall be of an equivalent material, type, class, grade and construction as the existing or as approved by the respective owners thereof, unless otherwise shown or specified.
7. When any survey monument or property marker, whether of stone, concrete, wood or metal, is in the line of any trench or other demolition or construction work and may have to be removed, notify the Engineer in advance of removal. Under no circumstances shall any monument or marker be removed or disturbed by the Contractor or by any of his Subcontractors, employees or agents, without the permission of the Engineer. Monuments or markers removed or disturbed shall be reset by a land surveyor licensed in the State where the Work is located at the Contractor's expense. Should any monuments or markers be destroyed through accident, neglect or as a result of the Work under this Contract, the Contractor shall, at his own expense, employ a land surveyor licensed in the State where the Work is located to re-establish the monument or marker.

3.2 PROTECTION

A. Underground and Surface Structures

1. Sustain in their places and protect from direct or indirect injury underground and surface structures, concrete covered tank within the courtyard, surrounding roof sections and the overhead walkway bridge which are designated to remain within or adjacent to the limits of the Work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, satisfy the Engineer that the methods and procedures to be used have been approved by the party owning same.

2. Pay utility service company charges related to the temporary support of utility poles if required to complete the Work.
3. Assume risks associated with the presence of underground and surface structures within or adjacent to the limits of the Work. The Contractor shall be responsible for damage and expense for direct or indirect injury caused by his Work to any structure. Immediately repair damage caused by the Work to the satisfaction of the owner of the damaged structure.
4. Contractor is alerted to the weight limitations on Canal Road and the existence of operating penstock and tailrace features associated with the active hydro-electric facility that must be protected throughout construction.

END OF SECTION

SECTION 02220

DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Demolition of the Strathmore Mill Complex smokestack as shown on the Drawings.
- B. Related Sections
 - 1. Section 01350 - Health & Safety Plan
 - 2. Section 01510 – Temporary Controls
 - 3. Section 1520 – Temporary Facilities
 - 4. Section 01725 - Preservation and Restoration of Project Features

1.2 DEFINITIONS

- A. Demolish – To tear down, segregate waste streams and lawfully recycle or dispose of all debris generated in the process including structure contents.
- B. Limit of Work – Area delineated on Drawings that defines the extent of demolition work under the Contract.

1.3 SUBMITTALS

- A. Informational Submittals
 - 1. Methods of built-up ash removal from stack base and demolition, protection and equipment proposed to demolish smokestack. This submittal should be sufficient to demonstrate a thorough understanding of the Work to be completed and the means that will be implemented to safely complete the demolition within the Contract Time without damage to surrounding structures or resources while maintaining compliance with the FirstLight Canal Road access restrictions.
 - 2. Copies of any authorizations and permits required to perform the Work, including state and local demolition permits.

1.4 REGULATORY REQUIREMENTS

- A. Contractor is solely responsible for obtaining permits or approvals which may be required to perform the work of this section, including all costs, fees and taxes required or levied, except for the following permits that will be obtained by the Owner:
- B. Notify and obtain such permits or approvals from agencies having jurisdiction over demolition prior to starting work, including, but not limited to MassDEP demolition notification permit, Health, Building, and Fire Departments of the municipality and local, state and federal agencies.
- C. Comply with The Town of Montague Order of Conditions, appended section 00800.

- D. Comply with all applicable federal, state, and local environmental, safety and health requirements regarding the demolition of structures and other site features, as applicable.
- E. Conform to procedures identified in Section 01350 – Health and Safety Plan.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 PROJECT MANAGEMENT

- A. Provide a full-time Project Superintendent who shall serve as a direct communication among the Contractor, subcontractors, and the Owner.
- B. Require all subcontractors to provide a foreman or superintendent. That individual must be on site at all times that the subcontractor is working.

3.2 EXAMINATION

- A. Verify site conditions before proceeding with demolition work. Field check the accuracy of the Drawings and inspect structures and utilities prior to start of work and notify the Engineer in writing, of any hazardous conditions and/or discrepancies. Primary structures and other site features are shown on the Drawings and/or in the appended photographs shall be demolished.
 - 1. Unknown Site Conditions - The information provided on the Drawings and in the Specifications is believed accurate. Field verify all information. Bear full responsibility for obtaining all locations of underground structures, utilities and their connections as applicable. Maintain services to buildings outside the limits of work.
 - 2. Approximate stack dimensions and materials are as follows:
 - a. 150 feet high from stack base.
 - b. Stack – Buff Radial Brick
 - c. Outside diameter at stack top – 11 feet
 - d. Pedestal height – 25 feet
 - e. Pedestal – Common Brick, octagonal configuration
 - f. 30 inch x 30 inch access door near ground level
- B. Contractor is required to verify all stack dimensions and construction as part of their bid.

3.3 PREPARATION

- A. Remove and/or stabilize all hazards, prior to commencing work near any building. Where hazards cannot be stabilized, mark and control areas at hazards to prohibit access. This shall be performed with caution tape, saw horses, safety fence or other types of barricades as determined by applicable safety codes.
- B. Perform controlled demolition activities of smoke stack and pedestal and protect surrounding structures from falling demolition debris.

- C. Remove and dispose of accumulated ash located in the base of the stack as part of Alternate 1, per Specification 13283. Removal procedures shall address the falling brick hazard.
- D. Any equipment placed in the courtyard shall be evaluated with respect to the loading on the existing concrete water tank.
- E. Construct temporary protection measures as necessary for adjacent roofs. Any roof damage shall be repaired by the contractor. Pre and post demolition photographs of all adjacent roof condition is required.

3.4 DEMOLITION

- A. Demolish the smoke stack within the courtyard by methods that will not cause damage to the concrete cover of the underground courtyard water holding tank, surrounding structures (including roofs), underground and overhead utilities, or other existing items and structures that are to remain in place.
- B. Demolish the smoke stack and pedestal within courtyard as indicated on the Drawings and/or Photographs. Associated equipment, breeching and interior components are not shown on the Drawings but shall be demolished with the stack.
- C. Barricade work area as necessary to protect workers and general public from falling debris and any heavy machinery operations.
- D. Do not leave unstable structures unattended. Plan the workday so that stack is stable at the end of each work day.
- E. As part of Alternate No. 1, remove built-up ash and debris from within the stack base and dispose of prior to demolition in accordance with section 13283. Contractor sequencing may dictate the need addressing the potential brick falling hazard while removing ash. No other generated stack materials (brick) are scheduled to be removed from the courtyard area under Alternate 1. Stack debris shall be stockpiled and remain in the courtyard.
- F. As part of Alternate 2, perform demolition of the stack pedestal and remove / dispose all stack debris as described in 3.5.A below.

3.5 DISPOSAL

- A. As part of Alternate 1, all built-ash and commingled interior materials shall be removed from the site for off-site disposal as a RCRA-hazardous waste due to the presence of leachable metals.
- B. As part of Alternate No. 2, all stack debris shall be removed from the site for off-site landfill disposal (non-hazardous debris). For the purpose of bidding, contractor shall assume the brick debris is acceptable for lined landfill reuse in Massachusetts. Contractor is responsible for any required sampling to support disposal.

END OF SECTION

SECTION 13281

ASBESTOS ABATEMENT

PART 1 GENERAL

1.1 GENERAL PROVISIONS

- A. The Town of Montague (the “Owner”) plans to perform asbestos abatement activities in various buildings within the Strathmore Mill Complex in Montague, Massachusetts (the “Site”). Asbestos-containing materials (ACM) of varying type have been identified for abatement. Refer to the Asbestos Abatement Schedule appended to this Section for a list of abatement areas, asbestos type, approximate quantity and a general description of the work areas.
- B. The work covered in this section includes the minimum procedures that shall be employed during abatement of the confirmed and assumed ACM.
- C. Refer to other Sections of these Specifications to determine the type and extent of work affecting the work of this Section, whether or not such work is specifically mentioned herein.

1.2 RELATED INFORMATION

- A. Related Sections
 - 1. Section 01350, Health and Safety Plan
 - 2. Section 13283, Hazardous Materials / Universal Waste Management
 - 3. Attachment B: Photograph Log
- B. Related Drawings
 - 1. Tighe & Bond Project Drawings

1.3 PROJECT DESCRIPTION

- A. This section addresses the abatement of asbestos-containing materials only. Furnish all labor, materials and equipment and perform all work required to safely remove and legally dispose of all ACM. Provide all insurance, certifications and licenses necessary for the work.
- B. The Work to be performed includes but is not limited to the proper removal, handling, and disposal of all ACM specified for abatement.
- C. The Asbestos Abatement Contractor (the “Contractor”) shall review related documents and drawings and conduct a site visit as needed to develop a comprehensive understanding of ACM required to be removed at the Site.
- D. Asbestos Abatement work shall include but not be limited to the ACM located in the Asbestos Abatement Schedule appended to the end of this Section.
 - 1. The quantities in the Asbestos Abatement Schedule are provided to establish the order of magnitude of the abatement project.
 - 2. Actual quantities may vary.
 - 3. It is the sole responsibility of the Contractor to visit the site, review the Contract Documents and determine the quantities of ACM to be removed when developing their Bid.

- E. Under the work of this Section, “Owner’s Representative (OR)” is defined as a third-party consultant or other abatement project monitoring entity working on behalf of the Owner. The OR will conduct periodic pre and post abatement visual inspections to document that compliance to the asbestos regulations and the project specifications are being met. The Contractor shall carry the services of a project monitor to conduct all post abatement clearance air sampling as necessary for the project.
- F. File all necessary notices, obtain all permits and licenses, and pay all governmental taxes, fees, and other costs in connection with the work. Obtain all necessary approvals of all governmental departments having jurisdiction.
- G. Work closely with the Owner and all other trades to perform a successful abatement project. Attend progress and scheduling meetings on a weekly basis.
- H. If Contractor elects to perform abatement with methods that are considered non-traditional, they will be responsible for all costs and effort associated with preparing site specific Non-Traditional (NT) Work Plans and obtaining approval by MassDEP and MassDLS for implementation of those methods. NT Work Plans must be created by a Massachusetts licensed Project Designer.
- I. Obtain, prepare, and submit applicable forms and permits required for asbestos abatement.

1.4 DEFINITIONS AND ABBREVIATIONS

- A. Abatement: Procedures to control fiber release from ACM; includes removal, encapsulation, and enclosure.
- B. Air Monitoring: The process of measuring the total airborne fiber concentration of an area, or a person.
- C. Amended Water: Water to which a surfactant (wetting agent) has been added.
- D. AIHA: American Industrial Hygiene Association.
- E. Asbestos: The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles, and includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms, which have been chemically-altered.
- F. Asbestos Containing Materials (ACM): Any materials containing greater than or equal to one percent (1%) asbestos.
- G. Asbestos Fibers: Those particles with a length greater than five (5) microns and a length to diameter ratio of 3:1 or greater.
- H. Asbestos Work Area: A regulated area as defined by OSHA Title 29 CFR, Part 1926.1101 where asbestos abatement operations are performed, which is isolated by physical barriers to prevent the spread of asbestos dust, fibers, or debris. The regulated area shall comply with requirements of regulated area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.
- I. Caulking: Resilient mastic compound often having a silicone bituminous or rubber base; used to seal cracks, fill joints, and prevent leakage. Typical applications: around windows, and doors. Caulking is at joints between two dissimilar materials. (i.e., masonry to wood, masonry to steel)
- J. Clean Room: An uncontaminated area or room, which is a part of the worker decontamination enclosure with provisions for storage of worker street clothes and protective equipment.

- K. Clearance Sampling: Final air sampling performed aggressively after the completion of abatement activities to evaluate compliance with the specification and State and Federal regulations.
- L. Competent Person: As defined by OSHA Title 29 CFR, Part 1926.1101, a representative of the Abatement Contractor who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. The Competent Person has authority to take prompt corrective measures, and to eliminate such hazards during asbestos removal. The Competent Person shall be properly trained in accordance with EPA's Model Accreditation Plan (MAP).
- M. Containment – An enclosure within the building which establishes a contaminated area and surrounds the location where ACM and/or other toxic or hazardous substance removal is conducted and establishes a Control Work Area.
- N. Curtained Doorway: A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of six feet apart can form an airlock.
- O. Dampproofing: Application of a water impervious material to surface (such as a wall) to prevent penetration of moisture, typically at foundation or below grade surface.
- P. Decontamination Enclosure System: A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.
- Q. Encapsulant: A liquid material which can be applied to ACM, which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).
- R. Equipment Room: Any contaminated area or a room that is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.
- S. Fixed Object: Unit of equipment or furniture in the work areas that cannot be removed from the work area.
- T. Friable Asbestos Materials: Any material that contains more than 1% asbestos by weight, that can be crumbled, pulverized or reduced to powder by hand pressure.
- U. Glazing Compound: Any compound used to hold window glass in place, also referred to as putty, or glazier's putty. Is not field-applied, usually installed during manufacture of windows.
- V. HEPA Filter: High Efficiency Particulate Air (HEPA) filter in compliance with ANSI Z9.2 1979.
- W. HEPA Vacuum Equipment: Vacuum equipment fitted with a HEPA filter system for filtering the effluent air from the unit.
- X. MassDEP: Massachusetts Department of Environmental Protection
- Y. MassDLS: Massachusetts Department of Labor Standards
- Z. Movable Object: Unit of equipment or furniture in the work area that can be removed from the work area.

