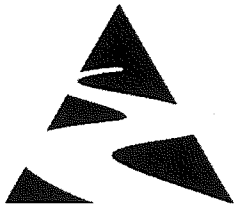
# City of Lowell, MA

# Water Meter Replacement and AMR System

# Bidding Documents For Construction

IFB#14-37




DWSRF 3811 Contract 3
City of Lowell, MA

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Andover, MA 01810
866-702-6371

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

February 2014

# SECTION 00007

## SEALS PAGE

The engineering material and data contained in these Contract Documents were prepared under the supervision and direction of the undersigned, whose seal as a registered professional engineer is affixed below.

Rachel Gilbert

Rachel Gilbert, P.E.
Project Manager
Woodard and Curran, Inc. (Engineer)

2/5/14
Date of Issue

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# SECTION 00010

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# DIVISION 00

# PROCUREMENT AND CONTRACTING REQUIREMENTS

# SECTION 00120

# INVITATION TO BID

The City of Lowell (Owner) invites Bidders to submit Bids for the Water Meter Replacement and AMR System Project 227251-Contract No. 3-DWSRF #3811 which includes, but is not limited to purchase, delivery and installation of 24,683 water meters ranging in size from 5/8-inch to 1-inch; purchasing and installing Meter Transmission Units (MTU) on all meters to be installed. The Work also includes performing a desktop and field verified propagation study to provide additional DCUs for the existing Fixed Network System to cover the entire distribution area, and all materials and equipment inherent to the Work.

Work associated with the propagation study and DCU installation shall be substantially complete within 90 days from the commencement of Contract Time. Work associated with the water meter and MTU installation shall be substantially complete within 1,170 calendar days from the commencement of Contract Time and completed and ready for final payment 1,260 calendar days from the commencement of Contract Time.

The Project being bid is subject to Massachusetts General Laws, Chapter 30, Section 39M and is to be funded in part by the Massachusetts Water Pollution Abatement Trust (the "Trust"); and requires compliance with the Massachusetts Department of Environmental Protection's (MassDEP) Diesel Retrofit Program.

Bids will be received until 12:00 PM local time on February 21, 2014 at the City of Lowell Purchasing Department, City Hall, 375 Merrimack Street, Lowell, MA 01852, Attention: Mr. P. Michael Vaughn, Chief Procurement Officer. Bids will then and there be publicly opened and read aloud. Bids received after the time of announced opening will not be accepted.

Sets of Bidding Documents may be examined at the following location(s) on or after February 5, 2014.

Issuing Office:
City of Lowell Purchasing Department
City Hall
375 Merrimack Street
Lowell, MA 01852
Attention: Mr. P. Michael Vaughn, Chief Procurement Officer

Sets of Bidding Documents may be obtained **in hardcopy from Issuing Office and in electronic format on the City of Lowell website**, on or after February 5, 2014. Bidding Documents are available by mail with a valid FedEx or UPS account number.

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 the incomplete sets of Bidding Documents or for modifications to the Bidding Documents including electronic conversion.

Bid security in the amount of 5 percent of the Bid must accompany the Bid in accordance with the Instructions to Bidders.

Minimum wage rates as determined by the Commissioner of Department of Workforce Development under the provisions of Massachusetts General Laws, Chapter 149, Sections 26 to 27D, as amended, apply to this Project. It is the responsibility of the Bidders, 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 the resulting Contract. Federal Minimum Wage Rates as determined by the United States Department of Labor under the Davis-Bacon Act also apply to this Project.

Disadvantaged Business Enterprise (DBE) goals are applicable to the total dollars paid under the resulting 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. **The two lowest responsive Bidders shall submit completed DBE forms (EEO-DEP-190 & EEO-DEP-191) by close of business on the third business day after Bid opening.** Failure to comply with these requirements may render a Bid non-responsive. No waiver of any provision of the D/MBE & D/WBE Requirements will be granted unless approved by the MassDEP.

Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be eligible or responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project or the public to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

**END OF SECTION**

# SECTION 00200
# INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACTS

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and

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ASSOCIATED GENERAL CONTRACTORS OF AMERICA

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## ARTICLE 1 – DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any). Additional terms used in these Instructions to Bidders have the meanings indicated below and as may be included in the Supplementary Instructions to Bidders:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered identified in the Invitation to Bid.

B. *Supplements* – Those portions of the Bidding Requirements to be submitted with and made a condition of a Bid including required submittals.

C. *Notice of Intent to Award* – The written notice to the Successful Bidder indicating, conditions precedent to receiving a Notice of Award and Agreement for execution.

## ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

2.01 Sets of Bidding Documents may be examined and obtained as stated in the Invitation to Bid.

2.02 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, Bidding Documents provided by third parties, or for modifications to the Bidding Documents not made by official Addenda, including electronic conversion.

2.03 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 authorize or confer a license for any other use.

## ARTICLE 3 – QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data requested in the Bidding Documents, and within the time frames stipulated upon Owner's request.

3.02 Bidders shall meet minimum criteria regarding experience and qualifications set forth in the General Requirements and the Specifications.



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## ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.01 *Subsurface and Physical Conditions*

A. Section 00805 of the Additional Supplementary Conditions identifies:

1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. Copies of reports and drawings referenced in Section 00805, if any, are included in the Bidding Documents as indicated in Section 00300. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the Standard General and Supplementary Conditions, has been identified and established in Section 00805.

C. 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.

4.02 *Underground Facilities*

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

4.03 *Hazardous Environmental Condition*

A. Section 00805 of the Additional Supplementary Conditions identifies any reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site.

B. Copies of reports and drawings referenced in Section 00805, if any, are included in the Bidding Documents as indicated in Section 00300. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the Standard General and Supplementary Conditions, has been identified and established in Section 00805.



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C. 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.

4.04 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 subsurface or physical conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the Standard General and Supplementary Conditions and Section 00805. 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 4.06 of the Standard General and Supplementary Conditions and Section 00805.

4.05 Upon request, Owner may provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall be responsible for obtaining permission and necessary permits and insurance for access to the Site. Bidder shall clean up and restore the Site to its former condition upon completion of any such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

4.06 Reference is made to Article 7 of the Standard General and Supplementary Conditions and Section 00805 for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of contract documents (other than portions thereof related to price) for such other work.

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

A. examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;

B. visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;



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D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in Section 00805, as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Section 00805, as containing reliable "technical data";

E. consider the information known to Bidder; 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, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;

F. agree at the time of submitting its Bid that 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(s) bid and within the times required, 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. correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;

I. 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; and

J. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding



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Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

## ARTICLE 5 – PRE-BID CONFERENCE

5.01 A pre bid conference will not be held.

## ARTICLE 6 – SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

## ARTICLE 7 – INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to the Owner in writing as follows. Submission of questions via email is acceptable.

City of Lowell Purchasing Department
City Hall
375 Merrimack Street
Lowell, MA 01852
Attention: Mr. P. Michael Vaughn, Chief Procurement Officer
Fax: 978-970-4114
Email: pmvaughn@lowellma.gov

7.02 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Owner as having received the Bidding Documents. Questions received less than 7 days prior to the date for opening of Bids will not be answered. Only answers in the Addenda will be binding. Oral statements, interpretations, and clarifications may not be relied upon and will not be binding or legally effective.

7.03 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer, will be available for examination at the Issuing Office and will be mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents.

## ARTICLE 8 – BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price and in the form of a certified check, treasurer's



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or cashier's check, or money order, or a Bid bond (on the form included in the Bidding Documents in Section 00431) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any).

8.02 The Bid security of the Successful Bidder will be retained until such Bidder has furnished the required contract security, met the conditions of the Notice of Intent to Award (if any) and Notice of Award, and executed the Agreement, whereupon the Bid security will be returned. If the Successful Bidder fails to comply with the conditions set forth in the Notice of Intent to Award (if any) and Notice of Award within the time specified therein, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Agreement or 91 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. See Supplementary Instructions to Bidders (if any) for additional information.

8.03 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within 5 days after the Bid opening.

## ARTICLE 9 – CONTRACT TIMES

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

## ARTICLE 10 – LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.



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## ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement.

## ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS AND OTHERS

12.01 The Bidding Documents may require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner with the Bid.

12.02 As required in the Bidding Documents, or within 5 days after Bid opening if requested by Owner, Bidder shall submit a listing and experience statement with pertinent information regarding similar projects and other evidence of qualification for each Subcontractor, Supplier, individual, or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute without an increase in the Bid.

12.03 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest responsible Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any).

12.04 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

## ARTICLE 13 – PREPARATION OF BID

13.01 The Bid Form and Supplements are included with the Bidding Documents.

13.02 Bids are to be submitted as indicated in the Bid Form. All blanks on the Bid Form shall be completed in ink or typewritten and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form.

13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The



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corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

13.04 A Bid by a partnership shall 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.

13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member 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.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venture in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

13.08 All names shall be printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

13.10 Postal and e-mail addresses and telephone numbers for communications regarding the Bid shall be shown.

13.11 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. See Supplementary Instructions to Bidders for additional requirements, if any.

13.12 Bidders are advised to carefully review those portions of the Bid Form and Supplements requiring Bidder's representations and certifications that are to be submitted with a Bid or subsequent to the Bid opening, and made a condition of the Bid.

## ARTICLE 14 – BASIS OF BID; COMPARISON OF BIDS

14.01 *Bid Pricing*

A. Bidders shall submit a Bid on a lump sum and unit price basis as provided for in the Bid Form. Bid prices shall be stated in both words and figures.



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B. The total of all prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price plus the lump sum amount. The final quantities for unit priced items and Contract Price will be determined in accordance with Paragraph 11.03 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any).

C. Discrepancies between prices written in words and prices written in figures will be resolved in favor of prices written in words. 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.

## ARTICLE 15 – SUBMITTAL OF BID

15.01 With each copy of the Bidding Documents, a Bidder is furnished a copy of the Bid Form, the Bid Security Form and Supplements. An original signed hard copy of the Bid Form, the original of the Bid security, Supplements (as listed in the Bid Submittal Checklist), and the Bid Submittal Checklist are to be completed and submitted.

15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Invitation to Bid and shall be enclosed in a plainly marked package with the Project title, the name and address of Bidder, and shall be accompanied by the Bid security 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 package plainly marked on the outside with the notation "BID ENCLOSED."

15.03 A Bid sent by mail or courier shall be addressed to Owner at **City of Lowell Purchasing Department, City Hall, 375 Merrimack Street, Lowell, MA 01852, Attention: Mr. P. Michael Vaughn, Chief Procurement Officer**.

15.04 Bidders shall be responsible to confirm the ability of overnight mailing or courier services to deliver to the Owner's offices.

## ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

16.01 A Bid may be modified or 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.

16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is re-Bid, that Bidder will be disqualified from submitting a Bid on the Work.



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## ARTICLE 17 – OPENING OF BIDS

17.01 Bids will be opened at the time and place indicated in the Invitation to Bid and, unless obviously non-responsive, read aloud publicly.

## ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 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 security prior to the end of this period.

## ARTICLE 19 – EVALUATION OF BIDS

19.01 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest 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 has an interest.

19.02 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, unit prices and other data as may be requested in the Bid Form or prior to the Notice of Award.

19.03 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities are submitted.

19.04 Owner may also consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.

19.06 Owner may conduct reference checks for the projects listed by the Bidder. Poor references may be a basis for deeming Bidder as not responsible. Reference questions will include, but are not limited to, product quality and durability, overall work quality, performance, timely delivery/completion, customer service, and general customer satisfaction.



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19.07 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible or eligible or does not meet the specified qualification or quality requirements ,based on poor references or otherwise. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project or public to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate Contract terms with the Successful Bidder.

19.08 Additional statutory requirements, if any, are included in the Supplementary Instructions to Bidders.

## ARTICLE 20 – AWARD OF CONTRACT

20.01 If the Contract is to be awarded, Owner may award the Contract to the responsive, responsible, and eligible Bidder, offering the lowest price for the Bid, and whose Bid is in the best interests of the Project or public.

## ARTICLE 21 – CONTRACT SECURITY AND INSURANCE

21.01 Article 5 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any); set forth Owner's requirements as to performance and payment bonds and insurance. The Successful Bidder shall deliver such bonds and evidence of insurance coverage within 10 days of receipt of the Notice of Award.

## ARTICLE 22 – SIGNING OF AGREEMENT

22.01 The Owner will issue a Notice Award to the Successful Bidder in the form included in Bidding Documents. Within 10 days of receipt of the Notice of Award, the Successful Bidder shall comply with the conditions precedent and provide requested information. Based on required reviews and approvals, Owner will thereafter provide the required number of counterparts of the Agreement and other Contract Documents which are identified in the Agreement. The Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and other Contract Documents to Owner within the time specified by the Owner. After obtaining required reviews and approvals for Contract execution, Owner shall return one fully signed counterpart the Agreement and other Contract Documents.

## ARTICLE 23 – RETAINAGE

23.01 Provisions concerning retainage are set forth in the Agreement.



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## ARTICLE 24 – EQUAL EMPLOYMENT OPPORTUNITY, ANTI-DISCRIMINATION, AND AFFIRMATIVE ACTION

24.01 Provisions regarding the requirements for equal employment opportunity, anti-discrimination, and affirmative action programs are set forth in Section 00815 the Additional Supplementary Conditions.

## ARTICLE 25 – CONTRACTOR'S WARRANTY AND GUARANTEES; CORRECTION PERIOD

25.01 Provisions concerning Contractor's general warranty and guarantees and correction period are set forth in Articles 6.19, 13.06, and 13.07 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any).

## ARTICLE 26 – SAFETY AND HEALTH REGULATIONS

26.01 This Project is subject to the Safety and Health Regulations of the U.S. Department of Labor set forth in Title 29 CFR, Part 1926 and to all subsequent amendments and other requirements identified in Section 00818 of the Additional Supplementary Conditions.

## ARTICLE 27 – SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

27.01 Supplementary Instructions to Bidders, if any, are included in Section 00210 and may include certain provisions required by Laws and Regulations and funding agencies. Bidders are solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.

**END OF SECTION**



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# SECTION 00210

# SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

The following supplement shall modify the Instructions to Bidders pursuant to Article 27 therein. This section does not represent or reflect all applicable Laws and Regulations and may only include excerpts, portions, and para-phrasing of certain Laws and Regulations. Bidders are solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.

## 1.01 Supplements and Modifications to the Instructions to Bidders

Add the following to Article 3 – Qualifications of Bidders.

3.03 The Owner may reject any Bid where Bidder's reference projects listed in Section 00451 have water meters with a demonstrated failure rate of 5 percent or greater during the first year of use. "Failure" shall be deemed to be any meter stoppage, failure to record, under-register, or over-register. In determining the failure rate of any meter, the City of Lowell may consider its own experience with specific meters in lieu of any reference supplied by the Bidder, or both.

Add the following to Article 4 – Examination of Bidding Documents, Other Related Data, and Site, Paragraph 4.05.

A. Bidder shall perform an initial propagation analysis to determine the quantity and locations of DCUs required to read 100% of the meters within the City boundaries.

Add the following to Article 14 – Basis of Bid; Comparison of Bids, Paragraph 14.01.A, Bid Pricing.

A. The quantity of DCUs included on the Bid Form as determined by Bidder from its initial propagation analysis, must be guaranteed. After award, additional DCUs needed for full deployment shall be provided at no additional cost to Owner.

## 1.02 Applicable Laws for Bid and Award; General

A. This Contract is being bid under the provisions of Massachusetts General Law (MGL) Chapter 30, Section 39M, *Contracts for construction and materials; manner of awarding.*

## 1.03 Additional Defined Terms

A. *Bid security* – Also "bid deposit" as used in MGL Chapter 30, Section 39M.

B. *Lowest Responsible and Eligible Bidder* – the Successful Bidder, whose Bid is the lowest of those Bidders possessing the skill, ability and integrity necessary for the faithful performance of the Work; who shall certify its ability to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work; who shall certify that all employees to be employed at the Work Site 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 (if awarded a Contract); and who obtains within 10 days of the Notice of Award, the bonds required by the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (consistent with the security by bond required under MGL Chapter 149 Section 29), provided that for the purposes of this Section the term "security by bond" shall mean the bond of a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Owner and if there is more than 1 surety company, the surety companies shall be jointly and severally liable, in accordance with the provisions of Chapter 30, Section 39M.

## 1.04 Other Requirements of the MGL Applicable to the Project

A. **Foreign Corporations**: The provisions of MGL Chapter 30, Section 39L, *Public construction work by foreign corporations; restrictions and reports,* apply to this Project. If a Bidder is a foreign corporation, it shall provide with its Bid, a certificate of the state secretary stating that the corporation has complied with requirements of Section 15.03 of subdivision A of Part 15 of MGL Chapter 156D and the date of compliance, and further has filed all annual reports required by Section 16.22 of subdivision B of Part 16 of said Chapter 156D, and further, will provide such certificate for each Subcontractor that is a foreign corporation if it receives a Notice of Award. See Section 00450 of the Bidding Requirements.

B. **Taxes**: Bidder shall submit with its Bid, a Certificate of Good Standing with respect to all returns due and taxes from the Commonwealth of Massachusetts Department of Revenue certifying Bidder has complied with all laws relating to taxes, reporting of employees and contractors, and withholding and remitting of child support. Bidder will provide such certificate for each Subcontractor if it receives a Notice of Award. See explanation at the end of this Section.

C. **Debarment:** Bidders shall not be debarred from bidding on or entering into a public contract in the Commonwealth of Massachusetts under the provisions of MGL Chapter 29, Section 29F, *Debarment from bidding; definitions; lists; notice; affiliates; mitigating circumstances*, or any other applicable debarment provisions of any other chapter of the MGL or any rule or regulations promulgated thereunder.

D. **Labor Preferences and Work Hours**

1. The provisions of MGL Chapter 149, Section 26, *Public works; preference to veterans and citizens; wages,* apply to this Project whereby employment in the construction of public works is subject to preference being given to citizens of the Commonwealth of Massachusetts, citizens of the town or city where the Project is located, veterans and service-disabled veterans, and citizens of the United States, and the provisions of MGL Chapter 149, Section 179A, *Preference to citizens in awarding public work contracts, violations,* apply to this Project whereby award of contracts for public work is subject to preference being given to persons who are citizens of the United States.

2. The provisions of MGL Chapter 149, Sections 26, 27, and 27A through 27D, as amended, covering minimum wage rates as determined by the Commissioner of Department of Workforce Development, apply to this Project. It is the responsibility of the Bidders, 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 the resulting Contract. See Additional Supplementary Conditions.

3. The provisions of MGL Chapter 149, Section 30, *Eight hour day and six day week; emergencies; work on highways,* and Section 34, *Public contracts; stipulation as to hours and days of work; void contracts,* apply to this Project which regulate work hours for public construction.

E. **Sales Tax Exemption:** MGL Chapter 64H, Section 6, *Exemptions*, subsection (f), exempts from Commonwealth of Massachusetts sales tax, building materials and supplies to be used in the Project, and Bidder shall not include any amount therefor. The words "building materials and supplies" shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge, or other such public work, as well as such materials and supplies physically incorporated therein. Said words shall also include rental charges for construction vehicles, equipment and machinery rented specifically for use on the Project Site, or while being used exclusively for the transportation of materials for the Project.