- AA. Negative Air Pressure Equipment: A portable local exhaust system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas), and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.
- BB. NESHAPs: National Emissions Standard for Hazardous Air Pollutants regulations enforced by the EPA.
- CC. NIOSH: National Institute for Occupational Safety and Health
- DD. Non-Traditional (NT) Asbestos Abatement Work Practices: Practices that are different from the specific work practices prescribed in the MassDEP Asbestos Regulation and that are needed to address situations in which the prescribed practices cannot be implemented safely.
- EE. OSHA: Occupational Safety and Health Administration
- FF. Owner's Representative (OR): A third-party consultant or other abatement project monitoring entity working on behalf of the Owner
- GG. PCM: Phase Contrast Microscopy
- HH. Permissible Exposure Limit (PEL): The maximum total airborne fiber concentration to which an employee is allowed to be exposed. The new limit established by OSHA Title 29 CFR, Part 1926.1101 is 0.1 fibers per cubic centimeter (fibers/cc) as an eight (8)-hour time-weighted average (TWA), and 1.0 fibers/cc averaged over a sampling period of 30 minutes as an Excursion Limit. The Contractor shall be responsible for maintaining work areas in a manner that this standard is not exceeded.
- II. Project Monitor: A professional capable of conducting air monitoring and analysis of schemes. This individual should be an industrial hygienist, an environmental scientist, or an Engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with OSHA Title 29 CFR, Parts 1910.1001 and 1926.1101.
- JJ. RCRA: The Resource Conservation and Recovery Act (EPA Title 40 CFR, Parts 260 - 265).
- KK. Regulated Area: An area established by the employer to demarcate where Class I, II, and III asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate, and a work area within which total airborne fiber concentrations exceed, or there is a reasonable possibility that they may exceed the PEL.
- LL. SDS: Safety Data Sheets
- MM. Shower Room: A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.
- NN. TEM: Transmission Electron Microscopy
- OO. TSI: Thermal System Insulation
- PP. Totally Enclosed Manner – A manner that will ensure no exposure of human beings or the environment to a concentration of asbestos.

- QQ. Transport Vehicle – A motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (e.g., trailer, railroad freight car) is a separate transport vehicle.
- RR. USEPA: United States Environmental Protection Agency.
- SS. Waterproofing: Material, usually a membrane or applied compound (tar/mastic), used to make a surface impervious to water, includes concealed conditions (applications around doors, windows, and in wall cavities); sometimes combined with felts.
- TT. WSR: Waste Shipment Records

1.5 REFERENCES

- A. Comply with the most recent asbestos removal and disposal requirements established by applicable federal, state, and applicable local government laws, statutes, regulations, ordinances, standards, and guidelines including the following:
1. USEPA National Emissions for Hazardous Air Pollutants (NESHAP) Regulations (Title 40 CFR, Part 61, Subpart M);
 2. USEPA Asbestos Hazard Emergency Response Act (AHERA) Regulations (Title 40 CFR, Part 61, Subpart E);
 3. US Department of Labor, OSHA Asbestos Regulations, 29 CFR 1926.1101
 4. NIOSH air sampling and evaluation standards
 5. AIHA Standards
 6. MassDEP Regulations 310 CMR 7.00, 310 CMR 18.0, and 310 CMR 19.00
 7. MassDLS Regulations 453 CMR 6.00.
 8. All applicable local ordinances, regulations, or rules pertaining to asbestos. Including its storage, transportation, and disposal.

1.6 SUBMITTALS

- A. Prior to the start of the abatement work, prepare and submit the following items. Do not commence work activities until submittals are reviewed and accepted by the OR.
1. Submit detailed site-specific work plan which identifies:
 - a. Methods and materials for isolating the work area(s) from non-work area(s);
 - b. Methods and materials for protecting floors, walls and other fixed equipment;
 - c. Locations and details of construction of the Decontamination Facility;
 - d. Number and capacity for the portable HEPA-filtered exhaust units;
 - e. Water and electrical sources for intended usage (no water or electrical services available at the site);
 - f. Details for the proper removal, handling, packaging and disposal of ACM as identified in the Asbestos Abatement Schedule and in compliance with this specification and applicable regulations;

- g. Procedures which differ from those specified in this section. Any deviations from these specifications require approval from the OR. Any deviations from current asbestos regulations require written approval from regulatory agencies having jurisdiction.
 - 2. If applicable, submit copies of Non-Traditional (NT) Asbestos Work Practice Approval applications for review by OR.
 - 3. Submit copies of all notifications, permits, applications, and like documents required by federal, state, or local regulations obtained or submitted in proper fashion.
 - 4. Submit a chain-of-command for the project. Include cell phone numbers and email addresses of those listed on the chain-of-command.
 - 5. Submit the current valid MassDLS Asbestos Abatement Contractor license and certificate of insurance.
 - 6. Submit a detailed work schedule. Coordinate schedule with the OR.
 - 7. Submit documentation of EPA asbestos certification, MassDLS asbestos licenses, OSHA-specified medical examinations (with examiner approval) and successful respirator fit test records of each employee who may be on the Site.
 - 8. Submit a site-specific Emergency Action Plan for the project. The Emergency Action Plan may include emergency procedures to be followed by Contractor personnel to evacuate the building; nearby hospital name, address and phone number; most direct transportation route to the hospital from the Site; emergency telephone numbers, etc. This information can also be made part of the Health and Safety Plan.
 - 9. Submit the name and address of the waste hauling contractor and proposed landfill to be used. Also submit applicable licenses, current valid operating permits and approvals.
 - 10. Submit copies of all Waste Shipment Records (WSR) and generator labels to be used for this project. Copies shall include generator's information.
 - 11. Submit a copy of the Contractor's OSHA-required written Respiratory Protection Program, including a fit testing methodology for respirators, maintenance and decontamination details, and make, model and NIOSH approval numbers of respirators to be used at the Site,
 - 12. Submit detailed Safety Data Sheets and product information on all materials and equipment proposed for asbestos abatement work on this project.
 - 13. Submit documentation and credentials of Contractor's project monitoring firm who will be conducting post abatement visual inspections and clearance air sampling.
 - 14. Provide air sampling laboratory's certification for analysis of Contractor's OSHA personal air samples and clearances.
- B. Submit the following to the OR during the course of the work:
- 1. Daily results of all personal air sampling and clearance air sampling;
 - 2. Certification, training, medical, and fit-test records for new employees to start work (24 hours in advance of work);
 - 3. Site logs;
 - 4. Revised Notification, if any;

5. Copies of WSRs for waste that has left the site.
- C. The Contractor shall submit the following to the OR at the completion of work:
 1. Completed copies of all WSRs (within forty-five days).
 2. Remaining personal air sampling results and site logs.

1.7 LOCATION OF WORK AND SITE CONSTRAINTS

- A. Location of work areas and descriptions, estimated types and quantities of ACM are described in the attached Asbestos Abatement Schedule.
- B. The Abatement Schedule appended to this section identifies ACM encountered and bulk sampled during the survey. Bolded materials indicate positive or assumed positive results. Abate all ACM in areas identified in the Asbestos Abatement Schedule.
- C. Temporary Utilities:
 1. Water Usage – There is no available water source at the site. The Contractor shall be responsible to provide their own water source for the entire project. Maintain all water hoses in good condition. The Contractor will be responsible for any damages caused by inadequate water connections.
 2. Electrical Usage – There is no available electrical source at the site. The Contractor shall be responsible to provide their own power for the entire project. Ensure proper connection of ground fault circuit interrupter (GFCI) panels are established by using qualified and licensed tradespersons for each of the power connections. Maintain all electrical utilities in good condition. The Contractor will be responsible for any damages caused by inadequate utility connections.
- D. Site Security: The Contractor shall be responsible for the security of regulated work areas. Post asbestos abatement warning signs at entrances to the work area including the waste load out and worker decontamination chamber. The Contractor shall have a supervisor monitoring the entrance of the worker decontamination chamber during abatement work.

1.8 NOTIFICATION

- A. Notify appropriate regulatory agencies of abatement activities.
 1. Submit the required written notification and appropriate fee at least 10-working days before the start of the asbestos abatement activity to all required state agencies, including MassDEP.
 2. Notify local Building Departments, Board of Health or Health Departments and any other applicable local departments as required.
- B. If a potential hazard relating to the asbestos abatement work is observed, immediately notify the OR by telephone, followed by written notice, of any risks of adverse health and safety impacts on the environment, exposure of workers or the general public, or possible failure to comply with the specifications. Promptly notify the OR of the reason and required resolution of all observed deficiencies and record them in ink in a hardbound notebook.

1.9 MONITORING AND FINAL CLEARANCE

- A. Contractor's Responsibilities

1. Retain a third-party project monitoring entity to perform final visual inspections and collect final air clearance samples for certifying work areas as clean following removal and cleanup tasks. Each air clearance and post abatement inspection shall be documented through a written record of passing visual inspection.
2. Conduct appropriate personal exposure monitoring to determine compliance with OSHA requirements. All air samples shall be analyzed by a laboratory accredited by the AIHA. Sampling equipment shall be calibrated before and after each use.
3. Contractor shall be responsible for the payment of all costs associated with OSHA air sample collection and analysis performed.

B. Owner's Responsibilities

1. The OR, a third-party representative working on behalf of the Owner, will conduct periodic inspections and air sampling as necessary during the course of abatement operations to determine the effectiveness of containment systems and work procedures.
- C. Air Quality Standard:** All air tests made in proximity to any removal area, and to document "clean air", shall be compared to an air quality standard of 0.010 fibers per cubic centimeter (f/cc) for PCM air samples and 70 structures per square millimeter (s/mm²) for TEM air samples, as required by applicable regulations. If any air sample exceeds the air quality standard, immediately stop all work until the cause is identified and corrected.
- D. Air Monitoring Methods:** Use NIOSH Method 7400 to measure levels of airborne asbestos fibers for all PCM air sampling events.
- E.** Following encapsulation, the Contractor's monitor shall perform clearance air sampling prior to removal of any containment areas per MassDLS 453 CMR 6.14(5). If clearance air sample results fail to meet applicable standards, perform additional cleaning and pay for additional clearance monitoring, air sample collection and analysis, at no additional cost to the Owner.
- F.** Upon completion of all work in any defined work area, Contractor, contractor project monitor and OR shall conduct a final inspection for the purpose of certifying compliance with these specifications, State/Federal regulations and work completion. Immediately correct unsatisfactory conditions. The work will be considered complete only after a certificate of passing visual inspection is submitted along with all properly completed Waste Disposal Documentation Forms, as required by law.

1.10 WORKER PROTECTION AND SAFETY

- A.** Prior to commencing work, instruct all workers in all aspects of personnel protection, work procedures, emergency procedures use of equipment including procedures unique to this project.
- B.** Monitor airborne asbestos concentrations in the workers' breathing zone to establish conditions and work procedures for maintaining compliance with OSHA Regulations Title 29 CFR Parts, 1910.1001 and Part 1926.1101.
- C.** OSHA air monitoring results shall be posted daily at a conspicuous location at the job site.
- D.** The Contractor is responsible for complying with all additional OSHA regulations while performing work on this project.

1.11 WORKER QUALIFICATIONS AND TRAINING

- A. Provide licensed Asbestos Supervisor in each work area at all times work is in progress and shall employ the use of fully accredited and licensed asbestos workers during all phases of asbestos abatement activities.
- B. The Supervisor shall be thoroughly familiar and experienced with asbestos abatement and related work and shall enforce the use of all safety procedures and equipment. He/she shall be knowledgeable of EPA, OSHA, and NIOSH requirements and guidelines. The Supervisor shall be licensed in accordance with applicable state regulations.
- C. Enforce strict discipline and good working order at all times among employees, and do not employ any person not skilled in the work assigned, nor anyone who has not received documented notice of the hazards of asbestos abatement, formal training in the use of respirators, safety procedures, equipment, clothing, and work procedures. All workers shall be licensed in accordance with applicable state regulations.

PART 2 PRODUCTS

2.1 GENERAL

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.
- B. All materials or equipment delivered to the site shall be unloaded, temporarily stored, and transferred to the work area in a manner that shall not interfere with operation of others at the facility, or employee's access and safety.
- C. Damaged or deteriorated materials shall not be used and shall be promptly removed from the premises. Materials that become contaminated with asbestos-containing material shall be thoroughly cleaned, or sealed in plastic bags or sheeting, labeled and legally disposed of in an approved, secure landfill.
- D. All materials and equipment shall comply, at a minimum, with all sections of this specification, relevant federal, state, and applicable local codes, and industry standards.

2.2 ABATEMENT EQUIPMENT & SUPPLIES

- A. HEPA-Filtered Exhausts: Air inside each work area shall be exhausted through a High Efficiency Particulate Air (HEPA) filter. Commercially manufactured HEPA-filtered exhaust units, with specification plates intact, must be provided for each work area to attain, at a minimum, four air volume changes per hour and an inward flow of clean air into each work area at the Decontamination Facility of at least 100 feet per minute. The HEPA filter shall be preceded by replaceable prefilters and the unit must be designed so that it cannot be operated unless all filters are in place. The units must also be designed with a gauge to indicate the pressure drop across filters, and lights or audible alarms to indicate that the filters are properly installed, functional, and when they must be changed. Flexible ducting shall be required to allow exhausting to the exterior of the building.
- B. The Contractor shall have available and use recording manometers to monitor pressure differential between the work area and occupied areas of the building. A minimum negative pressure differential of 0.02 inches of water column shall be maintained.
- C. The Contractor will have reserve exhaust air filtration system units in order to maintain negative air filtration in the event that a unit malfunctions during use.

- D. Vacuums of suitable size and capacities for project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.
- E. Polyethylene sheeting in a roll size to minimize the frequency of joints shall be delivered to job site with factory label indicating a minimum of 6-mil, unless regulations dictate otherwise.
- F. Polyethylene disposable bags shall be true six (6) mil with preprinted labels.
- G. Wetting Agent or Surfactant shall be 50 percent polyoxyethylene ester and 50 percent polyoxyethylene ether, or equivalent, mixed in proportion of one-ounce of surfactant per five gallons of water. The material shall be odorless, nontoxic, nonirritating, and noncarcinogenic. It shall be applied as a mist using a low-pressure sprayer recommended by the surfactant manufacturer.
- H. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheets to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.
- I. Warning Signs, Asbestos Caution Tape and Labels shall comply with all federal, state, or local codes and regulations.
- J. Generator labels shall be preprinted on self-adhesive labels with the generator name, abatement site and contractor's name and address. Labels shall not be photocopied and applied with spray adhesive.
- K. Waste Containers and Transportation shall be suitable for loading, temporary storage, transport, and unloading of contaminated waste without risk of ripping, rupture, or exposure to persons, or emissions to the atmosphere. Transportation methods shall comply with the provisions of 40 CFR 61, Subpart M, and with any state or local hazardous or special waste regulations for temporary storage, transport, and disposal if such codes are enforced in states in which the waste will be stored, transported, or disposed of.

2.3 SAFETY SUPPLIES AND EQUIPMENT

- A. Respirator Types: Provide all workers with a full or half facepiece respirator that is approved by NIOSH/MSHA for protection against airborne asbestos and meets the requirements of the OSHA Asbestos Standard. Provide respirators for each worker and at least two extra respirators for use by approved visitors.
- B. Protective Clothing: Provide all workers and approved visitors with disposable coveralls, head and foot coverings, gloves and eye protection (i.e. safety glasses) and half-face respiratory protection including HEPA cartridges.

PART 3 EXECUTION

3.1 PRE-CONSTRUCTION MEETING

- A. Upon receipt of a Notice to Proceed, attend a pre-construction meeting with the OR. The meeting must be attended by the Contractor and any Sub-Contractors. It is recommended that the assigned Supervisor attend the meeting. The meeting will be used to reach agreement on:
 - 1. Schedule, scope and manner of work performance;
 - 2. Contractor, subcontractor, and vendor vehicle access and parking;
 - 3. Contractor access to the work areas;

4. Any other logistical factors to minimize interference with the Owner, public safety and health, and other Contractor activities.

3.2 INTERIOR WORK AREA PREPARATION - GENERAL

- A. Prepare the interior work areas according to the following general sequence of procedures to ensure that proper fiber containment and protection systems are installed before any work which could generate airborne asbestos fibers.
 1. Provide Ground Fault Circuit Interrupter (GFCI) devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All temporary installations are to be made by a licensed electrician, installed outside work areas, and permitted as required.
 2. Isolation of Electrical Systems
 - a. Confirm that electricity has been terminated inside all work areas prior to commencing work. Comply with isolation of electrical systems in order to maintain compliance with abatement regulations.
 - b. The scope of the electrical isolation work covers the protection of electrical equipment that is in areas where asbestos removal work is performed and where the water used for wetting the material before or during removal could possibly contact the equipment and create a hazard.
 - c. Provide portable electrical panels with ground fault protection for all non-battery power requirements. These panels shall have sufficient capacity for all HEPA exhaust and vacuums, power tools, portable lighting, and all other electrical needs.
 - d. Provide a licensed electrician to wire the electrical panels in each work area, and to be on call to handle any electrical problem that may arise during the course of the work.
 - e. All materials and workmanship shall conform to the latest editions of applicable codes, standards, and specifications.
 - f. Once a work area becomes isolated by containment, only weatherproof lighting and washable tools will be allowed in the area.
 3. Seal off all openings, including but not limited to windows, corridors, doorways, skylights, ducts, grills, diffuser, and any other penetration of the work areas, with polyethylene sheeting minimum of six mil thick sealed with duct tape. Install five-micron water filtration socks in all floor drains prior to sealing.
 4. Where interior asbestos containing materials are present, establish worker decontamination facility in accordance with Section 3.3 of this specification, critical barriers and negative air filtration prior to conducting pre-cleaning activities. Pre-clean fixed objects within the work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with minimum six mil plastic sheeting sealed with duct tape.
 5. Pre-clean movable objects within the work areas, using HEPA vacuum equipment and wet cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping.
 6. After HEPA vacuum pre-cleaning, conduct work area preparation in accordance with this Specification section.

7. Where fixed walls are not used, one layer of six mil polyethylene sheeting will be applied to a rigid framework of wood, metal, or PVC.
8. Install two layers of four mil polyethylene wall sheeting over all wall surfaces and critical barrier (where wall materials are not being removed as ACM). All overlaps shall be sealed with tape or spray adhesive.
9. Cover all floors in the work area with two layers of six mil polyethylene sheeting (where flooring materials are not being removed as ACM). Extend the polyethylene flooring a minimum of 12 inches up the walls. Ensure that the wall sheeting overlaps the floor sheeting from the top.
10. Where containments extend above suspended or fixed ceilings, remove ceiling as necessary to perform installation of isolation barriers and wall sheeting above ceiling. Wall sheeting shall extend to the top of each wall in ceiling plenum areas.
11. Maintain emergency and fire exits from the work area, or establish alternative exits satisfactory to fire officials.
12. Create pressure differential between work areas and occupied areas by the use of acceptable negative air pressure equipment. The Contractor shall ensure required negative air pressure is obtained throughout the containment and the total volume of air within the work area is changed every 15 minutes.
13. Install a manometer within each work area where Class I work will be performed to monitor the negative pressure within the work area.
14. Post all approaches to each work area with Asbestos Warning signs. Warning signs shall be of size and type that are easily readable and are visible from all approaches to the work areas and adhere to regulatory requirements.
15. Establish a work area access control log at the entrance to each work area. Authorized personnel entering the work area shall sign in upon entering the area and sign out upon exiting the area.
16. Use airless spray equipment within each work area for post abatement encapsulation.

3.3 CONTIGUOUS PERSONNEL DECONTAMINATION SYSTEM

- A. The Contractor shall establish contiguous to each work area, where feasible, a personnel decontamination system consisting of equipment room, shower room and clean room in series. Access between the contaminated and uncontaminated areas shall be through this decontamination enclosure only. The decontamination system shall be constructed of two layers of six-mil polyethylene sheeting. Pre-fabricated "pop-up" decontamination chambers will not be permitted on this project.
- B. Access between rooms in decontamination system shall be through double flap-curtained openings. Clean room, shower room and equipment room within decontamination system shall be completely sealed ensuring that the sole source of air flow through this area originates from uncontaminated areas outside the work area.
- C. The shower unit shall be equipped with an adequate supply of warm water. A shower filtration pump containing two 5-micron sock filters, or the best available technology shall be installed to filter shower water. Filtered shower water shall be discharged into sanitation drains and shall not be discharged into storm drains or onto floor or ground surfaces.

- D. The shower room shall have soap and an adequate supply of drying towels. Provide an adequate number of shower units in accordance with OSHA Title 29 CFR, Part 1926.1101.

3.4 WASTE LOAD OUT SYSTEMS

- A. Establish waste load out systems, where feasible, attached to the work areas. Waste load out systems shall consist of a minimum of two chambers that are of suitable size for transporting waste out of the work area. Waste load out systems shall be constructed of two layers of six-mil polyethylene sheeting.
- B. Access between rooms in the waste load out system shall be through double flap-curtained openings. The waste load out system shall be used for decontaminating waste containers, bags, bundles, etc. prior to removal from the work area and transporting waste from the work area to the non-work area.
- C. Persons working inside the contaminated work area are not permitted to pass from the work area to the non-work area through the waste load out system. Persons inside the contaminated work area shall not be permitted to enter into the clean area of the waste load out system.
- D. The waste load out system shall remain sealed at all times except during decontamination of waste containers and transport of waste from the work area to the non-work area.

3.5 WORK AREA EXHAUST

- A. Install sufficient quantity of portable HEPA-filtered exhausts to maintain each work area, including the Decontamination Facility, under negative pressure, and to reduce airborne asbestos fiber concentrations.
- B. The exhaust(s) must be capable of providing at least an inward velocity through any unsealed openings, including the decontamination Facility, of at least 100 fpm, and four full air changes per hour throughout the work area.
- C. All exhaust air shall pass through a HEPA filter before being discharged to the exterior of the building.
- D. Immediately report deficient air flows and cease work until the situation is corrected.
- E. Exhaust system shall be operated constantly from the time that preparation is completed, until "clean air" certification is obtained.

3.6 APPROVAL OF CONTAINMENT AREAS

- A. After the work area has been prepared as specified, request an inspection by OR. No removal or disturbance of asbestos-contaminated materials or systems is to occur until the OR has inspected and approved each separate prepared work area.
- B. Any deficiencies in the preparation work shall be promptly corrected in a manner satisfactory to OR.

3.7 ASBESTOS REMOVAL PROCEDURES

- A. Friable Asbestos
 - 1. Contain all friable ACM within a full negative pressure enclosure constructed in accordance with applicable regulations and this specification, wet with amended water, and carefully remove to prevent droppage and creation of airborne dust.
 - 2. Once the removal of all ACM is complete, thoroughly clean all surfaces and walls within the area by wet mopping, followed by thorough drying and HEPA vacuuming. Apply a

satisfactory encapsulant (lockdown material) to all surfaces from which friable asbestos has been removed.

3. The exterior of disposal bags shall be vacuumed and washed free of all visible asbestos fibers before removal from the work area.
4. Glove Bag Removal: Conduct all glove bag removal operations in accordance with 29 CFR 1926.1101 and State regulations. Glove bags cannot be slid on pipes or reused.

B. Non-friable Asbestos

1. If non-friable material can be removed without creating any airborne loose friable asbestos, then the specific practices listed in this specification shall be followed if approval from MassDEP and MassDLS is obtained. Otherwise, the non-friable asbestos must be removed under the conditions of a full negative pressure enclosure.
2. All non-friable removal areas shall be properly segregated by posting caution signs meeting the specifications of OSHA 29 CFR 1926.1101 at all locations and approaches to a location where airborne concentrations of asbestos have the potential to exceed ambient background levels. Workers shall don all protective equipment. The material shall be removed very carefully to minimize any breakage that may release airborne fibers.
3. Abatement of non-friable ACM must be performed in accordance with Environmental Protection Agency federal regulations which include the NESHAPS regulations.
4. All ACM must be continuously wetted during impact operations. Ensure that a level of no visible emissions is always achieved; otherwise contain the materials within a negative pressure containment.

C. Non-Traditional (NT) Work Plans (if applicable):

1. MassDEP requires the preparation and submission of an NT Work Plan for any asbestos abatement work where standard or traditional abatement work practices cannot be performed. Examples of situations eligible for NT Work Practice Approval include but are not limited to:
 - a. ACM commingled with building debris, as a result of deteriorated building conditions, which requires bulk loading;
 - b. Structurally unsound buildings in which standard or traditional abatement work practices cannot be safely performed;
2. Contractor is responsible for all costs and effort associated with preparing the NT Work Plans (if required) and for obtaining approval by MassDEP. Any additional engineering controls, project monitoring or methods as dictated by MassDEP shall also be the Contractors responsibility and shall not warrant a change order.

D. Encapsulation

1. After all asbestos-containing material is removed, seal the surface with a penetrating encapsulation material. Inform the OR whenever any asbestos-containing materials cannot be removed, whether in total or in part. Corrective actions will be determined by the OR.
2. The encapsulant shall be prepared according to the manufacturer's specifications, then applied to the surfaces. Provide all workers with a MSDS on the encapsulant. Ensure that

workers wear appropriate personal protective equipment as designated on the MSDS during encapsulant application.

E. Abrasive Cutting/Sawing/Drilling (if applicable)

1. An asbestos designated HEPA vacuum cleaner shall be used with the hose attachment positioned with the abrasive tool in such a manner to ensure that the vacuum will capture all dust.
2. Depending on the air velocity in the area, a shield may be required to ensure that the vacuum is able to capture all dust created. Air velocity may be affected by, but not limited to, wind, building ventilation, and temperature differentials.
3. Constantly wet the ACM during impact operations via tool attachment or by hand.

F. Floor Coverings and Mastics

1. Abate all specified asbestos-containing floor coverings including but not limited to 9-inch or 12-inch floor tile, asphalt-based floor coverings, mastic on concrete and mastic under wood or other types of floor layers. Remove specified floor coverings under all building conditions.
2. Eliminate all mastic remnants when positive. Remove all materials such as floor levelers, plywood or other sub flooring and other items if ACM mastic remains on these surfaces after abatement.

G. Accessible TSI, Fittings, Valves, Debris

1. Remove and dispose of all accessible TSI pipe, fitting and valve insulation as identified in the Asbestos Abatement Schedule. Abatement to be performed under full containment or glovebag removal techniques. Most TSI is identified as accessible. TSI types include air cell, compressed paper, magnesium, and hard packed fittings and valves. Some TSI is encased in metal jacketing.
2. Contractor will encounter and shall remove TSI under varying building conditions. Many areas of the buildings contain TSI in various areas as follows:
 - a. TSI at varying heights;
 - b. TSI in varying states of disrepair as a result of exposure and deterioration or delamination;
 - c. TSI debris co-mingled with non-ACM general building debris;
 - d. TSI submerged in water;
 - e. TSI embedded in walls and floors at penetrations
3. Where TSI passes from Buildings #2, #4 and #5/5A through the walls of Building #9, abate the TSI to at least 6" up to the wall penetration. The exposed ends of the remaining TSI shall be completely wrapped/sealed with wettable fiberglass cloth.
4. The Asbestos Abatement Schedule identifies quantities of accessible TSI piping, general location and general work environmental description on a per area basis. Approximate quantities are provided for damaged TSI, surface area cleaning, etc.