F. **Safety and Health:** This Project is subject to Massachusetts Department of Labor and Industries, Division of Occupational Safety 454 CMR 10.00 et seq. "*Construction Industry Rules and Regulations*"; Massachusetts Department of Public Safety 520 CMR 14.00 et seq. "*Excavation and Trench Safety*"; MGL Chapter 82, *The Laying Out, Alteration, Relocation and Discontinuance Of Public Ways and Specific Repairs Thereon;* MGL Chapter 82A, *Excavation and Trench Safety,* and MGL Chapter 149 Section 129A, *Shoring Trenches for local governments.*

G. **Special Licensing**

1. Work involving the removal, containment, or encapsulation of asbestos or material containing asbestos must be performed by a contractor licensed in accordance with MGL Chapter 149, Section 6B.

2. Sheet metal work must be performed by a contractor licensed in accordance with 271 CMR, *Rules and Regulations Governing Sheet Metal Workers,* governing licensing, permitting, and sheet metal work in Massachusetts.

## 1.05 Department of Environmental Protection, Division of Municipal Services (MassDEP), State Revolving Loan Fund Program (SRF) Provisions

A. The Project is to be funded in part by the Massachusetts Water Pollution Abatement Trust (the "Trust") and subject to the approval by the MassDEP.

B. This Project is subject to the requirements of the Department of Environmental Protection's Diesel Retrofit Program. Bidders must submit a signed and dated Statement of Intent to Comply form, included in Section 00458, as part of its Bid. See detailed requirements included in Section 00805.

C. Disadvantaged Business Enterprise (DBE) goals are applicable to the total dollars paid under the resulting 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. **The two lowest responsible and eligible Bidders shall submit completed DBE forms (EEO-DEP-190 & EEO-DEP-191) in accordance with Section 00457 by the close of business on the third business day after Bid opening**. Failure to comply with the requirements of this paragraph or the requirements in Section 00457 may be deemed to render a Bid non-responsive. No waiver of any provision of the D/MBE & D/WBE Requirements including those in Section 00838 will be granted unless approved by the MassDEP.

D. The lowest Responsive, Responsible, and Eligible Bidder will be required to submit a projected monthly cash flow schedule and Statement of Direct Labor Cost percentages per Section 00805 for MassDEP approval prior to issuance of a Notice of Award.

E. Bids shall reflect financial participation limitations of MassDEP DMS under the State Revolving Loan Fund Program including:

1. mobilization shall not exceed 5 percent of the total Contract Price; and

2. other certain items included in Section 01003.

F. Applicable provisions of the MGL and the Code of Massachusetts Regulations and/or the United States Code of Federal Regulations govern the Bidding Requirements and resulting Contract, and any provision in violation of the foregoing shall be deemed null, void and of no effect. Where conflicts between the Code of Federal Regulations and state Laws and Regulations exist, the more stringent requirement shall apply.

G. Federal minimum wage rates as determined by the United States Department of Labor under the Davis-Bacon Act also apply to this Project. See Additional Supplementary Conditions. In case of discrepancy between Federal and State wage rates, the higher wage rates shall apply.

H. Whenever it is written that an equipment manufacturer must have a specified period of experience with its product, equipment which does not meet the specified experience period can be considered if the equipment Supplier or manufacturer is willing to provide an "Efficiency Guarantee Bond" or cash deposit for the duration of the specified time period which will guarantee replacement of that equipment in the event of failure.

I. Bidders must fully comply with Subpart C of 2 CFR Part 180 and 2 CFR Part 1532, entitled "*Responsibilities of Participants Regarding Transactions (Doing Business with Other Persons)*" (copies of such regulations available at http://www.gpoaccess.gov/cfr/index.html). Contractors, Subcontractors, or Suppliers that appear on the Excluded Parties List System at www.epls.gov are not eligible for award of any contracts funded under the Massachusetts State Revolving Fund Program.

**END OF SECTION**

The Official Website of the Department of Revenue (DOR)

**Department of Revenue**

About DOR

Home Businesses Programs & Services Certificate of Good Standing

## Certificate of Good Standing

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Corporations and other organizations often need proof that they are in good standing with the Commonwealth, i.e., that all tax liabilities have been met in order to obtain financing, sell their business, renew licenses or enter into other business transactions.

The fastest and easiest way to obtain a Certificate is via our online application. Both taxpayers and authorized practitioners can use this program to obtain a Certificate within a few days. Before beginning this process, make sure that key authenticating data is readily available, including the entity's id number, a list of tax types filed with DOR and the dates when the entity was first required to collect and submit these taxes.

Once the applicant has been authenticated, a search will be made of our databases to identify any returns that need to be filed or bills that remain unpaid. Since this process takes up to 48 hours, users will be given an application number and asked to come back to the program in a couple of days. At that time, fully compliant taxpayers will be able to print a Certificate or request that it be mailed to the address of record. If bills are identified, an opportunity will be given to pay the amount owed via EFW. A Certificate will then be issued. Taxpayers with nonfiled Trustee tax returns (Sales, Meals, Withholding, Room Occupancy), can file and pay within the application and obtain their Certificate. Taxpayers with nonfiled Income and Corporate returns will be given instructions on how to file on paper and obtain a Certificate.

**Please note:**
Taxpayers responsible for certain taxes such as Alcoholic Beverage Excise, Cigarette Excise, Sales Tax on Boats, International Fuels Tax Agreement, Smokeless Tobacco or Ferry Embarkation will need to file a paper application. This form can be printed from this site. **Paper applications can take 4 to 6 weeks.**

Paper applications are also required in order to obtain a Waiver of Corporate Tax lien.

Dissolutions: Corporations have not been required to obtain a Certificate of Good Standing prior to a voluntary dissolution since March 1992.

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http://www.mass.gov/dor/businesses/programs-and-services/certificate-of-good-standing.

# SECTION 00300

# INFORMATION AVAILABLE TO BIDDERS

| INFORMATION | LOCATION OF INFORMATION |
|---|---|
| List of Available City Properties for DCUs and Existing DCU Locations | In this Section |

## END OF SECTION

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**List of Potential City Properties Available for Locating Collectors**
Water Meter Replacement and AMR System Contract 3 DWSRF Project 3811
**Locations where existing DCUs are presently installed are denoted with an asterisk***

| *ADDRESS* | *BLDG_NAME* | *TYPE* |
|---|---|---|
| 375 MERRIMACK ST | CITY - City Hall Core Router/Switch | City |
| 401 MERRIMACK ST | CITY - Pollard Memorial Library | City |
| 512 DOUGLAS RD | CITY - Cawley Stadium | City |
| 451 FIRST ST | CITY - Lowell Wastewater | City |
| 1365 MIDDLESEX ST | CITY - DPW | City |
| **815 PAWTUCKET BLVD*** | **CITY - Lowell Regional Water Utility (Clean Water)** | **City** |
| 190 PAWTUCKET BLVD | CITY - Sampas Pavilion | City |
| 0 SOUTH ST | CITY - South Common | City |
| 450 AIKEN ST. | CITY - LeLacheur Park | City |
| 25 SHATTUCK ST | CITY - Parks & Recreation Department | City |
| 18 JOHN ST | CITY - Career Center of Lowell (OET) | City |
| **191 MOUNT PLEASANT ST*** | **CITY-Tenth Street Storage Tank** | **City** |
| **16 CAMPBELL DRIVE*** | **CITY-Wedge Street Storage Tank** | **City** |
| **9 AEGEAN LANE*** | **CITY-Newbridge Booster Pumping Station** | **City** |
| 93 MAMMOTH RD | LFD - Fire Prevention | Fire |
| 99 MOODY ST | LFD - Fire HQ | Fire |
| **502 ROGERS ST*** | **LFD - Oakland Training Center** | **Fire** |
| 795 GORHAM ST | LFD - Engine #1 | Fire |
| 50 ARCAND DR | LPD - Police HQ | Police |
| 480 BRIDGE ST | LPD - Centralville Precinct | Police |
| 739 CENTRAL ST | LPD - Back Central Precinct | Police |
| 151 ANDOVER ST | LPD - Belvidere Precinct | Police |
| 116 UNIVERSITY AV | LPD - Pawtucketville Precinct | Police |
| 657 MIDDLESEX ST | LPD - Highland Precinct | Police |
| 900 CHELMSFORD ST | LPD - Training At Cross Point Business Center | Police |
| 210 STEDMAN ST | LPD - Special Investigations | Police |
| 175 CAMPBELL DR | SCHOOL - Bailey International Elementary School | School |
| 21 CARTER ST | SCHOOL - Cardinal O'Connell Alternative School | School |
| 149 ENNELL ST | SCHOOL - Greenhalge Elementary School | School |
| 235 POWELL ST | SCHOOL - Laura Lee Middle School | School |
| 58 SYCAMORE ST | SCHOOL - LeBlanc Elementary School | School |
| 300 CHELMSFORD ST | SCHOOL - Lincoln Elementary School | School |

| | | |
|---|---|---|
| 570 BEACON ST | SCHOOL - McAuliffe Elementary School | School |
| 117 MAMMOTH RD | SCHOOL - McAvinnue Elementary School | School |
| 158 ROGERS ST | SCHOOL - Moody Elementary School | School |
| 125 SMITH ST | SCHOOL - Molloy Alternative High School | School |
| 114 PINE ST | SCHOOL - Morey Elementary School | School |
| 350 ADAMS ST | SCHOOL - Murkland Elementary School | School |
| 425 W MEADOW RD | SCHOOL - Pawtucket Memorial Elementary School | School |
| 151 BOYLSTON ST | SCHOOL - Pyne Elementary School | School |
| 115 DOUGLAS RD | SCHOOL - Reilly Elementary School | School |
| 1158 GORHAM ST | SCHOOL - Shaughnessy Elementary School | School |
| 795 WILDER ST | SCHOOL - Washington Elementary School | School |
| 79 WANNALANCIT ST | SCHOOL - Bartlett Middle School | School |
| 150 FLEMING ST | SCHOOL - Daley Middle School | School |
| 110 JUNE ST | SCHOOL - Robinson Middle School | School |
| 43 HIGHLAND ST | SCHOOL - Rogers Middle School | School |
| 150 DRAPER ST | SCHOOL - Sullivan Middle School | School |
| 365 W MEADOW RD | SCHOOL - Wang Middle School | School |
| 408 MERRIMACK ST | SCHOOL - Green Adult Education School | School |
| 50 FR MORRISSETTE BLVD | SCHOOL - Lowell High School (Video Split to Dare) | School |
| 43 FRENCH ST | SCHOOL - McDonough Arts/City Magnet Elementary Scho | School |
| 1168 GORHAM ST | SCHOOL - Butler Middle School | School |
| 33 KEARNEY SQ | SCHOOL - Middlesex Community College | School |
| 250 PAWTUCKET BLVD (TYNG) | SCHOOL - Gr Lowell Vocational High School | School |
| 530 STEVENS ST | SCHOOL - Lowell Catholic High School | School |
| 155 MERRIMACK ST | SCHOOL - Administrative Offices | School |
| 186 RIVERSIDE ST | SCHOOL - UML North Campus | School |
| 560 BROADWAY ST | SCHOOL - Stoklosa Middle School | School |
| 26 PALMER ST | SCHOOL - Family Literacy Center (birdged to Admin) | School |

# SECTION 00401

# BID FORM

## ARTICLE 1 – DEFINED TERMS

1.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the Standard General and Supplementary Conditions, and the Additional Supplementary Conditions, if any.

## ARTICLE 2 – BID RECIPIENT

2.01 This Bid is submitted to:

**City of Lowell**
**c/o Purchasing Department**
**City Hall**
**375 Merrimack Street**
**Lowell, MA 01852**
**Attention: Mr. P. Michael Vaughn, Chief Procurement Officer**

2.02 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 3 – BIDDER'S ACKNOWLEDGEMENTS

3.01 Bidder accepts all of the terms and conditions of the Bidding Documents including, without limitation:

A. those dealing with disposition of Bid security;

B. those included in the Supplementary Instructions to Bidders;

C. insurance and bonding requirements (Payment Bond and Performance Bond each equal to 100% of the total Contract Price) set forth in the Standard General and Supplementary Conditions and Additional Supplementary Conditions, if any;

D. Contract Times as set forth in the Agreement; and

E. provisions for liquidated damages as set forth in the Agreement.

3.02 This Bid will remain subject to acceptance for 90 days after the Bid opening or for such longer period of time that Bidder may agree to in writing upon request of Owner.



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3.03 Bidder acknowledges receipt of the following Addenda.

| Addendum No. | Addendum Date |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

3.04 Bidder acknowledges the representations and certifications included in Section 00450 are made a condition of the Bid.

## ARTICLE 4 – BASIS OF BID

4.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s) based on unit prices below.

**BID PRICES SHALL EXCLUDE SALES AND USE TAX.**

| Item No. | Item Description with Unit Price in Written Words | Estimated Quantity & Unit | Unit Bid Price | | Total Bid Item Price | |
|---|---|---|---|---|---|---|
| | | | Dollars | Cents | Dollars | Cents |
| 1A | Provide 5/8 inch x 3/4 inch Cold Water Meter with Encoder Register<br>@ _____<br>_____<br>Dollars and _____/100 PER EACH | 20,628<br>EA | | | | |
| 1B | Provide 1 inch Cold Water Meter with Encoder Register<br>@ _____<br>_____<br>Dollars and _____/100 PER EACH | 4,055<br>EA | | | | |
| 1C | Provide Meter Nut Seal<br>@ _____<br>_____<br>Dollars and _____/100 PER EACH | 24,683<br>EA | | | | |
| 2 | Credit for Existing Meter Salvage Value 5/8 inch, 3/4 inch, | 24,683 | | | | |



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| Item No. | Item Description with Unit Price in Written Words | Estimated Quantity & Unit | Unit Bid Price | | Total Bid Item Price | |
|---|---|---|---|---|---|---|
| | | | Dollars | Cents | Dollars | Cents |
| | and 1 inch<br>@ _____<br>_____<br>Dollars and _____/100 PER EACH | EA | | | | |
| 3A | Provide Meter Transmission Unit<br>@ _____<br>_____<br>Dollars and _____/100 PER EACH | 24,663<br>EA | | | | |
| 3B | Provide Pit Meter Transmission Unit<br>@ _____<br>_____<br>Dollars and _____/100 PER EACH | 20<br>EA | | | | |
| 4 | Perform Propagation Study<br>@ _____<br>_____<br>Dollars and _____/100 LUMP SUM | 1<br>LS | | | | |
| 5 | Provide data collector units (DCUs)/antennas<br>@ _____<br>_____<br>Dollars and _____/100 PER EACH | **Guaranteed maximum quantity determined by Bidder**<br>_____<br>EA | | | | |
| 6 | Mobilization and Demobilization (maximum 5% of Total Bid Price EXCLUDING items 7 and 8)<br>@ _____<br>_____<br>Dollars and _____/100 LUMP SUM | 1<br>LS | | | | |



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| Item No. | Item Description with Unit Price in Written Words | Estimated Quantity & Unit | Unit Bid Price | | Total Bid Item Price | |
|---|---|---|---|---|---|---|
| | | | Dollars | Cents | Dollars | Cents |
| 7 | **Owner's Contingency** (per Paragraph 11.02 of the General Conditions): Additional computer hardware and software required for deployment of the DCUs and coordination with Owner's fixed network (exclude from Mobilization/Demobilization calculation)<br><br>@ Ten Thousand Dollars and 00/100 NOT TO EXCEED | 1<br>NTE | $ 10,000.00 | | $ 10,000.00 | |
| 8 | **Allowance** for Non-Standard Installations (exclude from Mobilization/Demobilization calculation)<br><br>@ Six Hundred Thousand Dollars and 00/100 LUMP SUM | 1<br>LS | $ 600,000.00 | | $ 600,000.00 | |

**TOTAL BID PRICE for all Work specified based on schedule above (Items 1A - 8)**

_____

_____

_____ Dollars and _____/100 $_____
*(Use words)* *(Use figures)*

4.02 **Bidder acknowledges that the estimated quantity of DCUs/antennas determined by the Bidder is guaranteed** and is not covered by the provisions in the Standard General and Supplementary Conditions and Additional Supplementary Conditions, for computation of quantities.

## ARTICLE 5 – TIME OF COMPLETION

5.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.07 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions, if any, on or before the dates or within the number of calendar days indicated in the Agreement.

5.02 Bidder accepts the provisions of the Agreement as to liquidated damages.



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## ARTICLE 6 – ATTACHMENTS TO THIS BID

6.01 The following documents are submitted with and made a condition of this Bid:

00431 Bid Security Form
OR
Required Bid security in the form of _____

Supplements:

00433 Bid Submittal Checklist

00432 Proposed Subcontractors Form

Items required by 00440 Information, Schedules and Data

00441 Proposed Suppliers Form

00450 Bidder's Representations and Certifications including required submittals

00451 Contractor's Qualifications

00452 Non-collusion Affidavit

00456 Statement of Intent to Comply with the Department of Environmental Protection's Diesel Retrofit Program



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## ARTICLE 7 – BID SUBMITTAL

7.01 This Bid is submitted by:

**A Corporation**

Corporation Name: _____

State of incorporation: _____

Type: _____
(*General Business, Professional, Service, other*)

By: _____
(*Signature – attach evidence of authority to sign*)

Name (*typed or printed*): _____

Title: _____

(CORPORATE SEAL)
Attest: _____
(*Signature of Corporate Secretary*)

Business Address: _____

_____

Phone & Facsimile Nos: _____

Email address: _____

Date of qualification to do business as out-of-state corporation: _____

**A Limited Liability Company (LLC)**

LLC Name: _____

State in which organized: _____

By: _____
(*Signature – attach evidence of authority to sign*)

Name (*typed or printed*): _____

Title: _____

Business Address: _____

_____

Phone & Facsimile Nos: _____



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Email address: _____

**A Joint Venture**

First Joint Venturer Name: _____

By: _____
(*Signature – attach evidence of authority to sign*)

Name (*typed or printed*): _____

Title: _____

Business Address: _____

_____

Phone & Facsimile Nos: _____

Email address: _____

Second Joint Venturer Name: _____

By: _____
(*Signature – attach evidence of authority to sign*)

Name (*typed or printed*): _____

Title: _____

Business Address: _____

_____

Phone & Facsimile Nos: _____

Email address: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, corporation and limited liability company that is a party to the joint venture should be in the manner indicated above.)