H. Boiler Systems Abatement and Demolition

1. The boiler room in Building #5/5A contains four residential type boiler systems which contain interior asbestos gaskets and ropes, etc. within the segments of the boiler interiors. These boilers require selective demolition under full containment to access and abate all ACMs.
2. The Boiler room also contains three original brick clad boilers which are approximately 30' x 20' x 30' in size. The boiler walls and ceiling and associated mud drums are insulated with friable ACM magnesium insulation. It is assumed that other interior ACMs in the form of packings, gaskets, rope insulations, etc. are also present and shall be abated.
3. Some interior built-up ash is present within each of the brick boilers and breeching ducts. The ash has become commingled with ACM debris, treat as ACM.
4. Each boiler must be dismantled in their entirety to access all interior ACMs and to allow for an accessible post abatement visual inspection. Decontaminate all brick or dispose of as ACM. Decontaminate metal components and recycle (only steel from the boiler systems) or store in a room adjacent to the boiler room under the direction of the OR.

I. Duct Insulation

1. Remove and dispose of as ACM all breech/duct insulations and associated gaskets. Two duct systems present throughout the boiler room. Most ducted systems are located near ceiling level, 20' or more from the floor. Decontaminate all metal surfaces for eventual recycling by others.

J. Pipe Flange Gaskets:

1. Assumed asbestos-containing gaskets are located in the boiler room that is scheduled for demolition. The Contractor shall be responsible for the separation of the pipe flanges of the boiler piping systems in order to access and remove the assumed asbestos-containing pipe flange gaskets. Separation of the pipe flanges and the removal of the gaskets shall take place within the negative pressure containment. Under no circumstances shall the Contractor cut and wrap the pipe flanges around the gaskets in order to dispose of the entire flange as ACM.
2. Once the removal of the gaskets is complete, thoroughly clean the area of the flanges from which the gaskets were removed. The OR shall visually inspect the flanges prior to application of an encapsulant and removal from the work area.

3.8 FINAL WORK AREA CLEANUP, DECONTAMINATION, AND WASTE DISPOSAL

A. General Requirements

1. After all asbestos-containing or contaminated materials have been removed, remove all wastes and perform a final cleanup and decontamination of each work area. Final cleaning shall be performed only after all waste is packaged and removed, but before reinstalling, demolishing any equipment, or dismantling any barrier, Decontamination Facility, or protective covering. Cleaning shall be subject to the approval of the OR and/or Contractor's third-party project monitoring firm based on a visual inspection and air testing.

B. Cleaning Methods and Approval

1. Thoroughly clean all waste containers and removal equipment with a HEPA-filtered vacuum, decontaminated with the use of the amended water, and then remove from the work area.

2. All surfaces in the work area shall be thoroughly wiped clean, and after drying, thoroughly decontaminated with a HEPA-filtered vacuuming device and encapsulated.
3. After cleaning, the OR and/or Contractor's third-party project monitoring firm shall inspect the site. To facilitate, notify all parties of the anticipated completion of the site cleaning at least 48 hours in advance.
4. If any waste or fibers are observed within the work area during the inspection, perform additional cleanup and decontamination.
5. If the air sample results are above the Air Quality Standard, perform additional cleaning and decontamination, and repeat the inspection and air tests, at no additional cost to the Owner.
6. If the air sample results are below the Air Quality Standard, the licensed third-party project monitor or the OR will give approval for the Contractor to remove all protective coverings which do not comprise part of the work area seal, containment barrier, or decontamination facility.
7. Once these items have been properly packaged and removed from the work area as contaminated waste, package and properly dispose of all remaining plastic sheeting, disassemble and remove the Decontamination Facility and HEPA exhausts, and perform a final HEPA vacuuming of all surfaces.
8. Upon completion of the cleaning, repair all temporary access openings and correct all unsafe conditions.

C. Waste Disposal

1. Definition: Asbestos wastes are defined as all building materials and debris, insulation, disposal clothing and protective equipment, plastic sheeting and tape, exhaust systems or vacuum filters, or any abatement equipment that has been contaminated with asbestos and cannot be completely cleaned by vacuuming and by washing in the Decontamination Facility.
2. General Requirements: All asbestos wastes (e.g., pipe lagging, floor tile, etc.) must be handled, packaged, stored, transported, and disposed of as specified in this subsection, and in compliance with all federal, state, and local regulations and codes.
3. Waste Labeling: If waste containers are not already so pre-printed, warning labels having waterproof print and permanent adhesive shall be affixed to the lid and/or sides of the containers, whether or not these containers are further packaged. Warning labels shall be conspicuous and legible, and conform to the latest OSHA, EPA and DOT labeling requirements.
4. Waste Packaging: Thoroughly wet all waste when packaged and inspect each bag to observe that water condensation is visible. Open, rewet, and reseal insufficiently wetted bags. When a waste bag is full, securely seal it with tape, and place in the designated temporary storage area inside of the work area.

D. Waste Container Removal and Disposal Documentation

1. To comply with the requirement that waste disposal to an approved landfill be documented, remove waste containers from work areas only under the direction of the OR, and complete appropriate documentation for each load of waste removed from the site.

2. Accurately measure the volume of each container or load of waste removed from the site.
3. Provide legal transportation of the waste to the disposal landfill, and complete or obtain all required licenses, manifests, dump slips, or other forms. Copies of all forms or licenses, and the signed original of the Waste Shipment Record (WSR) for each waste load shall be given to the OR.
4. Waste may be transported to and temporarily stored at a pre-approved off-site storage area owned by the Contractor, but it must ultimately be disposed of at the specified landfill before final payments are approved.

END OF SECTION

(ASBESTOS ABATEMENT SCHEDULE FOLLOWS)

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
Building 1					
14-A,B,C; 15-A,B,C	Sheetrock / seamtape / joint compound	Building 1 - First floor	-	Negative	
16-A, 17-A,B,C	TSI - Magnesium type pipe, fitting and valve insulation	Building 1 - First floor, above small offices, two locations	150 LF	Positive	TSI is located above the small offices along the side of the room. Pipe diameters range from 1" to 4". All pipe TSI and fittings shall be removed and disposed of as ACM. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
26-A,B,C	Sheetrock and tape/compound	Building 1 - Second floor	-	Negative	Negative for asbestos.
AP	Transite components	Building 1 - Throughout all floors	1/4 CYD	Positive	Miscellaneous components inside electrical boxes throughout building. Approx. 15 locations. Investigate all electrical boxes/panels and abate transite where encountered.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 1 - Second floor	120 LF	Positive	Pipe diameters range from 1" to 4". All pipe TSI and fittings shall be removed and disposed of as ACM. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
27-A,B,C	12"x12" Floor tile / mastic	Building 1 - Second floor, small room	-	Negative	
39-A,B,C	White square pattern linoleum	Building 1 - Third floor office area hallway	-	Negative	
40-A,B,C	Gray covebase / mastic	Building 1 - Third floor bathroom	-	Negative	
41-A,B,C	Gray spotted linoleum	Building 1 - Third floor bathroom	-	Negative	
A-22, A-23, A-24	Wall panel adhesive	Building 1 - Third floor throughout	-	Negative	Adheres wall panels to wall.
A-25, A-26, A-27	Plaster	Building 1 - Third floor stairwell	-	Negative	
42-A,B,C	6" brown covebase / mastic	Building 1 - Third floor offices and hallway	-	Negative	
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 1 - Third floor near door	15 LF	Positive	All pipe TSI and fittings shall be removed and disposed of as ACM. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
49-A,B,C	2'x4' Ceiling Panels	Building 1 - Fourth floor	-	Negative	

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 1 - Fourth floor	460 LF	Positive	All pipe TSI and fittings shall be removed and disposed of as ACM. Pipe diameters range from 4" to 10" in diameter. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
50-A,B,C	Brown speckled linoleum floor and mastic	Building 1 - Fourth floor	-	Negative	
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 1 - Attic	30 LF	Positive	All pipe TSI and fittings shall be removed and disposed of as ACM. Piping diameters range from 4" to 10" in diameter. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
Building 2					
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 2 - First floor, main area	75 LF	Positive	TSI is adjacent to building 3 and 5/5A connection. All pipe TSI and fittings shall be removed and disposed of as ACM. Piping diameters range from 6" to 12" in diameter or smaller. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	Wet Wrap Repair	Building 2 - Pipe protrusions on all levels through the northern wall of Building 9	(50) Locations	Positive	TSI on all levels of Building 2 to be abated as described herein. Some insulated piping protrudes the north wall of Building 9 on all levels. Remove TSI to within 6" of the pipe/wall protrusion and wet wrap exposed ends.
9-A,B,C	Tar paper	Building 2 - First floor, along ceiling above catwalk	-	Negative	White paper along ceiling.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 2 - Second floor, main steam line area	170 LF	Positive	TSI covered with metal jacket. TSI is adjacent to building 3 and 5/5A connection. All pipe TSI and fittings shall be removed and disposed of as ACM. Piping diameters range from 6" to 12" in diameter or smaller. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	TSI - Magnesium pipe, fitting and valve insulation, commingled debris	Building 2 - Third floor	70 LF / 1 CYD debris	Positive	TSI covered with metal jacket is in poor condition and has become commingled with trash and metal on the ground. Treat commingled debris as ACM. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	Transite panels	Building 2 - Third floor, around spiral stairs	40 SF	Positive	Transite paneling nailed and screwed to wooden ceiling throughout select areas. Ceiling heights are approx. 10'.
37-A,B,C	Transite panels	Building 2 - Third floor, ceiling	600 SF	Positive	Transite paneling nailed and screwed to wooden ceiling throughout select areas. Ceiling heights are approx. 10'.
38-A,B,C	Plaster and skim coat	Building 2 - Third floor	-	Negative	Located on all of the columns and beams.

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
A-31/31A, A-32/32A, A-33/33A	12" Gray and white checkerboard floor tile / mastic	Building 2 - Third floor	-	Negative	
AP	TSI - Magnesium pipe, fitting and valve insulation, commingled debris	Building 2 - Fourth floor	140 LF / 1 CYD debris	Positive	TSI is adjacent to building 3 and 5/5A connection. All pipe TSI and fittings shall be removed and disposed of as ACM. Piping diameters range from 6" to 12" in diameter or smaller. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	TSI - Magnesium pipe, fitting and valve insulation, commingled debris	Building 2 - Fourth floor, electrical room	120 LF / 1 CYD debris	Positive	TSI is adjacent to building 3 and 5/5A connection. All pipe TSI and fittings shall be removed and disposed of as ACM. Piping diameters range from 6" to 12" in diameter or smaller. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
51-A,B,C	Floor backing	Building 2 - Fourth floor	-	Negative	The floor backing tested negative for asbestos.
AP	Transite	Building 2 - Fourth floor ceiling	500 SF	Positive	Transite paneling nailed and screwed to wooden ceiling throughout select areas. Ceiling heights are approx. 10'.
AP	TSI - Pipe, fitting and valve insulation, commingled debris	Building 2 - Fifth floor	170 LF / 1 CYD debris	Positive	TSI is primarily intact and adjacent to building separation with Building 3 and 5/5A. Piping diameters range from 2" - 12" in diameter. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
Building 3					
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 3 - First floor, upper level cat walk area	15 LF	Positive	TSI insulates 12" diameter pipe on upper catwalk area.
34-A,B,C	Linoleum flooring and mastic	Building 3 - Third floor, bathroom by stairs	-	Negative	
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 3 - Third floor	10 LF	Positive	TSI covered with metal jacket. Piping diameters range from 2" - 8" in size. Some selective wall demolition is necessary to access all TSI. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 3 - Fourth floor	500 LF	Positive	TSI covered with metal jacket. Piping diameters range from 2" - 8" in size. Some selective wall demolition is necessary to access all TSI. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
53-A,B,C	Sheetrock / seamtape / joint compound	Building 3 - Fourth floor	-	Negative	The sheetrock and tape/compound tested negative for asbestos.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 3 - Fifth floor	45 LF	Positive	TSI covered with metal jacket. Piping diameters range from 2" - 8" in size. Some selective wall demolition is necessary to access all TSI.
54-A,B,C	Plaster and skim coat	Building 3 - Stairwell, throughout all floors	-	Negative	The plaster and skim coat tested negative for asbestos.
Building 4					
10-A,B,C	Black tar coating with cloth on duct work	Building 4 - Second floor	120 SF	Positive	ACM Black tar coating applied to the cloth covering of the ductwork. Cloth covers fiberglass insulation reinforced with wire mesh. Dispose of all contaminated materials as asbestos.
AP	Wet Wrap Repair	Building 4 - Pipe protrusions on all levels through the western wall of Building 9	(50) Locations	Positive	TSI on all levels of Building 4 to be abated as described herein. Some insulated piping protrudes the west wall of Building 9 on all levels. Remove TSI to within 6" of the pipe/wall protrusion and wet wrap exposed ends.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 4 - Second floor	10 LF	Positive	1"-4" pipe diameter. Insulation is encased in metal jacket. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
11-A,B,C	Fiberglass pipe wrap	Building 4 - Second floor by column	-	Negative	1"-4" pipe diameter.
12-A,B,C	Pipe wrap on fiberglass insulation	Building 4 - Second floor	-	Negative	
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 4 - Second floor	40 LF	Positive	Pipe diameters range from 6" to 12" or smaller. All pipe TSI and fittings shall be removed and disposed of as ACM. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	Transite	Building 4 - Third floor	7,400 SF	Positive	Transite paneling nailed and screwed to wooden ceiling throughout select areas.

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 4 - Fourth floor	40 LF	Positive	Pipe diameters range from 6" to 12" or smaller. All pipe TSI and fittings shall be removed and disposed of as ACM. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
Building 5/5A					
AP	Transite panels	Building 5/5A - Fifth floor and attic	2,300 SF	Positive	Transite panels nailed in place to ceiling and walls of stairwell to attic area. Ceiling of stairwell approximately 8' in height. An additional (20) - 4'x8' panels with metal supports attached, stored in attic.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 5/5A - Fourth and fifth floor	110 LF	Positive	Piping diameters range from 2" - 5" in size with some slightly larger piping. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	Wet Wrap Repair	Building 5/5A - Pipe protrusions on all levels through the western wall of Building 9	(35) Locations	Positive	TSI on all levels of Building 5/5A to be abated as described herein. Some insulated piping protrudes the east wall of Building 9 on all levels. Remove TSI to within 6" of the pipe/wall protrusion and wet wrap exposed ends.
A-43/43A, A-44/44A	12" Floor tile and mastic	Building 5/5A - Fourth floor, offices, locker rooms and bathroom area	375 SF double layered	Negative but treat as ACM	Non-ACM Floor tile and mastic applied to ACM floor tile (mastic negative). Treat both layers of floor tile as asbestos due to the inability to separate the layers. Floor tile assumed present under partitions, conduct selective demolition as necessary to access all ACM.
A-45/45A	9" Floor tile and mastic	Building 5/5A - Fourth floor, offices, locker rooms and bathroom area	255 SF	Floor tile positive; mastic negative	Adhered to wood. Floor tile presumed present under partitions, conduct selective demolition as necessary to access all ACM.
AP	Transite panels	Building 5/5A - Fourth floor, offices, locker rooms and bathroom area	300 SF	Positive	Panels nailed in place in office / locker area.
A-49, A-50	Vinyl sheet flooring	Building 5/5A - Fourth floor, offices, locker rooms and bathroom area	-	Negative	
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 5/5A - Attic	30 LF	Positive	Piping diameters range from 2" - 5" in size. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
AP	TSI - Magnesium pipe, fitting and valve insulation, commingled debris	Building 5/5A - Elevator shaft and equipment room	140 LF / 2 CYDS of debris / 3,000 Gallons of ACM contaminated water	Positive	Piping diameters range from 2" - 5" in size. TSI debris was observed commingled with building debris within the pit of the shaft. Shaft is approximately 10'x10' and filled with 4' of water. Approx. 3,000 gallons of ACM contaminated water needs to be removed and lawfully filtered prior to discharge or disposed of as asbestos contaminated. All contaminated materials are to be disposed of as asbestos.
1-A,B,C	Fiberglass insulation pipe wrap	Building 5/5A - First floor, Boiler room	-	Negative	
2-A, 3-A	TSI - Magnesium pipe, fitting and valve insulation, commingled debris	Building 5/5A - First floor, Boiler room	650 LF / 40 CYDS debris	Positive	TSI is both intact and deteriorated and accumulated on various impervious surfaces. Damaged TSI has also become commingled with trash and building debris. Construct full containment throughout the boiler room and clean all surfaces, decontaminate equipment, shelving, cat walks and all other non-porous items. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
4-A,B,C	Fiberglass insulations with white coating	Building 5/5A - First floor, Boiler room, oil pump system	-	Negative	Located on heat exchangers under metal jacket.
AP	Interior boiler gaskets and rope insulations	Building 5/5A - First floor	(4) 4' x 5' x 5' boilers	Positive	(4) HB Smith metal clad boilers that are 4'x5'x5' in size. Boilers to be dismantled and abated under full containment. All boiler gaskets and rope insulations to be disposed of as asbestos.
5-A,B,C & 6-A,B,C	Interior boiler gaskets and packing insulation within brick clad boiler systems	Building 5/5A - First floor	(3) - 30'x20'x30' boilers	Positive	(3) Original brick boilers are each 30'x20'x30' in size. All boilers must be dismantled in their entirety to access all interior ACMs. Interior ACMs include mud drum insulations and all inner brick walls and tops are lined with friable ACM packings. Decontaminate all brick or dispose of as ACM. Decontaminate metal components and recycle or store in a room adjacent to the boiler room.
AP	TSI -Duct insulation (Round)	Building 5/5A - First floor, Boiler room	75 LF	Positive	TSI associated with 16" diameter breeching duct associated with main boiler system located above boilers at ceiling level (approx. 25').
AP	TSI - Duct insulation (Rectangle)	Building 5/5A - First floor, Boiler room	200 SF	Positive	ACM breach insulation associated with fan unit of the breach system located at ceiling level (Approx. 25'), Dismantle fan unit to access all ACM.
AP	Pipe flange gaskets	Building 5/5A - First floor, Boiler room	(120 CT)	Positive	ACM gaskets assumed present between pipe flange connections throughout area. Flange connections shall be opened and cleaned. All metal shall be decontaminated and stored outside the boiler room or recycled.

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
AP	Breech system gaskets	Building 5/5A - First floor, Boiler room	150 LF	Positive	ACM gasketing present at all metal mating surfaces of metal breech. Connection points of breech shall be opened and cleaned. All metal shall be decontaminated prior to recycling.
Building 6/6A					
AP	Transite panels	Building 6/6A - Third floor	450 SF	Positive	Transite panels nailed to ceiling and bolted to spiral staircase. Ceiling is approximately 10' in height.
AP	Transite electrical components and boards	Building 6/6A - Third floor	2 CYDS	Positive	Transite electrical components and boards consolidated and stored on pallets. Treat all components and boards as asbestos.
36-A,B,C	Shotcrete and finish coating	Building 6/6A - Third floor	-	Negative	
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 6/6A - Fourth floor	60 LF	Positive	Piping diameters range from 2" - 5" in size. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	Transite	Building 6/6A - Fourth and fifth floor	180 SF	Positive	Transite panels nailed to ceiling and bolted to spiral staircase. Ceiling is approximately 10' in height.
Building 7					
AP	TSI - Magnesium pipe, fitting and valve insulation and TSI - Duct insulation and commingled debris	Building 7 - Second floor	110 LF - Pipe / 120 SF - Duct / 3 CYDS debris	Positive	TSI with metal jacket and magnesium block type insulation is both intact and deteriorated and has accumulated on floor and metal ductwork. Put area under full negative pressure enclosure, clean all surfaces and decontaminate non-porous items. Conduct selective demolition to access all piping if necessary. Piping diameters range from 2" - 5" in size with some slightly larger piping. Contractor responsible to trace, investigate, locate and confirm the presence and/or absence of all insulation within wall penetrations and chases. Ceiling is approximately 10' in height.
31-A,B,C	Linoleum flooring and mastic	Building 7 - Third floor	-	Negative	
32-A,B,C	Brown covebase and mastic	Building 7 - Third floor	-	Negative	

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
AP	Transite	Building 7 - Third floor	2,500 SF	Positive	Transite paneling nailed and screwed to wooden ceiling throughout select areas. Ceiling is approximately 10' in height.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 7 - Fourth floor	140 LF	Positive	Piping diameters range from 2" - 5" in size. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
28-A,B,C	12"x12" white floor tile and mastic	Building 7 - Second floor	-	Negative	White and blue floor tile is mixed together.
29-A,B,C	12"x12" blue floor tile and mastic	Building 7 - Second floor	-	Negative	White and blue floor tile is mixed together.
30-A,B,C	Transite	Building 7 - Second floor, back room with pump pit	250 SF	Positive	Transite located in back room with pump pit and nailed and screwed to wall.
Building 8					
Same as 10-A,B,C	Black tar coating on fan unit insulation	Building 8 - Second floor	30 SF	Positive	ACM Black tar coating applied to the insulation of the fan unit. Treat all insulating materials as asbestos.
Building 11					
AP	TSI - Magnesium type pipe, fitting and valve insulation, debris	Building 11 - First floor, throughout	120 LF; 1/2 CYD debris	Positive	Piping diameters range from 2" - 5" in size. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity. Debris observed below and in vicinity of piping. Treat all commingled materials as asbestos.
AP	Transite panels	Building 11 - West end lowest level, Mezzanine, second level	1,900 SF	Positive	Transite panels nailed to walls and ceilings throughout western area.
AP	Transite components	Building 11 - Throughout	1/4 CYD	Positive	Investigate all electrical boxes on all floors to confirm or deny presence of ACM and abate transite components and boards where encountered. Assume up to 40 different panels/boxes to inspect.
A-01, A-02, A-03	Paper	Building 11 - Throughout	-	Negative	Under floorboards.

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 11 -Second floor	120 LF	Positive	Piping diameters range from 2" - 5" in size. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
20-A,B,C	Fiberglass pipe TSI wrap	Building 11 -Second floor	-	Negative	
21-A,B,C	9x9 Gray floor tile and mastic	Building 11 -Second floor, bathroom stalls	-	Negative	
A-04/04A/04B, A-05/05A/05B, A-06/06A/06B, A-07/07A/07B, A-08/08A/08B, A-09/09A/09B	Sheetrock/ seam tape/joint compound	Building 11 -Second, fourth and fifth floors	-	Negative	Comprises interior walls.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 11 -Third floor	110 LF	Positive	Piping diameters range from 4" - 10" in size. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 11 -Fourth floor	245 LF	Positive	Piping diameters range from 4" - 10" in size. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	Transite	Building 11 -Fourth floor	3,500 SF	Positive	Transite paneling nailed and screwed to wooden ceiling throughout select areas. Ceiling heights are approx. 10' or more.
45-A,B,C	12"x12" gray floor tile and mastic	Building 11 - Fifth floor	-	Negative	
46-A,B,C	Black covebase and mastic	Building 11 - Fifth floor	-	Negative	
47-A,B,C	12"x12" tan floor tile and mastic	Building 11 - Fifth floor	-	Negative	
48-A,B,C	12"x12" brown floor tile and mastic	Building 11 - Fifth floor	-	Negative	
49-A,B,C	Sheetrock and tape/compound	Building 11 - Fifth floor	-	Negative	

13281 ASBESTOS ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Sample ID	Material Description	Location	Quantity	Result	Comments
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 11 - Fifth floor	90 LF	Positive	Piping diameters range from 4" - 10" in size. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
AP	TSI - Magnesium type pipe, fitting and valve insulation	Building 11 - Sixth floor	75 LF	Positive	Piping diameters range from 4" - 10" in size. Conduct selective demolition as necessary to access all piping. Fitting/valve insulation quantity is approx. 1 LF for each and included in total quantity.
A-10, A-11, A-12	Red paper	Building 11 - Sixth floor	-	Negative	Under floorboards.

NOTES:
Asbestos survey data compiled from various phases of asbestos inspection efforts conducted within and around the Strathmore Mill over the last several years, by licensed Tighe & Bond personnel. All quantities are approximate. Contractor shall field verify for bidding purposes. There are no water or electrical services available for use throughout the entire complex. Certain floor/ceiling/stairwell areas of the complex display deterioration and are assumed to lack in structural integrity. Most of these areas have been demarcated on the Drawings however other areas may exist. Contractor is responsible for the safety of their workers and shall inspect work areas and stairwells prior to use to determine whether those areas are safe for their workers to access.

LEGEND

ACM = ASBESTOS CONTAINING MATERIAL (Contains 1% or greater asbestos)

LF = LINEAR FOOT

SF = SQUARE FOOT

CT = COUNT

CYD = CUBIC YARD

BOLDDED AREAS INDICATE A POSITIVE OR ASSUMED POSITIVE RESULT

LABORATORY RESULTS ARE AVAILABLE TO AWARDDING CONTRACTOR UPON REQUEST

SECTION 13283

HAZARDOUS MATERIALS / UNIVERSAL WASTE

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes, but is not limited to, labor, materials, and equipment required to complete the removal and lawful disposal of hazardous materials and universal wastes throughout the Strathmore Mill Complex.
- B. Work includes the following.
 - 1. Removal, characterization (any testing that may be required by disposal facility) and lawful disposal or recycling of items listed in the Hazardous Materials / Universal Waste Abatement Schedule appended to this specification, located throughout the project work areas.
 - 2. File all necessary notices, obtain all permits and licenses, and pay all governmental taxes, fees, and other costs in connection with the work. Obtain all necessary approvals of all governmental departments having jurisdiction.
 - 3. Comply with project specific Health and Safety Plan.

1.2 RELATED INFORMATION

- 1. Related Sections
 - a. Section 01350, Health and Safety Plan
 - b. Section 13281, Asbestos Abatement

1.3 LOCATION OF WORK

- A. Location of Work areas, descriptions, estimated types and quantities of hazardous materials, hazardous wastes and universal wastes are described in the Hazardous Materials / Universal Waste Abatement Schedule appended hereto.
 - 1. If additional hazardous materials, hazardous wastes or universal wastes are encountered, notify Engineer immediately and be prepared to remediate the material.
 - 2. The quantities are provided for general guidance and may not correspond exactly to the quantity to be removed.
 - 3. The Contractor is responsible to investigate for the presence of all hazardous materials, hazardous wastes and universal wastes. Contractor shall determine quantities of hazardous materials for bidding purposes.

1.4 REFERENCES

- A. The Contractor is advised to thoroughly review the documents referenced in this Section. Strict adherence to the hazardous materials, noise, air and water pollution regulations and requirements is required.
 - 1. Code of Federal Regulations

- a. 29 CFR 1910, "Occupational Safety and Health Standards" (General Industry Standards)
 - b. 29 CFR 1910.1200, "Hazard Communication"
 - c. 29 CFR 1910.134, "Respiratory Protection"
 - d. 29 CFR 1926, "Safety and Health Regulations for Construction" (Construction Industry Standards)
 - e. 40 CFR 117, "Determination of Reportable Quantities for Hazardous Substances"
 - f. 40 CFR 172, "Hazardous Waste Transportation"
 - g. 40 CFR 261, "Identification and Listing of Hazardous Waste"
 - h. 40 CFR 263, "Standards Applicable to Transporters of Hazardous Waste"
2. Commonwealth of Massachusetts Department of Environmental Protection
- a. 310 CMR 40 Massachusetts Contingency Plan
 - b. 310 CMR 30 Hazardous Waste Regulations
 - c. 310 CMR 16, 19 Solid Waste Regulations
- B. Local Town, City or County bylaws, rules and regulations

1.5 SUBMITTALS

- A. Submit a Hazardous Waste Handling Plan, which includes means and methods for handling, packaging, labeling and transportation of the hazardous materials and universal wastes identified. Include health and safety equipment to be used to protect workers (i.e. personnel protection equipment). Include identification of the proposed waste hauler and disposal facility with copies of all applicable licenses, registrations and approvals.
- B. Submit copies of all worker certifications associated with OSHA Hazardous Waste Site Health and Safety Training in accordance with 29 CFR 1910.120.
- C. After completion of hazardous materials, hazardous wastes and universal wastes removal, submit a final report documenting removal, transportation and disposal activities. This shall include copies of manifests, shipping slips, permits and licenses for this project.