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**A Partnership**

Partnership Name: _____ (SEAL)

By: _____
(*Signature of general partner – attach evidence of authority to sign*)

Name (*typed or printed*): _____

Business Address: _____

_____

Phone & Facsimile Nos: _____

Email address: _____

**An Individual**

Name (*typed or printed*): _____

By: _____
(*Individual's signature*)

Doing business as: _____

Business Address: _____

_____

Phone & Facsimile Nos: _____

Email address: _____



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| |
|---|
| SUBMITTED ON: |
| EIN/FEIN: |

Communications concerning this Bid shall be addressed to:

Name: _____

Title: _____

Business Address: _____

_____

Phone & Facsimile Nos: _____

Email address: _____

**END OF SECTION**



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# SECTION 00431
# BID SECURITY FORM

**Based on EJCDC C-430 Bid Bond (Penal Sum Form) prepared by the Engineers Joint Contract Documents Committee**

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

---

BIDDER *(Name and Address)*:

SURETY *(Name and Address of Principal Place of Business)*:

OWNER *(Name and Address)*:

BID

Bid Due Date:

Description *(Project Name and Include Location)*:

BOND

Bond Number:

Date *(Not earlier than Bid due date)*:

Penal sum _____ $ _____

(Words) (Figures)

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

| **BIDDER** | **SURETY** |
|---|---|
| _____ (Seal) | _____ (Seal) |
| Bidder's Name and Corporate Seal | Surety's Name and Corporate Seal |
| By: _____ | By: _____ |
| Signature | Signature (Attach Power of Attorney) |
| _____ | _____ |
| Print Name | Print Name |
| _____ | _____ |
| Title | Title |
| Attest: _____ | Attest: _____ |
| Signature | Signature |
| _____ | _____ |
| Title | Title |

*Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.*

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

# SECTION 00432

## PROPOSED SUBCONTRACTORS FORM

The following Subcontractors, other persons and organizations are proposed to be employed to furnish portions of the Work. Attach additional sheets as necessary. **Coordinate with DBE requirements in Section 00210 and 00457.**

### CONSTRUCTION/INSTALLATION

| Name | Address | Type of Construction/ Area of Responsibility | % of Total Contract |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
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| | | | |

## DESIGN PROFESSIONALS

| Name | Address | Area of Responsibility | % of Total Contract |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## END OF SECTION

# SECTION 00433

## BID SUBMITTAL CHECKLIST

**Bidder confirms that the following documents are fully completed, included in and made part of its Bid.**

☐ 00401 Bid Form

☐ 00431 Bid Security Form
OR
☐ Required Bid security in the form of _____

Supplements

☐ 00432 Proposed Subcontractors Form

☐ Items required by 00440 Information, Schedules and Data

☐ 00441 Proposed Suppliers Form

☐ 00450 Bidder's Representations and Certifications including required submittals

☐ 00451 Contractor's Qualifications

☐ 00452 Non-collusion Affidavit

☐ If a foreign corporation, certificate from the Secretary of State of the Commonwealth of Massachusetts that the corporation has complied with requirements of section 15.03 of subdivision A of Part 15 of chapter 156D and the date of compliance, and further has filed all annual reports required by section 16.22 of subdivision B of Part 16 of said chapter 156

☐ Certificate of Good Standing with respect to all returns due and taxes from the Commonwealth of Massachusetts Department of Revenue

☐ 00458 Statement of Intent to Comply with the Department of Environmental Protection's Diesel Retrofit Program

☐ One hardcopy, signed original (with original Bid security) has been submitted to the Owner in accordance with Section 00200

**Bidder further confirms that if it is deemed one of the lowest responsible and eligible Bidders, as notified by the Owner, it shall submit documents required by and in accordance with Section 00457 by the close of business on the third business day after notification, and the documents submitted shall also be a condition of its Bid.**

| |
|---|
| CONFIRMED BY BIDDER ON: |
| By: |
| *Authorized person per Bid Form* |

**END OF SECTION**

# SECTION 00440

# INFORMATION, SCHEDULES AND DATA

## WORK PLAN

Submit a narrative work plan describing the Bidder's approach to the successful execution of the Work to accommodate the proposed Project Schedule. Allow for review of submittals, coordination, and development of detailed sequencing, and compliance with special requirements.

## PROJECT MANAGEMENT PLAN

Submit a Project Management Plan that describes:

- how schedule progress will be measured and tracked;
- how the Schedule of Values and cash flow will be determined and how progress for payment will be determined; and
- how documents will be controlled to assure that the appropriate revision is used in design, procurement, and construction/installation.

## TECHNICAL DATA

- Submit catalog/manufacturer information, product specifications and cut sheets for each proposed component.

## CONSUMABLES, SPARE PARTS AND SPECIAL TOOLS

Submit a complete list of recommended consumables, spare parts and special tools and pricing for the equipment to be furnished and installed by Contractor f.o.b. Site, exclusive of sales tax. The recommended consumables, spare parts and special tools listed may be purchased at Owner's option and are not included in the Bid Prices.

**END OF SECTION**

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# SECTION 00441

## PROPOSED SUPPLIERS FORM

The following Suppliers are proposed to furnish the identified products, material and equipment to be incorporated into the Work. Attach additional sheets as necessary. **Meter manufacturer must be identified and shall have manufactured meters for at least 20 years or must comply with requirements in Section 02501.**

| Name | Address | Product, Material, Equipment |
|---|---|---|
| | | |
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## END OF SECTION

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# SECTION 00450

# BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

**The undersigned, under the penalties of perjury, represents and certifies the following which is made a condition of the Bid.**

## 1.01 Bidder's Representations

A. Bidder has examined and carefully studied the Bidding Documents and other related data identified in the Bidding Documents.

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all 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 contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in Section 00805 of the Additional Supplementary Conditions Paragraph 4.02 as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Section 00805 of the Additional Supplementary Conditions Paragraph 4.06 as containing reliable "technical data."

E. Bidder has considered the information known to Bidder; 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, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.

F. Based on the information and observations referred to in Paragraph E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of the Bid for performance of the Work at the price(s) 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 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 of the Work for which the Bid is submitted.

## 1.02 Bidder's Certifications

A. The 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.

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid and has not solicited or induced any individual or entity to refrain from bidding.

C. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph:

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;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish Bid 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.

D. Bidder will comply with the requirements of the Equal Employment Opportunity, Anti-discrimination, and Affirmative Action Program provisions in the Contract Documents, and if Bidder is awarded a Contract, it shall incorporate these provisions into all subcontracts and Purchase Orders so that such provisions will be binding upon each Subcontractor or Supplier.

E. Bidder will comply with the requirements of the Safety and Health provisions in the Contract Documents, and if Bidder is awarded a Contract, it shall incorporate these provisions into all subcontracts and Purchase Orders so that such provisions will be binding upon each Subcontractor or Supplier.

## 1.03 Bidder's Certifications Required by Massachusetts General Law (MGL)

A. 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.

B. Bidder has submitted a certificate from the Secretary of State of the Commonwealth of Massachusetts that the corporation has complied with requirements of Section 15.03 of subdivision A of Part 15 of MGL Chapter 156D and the date of compliance, and further has filed all annual reports required by Section 16.22 of subdivision B of Part 16 of said Chapter 156D if Bidder is a foreign corporation. Bidder certifies it will provide such certificate for each Subcontractor that is a foreign corporation if it receives a Notice of Award.

C. Bidder has submitted a Certificate of Good Standing with respect to all returns due and taxes from the Commonwealth of Massachusetts Department of Revenue certifying Bidder has complied with all laws relating to taxes, reporting of employees and contractors, and withholding and remitting of child support. Bidder certifies it will provide such certificate for each Subcontractor if it receives a Notice of Award.

D. Bidder certifies that if awarded the Contract, any Work involving the removal, containment, or encapsulation of asbestos or material containing asbestos will only be performed by a licensed contractor in accordance with MGL Chapter 149, Section 6BA.

E. Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work and further certifies that all employees to be employed at the Work Site 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 if Bidder is awarded a Contract, shall furnish documentation of successful completion of said course with the first certified payroll report for each employee.

F. Bidder is not presently debarred from bidding on or entering into a public contract with the Commonwealth of Massachusetts under the provisions of MGL Chapter 29, Section 29F, or any other applicable debarment provisions of any other chapter of the MGL or any rule or regulations promulgated thereunder; and is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

G. Bidder will comply with the additional specific affirmative action requirements of the Equal Employment Opportunity/Affirmative Action provisions in the Contract Documents including compliance with the Disadvantaged Business Enterprise provisions in Section 00838, and if Bidder is awarded a Contract, it shall incorporate these provisions into all subcontracts and Purchase Orders so that such provisions will be binding upon each Subcontractor or Supplier.

H. Bidder certifies that if it is deemed one of the lowest responsible and eligible Bidders, as notified by the Owner, it shall submit documents required by and in accordance with Section 00457 by the close of business on the third business day after notification, and the documents submitted shall also be a condition of its Bid.

I. Bidder will comply with Subpart C of 2 CFR Part 180 and 2 CFR Part 1532, entitled "Responsibilities of Participants Regarding Transactions (Doing Business with Other Persons)" in accordance with the Supplementary Instructions to Bidders.

| |
|---|
| SUBMITTED ON: |
| By: |
| *Authorized person per Bid Form* |

**END OF SECTION**

# SECTION 00451

## CONTRACTOR'S QUALIFICATIONS

The following data, statements of experience, personnel, equipment and general qualifications of the Bidder are submitted as a part of the Bid and the Bidder represents and guarantees the truthfulness and accuracy thereof and **its ability to meet the qualifications requirements specified forth in the General Requirements**. Attach additional sheets as necessary properly cross referenced.

A. Bidder's organization is a _____ (entity type) and has been in business continuously from the year _____.

B. Bidder's organization has had experience in construction comparable to that required by the Contract Documents as a prime contractor for _____ years and as a subcontractor for _____ years.

C. Following is a list of **at least 3 projects** that the Bidder's organization has completed **for public utilities in the Commonwealth of Massachusetts within the last 5 years, each with a contract value of $1 million dollars or greater and a scope of work which includes the replacement of at least 3,000 water meters.** Projects shall be similar in type, character and magnitude to that required by the Contract. **Provide 4 public utility references that where same meter as that specified in the Bidding Documents, has been in use for at least 2 years.**

| Client/Owner Name/Address | Project Name/Location | CURRENT Contact Name, Phone, Email | Time Period |
|---|---|---|---|
| | | | |
| | | | |
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| Client/Owner Name/Address | Project Name/Location | CURRENT Contact Name, Phone, Email | Time Period |
|---|---|---|---|
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D. The following supervisory personnel are currently employed by the Bidder and available for assignment to the Project (project manager, superintendents, principal foremen and engineers).

| Name | Title | Years of Experience |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
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| | | |
| | | |

Attach detailed resumes of qualifications, previous employers and experience for each.

E. Following is a list of all projects Bidder has undertaken in the last 5 years which have resulted in partial or final settlement of the contract by arbitration or litigation.

| Name of Client and Project | Contact Name/ Telephone No. | Original Contract Amount | Total Claims | Arbitrated or Litigated Amount of Settlement of Claims |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

F. Following is a list of safety citations issued to the Bidder over the last 5 years.

| Name of Client and Project | Contact Name/ Telephone No. | Type of Citation | Issued by |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

G. Following is a list of labor disputes the Bidder has been the subject of, or otherwise been involved in, during the last 5 years. For these purposes, "labor disputes" shall include picketing or any other activity which disrupted or delayed the work. Attach additional sheets as necessary.

| | |
|---|---|
| **Name and Location of the Project** | |
| **Nature of the Dispute** | |
| **Duration and dates during which the dispute took place** | |
| **How the dispute was resolved** | |
| **Name and Location of the Project** | |
| **Nature of the Dispute** | |
| **Duration and dates during which the dispute took place** | |
| **How the dispute was resolved** | |

**END OF SECTION**

# SECTION 00452

## NON-COLLUSION AFFIDAVIT

_____, being duly sworn, depose and, under the penalty of perjury, say that the following is true:

1. I am the person responsible within my firm for the final decision as to the price(s) and amount of this Bid or, if not, that I have written authorization, enclosed herewith, from that person to make the statements set out below on his or her behalf and on the behalf of my firm.

2. The price(s) and amount of this Bid have been arrived at independently, without collusion, consultation, communication, or agreement for the purpose of restricting competition with any other contractor, competitor, Bidder, or potential Bidder.

3. Unless otherwise required by law, neither the price(s) nor the amount of this Bid have been disclosed to any other firm or person who is a Bidder, competitor, or potential Bidder on the Project, and will not be so disclosed either directly or indirectly prior to Bid opening.

4. No attempt has been made or will be made to solicit, cause, or induce any firm, partnership, corporation, or person to submit or not submit a Bid on this Project, or to submit a Bid higher than the Bid of this firm, or submit an intentionally high or noncompetitive Bid or other form of complementary Bid, or for the purpose of restricting competition.

5. The Bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary Bid.

6. My firm has not offered or entered into a subcontracting agreement regarding the purchase of materials or services from any firm or person, or offered, promised, or paid cash or anything of value to any firm or person, whether in connection with this or any other Project, in consideration for an agreement or promise by any firm or person to refrain from proposing or to submit a complementary Bid on the Project.

7. My firm has not accepted nor been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting a complementary Bid or agreeing to do so, on the Project.

8. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval, or submission of my firm's Bid on the Project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act, or other conduct inconsistent with any of the statements and representations made in this affidavit.

_____
Company Name

_____
Signature

_____
Company Position

Date: _____

Attest: _____

Date: _____

**END OF SECTION**

# SECTION 00457

# DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS

**The following is a condition of all Bids. The two lowest responsible and eligible Bidders shall submit the required information.** The terms used in this Section have the meanings stated in the Bidding Requirements and the Additional Supplementary Conditions. Referenced forms are included at the end of this Section.

## 1.01 REQUIREMENTS FOR CONTRACT AWARD

DBE packages must be submitted by the two lowest Bidders on the Project. Following Bid opening, the LGU (also "Owner") shall notify the two lowest Bidders to submit DBE packages to the LGU or the LGUs consultant (also "Engineer"), as directed. By the close of business on the third business day after notification, the two lowest Bidders, including a Bidder who is a MBE, WBE or DBE, shall submit the following information:

A. A Schedule of Participation (Form EEO-DEP-190). The Schedule of Participation shall list those certified DBEs the Bidder intends to use in fulfilling the contract obligations, the nature of the Work to be performed by each certified DBE Subcontractor and the total price they are to be paid.

1. A listing of bona-fide services such as a professional, technical, consultant or managerial services, assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for performance of the Contract, and reasonable fees or commissions charged.

2. A listing of haulers, truckers, or delivery services, not the contractors, including reasonable fees for delivery of said materials or supplies to be included on the Project.

B. A Letter of Intent (Form EEO-DEP-191) for each DBE the Bidder intends to use on the project. The Letter of Intent shall include, among other things, a reasonable description of the work the certified DBE is proposing to perform and the prices the certified DBE proposes to charge for the work. A Letter of Intent shall be jointly signed by the certified DBE and the General Contractor who proposes to use them in the performance of the Contract.

C. The SDO "DBE Certification" as prepared by each certified DBE.

D. A completed Request for Waiver form and backup documentation should the goals not be achieved (See 1.02 below).

## 1.02 REQUIREMENTS FOR MODIFICATION OR WAIVERS

The Bidder shall make every possible effort to meet the minimum requirements of certified DBE participation. If the percentage of DBE participation submitted by the Bidder on its Schedule of Participation (EEO-DEP-190) does not meet the minimum requirements, the bid may be rejected by the Awarding Authority (also "Owner") and found not to be eligible for award of the contract.

In the event that the Bidder is unable to meet the minimum requirements of DBE participation, the Bidder shall submit with his/her submittal required in Section III. Requirement of Contract Award a Request for Waiver form (EEO-DEP-490). The Awarding Authority shall review the waiver request to determine if the request should proceed. If approved by the Awarding Authority, the Awarding Authority shall submit the waiver request and supporting documentation, with a recommendation to MassDEP within five days of receipt of the Request for Waiver. MassDEP in conjunction with the project manager, Compliance Unit, will determine whether the waiver will be granted.

The waiver request shall include detailed information as specified below to establish that the Bidder has made a good faith effort to comply with the minimum requirements of DBE participation specified in the Supplementary Instructions to Bidders. In addition, the Bidder must show that such efforts were undertaken well in advance of the time set for opening of Bids to allow adequate response. A waiver request shall include the following:

A. A detailed record of the effort made to contact and negotiate with the certified DBE, including, but not limited to:

   1. names, addresses and telephone numbers of all such companies contacted;

   2. copies of written notices(s) which were sent to certified DBE potential subcontractors, prior to bid opening;

   3. a detailed statement as to why each subcontractor contacted (i) was not willing to do the job or (ii) was not qualified to perform the work as solicited; and

   4. in the case(s) where a negotiated price could not be reached the Bidder should detail what efforts were made to reach an agreement on a competitive price;

   5. copies of advertisements, dated not less than ten (10) days prior to bid opening, as appearing in general publications, trade-oriented publications, and applicable minority/ women-focused media detailing the opportunities for participation.

B. MassDEP may require the Bidder to produce such additional information as it deems appropriate.

C. No later than fifteen (15) days after MassDEP receives all required information and documentation, it shall make a decision in writing, whether the waiver is granted and shall provide that determination to the Bidder and Awarding Authority. If the waiver request is denied, the facts upon which a denial is based will be set forth in writing. If the waiver request is denied, the bid shall be rejected by the Awarding Authority, or the Contract will be determined ineligible for SRF funding.

**If a Request for Waiver is denied by MassDEP and the Bid is rejected by the Awarding Authority, the Awarding Authority may then move to the second Bidder on the project. At the Awarding Authority's discretion, it may collect a DBE package from the third lowest responsible and eligible Bidder on the Project.**

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DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF MUNICIPAL SERVICES

## SCHEDULE OF PARTICIPATION FOR SRF CONSTRUCTION

**Project Title:** _____ **Project Location:** _____

**Disadvantaged Minority Business Enterprise Participation in the SRF Loan Work**

| Name & Address of D/MBE | Nature of Participation | Dollar Value of Participation |
|---|---|---|
| 1. | | |
| 2. | | |
| 3. | | |
| | **Total D/MBE Commitment:** | $ |
| **Percentage D/MBE Participation** = (Total D/MBE Commitment) / (Bid Price) = | | % |

**Disadvantaged Women Business Enterprise Participation in the SRF Loan Work**

| Name & Address of D/WBE | Nature of Participation | Dollar Value of Participation |
|---|---|---|
| 1. | | |
| 2. | | |
| 3. | | |
| | **Total D/WBE Commitment:** | $ |
| **Percentage D/WBE Participation** = (Total D/WBE Commitment) / ( Bid Price) = | | % |

The Bidder agrees to furnish implementation reports as required by MassDEP to indicate the D/MBEs and D/WBE(s) which it has used or intends to use. Breach of this commitment constitutes a breach of the contract.

Name of Bidder: _____

Date: _____ By: _____
Signature

NOTE: Participation of a DBE may be counted in only their certified category; the same dollar participation cannot be used in computing the percentage of D/MBE participation and again of D/WBE participation.

June 2012 EEO-DEP-190C

## LETTER OF INTENT FOR SRF CONSTRUCTION

This form is to be completed by the D/MBE and D/WBE and must be submitted by the Bidder as part of the bid. A separate form must be completed for each D/MBE and D/WBE involved in the project.

Project Title: _____ Project Location: _____

**TO:** _____
(Name of Bidder)

**FROM:** _____
(Please Indicate Status [ ] D/MBE or [ ] D/WBE)

° I/we intend to perform work in connection with the above project as (check one):

[ ] An individual
[ ] A corporation
[ ] Other (explain): _____
[ ] A partnership
[ ] A joint venture with: _____

° It is understood that if you are awarded the contract, you intend to enter into an agreement to perform the activity described below for the prices indicated.

**DBE PARTICIPATION**

| Description of Activity | Date of Project Commencement | $ Amount | % Bid Price |
|---|---|---|---|
| | | $ | % |

° The undersigned certify that they will enter into a formal agreement upon execution of the contract for the above referenced project.

| **BIDDER** | **DBE** |
|---|---|
| (Authorized Original Signature) Date<br>ADDRESS: | (Authorized Original Signature) Date<br>ADDRESS: |
| TELEPHONE #: | TELEPHONE #: |
| FEIN: | FEIN: |

**ORIGINALS:**
- **° Compliance Mgr. City/Town Project Location**
- **° DEP Program Manager for DEP's AAO Director**

*** Attach a copy of current (within 2 years) DBE Certification**

June 2012 EEO-DEP-191C

## REQUEST FOR WAIVER FOR SRF CONSTRUCTION

Upon exhausting all known sources and making every possible effort to meet the minimum requirements for DBE participation, the Bidder may seek relief either partially or entirely from these requirements by submitting a completed waiver package by the close of business on the third business day after notification by the LGU. Failure to comply with this process shall be cause to reject the bid thereby rendering the Bidder not eligible for award of the contract.

General Information

Project Title: _____ Project Location: _____

Bid Opening (time/date) _____

Bidder: _____

Mailing Address: _____

Contact Person: _____ Telephone No. ( ) _____ Ext. _____

Minimum Requirements

The bidder must demonstrate that good faith efforts were undertaken to comply with the percentage goals as specified. The firm seeking relief must show that such efforts were taken appropriately in advance of the time set for opening bid proposals to allow adequate time for response(s) by submitting the following:

A. A detailed record of the effort made to contact and negotiate with disadvantaged minority and/or woman owned businesses, including:

1. names, addresses, telephone numbers and contact dates of all such companies contacted;

2. copies of written notice(s) which were sent to DBE potential subcontractors prior to bid opening;

3. a detailed statement as to why each subcontractor contacted (i) was not willing to do the job or (ii) was not qualified to perform the work as solicited; and

4. in the case(s) where a negotiated price could not be reached the bidder should detail what efforts were made to reach an agreement on a competitive price.

5. copies of advertisements, dated not less than ten (10) days prior to bid opening, as appearing in general publications, trade-oriented publications, and applicable minority/women-focused media detailing the opportunities for participation;

June 2012

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(Page 1)

B. MassDEP may require the bidder to produce such additional information as it deems appropriate.

C. No later than fifteen (15) days after submission of all required information and documentation, MassDEP shall make a determination, in writing, whether the waiver request is granted and shall provide that determination to the bidder and Awarding Authority. If the waiver request is denied, the facts upon which a denial is based will be set forth in writing.

CERTIFICATION

The undersigned herewith certifies that the above information and appropriate attachments are true and accurate to the best of my knowledge and that I have been authorized to act on behalf of the bidder in this matter.

_____ _____

(authorized original signature) DATE

June 2012 EEO-DEP-490C

# SECTION 00458
# STATEMENT OF INTENT TO COMPLY WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S DIESEL RETROFIT PROGRAM

DIESEL RETROFIT PROGRAM

## STATEMENT OF INTENT TO COMPLY

*This form must be signed and submitted by the bidder as part of the bid.*

Local Governmental Unit _____ SRF Project No. _____

Contract No. _____ Contact Title _____

Bidder _____

**The undersigned, on behalf of the above-named Bidder, agrees that, if awarded the Contract:**

1. **the Bidder shall comply with the Department of Environmental Protection's ("DEP") Diesel Retrofit Program by ensuring that all diesel powered non-road construction equipment and vehicles greater than 50 brake horsepower which will be used in the performance of the work under the Contract are equipped or retrofitted with a pollution control device in accordance with the Diesel Retrofit Program Standard;**

2. **the Bidder shall require all Subcontractors to comply with DEP's Diesel Retrofit Program by ensuring all diesel powered non-road construction equipment and vehicles greater than 50 brake horsepower which will be used in the performance of the work under the Contract are equipped or retrofitted with a pollution control device in accordance with the Diesel Retrofit Program Standard; and**

3. **The Bidder shall submit and shall require each Subcontractor to submit a Diesel Retrofit Program Contractor Certification (form attached) with a Diesel Retrofit List to DEP (NAME and ADDRESS) and the Bidder within 10 days of the bidder being notified that it has been awarded the Contract. The Bidder shall require each Subcontractor to update such Certification and List within 2 days of using additional Diesel Construction Equipment on the project under the Contract.**

_____
**(Signature of Bidder's Authorized Representative)** **(Date)**

DEP-DMS-P&S-21

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# SECTION 00505

## SAMPLE NOTICE OF INTENT TO AWARD

Date: _____

| | |
|---|---|
| Project: | |
| Owner: | Owner's Contract No.: |
| Contract: | Engineer's Project No.: |
| Bidder: | |
| Bidder's Address: | |

You are notified that your Bid dated _____ for the above Contract has been considered. You are the Successful Bidder and it is intended that a Contract for _____ be awarded to you subject to required reviews and approvals, and submission of the following required by Mass DEP SRF Program prior to Notice of Award per Section 00210:

- Diesel Retrofit Program Contractor Certification
- Projected monthly cash flow schedule
- Statement of Direct Labor Cost percentage(s)

Subject to the above, a formal Notice of Award will be sent which will require you to comply with certain conditions within 10 days of the date you receive the Notice of Award, including, but not limited to the following.

1. Delivering the Contract security (Bonds) as specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions (Articles 2 and 5);
2. Delivering the insurance certificates indicating coverages as specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions (Articles 2 and 5);
3. Delivering the following completed and executed certifications and documents:
    a. Pursuant to MGL Chapter 30, Section 39R *Definitions; contract provisions; management and financial statements; enforcement:*
        - A statement by management on internal accounting controls (sample attached);
        - A statement prepared by an independent certified public accountant (sample attached); and
        - An audited financial statement for the most recent completed fiscal year.



Based on EJCDC C-510 Notice of Award
Prepared by the Engineers Joint Contract Documents Committee and endorsed by the Construction Specifications Institute.

b. From each Subcontractor:

- Certificate of Good Standing from the Department of Revenue with respect to all returns due and taxes per Section 00210
- Certification from the Secretary of State for foreign corporations per Section 00210
- Diesel Retrofit Program Contractor Certification per Section 00210

4. Other conditions precedent:

**LIST OTHERS IF ANY**

After you comply with the conditions of the Notice of Award and required reviews and approvals are obtained, Owner will thereafter deliver the conformed Contract Documents for execution.

_____
Owner

By:_____
Authorized Signature

_____
Title

Copy to Engineer



Based on EJCDC C-510 Notice of Award
Prepared by the Engineers Joint Contract Documents Committee and endorsed by the Construction Specifications Institute.

# SECTION 00510

## SAMPLE NOTICE OF AWARD

Date: _____

| | |
|---|---|
| Project: | |
| Owner: | Owner's Contract No.: |
| Contract: | Engineer's Project No.: |
| Bidder: | |
| Bidder's Address: *[send Notice of Award Certified Mail, Return Receipt Requested]* | |

You are notified that your Bid dated [_____] for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for *[Indicate total Work, alternates, or sections of Work awarded]* subject to the following conditions being met and subject to required reviews and approvals.

The Contract Price of your Contract is _____ Dollars ($_____).

*[Insert appropriate data if unit prices are used. Change language for cost-plus contracts.]*

You must comply with the following conditions precedent **within 10 days** of the date you receive this Notice of Award.

1. You must have been submitted the following prior to issuance of this Notice of Award in compliance with MassDEP SRF Program requirements per Section 00210:
    - Diesel Retrofit Program Contractor Certification
    - Projected monthly cash flow schedule
    - Statement of Direct Labor Cost percentage(s)
2. Deliver the Contract security (Bonds) as specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions (Articles 2 and 5).
3. Deliver the insurance certificates indicating coverages as specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions (Articles 2 and 5).
4. Deliver the following completed and executed certifications and documents.
    a. Pursuant to MGL Chapter 30, Section 39R *Definitions; contract provisions; management and financial statements; enforcement* per Section 00200:



Based on EJCDC C-510 Notice of Award
Prepared by the Engineers Joint Contract Documents Committee and endorsed by the Construction Specifications Institute.

- A statement by management on internal accounting controls (sample attached);
- A statement prepared by an independent certified public accountant (sample attached); and
- An audited financial statement for the most recent completed fiscal year.

b. From each Subcontractor per Section 00210:

- Certificate of Good Standing from the Department of Revenue with respect to all returns due and taxes
- Certification from the Secretary of State for foreign corporations
- Diesel Retrofit Program Contractor Certification

5. Other conditions precedent:

**LIST OTHERS IF ANY**

Failure to comply with the above conditions within the time specified will entitle the Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

After confirming that you have complied with the above conditions *and required approvals are obtained,* Owner will deliver the conformed Contract Documents for execution.

_____
Owner

By:_____
Authorized Signature

_____
Title

Copy to Engineer



Based on EJCDC C-510 Notice of Award
Prepared by the Engineers Joint Contract Documents Committee and endorsed by the Construction Specifications Institute.

# SECTION 00520

## AGREEMENT FORM

THIS AGREEMENT made and entered into this _____ day of 2014, by and between [INSERT CONTRACTOR NAME], a [INSERT CO TYPE], duly organized by law and having a usual place of business at [INSERT ADDRESS], hereinafter called "CONTRACTOR", and the CITY OF LOWELL, a municipal corporation duly established by law and located in the County of Middlesex and said Commonwealth, acting by and through its Executive Director of Lowell Regional Water Utility, hereinafter called "CITY" (and defined as "OWNER"), WITNESSETH: That

WHEREAS, the CITY issued its Notice to Contractors for certain Water System Improvements for the Lowell Regional Water Utility in the City of Lowell; and

WHEREAS, the CONTRACTOR did bid and offer to do all the Work and furnish all the labor, materials, equipment, tools, appliances, etc. necessary for **Installation Water Meters and Meter Transmission Units Project 227251-Contract No. 3-DWSRF #3811** in the City of Lowell; and

WHEREAS, the CITY has accepted the CONTRACTOR'S Bid, subject to the conditions and agreements herein contained;

NOW, THEREFORE, in consideration of the mutual agreements of the parties hereinafter set forth, and the price to be paid by the CITY to the CONTRACTOR for the Work to be done under this Agreement, the parties agree as follows:

**-1-**

The CONTRACTOR agrees that it will do all the Work and furnish all the labor, materials, equipment, tools, appliances, etc. necessary, for the Installation Water Meters and Meter Transmission Units in the City of Lowell, under Project 227251-Contract No. 3-DWSRF #3811, during the period commencing upon issuance of a "Notice to Proceed" issued by the Executive Director of Lowell Regional Water Utility in strict accordance with the Contract Documents.

The CONTRACTOR agrees the Work shall be **substantially complete within 1,170 calendar days** from the commencement of Contract Time and completed and ready for final payment within **1,260 calendar days** from the commencement of Contract Time in accordance with Paragraph 14.07 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any.

The CONTRACTOR and CITY recognize time is of the essence and CITY will suffer financial loss if the Work is not completed within the times specified above, plus any extensions thereof allowed in accordance with Article 12 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by CITY if the Work is not completed on time. Accordingly, instead of requiring any such proof, CITY and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay CITY the sum of **$[AMOUNT]** per day for each and every calendar day that expires after the time specified above for Substantial Completion until Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof

granted by CITY, CONTRACTOR shall pay CITY **$[AMOUNT]** per day for each and every calendar day that expires after the time specified in above for completion and readiness for final payment until the Work is completed and ready for final payment.

-2-

The Contract Documents consist of the following, which are attached to this Agreement and made a part hereof: items listed in Section 00540, forms listed in Section 00605, Standard General Conditions and Supplementary Conditions in Section 00720, Additional Supplementary Conditions listed in Section 00801, General Requirements, Specifications and Drawings as listed in the table of contents, and Notice to Proceed, Work Change Directives, and Change Orders which may be issued on or after the Effective Date of the Agreement and are not attached. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any.

-3-

Total payments under this Agreement shall not exceed [IN WORDS] Dollars and [# OF CENTS] CENTS ($_____). This Agreement shall be subject to annual appropriation.

-4-

The Work to be done under this Agreement, including the furnishing of materials, equipment, tools, appliances, etc. necessary in connection therewith must, in all respects, notwithstanding any provision herein to the contrary or inconsistent therewith, meet with the requirements of the Contract Documents and the approval of the said Executive Director of Lowell Regional Water Utility and the Massachusetts Department of Environmental Protection ("MassDEP") Division of Municipal Services ("DMS") under the State Revolving Loan Fund Program.

-5-

The CITY, in consideration of the above Agreements on the part of the CONTRACTOR to be performed, agrees to pay to the CONTRACTOR the price set forth in Paragraph No. 3 above for all Work performed and materials, equipment, tools, appliances, etc. furnished in accordance with the Contract Documents. Payment shall be made on the twentieth day of the month for all Work performed and materials, equipment, tools, appliances, etc. furnished as Applications for Payment are filed in the Office of the Executive Director of Lowell Regional Water Utility on or before the first day of the month in which payment is to be made. Any payment under this Agreement shall not constitute or be deemed a waiver, relinquishment, release or abandonment of any claim which the CITY may have against the CONTRACTOR for breach of this Agreement.

-6-

The said CONTRACTOR agrees that before commencing any Work to be done under this Agreement, it shall provide, at its own cost and expense, insurance as specified in the Standard General and Supplementary Conditions, and Additional Supplementary Conditions and for the payment of compensation and the furnishing of other benefits under the provisions of the Massachusetts General Laws Chapter 152, and amendments thereto, to cover all employees to be

employed by the CONTRACTOR in connection with the Work to be done under this Agreement; and the said CONTRACTOR agrees that it shall continue in force and effect said policy of insurance during the period covered by this Agreement. Failure to provide and continue in force, said insurance shall be deemed a material breach of this Agreement and shall operate, without notice of any kind to the said CONTRACTOR, as an immediate termination of this Agreement. In the event that the CITY should be obliged or required to pay compensation or furnish benefits to any of the said CONTRACTOR'S employees, in accordance with the provisions of General Laws, Chapter 152, and amendments thereto, the said CONTRACTOR agrees that it will reimburse and indemnify the said CITY from any payments it may be obliged or required to make under the provisions of General Laws, Chapter 152, and amendments thereto.

-7-

The CONTRACTOR agrees to comply with all the provisions of General Laws, Chapter 149, Sections 26, 27 and 27A through 27H, and all related sections, including amendments thereto, in performing all Work under this Agreement, and the provisions of said sections are made a part of this Agreement and are to be considered as covenants, terms and conditions hereof as though all the provisions were specifically incorporated herein. The said CONTRACTOR agrees to pay the minimum wage rates as determined by the Commissioner of the Department of Labor Standards and federal minimum wage rates included in in Section 00813, and comply with the requirements set forth in Section 00814. CONTRACTOR further agrees that, in the event that there are to be employees of additional classifications other than those specifically stated therein to be engaged in the Work to be performed under this Agreement, to submit a list of the additional classifications of those to be employed to the said Executive Director of Lowell Regional Water Utility, and the said CONTRACTOR agrees that it will pay the additional minimum wage rates as determined by the said Commissioner of the Department of Labor Standards under the provisions of General Laws, Chapter 149, Section 27, and the amendments thereto and additional federal minimum wage rates.

-8-

No laborer, Workman or mechanic, Working within the Commonwealth, in the employ of the CONTRACTOR, or any Subcontractor authorized under this Agreement shall, in connection with the Work to be done under this Agreement, be required or requested to Work more than 8 hours in any 1 calendar day, or more than 48 hours in any 1 week, except in cases of extraordinary emergency, unless otherwise provided by Laws and Regulations.

-9-

It is further agreed by the CONTRACTOR that, in the event the CITY is sued in a court of law or equity, or demand is made upon the CITY for payment of any damages arising out of the CONTRACTOR'S performance or non-performance of this Contract, then the CONTRACTOR, without reservation, shall indemnify and hold harmless the CITY against any and all claims arising out of the CONTRACTOR'S performance or non-performance of the Agreement.

-10-

This Contract shall not be in force until the CONTRACTOR has executed and delivered to the CITY and until the CITY has accepted a Performance Bond in the amount of one hundred per cent (100%) of the Contract price and a Payment Bond in the amount one hundred percent (100%) of the Contract price. The Performance Bond and Payment Bond shall be secured by

and paid for by the CONTRACTOR and shall be issued by a Surety Company in accordance with the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, satisfactory to the Executive Director of Lowell Regional Water Utility, and in compliance with the Contract Documents.

**-11-**

This Contract is subject to all Laws and Regulations of the Commonwealth of Massachusetts, federal, state and local, which are applicable to this Contract, and it is presumed that the CONTRACTOR is cognizant thereof.

**-12-**

The CONTRACTOR shall give its personal attention constantly to the faithful performance of the Work and shall keep the same under its personal control and shall not assign nor sublet the Work or any part thereof without the previous written consent of the CITY and shall not, either legally or equitably, assign any of the monies payable under this Agreement or its claim thereto unless by and with the written consent of the CITY.

**-13-**

The CONTRACTOR agrees that its attention has been called to the provisions of the "Reserve System" Ordinance of the City of Lowell, which is now incorporated in the "The Code of Ordinances City of Lowell, Massachusetts", passed by the City Council on April 26, 1988 and amendments thereto and that each purchase order, so-called, issued in accordance with Section 7-76 of said Code to cover the services to be rendered under this Agreement shall be made a part hereof by reference. It is further agreed that no obligation shall be considered to have incurred under this Agreement unless and until a purchase order shall have been duly issued and approved.

And further, that the obligation incurred shall be limited to the amount set forth in purchase order or purchase orders duly issued and approved.

**-14-**

It is further agreed that the CITY may terminate this Agreement at any time, with or without cause, upon thirty (30) days' written notice to the CONTRACTOR, sent by certified mail, to the usual place of business of the CONTRACTOR.

**-15-**

The CONTRACTOR certifies under penalties of perjury that its Bid was made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity, or group of individuals.

**-16-**

The CONTRACTOR certifies that any and all taxes and municipal fees due and owing to the City of Lowell have been paid in full.

-17-

It is understood and agreed by the CITY and the CONTRACTOR that pursuant to the Code of the City of Lowell, Chapter 28, Article V, a Contract Performance Record Form must be completed on this Contract by the Department Head or his/her designee, who is supervising this Contract, and such Contract Performance Record Form must be submitted to the City Manager, City Auditor, and Purchasing Agent prior to release of final payment under this Contract. If requested by the CONTRACTOR a copy of the Contract Performance Record Form shall be furnished to the CONTRACTOR.

-18-

The CONTRACTOR agrees that it will be responsible for any damage, as determined by the Commissioner of Public Works, caused by the CONTRACTOR, its Subcontractors, agents, servants, employees or any independent contractor hired by the CONTRACTOR to perform any of the Work under this Contract, to the streets, ways, sidewalks, and vegetation or any other property of the CITY as a result of, or in conjunction with, the Work performed under this Contract, whether caused by actual Work or by the use of any equipment in connection with said Work. The CONTRACTOR agrees that, upon notice of such damage by the CITY, the CONTRACTOR shall repair (or replaced if required) to the satisfaction of the CITY, said streets, ways, sidewalks, and vegetation or any other property of the CITY, to which such damage has been caused prior to the completion of this Contract.

-19-

The CONTRACTOR agrees to comply with "Special Provisions for Disadvantaged Business Enterprises" of the Massachusetts Department of Environmental Protection Division of Municipal Services, June 2012 as set forth in Section 00838.

-20-

The CONTRACTOR shall not discriminate against or exclude any person from participation herein on grounds of race, religion, color, sex, age, or national origin; and that it shall take affirmative actions to insure that applicants are employed, and that employees are treated during their employment, without regard to race, religion, color, sex, age, handicapped status, or national origin.

-21-

The CONTRACTOR shall not participate in or cooperate with an international boycott, as defined in Section 999 (b)(3) and (4) of the Internal Revenue code 1986, as amended, or engage in conduct declared to be unlawful by Section 2 of Chapter 151 E of the Massachusetts General Laws.

-22-

As per MassDEP's Policy Memorandum #10, the agreed upon DIRECT LABOR MARKUP (percentage) for Change Orders on this Project shall be as set forth in CONTRACTOR's written statement included in Section 00540.

2.

-23-

All fees for permits or licenses required for this Project by the CITY, or any other agency, shall be an expense of the CONTRACTOR and shall not be waived, except those identified in Section 00805 as obtained by Owner.

-24-

The CONTRACTOR agrees that it will fully comply with Subpart C of 2 CFR Part 180 and 2 CFR Part1532, entitled Responsibilities of Participants Regarding Transactions (Doing Business with Other Persons). The CONTRACTOR shall not award any subcontracts or purchase any materials from suppliers that appear on the Excluded Parties List System. The CONTRACTOR shall include this requirement in each subcontract and require it to be included in all subcontracts regardless of tier. The CONTRACTOR shall maintain reasonable records to demonstrate compliance with these requirements.