1.6 DEFINITIONS

- A. The following definitions relative to hazardous materials, hazardous wastes and universal wastes as used in this Section are offered:
 - 1. BALLAST: a passive component used in an electric circuit to moderate changes in current. A light ballast regulates the current to the lamps and provides sufficient voltage to start the lamps. Ballasts manufactured prior to 1979 may contain PCBs. Ballasts manufactured between 1979 and 1991 may contain Di(2-ethylhexyl) phthalate (DEHP).

2. CAPACITOR: a device used to store an electric charge, consisting of one or more pairs of conductors separated by an insulator. May contain PCBs. Capacitors are commonly used in electronic equipment including HVAC Units, pumps, etc.
3. DEHP: Di(2-ethylhexyl) phthalate; manufactured chemical typically added to plastics to make them flexible. May be found in lighting ballasts manufactured between 1979 and 1991. Probable human carcinogen per U.S. EPA. Reasonably anticipated to be a human carcinogen per CDC.
4. HANDLER: The Contractor removing the universal waste product.
5. HAZARDOUS MATERIAL: Any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.
6. HAZARDOUS WASTE: Waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment.
7. LARGE QUANTITY GENERATOR: a handler can accumulate 5,000 kilograms or more of universal waste at any time.
8. MERCURY: A silvery-white poisonous metallic element, liquid at room temperature and used in thermometers, barometers, vapor lamps, and batteries and in the preparation of chemical pesticides. Mercury is known to have many different types of health effects particularly with the nervous, digestive and urinary systems.
9. NON-HAZARDOUS WASTE: Waste materials not specifically deemed hazardous under federal law are considered non-hazardous wastes.
10. POLYCHLORINATED BIPHENYLS (PCBs) - Any of several compounds that are produced by replacing hydrogen atoms in biphenyl with chlorine, have various industrial applications, and are toxic environmental pollutants which tend to accumulate in animal tissues. Probable human carcinogen per U.S. EPA. Reasonably anticipated to be a human carcinogen per CDC.
11. SMALL QUANTITY GENERATOR: a handler can accumulate not more than 5,000 kilograms or more of universal waste at any time.
12. UNIVERSAL WASTE: batteries, mercury-containing thermostats, certain pesticides, lamps (including but not limited to fluorescent, neon and mercury vapor lamps), and used electronics.

PART 2 PRODUCTS

2.1 PROTECTIVE EQUIPMENT

- A. Provide health and safety equipment required to protect workers and to comply with the requirements of the project Health and Safety Plan.

2.2 TRANSPORTATION AND STORAGE CONTAINERS AND LABELING

- A. Provide DOT approved drums or containers for the disposal of the specified materials.
- B. All drums or containers for hazardous waste and universal waste must be closed, structurally sound, compatible with the contents of the specific waste, and must be capable of preventing leakage, spillage or damage that could cause leakage.

- C. All hazardous or universal waste products must be stored in a container and the container shall be properly labeled in accordance with applicable regulations. Appropriate labeling is as follows.
1. Hazardous waste materials shall be labeled as "Hazardous Waste" in accordance with EPA RCRA.
 2. Universal Waste Lamps - each lamp or containers or packages in which such lamps are contained must be labeled or marked clearly with any of the following: "Universal Waste - Lamp(s)" or "Waste Lamp(s), or "Used Lamp(s)".
 3. Universal Waste Used Electronics - each piece of equipment or a container; package or pallet in which the used electronics are contained must be labeled or marked clearly with any of the following: "Universal Waste - used electronics" or "Waste Used Electronics, or "Used Electronics".
 4. Universal Waste Mercury-Containing Devices or containers must be labeled or clearly marked with any of the following: "Universal Waste - Mercury Device(s)" or "Waste Mercury Device(s)" or "Used Mercury Device(s)".

PART 3 EXECUTION

3.1 HAZARDOUS MATERIALS / WASTE - GENERAL

- A. Use proper PPE and health and safety equipment required to protect workers and to comply with the Health and Safety Plan.
- B. Use DOT approved drums or containers for the disposal of specified materials.
- C. All hazardous materials shall be sampled as necessary, characterized and disposed of in accordance with applicable regulations. Submit disposal manifests for all waste disposal.
- D. Workers who handle hazardous materials shall be properly trained in hazardous materials handling procedures. At a minimum, this shall include OSHA 24 Hour Hazardous Waste Site Health and Safety Training in accordance with 29 CFR 1910.120 for personnel handling only universal waste, and OSHA 40 Hour Hazardous Waste Site Health and Safety Training in accordance with 29 CFR 1910.120 for personnel handling hazardous waste.
- E. Remove as soon as possible any hazardous materials containers that are in poor condition.
- F. Handling Hazardous Waste:
 1. Place waste in DOT approved containers and label the containers for transport to a licensed disposal site.
 2. Use an authorized hazardous waste transporter to haul waste to a hazardous waste facility.
 3. Follow all record keeping, chain-of-custody and reporting requirements including a copy of the hazardous waste manifest.
 4. Accurately measure and weigh the volume of each container or load of waste removed from the site. Submit records of waste volumes to Owner and Engineer.

5. Give special attention to the time of storage, amount of material stored at any one time, use of proper containers and personnel training.
6. Provide appropriate notifications to regulatory agencies if there is a release to the environment exceeding the CERCLA reporting requirements (e.g. lead --1 pound).
7. Any evidence of improper storage shall be cause for immediate shutdown of the project until corrective action is taken.
8. Provide legal transportation of the waste to the disposal landfill, and complete or obtain all required licenses, manifests, landfill slips, or other forms. Submit copies of all forms or licenses, and the signed original of the Waste Manifest for each waste load.

3.2 BALLASTS REMOVAL

- A. Remove, characterize and lawfully dispose to an appropriate off-site PCB disposal facility all PCB and non-PCB light ballasts throughout the facility. In preparing its bid, Contractor should assume that all light ballasts contain PCBs.
- B. Light fixtures shall be disassembled and inspected by the Contractor. All resulting lamps shall be immediately packaged for reclamation.
- C. If ballasts are found to be leaking, contaminated light fixtures, lenses and electrical motors shall be disposed of as PCB-contaminated materials.
- D. Contractor shall have on hand, spill containment and absorbent materials in the event a spillage of PCB-containing fluids occurs. Provide appropriate polyethylene sheeting to protect concrete floor and other surfaces from any spillage.
- E. All protective equipment (gloves, suits) and materials contaminated during any cleanup shall be disposed of as PCB- Remediation Waste along with the ballasts and fixtures.
- F. All ballasts shall be placed in DOT-approved barrels for subsequent transport immediately upon removal. Barrels will be labeled in accordance with DOT requirements and applicable regulations.
- G. Separate ballasts, capacitors and fixture components into separate drums. Leaking ballasts and capacitors shall be separate from all other items.
- H. Drums shall be prepared by placing one to three inches of absorbent material in the bottom of the drum.
- I. Document all disposal activities to ensure compliance with regulations.

3.3 OILS/LIQUIDS AND MACHINERY FLUIDS

- A. Drain all equipment containing lubricating oils and fuel oils.
- B. Collect and drum all fluids, including decontamination fluids drained from the above described equipment.
- C. Characterized all fluids and liquids scheduled for disposal.
- D. Label drums for transport and dispose in accordance with applicable regulations. Submit disposal manifests for all waste disposal.

- E. After removal of all hazardous components, dispose or recycle remaining equipment carcasses and piping in accordance with applicable regulations. Contractor shall submit documentation verifying removal, transportation, recycling and or disposal at the approved disposal facility.

3.4 FIRE EXTINGUISHERS

- A. In accordance with applicable regulations, fire extinguishers must be managed as hazardous wastes when disposed.
- B. Collect, characterize, and properly dispose of all fire extinguishers found in the boiler room impacted by the renovation.
- C. Provide waste shipment records or recycling records and incorporate in the final report.

3.5 UNIVERSAL WASTES

- A. Mercury-Containing Equipment and Devices: Under current federal regulations, certain items containing mercury may be classified as universal waste. These include, but are not limited to fluorescent lamps, high-intensity discharge lamps, mercury thermostats and thermometers, mercury switches and the devices that contain them, mercury barometers and mercury manometers. The following shall be followed for recycling/disposal of these mercury items:
 - 1. Collection, characterization and proper recycling/disposal of all fluorescent tubes and mercury-containing equipment found throughout the Site.
 - 2. Lamps shall be disassembled and inspected by the Contractor. All resulting lamps shall be immediately packaged for reclamation.
 - 3. Carefully remove lamps and place directly into boxes or barrels specifically designed for the transport of specific lamps. Package lamps in accordance with the recycling facilities requirements. Broken glass and residual dust shall be HEPA vacuum and disposed of as Mercury contaminated materials.
 - 4. Collect the mercury containing device or part of the device that contains mercury and place directly into approved containers.
 - 5. Care must be taken to not break these items, as that may cause mercury exposure to individuals handling them and may require additional clean-up and decontamination.
 - 6. Properly label all containers in accordance with Section 2.2 of this specification.
 - 7. Provide all waste shipment records or recycling records and incorporate in the final report.
- B. Batteries: In accordance with current regulations, many batteries may be managed as universal waste when disposed. These include, but are not limited to, lead acid batteries, nickel cadmium batteries, lithium batteries, and older alkaline batteries containing mercury. The following protocol shall be followed for the disposal of all such batteries:
 - 1. Collection, characterization, and proper disposal of all batteries found throughout the facility.
 - 2. Properly package and label all containers in accordance with Section 2.2 of this specification.

3. Provide all waste disposal documentation and incorporate in the final report.
- C. Used Electronics: In accordance with current regulations, used electronic equipment may be managed as universal waste when disposed. These include, but are not limited to, computers, monitors, catho-ray tubes (CRT) and TVs. The following protocol shall be followed for the disposal of all such used electronics:
 1. Collection, characterization, and proper disposal of all used electronics found throughout the facility.
 2. Properly package and label all containers in accordance with Section 2.2 of this specification.
 3. Provide all waste disposal documentation and incorporate in the final report.

3.6 REFRIGERATION CFC SOURCES / PROPANE GAS

- A. Refrigerant from air conditioners and propane gas tanks were identified in the subject buildings. Refer to the Hazardous/Universal Waste Abatement Schedule appended to this Section for quantities and locations. Collect and capture remnant refrigerant and remove and dispose of propane gas tanks.
- B. Evacuate all refrigerant-containing systems using a vacuum pump.
 1. Furnish and install all necessary valves and fittings required to capture and collect the refrigerant in DOT-approved recovery cylinders or drums.
 2. Properly label all recovery cylinders and drums.
- C. All activities associated with the removal and reclamation of refrigerant gases shall be in accordance with Section 608 of the Federal Clean Air Act Amendments and any applicable state regulations.
- D. After removal of refrigerants and the gas, Contractor shall coordinate with the General Contractor regarding the disposal of the specific housing unit (A/C unit, propane tanks) in accordance with applicable regulations.

3.1 OIL CONTAMINATED WATER / SLUDGE

- A. Certain concrete pits, troughs and metal drums in the boiler room of Building 5/5A/6/6A contain accumulated oily water and sludge requiring removal and disposal.
- B. Collect, characterize and lawfully dispose to an appropriate off-site disposal facility or a facility that would treat the contaminated water.

3.2 OIL CONTAMINATED PIPING

- A. Piping that serviced the three brick boiler systems of Building 5/5A/6/6A contain remnant #4 oils. Piping is located throughout the boiler room.
- B. Collect, characterize and lawfully dispose to an appropriate off-site disposal facility or a facility that would treat the oil.
- C. For any piping with oil remnant which penetrates the wall of the boiler room, the pipe shall be cut within 3" of the wall and plugged to avoid any future dripping or oil leaking.

3.3 BUILT UP ASH

- A. Base Bid items include boiler and ductwork built-up ash removal and disposal; Alternate 1 items include stack base built-up ash removal and disposal.
- B. Boilers, stack and ductwork associated with the boilers of Building 5/5A/6/6A contain oil ash. Dispose of ash as an assumed RCRA hazardous waste due to leachable metals. Contractor required to perform any necessary sampling to support RCRA ash disposal.
- C. Remove ash from boilers and ductwork prior to asbestos abatement.
- D. Alternate 1 Ash removal procedures from the base of the stack shall address the falling brick hazard as necessary.

3.4 UNKNOWN CHEMICALS/MATERIALS

- A. Although not observed, unknown chemicals/materials may exist in and around the facility. The following shall be followed for the disposal of all unknown chemicals/materials:
 - 1. All unknown chemicals/materials must be characterized in accordance with State and Federal regulations.
 - 2. Once characterized, the unknown chemicals/materials must be packaged, labeled, transported, and disposed of in accordance with all State and Federal regulations.
 - 3. Provide all waste shipment records or recycling records and incorporate into the final report.

3.5 LEAD BASED PAINT

- A. Lead based paint is assumed present on many surfaces throughout the specified demolition areas of the buildings. Any Contractor whose activities may generate leaded dust or impact a leaded surface shall be responsible for regulating their work area so that dust migration is contained properly within the regulated area. Compliance with OSHA Lead in Construction regulations shall be adhered to throughout the course of this work. Prior to any torch cutting or burning of any leaded surface as part of the boiler demolition process, the paint shall be removed.