-25-

The CONTRACTOR agrees that Federal minimum wage rates as determined by the United States Department of Labor under the Davis-Bacon Act shall apply to this Project. The CONTRACTOR further agrees that in all cases where State and Federal Wage Determinations are not the same, the higher of the two should be utilized. State wage forms can be substituted in place of Federal certified payroll forms where the subject matter is the same (i.e., payroll and contractor certification forms). Both Federal and State labor notices and wage determinations must be posted at the construction Site in a visible location. See requirements set forth in Sections 00813 and 00814.

IN WITNESS WHEREOF, the said _____, and the said CITY OF LOWELL have hereto and to a duplicate and triplicate hereof caused their corporate seals to be affixed, and these presents, together with said duplicate and triplicate, to be signed in their name and behalf by their duly authorized officers the day and year first above written.

APPROVED

_____
Bernard F. Lynch
City Manager

APPROVED AS TO FORM:

_____
Christine P.O'Connor
City Solicitor

Date: _____

CONTRACTOR

By _____

Federal I.D. or Social Security No.

_____

CITY OF LOWELL

_____
P. Michael Vaughn
Chief Procurement Officer

_____
Daniel J. Lahiff
Executive Director
Lowell Regional Water Utility

APPROVED AS TO APPROPRIATION
Pursuant to M.G.L. c.44, s31C, I certify that an appropriation has been made in the total amount of the Contract

_____
Sheryl Wright
City Auditor

**END OF SECTION**

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# SECTION 00540

# AGREEMENT FORM SUPPLEMENTS

The following items supplement the Agreement and are incorporated into the Agreement and made a part thereof. Terms used herein will have the meanings stated in the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any.

The address system used herein references the paragraph numbers in the Agreement, with the prefix "A" added thereto. Additional terms used in this Section have the meanings stated below, which are applicable to both the singular and plural thereof.

## A-3 Total Payments (Contract Price): Add the following.

The total payments stated in the Agreement shall be on the basis of a Lump Sum price stated in the Bid Form including unit priced items.

A. Unit Prices have been computed in accordance with Paragraph 11.03.A of the Standard General and Supplementary Conditions and Additional Supplementary Conditions, if any.

B. The prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any. Final payment for unit price items will be based on actual quantities determined and based on the unit prices stated in the Bid Form.*

## A-5 Payment: Add the following.

A. Submittal and Processing of Payments

1. Contractor shall submit Applications for Payment in accordance with Article 14 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any. Applications for Payment will be processed by Engineer as provided in the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any, and the General Requirements.

B. Progress Payments; Retainage

1. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as provided below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any, (and in the case of Unit Price Work based on the number of units completed).

2. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any, and additional retainage allowed by Laws and Regulations.

   a. Progress Payments of 95 percent for Work completed (with the balance of 5 percent being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

   b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance of 5 percent being retainage).

3. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 99 percent of the Work completed (with the balance of 1 percent being retainage), less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General and Supplementary Conditions, and Additional Supplementary Conditions, if any, and less the Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected (Punch List) attached to the certificate of Substantial Completion and subject to Paragraph 14.04 of the General and Supplementary Conditions, and Additional Supplementary Conditions, if any.

   However, retainage for items planted in the ground shall remain at 5 percent of the cost of such items until Final Payment per Massachusetts General Laws Chapter 30, Section 39G.

C. Final Payment: Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General and Supplementary Conditions, and Additional Supplementary Conditions, if any, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

D. Interest: All moneys not paid when due as provided in Article 14 of the General and Supplementary Conditions, and Additional Supplementary Conditions, if any, shall bear interest at the rate three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston per Massachusetts General Laws Chapter 30, Section 39G. Interest shall not be accrued on retainage.

**A-8 Work Hours/Labor: Add the following.**

See Section 00811 for additional statutory requirements.

**A-9 Indemnity: Add the following.**

This indemnification shall also extend to the Engineer and its officers, agents, consultants, and employees.

**A-11 Laws: Add the following.**

Reference to "General Laws" shall mean the "Massachusetts General Laws" and may be referenced as "M.G.L" or "MGL" in the Contract Documents. See Section to 00811 for statutory requirements.

**A-13 Reserve System Ordinance: Add the following.**

Notwithstanding the above, the terms and conditions of such purchase orders shall not supersede any terms and conditions of the Contract Documents and in case of conflict, the terms and conditions of the Contract Documents shall take precedence.

**A-14 Termination: Add the following.**

See also Article 15 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions for additional provisions.

**A-16 Taxes: Add the following.**

Contractor's and Subcontractors' Certificates of Good Standing from MA Department of Revenue is included at the end of this Section.

**A-18 Damages: Add the following.**

See Paragraphs 6.11 and 6.13 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions and the General Requirements for additional requirements.

Contractor's failure to record final readings from stored water meters removed or from stored meter registers, may result in the Contractor being responsible for payment of the customers' final water and sewer bill.

Contractor shall be liable for all costs incurred by the Owner to resolve emergencies including, but not limited to, overtime costs and material costs for Contractor's failure to provide emergency response in accordance with Section 02501.

**A-20 Non Discrimination: Add the following.**

See Section 00811 for additional requirements.

**A-21 Statutory Requirements**

See Section 00811 for additional statutory requirements.

**Add the following new requirements.**

**-26-**

The Project has been designed by Woodard and Curran, Inc. (Engineer), which is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

**-27-**

In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 in Section 00805 of the Additional Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 in Section 00805 of the Additional Supplementary Conditions as containing reliable "technical data."

E. Contractor has considered the information known to Contractor; 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, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.

F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

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. Further, the Contractor certifies, under the penalties of perjury, that:

1. Contractor has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing 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 or in the Contract execution;

   b. "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;

   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.

2. Contractor has complied with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting of child support and, has provided for itself and each Subcontractor, a Certificate of Good Standing from the Department of Revenue with respect to all returns due and taxes and further, and certifies that, to the best of its knowledge and belief, certifies all state tax returns have been filed and all state taxes have been paid as required by Law pursuant to Massachusetts General Laws Chapter 62C, Section 49A;

3. If a foreign corporation, Contractor has provided for itself and each Subcontractor, a certificate of the state secretary stating that the corporation has complied with requirements of Massachusetts General Laws Chapter 156D, Part 15, Section 15.03 of subdivision A and the date of compliance, and further has filed all annual reports required by Section 16.22 of subdivision B of Part 16 of said Chapter 156D, pursuant to Massachusetts General Laws Chapter 30, Section 39L;

4. Contractor is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work and further certifies that all employees to be employed at the Work Site 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 shall furnish documentation of successful completion of said course with the first certified payroll report for each employee;

5. Contractor is not presently debarred from entering into a public contract Commonwealth of Massachusetts under the provisions of Massachusetts General Laws Chapter 29, Section 29F, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulations promulgated thereunder; and is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

6. Pursuant to Massachusetts General Laws Chapter 30, Section 39R, Contractor has provided a statement by management on internal accounting controls, a statement prepared by an independent certified public accountant; and an audited financial statement for the most recent completed fiscal year; and

7. Contractor will comply with applicable SRF program requirements, and Federal requirements.

8. Contractor will incorporate the applicable provisions of the Contract Documents into all subcontracts and Purchase Orders so that such provisions will be binding upon each Subcontractor or Supplier.

**-28-**

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

**-29-**

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.

The following attachments to this Section are incorporated into the Agreement and made a part thereof.

- 00611 Payment Bond
- 00612 Performance Bond
- Insurance Certificates

- **Certifications**
  - Certificate from the Secretary of State for foreign corporations
  - Certificate of Good Standing from MA Department of Revenue with respect to all returns due and taxes
  - A statement by management on internal accounting controls
  - A statement prepared by an independent certified public accountant
  - An audited financial statement for the most recent completed fiscal year
  - Diesel Retrofit Program Contractor Certification
  - Projected monthly cash flow schedule
  - Statement of Direct Labor Cost percentage(s)
  - Subcontractor certification from the Secretary of State for foreign corporations
  - Subcontractor Certificates of Good Standing from MA Department of Revenue with respect to all returns due and taxes
  - Subcontractor Diesel Retrofit Program Contractor Certification

**END OF SECTION**

# SAMPLE NOTICE TO PROCEED (C-00550)

Date: _____

| | |
|---|---|
| Project: | |
| Owner: | Owner's Contract No.: |
| Contract: | Engineer's Project No.: |
| Contractor: | |
| Contractor's Address: [send Certified Mail, Return Receipt Requested] | |

You are notified that the Contract Times under the above Contract will commence to run on _____. On or before that date, you are to start performing your obligations under the Contract Documents * for the following portion(s) of the Work:
*Describe the limits of the Work covered*

*A Notice to Proceed for the remaining Work will follow. *

In accordance with Article 4 of the Agreement, the date of Substantial Completion is _____, and the date of readiness for final payment is _____ [OR the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].

Before you may start any Work at the Site, Paragraph 2.01.B of the Standard General and Supplementary Conditions, and additional Supplementary Conditions if any, provide that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds and loss payees) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.



Based on EJCDC C-550 Notice to Proceed
Prepared by the Engineers Joint Contract Documents Committee and endorsed by the Construction Specifications Institute.

Also, before you may start any Work at the Site, you must:

[add other requirements].

| | |
|---|---|
| | Owner: |
| | Given by: |
| | Authorized Signature: |
| | Title: |
| | Date: |

Copy to Engineer

END OF SECTION

# SECTION 00605

# PROJECT FORMS

The following forms are included in this Section and shall be used for the Project as specified in the General and Supplementary Conditions, Additional Supplementary Conditions if any, and the General Requirements. Completed and execution versions of these forms used during the Project shall be incorporated into the Agreement and made a part thereof.

*Payment Bonds (Form C-00611)*
*Performance Bonds (Form C-00612)*
*Application for Payment (Form C-00621)*
*Notice of Substantial Completion (Form C-00628.A)*
*Certificate of Substantial Completion (Form C-00628.B)*
*Certificate of Completion (Form C-00629)*
*Request for Interpretation/Information (Form C-00635)*
*Field Order (Form C-00636)*
*Work Change Directive (Form C-00637)*
*Change Request (Form C-00638)*
*Change Order (Form C-00639)*

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EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

# PAYMENT BOND (Form C-00611)

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**

_____ *(seal)*
Contractor's Name and Corporate Seal

**By:** _____
Signature

_____
Print Name

_____
Title

**Attest:** _____
Signature

_____
Title

**SURETY**

_____ *(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:

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EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

# PERFORMANCE BOND (Form C00612)

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** |
|---|---|
| _____ *(seal)* | _____ *(seal)* |
| Contractor's Name and Corporate Seal | Surety's Name and Corporate Seal |
| **By:** _____ | **By:** _____ |
| Signature | Signature *(attach power of attorney)* |
| _____ | _____ |
| Print Name | Print Name |
| _____ | _____ |
| Title | Title |
| **Attest:** _____ | **Attest:** _____ |
| Signature | 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:

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EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

FORM C-00621

# 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 | | |
|---|---|---|
| Number | Additions | Deductions |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| TOTALS | | |
| NET CHANGE BY CHANGE ORDERS | | |

| | |
|---|---|
| 1. **ORIGINAL CONTRACT PRICE** | $ _____ |
| 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)** | $ _____ |

**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)

Approved by: _____ _____


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# Progress Estimate - Lump Sum Work FORM C-00621

# Contractor's Application

| For (Contract): | Application Number: |
|---|---|
| Application Period: | Application Date: |

| A | | B | Work Completed | | E | F | | G |
|---|---|---|---|---|---|---|---|---|
| Specification Section No. | Description | Scheduled Value ($) | From Previous Application (C+D) | This Period | Materials Presently Stored (not in C or D) | Total Completed and Stored to Date (C + D + E) | % (F / B) | Balance to Finish (B - F) |
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# Progress Estimate - Unit Price Work

FORM C-00621

# Contractor's Application

| For (Contract): | | | | | | | | | Application Number: | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Application Period: | | | | | | | | | Application Date: | | |
| A | | | | B | B(2) | C | D | E | F | | |
| Item | | | | | | | | | | | |
| Bid Item No. | Description | Bid Item Quantity | Unit Price | Bid Item Value ($) | Estimated Quantity Installed This Month | Estimated Quantity Installed To Date (Include This Month) | Value of Work Installed to Date | Materials Presently Stored (not in C) | Total Completed and Stored to Date (D + E) | % (F / B) | Balance to Finish (B - F) |
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## Stored Material Summary FORM C00621

## Contractor's Application

| For (Contract): | | | | | | | | Application Number: | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Application Period: | | | | | | | | Application Date: | | | |
| A | | B | C | | D | | E | | F | | G |
| Bid Item No. | Supplier Invoice No. | Submittal No. (with Specification Section No.) | Storage Location | Description of Materials or Equpment Stored | Stored Previously | | Amount Stored this Month ($) | Subtotal Amount Completed and Stored to Date (D + E) | Incorporated in Work | | Materials Remaining in Storage ($) (D + E - F) |
| | | | | | Date Placed into Storage (Month/Year) | Amount ($) | | | Date (Month/ Year) | Amount ($) | |
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# Notice of Substantial Completion (C-00628.A)

| Project: | Owner: | Owner's Contract No.: |
|---|---|---|
| Contract: | | Date of Contract: |
| Contractor: | | |

**This Notice of Substantial Completion applies to:**

☐ The following Systems, Equipment or specified portions ☐ : All Work under the Contract Documents

:

Date of Substantial Completion for above

The following documents are attached to and made part of this Notice.

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Accepted by Contractor — Date

Accepted by Owner — Date

This page intentionally left blank

# Certificate of Substantial Completion (Form C-00628.B)

| | |
|---|---|
| Project: | |
| Owner: | Owner's Contract No.: |
| Contract: | Engineer's Project No.: |

**This [tentative] [definitive] Certificate of Substantial Completion applies to:**

☐ All Work under the Contract Documents: ☐ The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

**The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:**

☐ Amended Responsibilities ☐ Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

| | |
|---|---|
| Executed by Engineer | Date |
| Accepted by Contractor | Date |
| Accepted by Owner | Date |

# Certificate of Completion (Form C-00629)

| Project: | Owner: | Owner's Contract No.: |
|---|---|---|
| Contract: | | Date of Contract: |
| Contractor: | | |

**This Certificate of Completion applies to:**

☐ All Work under the Contract Documents: ☐ The following specified portions:

Date of final Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner and Contractor, Contractor has completed all corrections to the satisfaction of Owner, delivered all required documentation, and the Project, or portion designated above, is found to be complete. The Date of Completion of the Project or portion thereof designated above is hereby declared.

Contractor may make application for final payment.

The following documents are attached to and made part of this Certificate:

Final Application for Payment

This Certificate does not constitute a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Only the **making and acceptance of final payment** will constitute:

1. A waiver of all claims by Owner against Contractor, except claims arising from any unsettled liens, from Defective Construction appearing after final inspection; from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
2. A waiver of all claims by Contractor against Owner other than those previously timely made in writing and still unsettled.

Accepted by Contractor — Date

Accepted by Owner — Date

This page intentionally left blank

# REQUEST FOR INTERPRETATION/INFORMATION (Form C-00635)

RFI #: _____ ☐ **Attachment**

To: _____ From: _____

Attn: _____ Issue Date: _____

Project: _____ Required Reply Date: _____

**DISTRIBUTION:**

| Contractor | Owner | Engineer |
|---|---|---|
| ☐ _____ | ☐ _____ | ☐ _____ |
| ☐ _____ | ☐ _____ | ☐ _____ |
| ☐ _____ | ☐ _____ | ☐ _____ |

**REFERENCES:**

- Specifications: _____ Section: _____ Page/Paragraph: _____
- Drawings: _____ Issue Date: _____ Detail/Sections: _____
- Work Area: _____ Grid/Level: _____

**RFI DESCRIPTION:**

From: _____ Tel No: _____ Fax: No: _____

Initial: _____ E-mail: _____

**RFI REPLY:**

**Possible Cost Effect** Yes: ☐ No: ☐ **Possible Schedule Effect** Yes: ☐ No: ☐

From: _____ Reply Date: _____ xc: _____

Initial: _____ _____

Based on: CASE Form B-1999

This page intentionally left blank

# Field Order (C-00636)

**No. _____**

Date of Issuance: _____ Effective Date: _____

| Project: | Owner: | Owner's Contract No.: |
|---|---|---|
| Contract: | | Date of Contract: |
| Contractor: | | Engineer's Project No.: |

**Attention:**
You are hereby directed to promptly execute this Field Order issued in accordance with General Conditions Paragraph 9.04.A, for minor changes in the Work without changes in Contract Price or Contract Times. If you consider that a change in Contract Price or Contract Times is required, please notify the Engineer immediately and before proceeding with this Work.

Reference: _____ (Specification Section(s)) _____ (Drawing(s) / Detail(s))

Description: _____

Attachments: _____

| | Engineer: |
|---|---|
| **Receipt Acknowledged by Contractor:** | Date: |

Copy to Owner

This page intentionally left blank

# Work Change Directive (Form C-00637)

No. _____

Date of Issuance: _____ Effective Date: _____

| Project: | Owner: | Owner's Contract No.: |
|---|---|---|
| Contract: | | Date of Contract: |
| Contractor: | | Engineer's Project No.: |

**Contractor is directed to proceed promptly with the following change(s):**

| Item No. | Description |
|---|---|
| | |
| | |
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**Attachments (list documents supporting change):**

_____

_____

**Purpose for Work Change Directive:**

Authorization for Work described herein to proceed on the basis of Cost of the Work due to:

- ☐ Nonagreement on pricing of proposed change.
- ☐ Necessity to expedite Work described herein prior to agreeing to changes on Contract Price and Contract Time.