3.6 CLOSEOUT DOCUMENTS

- A. Submit final completed copies of the waste manifests or bills of lading signed by all transporters and the designated disposal site owner/operator.
- B. Submit copies of all Contractor's logs and all worker certifications.
- C. Submit copies of all OSHA personal air monitoring results.
- D. Final payment will be withheld until receipt of all the above documentation is to Owner's satisfaction.

END OF SECTION

(HAZARDOUS MATERIAL/UNIVERSAL WASTE ABATEMENT SCHEDULE FOLLOWS)

13283 HAZARDOUS MATERIALS UNIVERSAL WASTE ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Location	Waste Type	Container Type	Volume of Contents	Quantity	Comments
Building 1	Mercury	Fluorescent light tubes	-	120	Fluorescent light tubes range in length from 2' to 8'. Some are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes.
Building 1	PCB	Ballast	-	60	Some ballasts are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes. Assume all as PCB containing.
Building 2	Mercury	Fluorescent light tubes	-	140	Fluorescent light tubes range in length from 2' to 8'. Some are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes.
Building 2	PCB	Ballast	-	70	Some ballasts are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes. Assume all as PCB containing.
Building 3	Oil	Metal reservoir	10 Gal	1	Oil within 2'x1'x1' metal reservoir associated with electrical switch on north wall of the fourth floor. Assume greater than 50 PPM PCB containing and dispose of as such.
Building 3	Mercury	Fluorescent light tubes	-	150	Fluorescent light tubes range in length from 2' to 8'. Some are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes.
Building 3	PCB	Ballast	-	75	Some ballasts are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes. Assume all as PCB containing.
Building 4	Mercury	Fluorescent light tubes	-	100	Fluorescent light tubes range in length from 2' to 8'. Some are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes.
Building 4	PCB	Ballast	-	50	Some ballasts are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes. Assume all as PCB containing.
Building 5/5A/6/6A	Mercury	Fluorescent light tubes	-	120	Fluorescent light tubes range in length from 2' to 8'. Some are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes.
Building 5/5A/6/6A	PCB	Ballast	-	60	Some ballasts are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes. Assume all as PCB containing.
Building 5/5A/6/6A	Propane	20 lb. Metal tank	-	2	

13283 HAZARDOUS MATERIALS UNIVERSAL WASTE ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Location	Waste Type	Container Type	Volume of Contents	Quantity	Comments
Building 5/5A/6/6A	Oily water and sludge	55 Gal metal drum	80 Gals	2	Oily water and sludge within metal 55 gallon drums. Dispose of as oily water.
Building 5/5A/6/6A	Oils in Boiler systems	Piping of various diameter throughout boiler room	120 Gals	1	No. 4 oil remnant is present within the former oil lines servicing the three boilers being scheduled for demolition. Approx. 200 lineal feet of piping ranging from 1.5" to 4" in diameter or greater. Reclaim and dispose all oils, rinse piping. At cut limits, plug all oil piping that remains in place to prevent incidental oil leaks over time.
Building 5/5A/6/6A	Oily water/sludge	-	250 Gals	1	Oily water and sludge observed in concrete pit within boiler room area. Accumulate all oily water and sludge and dispose.
Building 5/5A/6/6A	Refrigerant	Air conditioner	-	1	
Building 5/5A/6/6A	Propane	40 lb. metal tank	-	1	
Building 5/5A/6/6A	Flammable gas (oxygen)	10 lb. tank	-	1	
Building 5/5A/6/6A	Cathode ray tube (CRT)	Computer monitors	-	3	
Building 5/5A/6/6A	Built-up ash	Interior of three brick boilers, and a portion of the breeching duct	2 CYD	1	Boilers and associated ductwork contain oil/coal ash. Remove the ash from these areas prior to asbestos abatement. Dispose of ash as a RCRA hazardous waste due to leachable metals.
Building 7	Mercury	Fluorescent light tubes	-	80	Fluorescent light tubes range in length from 2' to 8'. Some are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes.
Building 7	PCB	Ballast	-	40	Some ballasts are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes. Assume all as PCB containing.
Building 8	Mercury	Fluorescent light tubes	-	70	Fluorescent light tubes range in length from 2' to 8'. Some are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes.
Building 8	PCB	Ballast	-	35	Some ballasts are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes. Assume all as PCB containing.
Building 11	Mercury	Fluorescent light tubes	-	100	Fluorescent light tubes range in length from 2' to 8'. Some are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes.

13283 HAZARDOUS MATERIALS UNIVERSAL WASTE ABATEMENT SCHEDULE
Strathmore Mill Complex
Montague, MA

Location	Waste Type	Container Type	Volume of Contents	Quantity	Comments
Building 11	PCB	Ballast	-	50	Some ballasts are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes. Assume all as PCB containing.
Loading dock	Mercury	Fluorescent light tubes	-	40	Fluorescent light tubes range in length from 2' to 8'. Some are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes.
Loading dock	Oil	Metal reservoir	10 Gal	1	Oil within 2'x1'x1' metal reservoir. Assume oil is greater than 50 PPM PCB and dispose of as such.
Loading dock	PCB	Ballast	-	20	Some ballasts are damaged, most remain affixed within light housing. Investigate all rooms and hallways for the presence or absence of light tubes. Assume all as PCB containing.
Loading dock	CO2 / monoammonium phosphate / ammonium sulfate	Fire extinguisher	Full	2	
ALTERNATE 1 - STACK BASE ASH REMOVAL AND DISPOSAL					
Stack Base /Pedestal	Built-up ash	Inside stack base	8 CYD	1	The base of the boiler stack contain built-up oil/coal ash and commingled debris. Remove the ash/debris through the 30" x 30" access door prior to stack demolition. Comply with falling brick protecting requirements as described in 02220 - Demolition. Dispose of ash as a RCRA hazardous waste due to leachable metals.
LEGEND: PCB =POLYCHLORINATED BIPHENYL CYD =CUBIC YARD GAL = GALLON					

ATTACHMENT A

FIRST LIGHT TRAVEL WAY RESTRICTION REQUIREMENTS LETTER



Beth Bazler
Northfield Mountain
99 Millers Falls Road
Northfield, MA 01360

Ph: (413) 659-4515 Tue. – Sat.
Email: elizabeth.bazler@firstlightpower.com

May 29, 2019

Brian F. Day, Senior Environmental Scientist
Tighe & Bond
446 Main Street, Suite 13
Worcester, MA 01608

Dear Mr. Day:

FirstLight Hydro Generating Company is the owner of the Turners Falls power canal and a ten foot wide portion of Canal Road, ("**FirstLight Travel Way**"), as measured from the vertical waterline, adjacent to the canal, located in Montague, MA ("Town"). The Town is the current owner of the former Strathmore Mill Complex located on Canal Road. The Town endeavors to remove debris from the former site of Strathmore Complex by hauling truckloads of material over the **FirstLight Travel Way**. In order to maintain the integrity of power canal walls and penstocks below the **FirstLight Travel Way**, any contractor trucks that drive on Canal Road are subject to the following restrictions.

No vehicle having maximum wheel loading in excess of six thousand (6,000) pounds with minimum axle spacing of at least four and one-half feet (4.5') shall be permitted passage along the FirstLight Travel Way; and, if the canal is dewatered, (as determined by FirstLight, in its sole discretion), no vehicle having maximum wheel loading in excess of four thousand (4,000) pounds shall be permitted passage along the FirstLight Travel Way.

In addition, given the potential hazardous nature of the debris and the proximity to the canal, FirstLight requires that it be named on the contractor's insurance certificate in the following manner:

FirstLight Hydro Generating Company, FirstLight Power Resources Services, LLC
and their directors, officers, employees and affiliates
99 Millers Falls Road
Northfield, MA 01360

Thank you in advance for your attention to this matter; if you have any questions, please do not hesitate to contact me.

Sincerely,

Beth Bazler
Land Management Administrator

ATTACHMENT B
PHOTOGRAPHIC LOG

Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 1	Date: 6/19/18	Direction Taken: East
-------------------	---------------	-----------------------

Description: View of the main entrance to Canal Road.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 2	Date: 6/19/18	Direction Taken: East
-------------------	---------------	-----------------------

Description: View of Canal Road (ranging from approximately 11 to 15 feet wide) and the overhead utility bridge. It should be noted site access via Canal Road contains height, width, and weight restrictions.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 3	Date: 6/19/18	Direction Taken: West
-------------------	---------------	-----------------------

Description: View of the overhead utility/walkway bridge attached to Building #4. It should be noted site access via Canal Road contains height, width, and weight restrictions.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 4	Date: 6/19/18	Direction Taken: East
-------------------	---------------	-----------------------

Description: View of the Courtyard area.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 5	Date: 6/19/18	Direction Taken: East
-------------------	---------------	-----------------------

Description: Canal Road—Width restriction of 12’5”.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 6	Date: 6/19/18	Direction Taken: North
-------------------	---------------	------------------------

Description: Aerial view of stack and adjacent buildings requiring roof protection during stack dismantling.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 7	Date: 6/19/18	Direction Taken: North
Description: Aerial view of stack, courtyard and adjacent buildings requiring roof protection during stack dismantling.		



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 8	Date: 6/19/18	Direction Taken: North
-------------------	---------------	------------------------

Description: View of stack and adjacent buildings.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 9 Date: 2/22/2019 Direction Taken: West

Description: Building #3, 5th Floor.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 10	Date: 2/22/2019	Direction Taken: West
--------------------	-----------------	-----------------------

Description: Building #3, 3rd floor exiting conditions.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 11 Date: 2/22/2019 Direction Taken: South

Description: Building #5/5A, 1st floor entrance to the boiler room.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 12 Date: 2/22/2019 Direction Taken: West

Description: Building #5/5A, 1st floor—Boiler Room.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 13	Date: 2/22/2019	Direction Taken: South
--------------------	-----------------	------------------------

Description: Building #6, 5th floor.



Client: Town of Montague

Job Number: M-5003

Project: Strathmore Mill —Asbestos and Hazardous Materials Abatement & Stack Demolition

Photograph No.: 14 Date: 2/22/2019 Direction Taken: South

Description: Building #7, 4th floor. Typical TSI locations requiring abatement.



ATTACHMENT C
SITE DETAIL DRAWINGS

STRATHMORE MILL ASBESTOS AND HAZARDOUS MATERIALS ABATEMENT & STACK DEMOLITION

FEBRUARY, 2020

LIST OF DRAWINGS		
SHEET NO.	DRAWING NO.	DRAWING TITLE
1	G-001	COVER SHEET
2	G-000	GENERAL NOTES AND LEGEND
3	G-001	EXISTING CONDITIONS AND SITE PLAN
4	G-002	STACK DEMOLITION PLAN (ALT. 1)



LOCUS MAP
SCALE: 1" = 500'±

PREPARED BY:
Tighe&Bond
Engineers | Environmental Specialists
120 Front Street, 7th Floor
Worcester, MA 01608
(508) 754-2201

PREPARED FOR:
TOWN OF MONTAGUE



COMPLETE SET 4 SHEETS

Last Saved: 1/22/2020
Plotted On: Jan 22, 2020 - 12:59pm By: SansoneM
Tighe & Bond - J:\M5003 Montague\006 - Strathmore Site Wide Abatement\Drawings - Figures\AutoCAD\Sheet\M5003-006-G-000-GENR.dwg

GENERAL NOTES

- BUILDINGS SUBJECT TO VANDALISM AND WATER DAMAGE AND MAY BE STRUCTURALLY UNSOUND IN AREAS.
- THE BUILDING INTERIOR AND ABATEMENT AREAS ARE ACCESSIBLE VIA SEVERAL INTERIOR STAIRWELLS WHICH ARE NOT SHOWN. STAIRWELLS 1 & 3 PROVIDE ACCESS TO ALL LEVELS. CURRENTLY THE STAIRS ARE EXHIBITING DETERIORATION AND STRUCTURAL INTEGRITY IS UNKNOWN. ALL STAIRWELLS REQUIRE EVALUATION BY CONTRACTOR AS IT RELATES TO SAFE USE.
- DRAWINGS WERE DEVELOPED FROM RECORD DRAWINGS AND SITE OBSERVATIONS. ALL FEATURES SHOWN ARE APPROXIMATE.
- IF APPLICABLE, PROVIDE AND MAINTAIN PROPER SEDIMENT, CATCH BASIN AND SOIL EROSION CONTROL DEVICES AROUND ALL EXTERIOR CONSTRUCTION ACTIVITIES THROUGHOUT THE DURATION OF THE ENTIRE PROJECT.
- RESTORE AREAS DISTURBED BY CONSTRUCTION TO PRE-CONSTRUCTION CONDITIONS.
- STORE FUEL, OIL, OR OTHER HAZARDOUS MATERIALS IN A SECONDARY CONTAINER AND REMOVE FROM THE SITE TO A LOCKED INDOOR AREA WITH AN IMPERVIOUS FLOOR DURING NON-WORK HOURS.
- PROVIDE A SUPPLY OF ABSORBENT SPILL RESPONSE MATERIALS, SUCH AS BOOMS OR BLANKETS, AT THE SITE AT ALL TIMES TO CLEAN UP POTENTIAL SPILLS OF HAZARDOUS MATERIALS.
- IMMEDIATELY REPORT SPILLS OF OIL AND/OR HAZARDOUS MATERIALS (OHM) TO THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- THE TOWN WILL PROVIDE SNOW PLOW REMOVAL ALONG CANAL ROAD TO THE STAGING AREA AT THE EASTERN END OF THE COMPLEX. CONTRACTOR RESPONSIBLE FOR ALL OTHER SNOW/ICE REMOVAL NECESSARY.
- BE AWARE THAT THE COURTYARD AREA IS SUBJECT TO FALLING BRICKS FROM THE STACKS. CONTRACTOR SHALL EVALUATE THIS CONDITION AND PROTECT WORKERS ACCORDINGLY IF ACCESS TO COURTYARD IS NECESSARY.
- DISTURBANCE, ACCESS, OR USE OF ANY WATERWAYS IS PROHIBITED.
- DISTURBANCE, ACCESS, OR USE OF ANY VEGETATED AREAS IS PROHIBITED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE TOWN TO OBTAIN ANY NECESSARY PERMITS/POLICE DETAILS. CONTRACTOR SHALL BEAR THE COSTS ASSOCIATED WITH ANY NECESSARY PERMITS/POLICE DETAILS.
- ALL PUBLIC ROADS MUST REMAIN OPEN TO TRAFFIC THROUGHOUT CONSTRUCTION.
- CANAL ROAD IS THE ONLY ACCESS TO THE BUILDINGS AND VEHICLE/EQUIPMENT USE IS LIMITED BY WIDTH, HEIGHT AND WEIGHT RESTRICTIONS. THOSE RESTRICTIONS ARE IDENTIFIED IN THE SPECIFICATIONS AND BELOW.