**Estimated change in Contract Price and Contract Times:**

Contract Price $ _____ (increase/decrease) Contract Time _____ (increase/decrease) days

| Recommended for Approval by Engineer: | Date |
|---|---|
| Authorized for Owner by: | Date |
| Received for Contractor by: | Date |
| Received by Funding Agency (if applicable): | Date: |

This page intentionally left blank

# CHANGE REQUEST (FORM C-00638)
# (Design Changes/Deviations/Substitutions)

CR NO.
DATE

## Project:

Request Initiated by:
- ☐ Contractor
- ☐ Owner
- ☐ Engineer

Impact to Contract Price expected ☐
Impact to Contract Time expected ☐
*Change Orders will be processed separately*

Request submitted as (format):

---

**Description of Change (☐ documentation attached)**

**Reason for Change**

**Response:** ☐ This constitutes a Written Amendment to the Agreement.

Review of the proposed change/deviation/substitution by Engineer is for general compatibility with the design concept of the Project. This review does not extend to means, methods, sequences, or procedures of construction or to issues of safety incident thereto. This review shall not relieve the Contractor from responsibility for full compliance with the requirements specified and to determine and verify the information contained therein.

| | |
|---|---|
| Recommended By Engineer for Acceptance (subject to above comments if any)<br>☐ recommended for processing and approval under a separate Change Order<br>NAME:<br><br>*Signature* *Date* | ☐ Approved by Owner (no schedule or cost impact)<br>☐ Acknowledged by Owner – to be processed and approved under a separate Change Order<br>NAME:<br><br>*Signature* *Date* |
| Approved by Contractor<br>☐ Change Order to be requested<br>NAME:<br><br>*Signature* *Date* | |

This page intentionally left blank

**Change Order No. _____**

**(Form C-00639)**

Date of Issuance: _____ Effective Date: _____

| Project: | Owner: | Owner's Contract No.: |
|---|---|---|
| Contract: | | Date of Contract: |
| Contractor: | | Engineer's Project No.: |

**The Contract Documents are modified as follows upon execution of this Change Order:**

Description:

**Attachments (list documents supporting change):**

| **CHANGE IN CONTRACT PRICE:** | **CHANGE IN CONTRACT TIMES:** |
|---|---|
| Original Contract Price:<br>$_____ | Original Contract Times: ☐ Working days ☐ Calendar days<br>Substantial completion (days or date): _____<br>Ready for final payment (days or date): _____ |
| [Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:<br>$_____ | [Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:<br>Substantial completion (days): _____<br>Ready for final payment (days): _____ |
| Contract Price prior to this Change Order:<br>$_____ | Contract Times prior to this Change Order:<br>Substantial completion (days or date): _____<br>Ready for final payment (days or date): _____ |
| [Increase] [Decrease] of this Change Order:<br>$_____ | [Increase] [Decrease] of this Change Order:<br>Substantial completion (days or date): _____<br>Ready for final payment (days or date): _____ |
| Contract Price incorporating this Change Order:<br>$_____ | Contract Times with all approved Change Orders:<br>Substantial completion (days or date): _____<br>Ready for final payment (days or date): _____ |

| RECOMMENDED: | ACCEPTED: | ACCEPTED: |
|---|---|---|
| By: _____ | By: _____ | By: _____ |
| Engineer (Authorized Signature) | Owner (Authorized Signature) | Contractor (Authorized Signature) |
| Date: _____ | Date: _____ | Date: _____ |
| Approved by Funding Agency (if applicable): | Approved by Funding Agency (if applicable): | Approved by Funding Agency (if applicable): |
| _____ | _____ | _____ |
| Date: _____ | Date: _____ | Date: _____ |

Pursuant to MGL c.44, s31C, I certify that an appropriation has been made in the total amount of the Change Order

_____ Date: _____

Owner's Auditor/Accountant (Name)

Pursuant to MGL c.30, s39I, reasons for deviation are as stated on Page 1. The specified deviation(s) does not materially injure the Project as a whole, the Work is of the same cost and quality or an equitable adjustment has been agreed upon, and the deviation is in the best interest of the Owner.

_____ Date: _____

Owner

# Change Order

## Instructions

### A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

### B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

**CHANGE ORDER – FORM C-00639A**

**CHANGE ORDER FORM**

SRF Number _____
Public Entity _____
Contract Number _____
Change Order Number _____

Contract Amount (As Bid) $ _____

Net Change in Contract Price (this change order) $ _____

Total Adjusted Contract Price (including this and all other change orders) $ _____

This change order extends the time to complete the work by _____ calendar days.

The extended completion date is _____

This change order checked by _____ _____
(Chief) Resident Engineer Date

This change order is requested by: _____

This change order is recommended by: _____

_____ _____ _____
Consultant Engineer P.E. Number Date

The undersigned agree to the terms of the change order.

_____ _____
Contractor Date

_____ _____
Owner Date

Certification of Appropriation under M.G.L. c.44, §31C: Adequate funding in an amount sufficient to cover the total cost of this change order is available.

By: _____ _____
Certification Officer (Auditor, accountant, treasurer) Date

*Do not write below: this space reserved for STATE AGENCY APPROVAL*

*DEP/DMS*

**(As required by DEP-DMS Policy Memorandum No. CG-10)**

CHANGE ORDER FORM (Continued)

Public Entity _____

SRF No: _____ Contract No. _____ Change Order No. _____

Contract Title: _____

Owner's Name: _____

Owner's Address: _____

Contractor's Name: _____

Contractor's Address: _____

Description of Change

_____

_____

_____

_____

_____

_____

_____

_____

Reason for Change

_____

_____

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**(As required by DEP-DMS Policy Memorandum No. CG-10)**

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

# SECTION 00720
# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by

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The Associated General Contractors of America
SKILL RESPONSIBILITY INTEGRITY

ASCE American Society of Civil Engineers

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AMERICAN COUNCIL OF ENGINEERING COMPANIES

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ASSOCIATED GENERAL CONTRACTORS OF AMERICA

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PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
*A Practice Division of the*
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by

CSI

CONSTRUCTION SPECIFICATIONS INSTITUTE

## WITH STANDARD SUPPLEMENTARY CONDITIONS

**prepared by Woodard & Curran on behalf of and as approved by Owner**
***(highlighted within the text of this Section)***

**EJCDC C-700 Standard General Conditions of the Construction Contract**
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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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# SECTION 00720
# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

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

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

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

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

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

5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed. May also be referred to as "Proposal" which may be used interchangeably and shall have the same meaning.

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

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

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

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

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

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


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

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

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

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

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

17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor and complement the Specifications. Shop Drawings and other Contractor submittals are not Drawings as so defined. May also referred to as "Plans", which may be used interchangeably and shall have the same meaning. Notes on Drawings are directed to Contractor unless specifically noted otherwise.

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

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

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

21. *General Requirements*—Sections of Division 01 of the Specifications which govern the Work of all sections of the Specifications.

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

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

24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction. See Paragraph 17.05 of these General Conditions.


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

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

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

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

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

30. *PCBs*—Polychlorinated biphenyls.

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

32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times. May also be referred to as "Construction Schedule", which may be used interchangeably and shall have the same meaning.

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

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

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

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

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

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


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39. *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.

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

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

42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto. The Specifications are based on the guidelines of the Construction Specifications Institute (CSI) Project Resource Manual, and are directed to Contractor unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases in the Specifications.

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

44. *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.

45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.

46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions. Modifications made and highlighted herein (referred to as "Standard Supplementary Conditions") and modifications and supplements included in the Additional Supplementary Conditions have been prepared by Engineer on behalf of and are as approved by Owner.

47. *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 Subcontractor.


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

49. *Unit Price Work*—Work to be paid for on the basis of unit prices.

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

51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

B. Additional Terms

1. *Final Completion*—The time at which all Work is completed and ready for final payment in accordance with Paragraph 14.07 of these General Conditions.

2. *Industry Practice*—The written practices, methods, materials, supplies and equipment, as changed from time to time, that are commonly used in the industry applicable to the Project to design, construct and operate facilities and plants, or any practices, methods and acts, which in the exercise of reasonable judgment in light of the facts known at the time, could have been expected to accomplish the desired results consistent with good business practices, reliability, safety and expedition.

3. *Punch List*—a list of open items representing portions of the Work which Contractor, Engineer, Owner reasonably agree is not complete on the date of Substantial Completion or Final Completion, but which items will not significantly interfere with the safe, reliable operation and integrity of the Project or its intended use.

4. *Purchase Order*—A written agreement between Contractor and a Supplier for provision of material and equipment.

5. *Warranty Period*—the correction period after the date of Substantial Completion per Paragraph 13.07 of these General Conditions.


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1.02 *Terminology*

A. The words and terms discussed in Paragraph 1.02.B through F 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 Paragraph 9.09 or any other provision of the Contract Documents.

C. Day:

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight. However, in limited instances the parties have agreed explicitly by context to use the terms "business day" or "working day" to further define the meaning of the term day. See also Paragraph 17.02 of these General Conditions.

D. Defective:

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

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. Furnish, Install, Perform, Provide:

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


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

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

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

F. Unless stated otherwise in the Contract Documents, words or phrases 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. ~~When Contractor delivers the executed counterparts~~Prior to execution of the Agreement ~~to Owner~~, Contractor shall ~~also~~ deliver to Owner such bonds as Contractor may be required to furnish.

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

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ~~ten~~ 5 printed or hard copies of the ~~Drawings and Project Manual~~ Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the ~~sixtieth~~ 90th day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, unless mutually agreed otherwise.~~, whichever date is earlier.~~


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2.04 *Starting the Work*

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

2.05 *Before Starting Construction*

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

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents, and the lead times for equipment and materials per the listing in subparagraph 2.05.A.4;

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, which will be confirmed in writing by Contractor at the time of submission. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work; and.

4. a complete listing of equipment and materials with lead times between placing orders and delivery, including normal allowances of time for processing and correcting Shop Drawings. All orders for long lead items shall be placed within 30 days after Effective Date of the Agreement if delivery is critical to scheduling. Failure to place orders promptly may result in full liability for liquidated damages if Contract Times are not met.

B. *Evidence of Insurance*: In accordance with Paragraph 2.01.

2.06 *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 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records in accordance with the General Requirements.

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 instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.


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2.07 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

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

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all and comprise the entire agreement between Owner and Contractor concerning the Work. If any term or provision of any of the Contract Documents, or the application thereof to any party or circumstance shall, to any extent, be determined to be invalid or unenforceable, the remaining provisions of the Contract Documents, or the application of such term or provision to parties or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of each of the Contract Documents shall be valid and shall be enforced to the fullest extent permitted by Laws and Regulations.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.


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3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, 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 Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies:

1. *Contractor's Review of Contract Documents Before Starting Work*: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work*: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation , (b) any standard, specification, manual, or code, or (c) 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 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.


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B. Resolving Discrepancies:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification; or

4. A Change Request.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier 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

2. 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.

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.


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3:06 *Electronic Data*

A. Unless otherwise stated in the Additional Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

## ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Additional Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and


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2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Additional Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their 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.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. (Not Used)~~*Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.~~


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C. Possible Price and Times Adjustments:

1. The Contract Price or the Contract Times, or both, ~~will~~ may be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

   a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

   b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

   a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

   b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; ~~or~~

   c. Contractor failed to give the written notice as required by Paragraph 4.03.A.or

   ~~c.~~d. written notice is submitted after final payment.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and


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2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

   a. reviewing and checking all such information and data;

   b. locating all Underground Facilities shown or indicated in the Contract Documents;

   c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and

   d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated:

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

3. Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, shall not be liable to Contractor for any Claims, losses, or damages incurred by Contractor (including but not limited to all fees and changes of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) related to Underground Facilities not shown or indicated.


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4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* The Additional Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their 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 any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for


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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 4.06.E.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, 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: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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 created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.


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## ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent 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 each bond.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within ~~20~~ 5 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Additional Supplementary Conditions.

5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner and Engineer, with copies to each additional insured and loss payee identified in the Additional Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.


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C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.

E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed, complies with the requirements of Article 5, and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

   a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

   b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; ~~and~~

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle~~.~~;

7. claims for damages because of bodily injury or death of any person or for damage to property of arising out of operation of Laws or Regulations; and

8. claims for damages because of negligent acts, errors and omissions arising out of performing or providing professional services.


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B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.~~6~~7 inclusive, be written on an occurrence basis, include as additional insureds by endorsement (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Additional Supplementary Conditions, all of whom shall be ~~listed~~ included as additional insureds by endorsement, and 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;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Engineer and Contractor and to each other additional insured identified in the Additional Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide) and will contain waiver provisions in accordance with Paragraph 5.07;

5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

6. include completed operations coverage:

   a. Such insurance shall remain in effect for two years after final payment.

   b. Contractor shall furnish Owner and Engineer and each other additional insured identified in the Additional Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

7. In the event general liability insurance is provided on a claims-made policy, the retroactive date of such policy shall not be later than the date of the Notice to Proceed or the Effective Date of the Agreement, whichever is earlier. For construction periods extending beyond the expiration date of an initial claims-made policy, the retroactive date of all subsequent claims-made policies shall not be later than the date of the Notice to Proceed.


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C. The limits of liability for the insurance required by Paragraph 5.04 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 coverage:

| | |
|---|---|
| Minimum limit of liability | Statutory |
| Applicable Federal (e.g., Longshoreman's) | Statutory |
| Employer's Liability | $1,000,000 |

2. Contractor's General Liability:

$3,000,000 per occurrence; $3,000,000 general aggregate, including:

- Broad Form Property Damage Liability including coverage for acts of terrorism
- Completed Operations and Product Liability
- Contractual Liability
- Pollution Liability
- Independent Contractors
- Explosion, Collapse & Underground Hazards
- Personal Injury Coverage, Exclusion "C" Deleted
- Fire Legal Liability
- Pollution Liability

Excess or Umbrella Liability: $3,000,000 per occurrence; $3,000,000 general aggregate

3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:

Combined Single Limit of $3,000,000 for bodily injury & property damage covering Contractor and any vehicles owned, hired and non-owned by the Contractor

4. Professional Liability (E&O): $1,000,000 for each claim with an annual aggregate of at least $2,000,000

5. Owners Protective Liability (OCIP): as may be specified in the Additional Supplementary Conditions

Any self-insured retention (not allowed for Worker's Compensation) and/or deductibles must be identified and cannot exceed $100,000 per occurrence without the prior approval of the Owner. Contractor must provide either an audited financial statement to confirm solvency or a letter of credit guaranteeing the $100,000 in case of loss for the duration of the Project and for the Correction Period.


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5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

A. ~~Unless otherwise provided in the Supplementary Conditions, Owner~~Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. Contractor shall be responsible for any ~~(subject to such~~ deductible amounts or self-insured retention as may be provided in the Supplementary Conditions or required by Laws and Regulations~~)~~. This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Additional Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

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, flood, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, 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 Additional Supplementary Conditions.

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until Work is completed~~final payment~~ is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each and any other loss payee to whom a certificate of insurance has been issued.

B. (Not used)~~Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of~~


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~~each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.~~

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained by Contractor will contain provisions and endorsements specified in Paragraph 5.04.~~All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.~~

D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work. ~~to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.~~

E. (Not used)~~If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.~~

5.07 *Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Additional Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their 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 Subcontractors and Engineer, and all other individuals or entities identified in the Additional Supplementary Conditions as loss payees (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 as trustee or otherwise payable under any policy so issued.


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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 utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. (Not used) ~~Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.~~

~~B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.~~

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If ~~either~~ Owner ~~or Contractor~~ has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the ~~other party~~the Contractor in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the ~~objecting party~~Owner shall so notify the ~~other party~~Contractor in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. ~~Owner and~~ Contractor shall ~~each~~ provide to the ~~other~~ Owner, such additional information in respect of insurance provided as the other may reasonably request. If ~~either~~


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~~party~~Contractor does not purchase or maintain all of the bonds and insurance required ~~of such party~~ by the Contract Documents, ~~such party~~Contractor shall notify the ~~other party~~Owner in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the ~~other party~~Owner may elect to obtain equivalent bonds or insurance to protect ~~such other party's~~Owner's interests at the expense of the ~~party~~ Contractor~~who was required to provide such coverage~~, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

## ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

1. Contractor shall comply with the Equal Employment Opportunity Requirements included in the Additional Supplementary Conditions.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.


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6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

D. Provision of any instructions:

1. will not be effective to assign to Owner, or any of Owner's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 8.09; and

2. will not be effective to assign to Engineer, or any of Engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.


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6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item, make or catalogue number, or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

   a. in the exercise of reasonable judgment Engineer determines that:

      1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

      2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and

      3) it has a proven record of performance and availability of responsive service.

   b. Contractor certifies that, if approved and incorporated into the Work:

      1) there will be no increase in cost to the Owner or increase in Contract Times; and

      2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items:

   a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

   b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.


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c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,

b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified, and

b) available engineering, sales, maintenance, repair, and replacement services; and

4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.


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C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute 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.

F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Bidding Requirements or Additional Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and ~~if~~ the Contractor has submitted a list thereof in accordance with the Bidding Requirements or Additional Supplementary Conditions (which shall be included as an attachment to the Agreement), Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.


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C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor

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

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.

1. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Additional Supplementary Conditions to be listed as insureds or loss payees (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 such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

2. Such agreement between Contractor and the Subcontractor or Supplier shall specifically include arbitration provisions similar to those in Article 16 and provisions required by Laws and Regulations identified in the various Additional Supplementary Conditions.


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6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, 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.

D. At the Owner's option, Contractor shall defend claims in connection with any alleged infringement of such rights.

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

1. Owner will provide the permits and licenses indicated in the Additional Supplementary Conditions, if any.


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6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. See Additional Supplementary Conditions for specific requirements, if any. 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 observes that the Specifications or Drawings are at variance with any Laws or Regulations, Contractor shall give Engineer prompt written notice thereof, and any necessary changes will be authorized by one of the methods set forth in Paragraph 3.04. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

B. If Owner is sales tax exempt, specific provisions shall be as set forth in the Additional Supplementary Conditions.

6.11 *Use of Site and Other Areas*

A. Limitation on Use of Site and Other Areas:

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.


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2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by ~~negotiation~~ agreement or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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 claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work, Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings and other closeout submittals will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. 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:


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1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. Contractor shall comply with the applicable requirements of Owner's safety programs and safety requirements included in the Additional Supplementary Conditions, 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 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of 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 for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.


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6.15 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. Shop Drawings:

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. Samples:

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.


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C. Submittal Procedures:

1. Before submitting each Shop Drawing or Sample, Contractor shall have:

   a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

   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 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 and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.


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3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1. or for errors or omissions in a Shop Drawing or Sample.

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 in order to obtain required approval of an item with no more than 3 submittals. Engineer will record Engineer's time for reviewing subsequent submittals of Shop Drawings, samples, or other items requiring approval and Contractor shall reimburse Owner for Engineer's charges for such time.

3. In the event that Contractor requests a change of a previously approved item, Contractor shall reimburse Owner for Engineer's charges for its review time unless the need for such change is beyond the control of Contractor.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and in accordance with Subcontractor warranties, manufacturers and Suppliers warranties on equipment and material, and extended or special warranties and will not be defective for the correction period specified in 13.07. Owner and Engineer and ~~its~~ their officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.


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1. Contractor shall obtain and preserve for the benefit of the Owner:

   a. manufacturers' and Suppliers' written warranties and guarantees on equipment and material incorporated into the Work;

   b. written warranties and guarantees from each Subcontractor engaged in the performance of the Work; and

2. extended or special warranties.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

   1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

   2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

   1. observations by Engineer;

   2. recommendation by Engineer or payment by Owner of any progress or final payment;

   3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

   4. use or occupancy of the Work or any part thereof by Owner;

   5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

   6. any inspection, test, or approval by others; ~~or~~

   7. any correction of defective Work by Owner; or.

   8. any acceptance by Owner or any failure to do so.

D. Contractor shall prepare and execute a written general warranty and guarantee applicable to the Work reflecting the provisions of this Paragraph 6.19, Article 13 and other applicable provisions of the Contract Documents pertaining to warranties and guarantees, Subcontractor, manufacturers and Supplier warranties and guarantees, and extended or special warranties and guarantees. Contractor shall submit this written general warranty and guarantee in accordance with Article 14 and the General Requirements.


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E. Provision of any warranties or guarantees:

1. will not be effective to assign to Owner, or any of Owner's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 8.09; and

2. will not be effective to assign to Engineer, or any of Engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09.

F. The warranty and guarantee provisions of this Paragraph 6.19 shall be in addition to and not in limitation of any other warranties, guarantees or remedies allowed by Law or the Contract Documents.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend (with counsel designated by the insurer accepting liability for the Claim or damage or, in lieu thereof, counsel acceptable to the Owner), 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 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.


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1. Without limiting the generality of the preceding Paragraph, the Contractor hereby specifically agrees to indemnify, defend, and hold harmless the Owner and Engineer from all such claims, losses or expenses which arise out of injuries of employees of the Contractor or any of its Subcontractors or Suppliers of any tier related to performance of the Work. It is the Owner intention that all financial risk of injuries related to the Work be borne by the Contractor, and that the Owner have no financial responsibility, direct or indirect, for any such claims.

C. The indemnification obligations of Contractor under Paragraph 6.20.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, provided however, that if the claim, cost, loss or damage referred to in this Paragraph 6.20 results from failure of the Engineer to discover a condition, Underground Facilities or object which is underground or otherwise not reasonably observable by the Engineer, and if said failure to discover either was or should have been apparent to the Contractor in that the said condition or object is omitted from the Engineer's maps, Drawings, opinions, reports, surveys, Change Orders, designs or Specifications, then the Contractor shall be liable for indemnification of the Engineer and Owner under Paragraph 6.20 for claims, costs, losses and damages resulting from said failure to discover unless Contractor shall have notified Engineer of the existence and location of such condition or object prior to the occurrence of such claims, costs, losses and damages and in sufficient time for Engineer to have made provisions therefor.; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage~~.~~; or

3. caused by the negligent acts, errors or omissions of any of them.

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.


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C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering 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. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and


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proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Additional Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Additional Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.

C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

## ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

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

8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

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


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8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. 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.


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8.12 *Compliance with Safety Program*

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 pursuant to Paragraph 6.13.D.

## ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided ~~in the Supplementary Conditions~~herein, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Additional Supplementary Conditions.


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B. The Resident Project Representative (RPR) will be Engineer's employee or agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall be through or with the full knowledge and approval of Contractor. The RPR shall:

1. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.

2. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.

3. *Liaison*:

   a. Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative, assist in providing information regarding the intent of the Contract Documents.

   b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.

   c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.

4. *Interpretation of Contract Documents:* Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.

5. *Shop Drawings and Samples*:

   a. Record date of receipt of Samples and approved Shop Drawings.

   b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.

6. *Modifications*:

   a. Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer.

   b. Transmit to Contractor in writing, decisions as issued by Engineer.


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7. *Review of Work and Rejection of Defective Work:*

   a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.

   b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

8. *Inspections, Tests, and System Startups:*

   a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.

   b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

9. *Records:*

   a. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.

   b. Maintain records for use in preparing Project documentation.

10. *Reports:*

   a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.

   b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.

   c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Hazardous Environmental Condition or conditions that may impede the compliant operation of existing facilities on Site.

11. *Payment Requests:* Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of


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values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

12. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

13. *Completion:*

    a. Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.

    b. Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.

    c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).

2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.

3. Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor's superintendent.

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.

5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.

6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.

7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.

8. Authorize Owner to occupy the Project in whole or in part or determine operational protocol that may affect the compliant operation of existing facilities.


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9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

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

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to


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the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

F. Engineer will have no responsibility or authority:

1. To order changes in construction which will result in additional costs or which will require extensions of Contract Times;


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2. To suspend all or any portion of Contractor's operations;

3. To terminate all or any portion of the Work;

4. To make final acceptance of all or any portion of the Work; and

5. To operate or maintain any portion of the Work.

9.10 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

## ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and


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3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

A. If 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.

10.05 *Claims*

A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than ~~30~~ 14 days) after the start of the event giving rise thereto. Failure to comply with this notice requirement shall constitute a waiver of the Claim. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within ~~60~~ 30 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part;

2. approve the Claim; or


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3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

G. Contractor shall not have the right to stop performance of the Work pending resolution of a Claim.

## ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, 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, 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.

a. If applicable, prevailing wage requirements and rates are included in the Additional Supplementary Conditions.


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2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

    a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

    b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

    c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

        1) Rentals of construction equipment and machinery and the parts thereof whether rented from Contractor or others in accordance with rates published in current edition of the Rental Rate Blue Book® for construction equipment published by EquipmentWatch® (www.equipmentwatch.com). When Contractor-owned equipment is ordered by Owner or Engineer to be held at standby, equipment rental rates shall be 50% of normal rate. Rental or standby shall not include time that equipment is inoperative because of malfunction or breakdown and shall cease when the use thereof is no longer necessary for the Work.


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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 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.


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5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances:

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance:

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.


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B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs by plus or minus 20 percent~~materially and significantly~~ from the estimated quantity of such item indicated in the Agreement or the Unit Prices for individual items differ by plus or minus 5 percent; and

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

## ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).


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C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

   a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

   b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

   c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor, provided, however, that on any subcontracted work the total maximum fee to be paid by Owner under this subparagraph shall be no greater than 27 percent of the costs incurred by the Subcontractor who actually performs the Work;

   d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

   e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

   f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.


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12.03 *Delays*

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, acts of war or terrorism, or acts of God (force majeure).

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of war or terrorism, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

## ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.


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13.02 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, 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.

13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.


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13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.


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13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents (such as partial utilization in Paragraph 14.05), any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or

2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor and may be deducted from amounts otherwise due the Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work, including materials, equipment and supplies or as defined in manufacturers' and Suppliers' warranties (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed and the terms of this Paragraph 13.07 will continue to apply.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.


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13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, or immediately in the case of an emergency, correct, or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.


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D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

## ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. Applications for Payments:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.


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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 9.07, 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 Documents; 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 moneys paid on account of the Contract Price, or

   e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.


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5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

   a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

   b. the Contract Price has been reduced by Change Orders;

   c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

   d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

   a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

   b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens and provides an indemnity satisfactory to Owner for all claims, costs, losses and damages arising out of such Liens;

   c. there are other items entitling Owner to a set-off against the amount recommended including liability for liquidated damages and correction of defective work by Owner or others; or

   d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.


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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 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use and final testing has been completed in accordance with the General Requirements, Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) using the Notice of Substantial Completion form included in the Contract Documents, submit the Contractor's written general warranty and guarantee per Paragraph 6.19.D., and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion using the Certificate of Substantial Completion included in the Contract Documents. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment (Punch List). Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.


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E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

B. Owner may request in writing that Contractor permit Owner to separately operate any part of the Work although it is not substantially complete subject to the following conditions.

1. 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 not substantially complete to determine the status of completion and will prepare a Punch List before final payment.

2. If Contractor does not indicate in writing to Owner and Engineer that such part of the Work is not ready for separate operation by Owner, Engineer will finalize the Punch List and will deliver such list to Owner and Contractor, together with a written recommendation as to the division of responsibilities between Owner and Contractor with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work pending final payment.


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3. The Engineer's recommendation and Punch List will become binding upon Owner and Contractor at the time the Owner takes over and separately operates such part of the Work unless otherwise agreed in writing and so informed Engineer.

4. During such separate operation by Owner and prior to Substantial Completion of such part of the Work, Owner shall allow Contractor reasonable access to complete or correct Punch List and to complete other related Work.

14.06 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. Application for Payment:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, warranties, updated Contractor's written general warranty and guarantee per Paragraph 6.19.D if modified., bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, and Engineer has indicated that the Work is acceptable (subject to the provisions of Paragraph 14.09), Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;

b. consent of the surety, if any, to final payment;

c. a list of all Claims against Owner that Contractor believes are unsettled; and

d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been


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paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable using the Certificate of Completion form included in the Contract Documents, subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted as detailed on the Certificate of Completion. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees


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specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

## ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

B. If the performance of all or any part of the Work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Owner, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of this Contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this Contract, such suspension, delay, or interruption shall be considered as if ordered by the Owner in the administration of this Contract under the terms of Article 15 except that it will not be possible for the Owner to fix the date for resumption of the Work.

1. The term "environmental litigation", as used herein, means a claim or lawsuit alleging that the Work has or will have an adverse effect on the environment or that the Owner has not duly considered, either substantively or procedurally, the effect of the Work on the environment.

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's ~~persistent~~ failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's repeated disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents; or~~.~~


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5. Contractor commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if Contractor takes any equivalent or similar action by filing a petition or otherwise under any Laws and Regulations in effect at such time relating to the bankruptcy or insolvency; or

6. a petition is filed against Contractor under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against Contractor under any Laws and Regulations in effect at the time relating to bankruptcy or insolvency; or

7. Contractor makes a general assignment for the benefit of creditors; or

8. a trustee, receiver, custodian or agent of Contractor is appointed under applicable law or under contract, whose appointment or authority to take charge of property of Contractor is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of Contractor's creditors; or

9. Contractor admits in writing its inability to pay its debts generally as they become due.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and

3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.


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D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. ~~all~~ reasonable claims, costs, losses, and damages (including but not limited to ~~all~~ reasonable fees and charges of engineers, architects, attorneys, and other professionals and ~~all~~ reasonable court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.


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B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

## ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Subject to the requirements in Paragraph 10.05, Owner and Contractor agree that they will submit any and all unsettled Claims, counterclaims, disputes and other matters in question between them arising out of or relating to the Contract Documents ("disputes"), to mediation by senior management representatives of each party for a period of 5 days. If resolution is not achieved, then the dispute shall be submitted to formal mediation prior to either of them initiating against the other, a demand for arbitration pursuant to Paragraph 16.02, unless delay in initiating arbitration would irrevocably prejudice one of the Parties. Any time limits within which to file a demand for arbitration shall be suspended with respect to a dispute submitted to mediation within those same applicable time limits and shall remain suspended until 10 days after the termination of the mediation. The mediator of any dispute submitted to mediation shall not serve as arbitrator of such dispute unless otherwise agreed.

~~A.~~B. Subject to Paragraph 16.01.A, e~~E~~ither Owner or Contractor may request formal mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

~~B.~~C. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

~~C.~~D. If the Claim is not resolved by senior management mediation or formal mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke ~~any~~ the dispute resolution process pursuant to Paragraph 16.02~~provided for in the Supplementary Conditions~~; or

2. agrees with the other party to submit the Claim to another dispute resolution process.~~; or~~


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3. ~~gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.~~

16.02 *Arbitration*

A. All Claims or counterclaims, disputes, or other matters in question between Owner and Contractor arising out of or relating to the Contract Documents or the breach thereof (except for Claims which have been waived by the making or acceptance of final payment as provided by Paragraph 14.09) including but not limited to those not resolved under the provisions of Paragraphs 10.05 or 16.01, will be subject to arbitration in accordance with the rules of Construction Industry Rules of the American Arbitration Association, subject to the conditions and limitations of this Paragraph 16.02. This agreement to arbitrate, and any other agreement or consent to arbitrate entered into, will be specifically enforceable under the prevailing Laws of any court having jurisdiction.

B. The demand for arbitration will be filed in writing with the other party to this Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the 30 day period specified in Paragraph 16.01.D, and in all other cases, within a reasonable time after the Claim or counterclaim, dispute, or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such Claim or other dispute or matter in question would be barred by the applicable statute of limitations.

C. No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:

1. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and

2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.

D. Consolidation shall be by order of the arbitrator(s) in any pending case, or if the arbitrator(s) fail to make an order, a party may apply to a court of competent jurisdiction for such order. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity shall be specifically enforceable in accordance with the Laws of any court having jurisdiction thereof.

E. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include: (i) a concise breakdown of the award; (ii) a written explanation of the award specifically citing the Contract Document provisions deemed applicable and relied on in making the award.


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F. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the controlling Laws relating to vacating or modifying an arbitral award.

G. If the parties decline to arbitrate, such Claims, disputes and other matters shall be decided by a court having jurisdiction.

16.03 *General*

A. The Contractor will require similar arbitration provisions in agreements with its Subcontractors and Suppliers.

B. Contractor shall not have the right to stop performance of the Work pending resolution of a Claim or dispute.

C. Notwithstanding any provision contained in this Article or elsewhere in the Contract Documents, the Owner reserves the following rights in connection with Claims and disputes between the Owner and the Contractor:

1. The right to institute legal action against the Contractor in any court of competent jurisdiction in lieu of demanding arbitration pursuant to this Article, in which case the Claims or disputes which are the subject of such action shall be decided by such court, and not by arbitration.

2. The right to obtain from any court of competent jurisdiction a stay of any arbitration instituted by the Contractor, provided that the application for such stay is made before the appointment of the neutral arbitrator in such arbitration, in which case the Claims or disputes which are the subject of such arbitration shall be decided by such court, and not by arbitration.

3. The right to require the Contractor to join as a party in any arbitration between the Owner and the Engineer relating to the Project, in which case the Contractor agrees to be bound by the decision of the arbitrator or arbitrators in such arbitration.

## ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.


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**with Standard Supplementary Conditions prepared by Woodard & Curran on behalf of and are as approved by Owner**

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

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

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located. See Additional Supplementary Conditions for specific requirements.

17.06 *Headings*

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

17.07 *Professional Fees and Court Costs Included*

A. In any action or proceeding to enforce or interpret any contractual provision or to resolve any conflict or dispute relating to or arising from this Contract, the prevailing party shall be entitled to recover, as part of its claim, award or judgment, reasonable attorneys; fees and associated costs and expenses, including expenses of engineering, claims and other consultants.

**END OF SECTION**


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# SECTION 00805

# SPECIFIC PROJECT REQUIREMENTS

## GENERAL

The address system used herein is the same as the address system used in the Standard General and Supplementary Conditions, with the prefix "SC" added thereto. Additional terms used in this Section have the meanings stated below, which are applicable to both the singular and plural thereof.

The contents of this Section do not represent or reflect all applicable provisions and policies or Laws and Regulations, and may only include excerpts and portions thereof. Other required provisions and policies, and Laws and Regulations, shall be deemed to be so included and incorporated herein. Contractor is solely responsible to determine, obtain, review and interpret the full text of applicable provisions and policies, Regulations, and Laws.

The Project is subject to Department of Environmental Protection ("MassDEP"), Division of Municipal Services ("DMS"), State Revolving Loan Fund Program ("SRF") provisions and policies, other Project specific regulations and requirements, and Federal Laws.

**SC-1.01.A.29 *Owner:*** Add the following at the end of the definition.

Owner may also be referred to as "*Local Government Unit (LGU)*" per MassDEP DMS requirements, which may be used interchangeably and shall have the same meaning.

**SC-1.01.B *Additional Terms:*** Add the following new definition.

6. *Installer* -- The entity engaged by Contractor or a Subcontractor for installation, erection, application and similar required operations of a particular portion of the Work at the Site, including who has specialty experience in the Work they are engaged to perform.

**SC-2.05 Before Starting Construction**

Pursuant to subparagraph 2.05.A.3, the items included in the Bid Form will constitute the preliminary Schedule of Values for this Project and per MassDEP DMS policy memoranda, the items included must also be categorized by Eligible and Ineligible items under the State Revolving Loan Fund Program, in particular those listed in the Attachments to this Section and Section 01003.

**SC-3.06** ***Electronic Data***

Pursuant to Paragraph 3.06.A, the Contractor may rely on the following electronic data furnished by Owner or Engineer.

1. Files transmitted to the Contractor in portable document format ("PDF") which are understood by all parties to constitute official Project correspondence such as a response to a request for information or submittal review.

**SC 4.01** ***Availability of Lands***

Pursuant to Paragraph 4.01.A, the following easements and rights-of-way exist for the Project.

1. NONE

**SC-4.02** ***Subsurface and Physical Conditions***

A. Pursuant to Paragraph 4.02.A,

1. the following reports of explorations and tests of subsurface conditions at or contiguous to the Site are known to Owner:

   a. None.

2. The following drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) are known to Owner:

   a. None

**SC-4.06** ***Hazardous Environmental Conditions at Site***

A. Pursuant to Paragraph 4.06.A,

3. the following reports regarding Hazardous Environmental Conditions at the Site are known to Owner:

   a. None

4. The following drawings regarding Hazardous Environmental Conditions at the Site are known to Owner:

   a. None

## SC-5.04 Contractor's Insurance

Pursuant to subparagraph 5.04.B.1, certificates of insurance and additional insured endorsements naming the Owner and Engineer shall read exactly as follows.

"City of Lowell and Woodard & Curran are named as additionally insured".

## SC-6 *Contractor's Responsibilities*

Pursuant to Article 6, Contractor shall comply with special coordination requirements and communicate with identified contacts during prosecution of the Work as set forth in Section 01003.

## SC-6.02 *Labor; Working Hours*

Add the following immediately after Paragraph A.1.

2. All employees of the Contractor and its Subcontractors who may have direct supervised and or/unsupervised contact with any Customers of the Owner must comply with the special screening and checks specified in Section 02501.

Pursuant to Paragraph 6.02.B, regular working hours for this Project are 7:00 a.m. to 3:00 p.m. Monday through Friday. Special circumstances may require work outside of regular working hours. See Section 02501 for details.

## SC-6.03 *Services, Materials, and Equipment*

Add the following to Paragraph 6.03 per MassDEP DMS requirements.

E. Contractor and Subcontractors shall comply with the *Diesel Retrofit Program* included as an attachment to this Section. The referenced certification is included in Section 00540.

F. Whenever it is written that an equipment manufacturer must have a specified period of experience with his product, equipment which does not meet the specified experience period can be considered if the equipment Supplier or manufacturer is willing to provide an "Efficiency Guarantee Bond" or cash deposit for the duration of the specified time period which will guarantee replacement of that equipment in the event of failure.

G. Contractor shall fully comply with Subpart C of 2 CFR Part 180 and 2 CFR Part 1532, entitled "*Responsibilities of Participants Regarding Transactions (Doing Business with Other Persons).*" The Contractor shall not award any subcontracts or purchase any materials from Suppliers that appear on the Excluded Parties List System. The Contractor shall include this requirement in each subcontract and

require it to be included in all subcontracts regardless of tier. The Contractor shall maintain reasonable records to demonstrate compliance with these requirements.

**SC-6.06** ***Concerning Subcontractors, Suppliers and Others***

Add the following to Paragraph 6.06 per MassDEP DMS requirements.

H. Contractor shall fully comply with Subpart C of 2 CFR Part 180 and 2 CFR Part 1532, entitled "*Responsibilities of Participants Regarding Transactions (Doing Business with Other Persons).*" The Contractor shall not award any subcontracts or purchase any materials from Suppliers that appear on the Excluded Parties List System. The Contractor shall include this requirement in each subcontract and require it to be included in all subcontracts regardless of tier. The Contractor shall maintain reasonable records to demonstrate compliance with these requirements.

B. Contractor shall comply with the minimum Disadvantaged Business Enterprise goals set forth in Section 00838. The Awarding Authority (Owner) may suspend, terminate or cancel the Contract, in whole or in part, or may call upon the Contractor's surety to perform all terms and conditions in the Contract, unless the Contractor is able to demonstrate compliance with the terms of Section 00838, and may further deny to the Contractor, the right to participate in any future contracts awarded by the Awarding Authority for a period of up to three years.

**SC-6.08** ***Permits***

Pursuant to subparagraph 6.08.A.1, Contractor shall comply with the following licenses and permits Owner has obtained for the Project.

NONE

Add the following immediately after subparagraph 6.08.A.1.

2. The Contractor shall comply with the requirements of the City of Lowell, Department of Public Works Permit Manual.

**SC-6.09** ***Laws and Regulations***

Pursuant to Paragraph 6.09, the Contractor shall comply with additional requirements in Section 00811 and MassDEP DMS policies and requirements under the State Revolving Loan Fund Program included in various Sections of the Contract Documents.

**SC-6.11** ***Use of Site and Other Areas***

Pursuant to Paragraph 6.11.A, the Contractor shall provide that access to businesses and residences are maintained during prosecution of the Work.

**SC-6.13** ***Safety and Protection***

Add the following to Paragraph 6.13.D.

3. Contractor obligations shall include safety training for employees on Site, and provision of any and gear and equipment to ensure the work is proceeding in a safe manner. Should the Owner observe employees or practices which, in the opinion of the Owner, compromise safety, the Owner shall have the right to stop the work until such time the Contractor has corrected or amended safety deficiencies. Claims for additional costs associated for Work suspended due to safety violations.

**SC-6.19** ***Contractor's General Warranty and Guarantee***

Add the following new Paragraph.

G. Contractor shall guarantee that Customer information provided by Owner or obtained during the performance of Work shall be kept confidential by employees and consultants of the Contractor and its Subcontractors.