ASBESTOS ABATEMENT NOTES

- REFER TO SPECIFICATION SECTION 13281 AND ABATEMENT SCHEDULE FOR COMPLETE DETAILS AND QUANTITIES TO BE REMOVED.
- ASBESTOS CONTAINING MATERIALS ARE NOT IDENTIFIED ON DRAWINGS.
- THERE ARE NO WATER OR ELECTRICAL SERVICES AVAILABLE THROUGHOUT THE SITE.

OIL/HAZARDOUS MATERIAL NOTES

- REFER TO SPECIFICATION SECTION 13283 FOR GENERAL IDENTIFICATION AND APPROXIMATE QUANTITIES OF HAZARDOUS MATERIALS TO BE REMOVED.

CANAL ROAD ACCESS RESTRICTIONS

- NO VEHICLE HAVING MAXIMUM WHEEL LOADING IN EXCESS OF SIX THOUSAND (6,000) POUNDS WITH MINIMUM AXLE SPACING OF AT LEAST FOUR AND ONE-HALF FEET (4.5') SHALL BE PERMITTED PASSAGE ALONG THE FIRSTLIGHT TRAVEL WAY; AND IF THE CANAL IS DEWATERED, (AS DETERMINED BY FIRSTLIGHT IN ITS SOLE DISCRETION), NO VEHICLE HAVING MAXIMUM WHEEL LOADING IN EXCESS OF FOUR THOUSAND (4,000) POUNDS SHALL BE PERMITTED PASSAGE ALONG THE FIRSTLIGHT TRAVEL WAY.

LEGEND

- BUILDING
- LIMIT OF WORK



SITE LOCATION AND REQUIRED TRUCK ACCESS
1" = 100'

Strathmore Mill
Asbestos and
Hazardous
Materials
Abatement
and Stack
Demolition

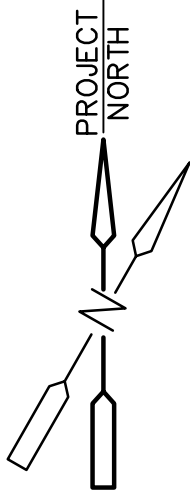
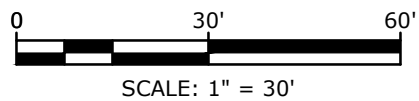
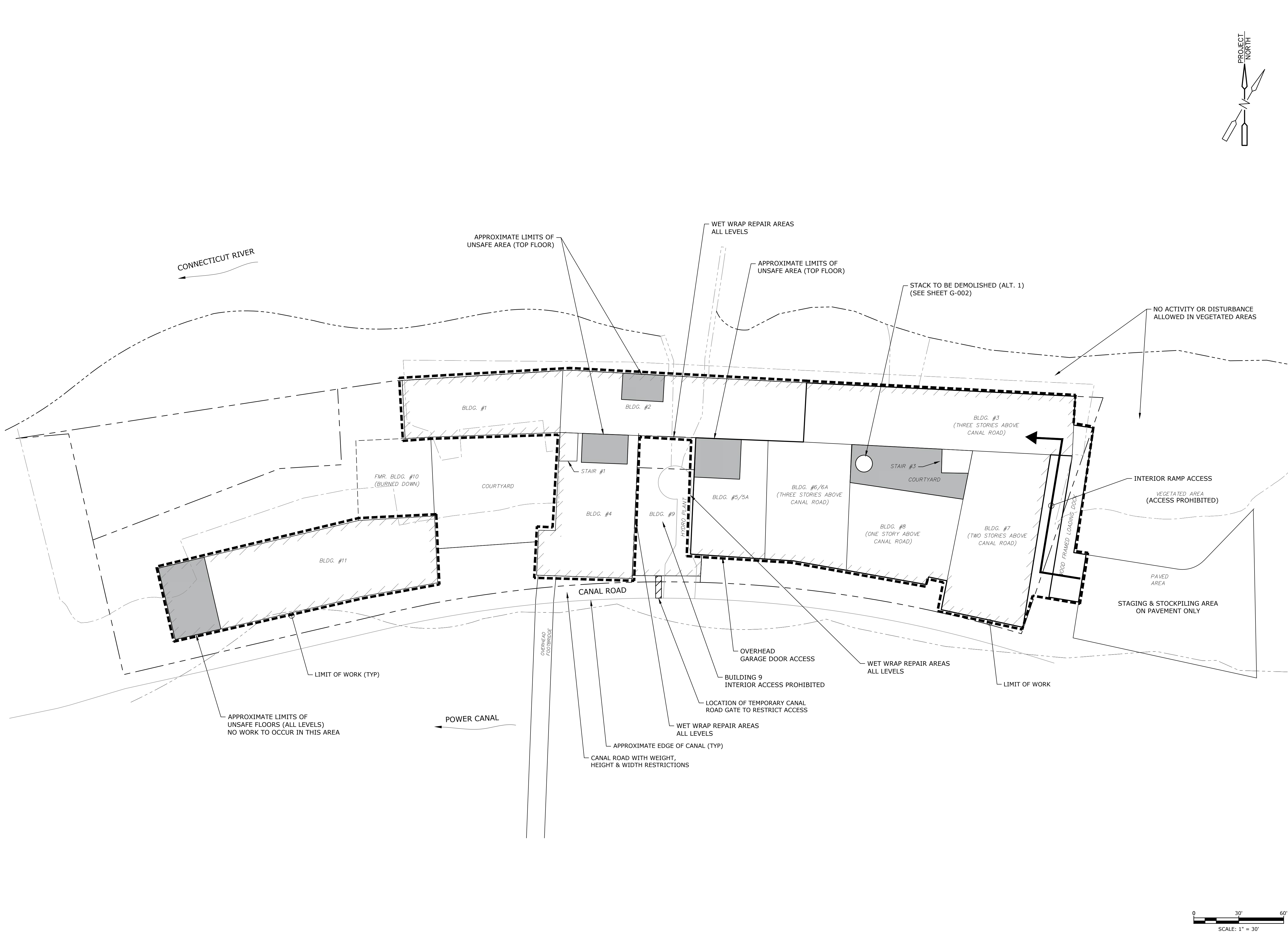
Town of Montague,
Planning and
Conservation Dept.

Turners Falls,
Massachusetts

MARK	DATE	DESCRIPTION
PROJECT NO:		M5003-002
DATE:		FEBRUARY 2020
FILE:		M5003-006-G-000-GENR.dwg
DRAWN BY:		MDS/JCB
CHECKED:		BFD
APPROVED:		MJR

GENERAL NOTES AND LEGEND	
SCALE:	NO SCALE
G-000	

Last Saved: 1/22/2020
Plotted On: Jan 22, 2020 - 12:59pm By: SansoneM
Tighe & Bond - J:\MM\5003 Montague\006 - Strathmore Site Wide Abatement\Drawings - Figures\AutoCAD\Sheet\5003-006 G-001-EXCN.dwg



**Strathmore Mill
Asbestos and
Hazardous
Materials
Abatement
and Stack
Demolition**

Town of Montague,
Planning and
Conservation Dept.

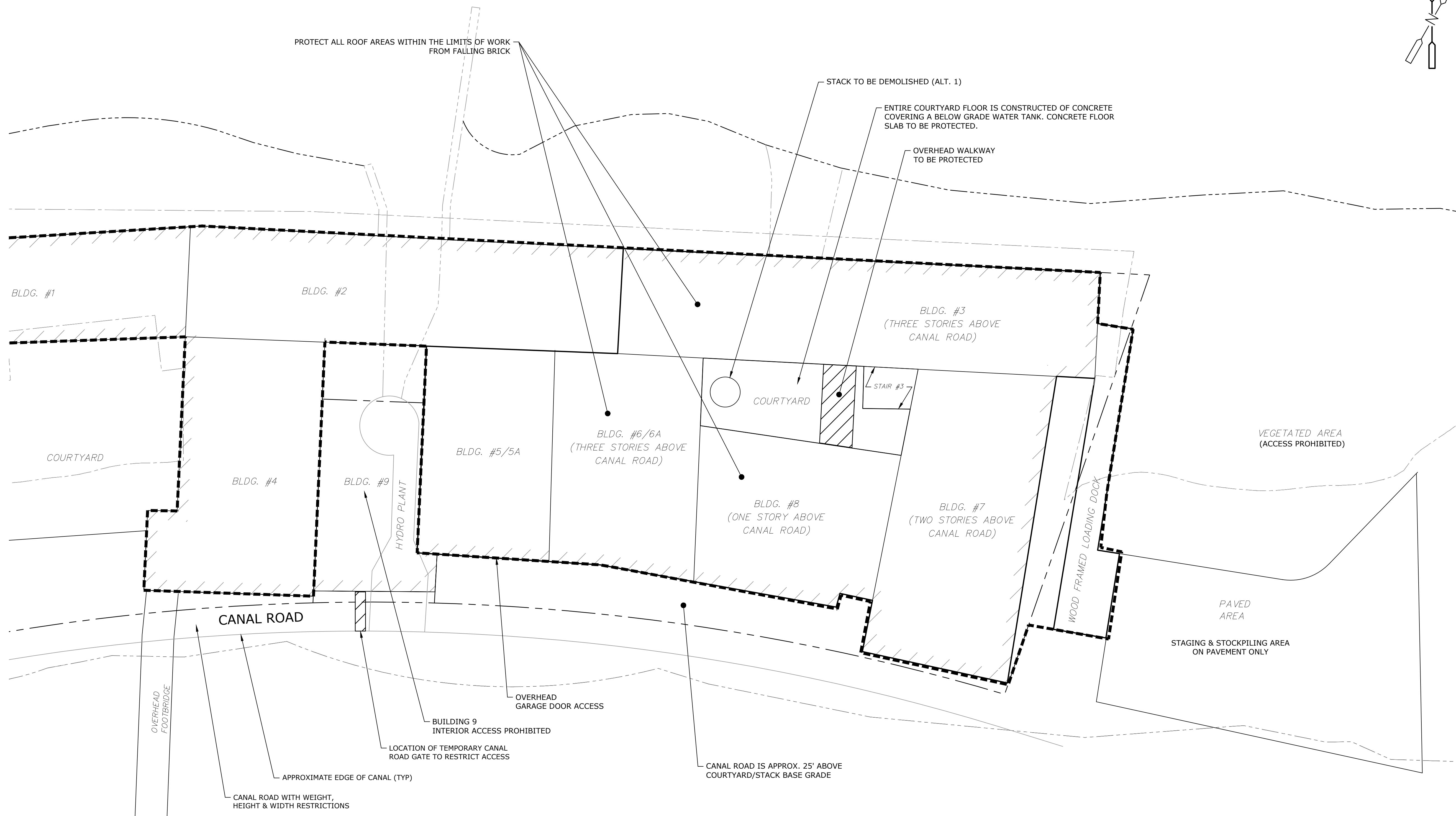
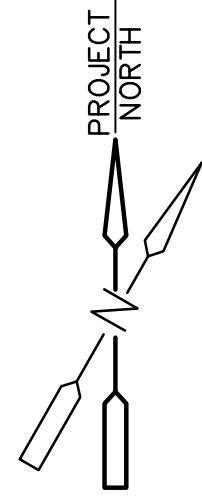
Turners Falls,
Massachusetts

MARK	DATE	DESCRIPTION
PROJECT NO:		M5003-002
DATE:		FEBRUARY 2020
FILE:		M5003-006-G-001-EXCN.dwg
DRAWN BY:		DWB/JCB/MDS
CHECKED:		TDG
APPROVED:		CSF

EXISTING CONDITIONS
AND SITE PLAN

SCALE: 1" = 30'

G-001



Strathmore Mill Asbestos and Hazardous Materials Abatement and Stack Demolition

Town of Montague,
Planning and
Conservation Dept.

Turners Falls,
Massachusetts

MAR	DATE	DESCRIPTION
PROJECT NO:		M5003-002
DATE:		FEBRUARY 2020
FILE:		M5003-006-G-002-SITE.dwg
DRAWN BY:		MDS
CHECKED:		BFD
APPROVED:		CSF

STACK DEMOLITION PLAN ALT. 1 & 2

SCALE: 1" = 20'

G-002

STACK DEMOLITION NOTES (ALTERNATE 1)

1. REFER TO SITE & ACCESS NOTES ON SHEET G-000 AND PROJECT SPECIFICATIONS FOR ADDITIONAL SITE INFORMATION & RESTRICTIONS.
2. COURTYARD FLOOR IS A CONCRETE TANK COVER. TANK CONTAINS WATER AND IS APPROXIMATELY 6' DEEP. PROTECT TANK COVER, PROHIBIT ANY PENETRATIONS.
3. REFER TO SECTION 02220-DEMOLITION, FOR STACK DIMENSIONS, DETAILS & SIZE.