**SC-7.01** ***Related Work at Site***

Pursuant to 7.01, other work will be performed at or near the Site although not by Owner nor under Owner's direction.

NONE

**SC-8.11** ***Evidence of Financial Arrangements***

Pursuant to Paragraph 8.11.A, the Project is to be funded in part by the Massachusetts Water Pollution Abatement Trust (the "Trust") and is subject to the approval by the MassDEP.

**SC-11.01** ***Cost of the Work***

Add the following after subparagraph 11.01.A.1.a.

b. Per MassDEP DMS requirements:

1) mobilization shall not exceed 5 percent of the total Contract Price;

2) the Direct Labor Cost markup percentage applicable to change orders for this Contract is as included in Section 00540; and

3) see Section 01003 for limitations on financial participation by MassDEP DMS under the State Revolving Loan Fund Program for certain items.

**SC-11.03** ***Unit Price Work***

Add the following at the end of subparagraph D.1.

, except for additional DCUs/repeaters exceeding the guaranteed quantity estimated by the Contractor.

**SC-12.01** ***Change of Contract Price***

Add the following to Paragraph 12.01.A.

1. Change orders shall be processed in accordance with MassDEP DMS Policy Memorandum CG-10 included as an attachment to this Section and overhead and profit referenced shall be as follows for this Project.

   For items B(5) and C(5): 10%
   For items B(6) and C(6): 5%

2. Documentation required to substantiate quantities in change orders shall be in accordance with MassDEP DMS Policy Memorandum CG-16 included in Section 01003.

Replace subparagraph 12.01.C.1 with the following per MassDEP DMS requirements:

1. the Direct Labor Cost markup percentage applicable to change orders for this Contract is as included in Section 00540; and

In subparagraph C.2.a regarding Contractor's fee, replace "15 percent" with "10 percent".

In subparagraph C.2.c regarding fee of Subcontractor who actually performs the Work, replace "15 percent" with "10 percent".

**SC-13.07 *Correction Period***

Add the following to Paragraph 13.07.C.

1. All leaks within 3 feet of the meter couplings reported after the meter installation shall be repaired at no charge, provided that the Contractor is notified within 30 calendar days of the installation date.

2. Meters shall be furnished with a manufacturer's warranty to cover the following:

    a. Meters shall be covered to meet AWWA standards for Accuracy for 5 years from date of acceptance of installation.

    b. Meter maincase shall be warranted against defects for the life of the meter from date of acceptance of installation.

    c. Meter register shall be warranted for performance, materials, and workmanship for 10 years from date of acceptance of installation.

    d. Meter measuring chamber shall be warranted for 10 years against freeze damage if the meter has been equipped with a frostproof cast iron or synthetic polymer bottom cap.

3. Meter transmission units shall have a minimum 20 year warranty from the date of acceptance of installation, with batteries warranted for 10 years full replacement, and a prorated replacement cost in years 11 through 20.

4. Data Collector Units and antennas shall have a minimum 5 year warranty from the date of first use and operation.

    a. Backhaul fees associated with transmitting from the DCUs to the Owner's fixed network base station shall be paid for the Warranty period of the DCUs and antennas (5 years).

**SC-14.02 *Progress Payments***

Add the following immediately after subparagraph 14.02.A.1.

b. Per MassDEP DMS requirements, the Contractor shall provide reports documenting the portion of Contract and subcontract dollars paid to DBEs, and Contractor's efforts to achieve the goals, with each application for payment submitted or at such greater intervals as specified by the Owner in accordance with Section 00838. The Contractor shall require similar reports from its Subcontractors.

c. Contractor shall be paid based on successful installations as determined by the Owner and Engineer. Owner and Engineer will review the installation reports, work orders, status of additions of the new meters to the AMR system, billing software, customer accounts and the ability of the new system to consistently receive reliable meter readings. Owner will not approve payment for each meter/MTU installation until it is verified through a simulated bill run in the billing system.

d. Payment will not be made for meter/MTU installations that are not verified through the Owner's water bill run process.

**SC-14.07 *Final Payment***

Add the following to Paragraph 14.07.A.1.

a. Per MassDEP requirements, documentation required to substantiate quantities in the request for Final Payment shall be in accordance with MassDEP DMS Policy Memorandum CG-16 included as an attachment to Section 01003.

**SC-15.02 *Owner May Terminate for Cause***

Add the following to Paragraph 15.02.A.

10. Inappropriate conduct of employees of Contractor or its Subcontractors.

**ATTACHMENTS**

A. DEP Diesel Retrofit Program

B. MassDEP DMS Policy Memorandum CG-10

**END OF SECTION**

**POLICY MEMORANDUM NO. CG-10** **CHANGE ORDERS**

Executed change orders submitted to the Division for review and processing for financial assistance must be prepared on the attached Change Order Forms (CG-10, Attachment 1, pages A-1 & A-2) with a duplicate copy, calculation sheet(s) (CG-10, Attachment 2), and all other supporting documentation necessary for evaluation. Failure to comply with these instructions will result in delays in processing the change order and/or limited financial assistance. Use Form C006363A *OR C-00639A*

M.G.L. c.44, s.31C requires that the auditor, accountant, or other municipal officer having similar duties must certify that adequate funding in an amount sufficient to cover the total cost of the change order has been made. Change orders will not be processed or approved until this certification is made on the face of the Change Order Form (CG-10 Attachment 1).

Payment of Change Orders:

Payment of all change orders shall be in accordance with the relevant provisions of Massachusetts General laws, Chapter 30, Section 39G for non-building construction and Section 39K for building construction.

Payment of change orders shall be made in accordance with one of the following three methods:

A. Existing unit prices as set forth in the contract; or
B. Agreed upon lump sum or unit prices; or
C. Time and materials

A. Payment for work for which there is a unit price in the contract:

Where the contract contains a unit price for work and the Engineer orders a change for work of the same kind as other work contained in the contract and is performed under similar physical conditions, the contractor may accept full and final payment at the contract unit price(s) for the acceptable quantities.

Policy Memorandum No. CG-10 – Change Orders (Con't)

B. Payment for work or materials for which no price is contained in the contract:

If the Engineer directs, the contractor shall submit promptly in writing to the Engineer and offer to do the required work on a lump sum or unit price basis, as specified by the Engineer. The stated price, either lump sum or unit price, shall be divided so as to show that it is the sum of:

(1) The estimated cost of labor, plus
(2) Direct Labor Cost, plus
(3) Material and Freight Costs, plus
(4) Equipment Costs, plus
(5) An amount not to exceed 20% of the sum of items (1) through (4) for overhead and profit, plus (if applicable),
(6) In the case of work done by a subcontractor and amount not to exceed 7 ½ %, for the general contractor of the sum of items (1) through (4) for his overhead and profit, less, if applicable,
(7) Credits for work deleted from the contract.

C. Payment for work on a time and materials basis:

Unless an agreed lump sum and/or unit price is obtained from above and is so stated in the change price, the contractor shall accept as full payment for which no other agreement is contained in contract, and amount equal to:

(1) The estimated cost of Labor, plus
(2) Direct Labor Cost, plus
(3) Material and Freight Costs, plus
(4) Equipment Costs, plus
(5) An amount not to exceed 20% of the sum of items (1) through (4) for overhead and profit, plus (if applicable),
(6) In the case of work done by a subcontractor and amount not to exceed 7 ½ %, for the general contractor of the sum of items (1) through (4) for his overhead and profit, less, if applicable,
(7) Credits for work deleted from the contract.

Explanation of items (1) through (7) as outlined in "B" and "C":

(1) Labor – Only those workers employed on the project who are doing the extra work, including the foreman in charge, are allowable. General foremen, superintendents, or other supervisory personnel are considered to be included in the overhead markup as provided in items (5) and/or (6). Hourly labor rates in excess of those as listed in the contract wage rates (Federal or State, whichever applies require documentation. As a minimum, an explanation and the appropriate copy of the certified payroll are required.

Policy Memorandum No. CG-10 – Change Orders (Con't)

(2) Direct Labor Costs - These costs are limited to those which are required in the contract document. Coverage in excess of the contract provisions, secured by the contractor/subcontractor(s) at his option, are ineligible for financial assistance. The following list of typical direct labor charges is provided for your assistance and is in no way intended to be complete or all encompassing:

- Workman's Compensation
- Federal/State: Social Security Tax and Unemployment Tax;
- Health, Welfare and Pension Benefits; (this cost is included in the wage rates appearing in the Mass. Wage Rates of the contract specifications)
- Liability Insurance: Bodily Injury; Excess Umbrella; Property damage; Public Liability
- Blasters Insurance
- Builders Risk Insurance
- Experience Modification Insurance
- Surcharges

If applied to any required direct labor costs.

Following award and prior to execution of a construction contract, the contractor and filed sub-bidders (where applicable) shall submit for review by the owner, documentation to establish the Direct Labor Cost percentage(s) (Direct Labor markup percentage(s)).

The documented direct labor markup for this contract may be adjusted on an annual basis as measured from the date the contract is executed. The contract agreement will provide for the establishment of the Direct Labor Cost percentage.

(3) Material and Freight – Only those materials required as a result of the change order and reasonable freight charges for delivery of same are allowable.

Policy Memorandum No. CG-10 – Change Orders (Con't)

(4) Equipment – Only the equipment required as a result of the change order is allowable. Equipment rental rates shall be governed by the current Nielson/Dataquest Rental Rate bluebook for Construction Equipment (the "Bluebook"). In determining the rental rate the following shall apply:

(a) For equipment already on the project – the monthly prorated rental rate by the hourly use shall be applicable;
(b) For equipment not on the project the daily rate, the weekly rate, or monthly rate will prevail, whichever will prove to be most cost effective. Small tools and manual equipment are examples of costs not allowable under this item. These costs are considered to be included in the overhead markup as provided in items (5) and/or (6) (1 month (normal use) = 176 hours)

(5) & (6) Overhead and Profit – All other costs not previously mentioned are considered to be included in this item, be it for the general contractor or subcontractor(s).

(7) Credits – Work deleted, material and equipment removed from the contractor, stored and/or returned shall be credited to the cost of the change order, less costs.

The Contractor shall furnish itemized statements of the cost of the work ordered and shall give the Engineer access to all accounts, bills and vouchers relating thereto; and unless the Contractor shall furnish such itemized statements, and access to all accounts, bills and vouchers, he shall not be entitled to payment for any items of extra work for which such information is sought by the Engineer. Deviations from any of the above will be reviewed for financial assistance on a case-by-case basis.

The change order will be prepared in such manner as to clearly separate Eligible and Ineligible Costs.

Policy Memorandum No. CG-10
Attachment 1 Page A-1

## CHANGE ORDER FORM

SRF Number _____
Public Entity _____
Contract Number _____
Change Order Number _____

Contract Amount (As Bid) $ _____

Net Change in Contract Price (this change order) $ _____

Total Adjusted Contract Price (including this and all other change orders) $ _____

This change order extends the time to complete the work by _____ calendar days.

The extended completion date is _____

This change order checked by _____ _____
(Chief) Resident Engineer Date

This change order is requested by: _____

This change order is recommended by: _____

_____ _____ _____
Consultant Engineer P.E. Number Date

The undersigned agree to the terms of the change order.

_____ _____
Contractor Date

_____ _____
Owner Date

Certification of Appropriation under M.G.L. c.44, §31C: Adequate funding in an amount sufficient to cover the total cost of this change order is available.

By: _____ _____
Certification Officer (Auditor, accountant, treasurer) Date

Do not write below: this space reserved for STATE AGENCY APPROVAL

DEP/DMS

DEP-DMS-CG-12

Policy Memorandum No. CG-10
Attachment 1 Page A-2

CHANGE ORDER FORM (Continued)

Public Entity _____

SRF No: _____ Contract No. _____ Change Order No. _____

Contract Title: _____

Owner's Name: _____

Owner's Address: _____

Contractor's Name: _____

Contractor's Address: _____

Description of Change

_____

_____

_____

_____

_____

_____

_____

_____

Reason for Change

_____

_____

_____

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_____

Policy Memorandum No. CG-10
Attachment 2 - Page B-1

# CALCULATION SHEET

(1) Labor

| | | | |
|---|---|---|---|
| Foreman | 10 hrs @ $10.00/hr. | $ 100.00 | |
| Engineer | 10 hrs @ 8.50/hr | 85.00 | |
| Operator | 10 hrs @ 9.50/hr | 95.00 | |
| Laborers | 24 hrs @ 7.00/hr | 168.00 | |
| | | | $448.00 |

(2) Direct Labor Cost (use the agreed upon Direct Labor Cost)

| | | |
|---|---|---|
| * | (30)% of $448 | |
| * | (Used for example purposes only) | 134.00 |

(3) Materials & Freight

| | | |
|---|---|---|
| 150 l.f. of 12" pipe @ $2.00/l.f. | $ 300.00 | |
| 15 v.f. precast SMH | 1,700.00 | |
| Freight (slip # _____ Enclosed) | 25.00 | |
| | | 2,025.00 |

(4) Equipment

| | | |
|---|---|---|
| 1 Backhoe 10 hrs @ $80.00/hr | $ 800.00 | |
| 1 Truck-crane 10 hrs @ $100.00/hr | 1,000.00 | |
| | | 1,800.00 |
| Total (Items 1 through 4) | | 4,407.00 |

(5) 20% markup for Overhead, Profit

20% of $4,407 — 881.00

(6) 7 ½% markup for general contractor (if subcontractor is involved)

7 ½% of $4,407 — 331.00

(7) Credits (deductibles) — - 323.00

Total Cost $ 5,296.00

Reminder: Provide support documentation as necessary i.e. vouchers, correspondence, Calculation, photographs, reports .....

RETAINED

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## APPENDIX – B
## DIESEL RETROFIT PROGRAM

The Department of Environmental Protection ("DEP") has developed the Diesel Retrofit Program in response to increasing public health concerns with the emissions from diesel engines and vehicles.

**Diesel Construction Equipment Standard**

All diesel powered non-road construction equipment and vehicles greater than 50 brake horsepower which will be used in the performance of the work under the Contract (hereinafter "Diesel Construction Equipment") must have the following pollution control device installed unless exempt as provided below:

1. Emission control technology verified by U.S. Environmental Protection Agency ("EPA") or the California Air Resources Board ("CARB") for use with non-road engines;
2. Emission control technology verified by EPA or CARB for use with on-road engines provided that such equipment is operated with diesel fuel that has no more than 15 parts per million sulfur content (i.e. Ultra Low Sulfur Diesel fuel); or
3. Emission control technology certified by the manufacturer that such technology meets or exceeds the emission reductions provided by on-road or off-road emission control technology verified by EPA or CARB, i.e. that a Diesel Oxidation Catalyst is achieving the following minimum emission reductions: particulate matter 20%; carbon monoxide 40%; volatile organic compounds 50%; or a Diesel Particulate Filter is achieving a minimum of 85% emission reductions for particulate matter.

Emission control devices, such as oxidation catalysts or particulate filters, shall be installed on the exhaust system side of the Diesel Construction Equipment. The Contractor shall be responsible to insure that the emissions control technology is operated, maintained, and serviced as recommended by the manufacturer.

For the latest up-to-date list of EPA verified-technologies, see:
http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm
For the latest up-to-date list of CARB verified technologies, see:
http://www.arb.ca.gov/diesel/verdev/verifiedtechnologies/vt.htm

**Exemptions**

The following Diesel Construction Equipment shall be exempt from the standard above. The Contractor shall include such Diesel Construction Equipment in the required recordkeeping:

1. Diesel Construction Equipment not owned by the Contractor and used in the performance of the work under this Contract for 30 calendar days (cumulative days but not necessarily consecutive) or less;
2. Unless otherwise exempt, additional Diesel Construction Equipment originally not anticipated to be used under the Contract or used as permanent replacement after the work under the Contract has commenced, for 15 calendars days from the date such Diesel Construction Equipment is brought on site;

**APPENDIX – B (cont.)**
**DIESEL RETROFIT PROGRAM**

3. Diesel Construction Equipment with an engine that meets the EPA particulate matter (PM) Tier emission standards in effect at the start of the Contract for non-road diesel engines for the applicable engine power group (e.g., as of January 1, 2009, a piece of Diesel Construction Equipment with a Tier 3 engine is exempt from meeting the standard until the piece of Diesel Construction Equipment is available with a Tier 4 engine) provided that if such emissions standards are superseded during the Contract then such Diesel Construction Equipment must be retrofitted in accordance with the standards above prior to the end of the Contract;
4. A large crane (e.g. a sky crane or link belt crane which is responsible for critical lift operations) if such device would adversely affect the operation of the crane provided the Contractor submits to the municipality's project engineer written technical justification documenting the adverse impact on operation; and
5. Diesel Construction Equipment that the project engineer has determined is necessary to control a compelling emergency including but not limited to, the need for rescue vehicles or other equipment to prevent harm to human beings or additional equipment required to address a catastrophic emergency such as structure collapse or imminent collapse. After the compelling emergency is controlled, such non-compliant equipment must be removed from the Contract site and may not be used in further performance of the work under this Contract. Meeting Contract deadlines is not a compelling emergency.

**Contractor Certification**

Each bidder shall submit as part of its bid, the Statement of Intent to Comply. Within 10 days of being notified that it has been awarded a contract, the bidder and each of its Contractors and Subcontractors shall submit a Diesel Retrofit Program Contractor Certification. Each such Certification shall contain the following information for each piece of Diesel Construction Equipment:

1. Contractor or Subcontractor name;
2. Equipment type, make, model;
3. Vehicle Identification Number or VIN;
4. Engine model and year of manufacture;
5. Engine HP rating;
6. Emission Control Device (ECD) type (Diesel Oxidation Catalyst or Diesel Particulate Filter);
7. ECD make, model, and manufacturer;
8. ECD EPA or CARB Verification Number or manufacturer's certification that the DOC or DPF meets or exceeds emission reductions provided by similar emission control technology verified by EPA or CARB;
9. ECD installation date;
10. Type of fuel to be used; and
11. Whether the equipment is owned or rented.

**Recordkeeping**

Each Contractor and Subcontractor shall maintain detailed records of all Diesel Construction Equipment used under the Contract, including the dates and duration times the Diesel Construction Equipment is

**APPENDIX – B (cont.)**
**DIESEL RETROFIT PROGRAM**

used at the Contract site. Records shall be available for inspection by DEP. Each Contractor and Subcontractor shall notify DEP within 48 hours of any new Diesel Construction Equipment brought onto the Contract site.

For Diesel Construction Equipment that has an emissions control device with a manufacturer's certification, the Contractor shall maintain records of all supporting emissions test data and test procedures. If upon review the emissions reductions are not supported by the test data and test procedures, then the emissions control device may need to be replaced with a compliant retrofit device.

**Project Regulatory Agreement**

The following language shall be included section 4 (Covenants of the Borrower) of the municipality's Project Regulatory Agreement if it receives funds from the State Revolving Fund:

> The Borrower shall require each Contractor and Subcontractor to submit the Diesel Retrofit Program Contractor Certification to DEP and the Borrower prior to commencing work on the Project. The Borrower shall not allow any Contractor or Subcontractor to commence work at the Project site prior to submitting such Certification.

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# SECTION 00811

# STATUTORY REQUIREMENTS

## GENERAL

A. The address system used herein is the same as the address system used in the Standard General and Supplementary Conditions, with the prefix "SC" added thereto. Additional terms used in this Section have the meanings stated below, which are applicable to both the singular and plural thereof.

B. The contents of this Section do not represent or reflect all applicable Laws and Regulations and may only include excerpts and portions of certain Laws and Regulations. Other provisions required by statute shall be deemed to be so included and incorporated herein. Contractor is solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.

C. The Project is specifically subject to the provisions of the Massachusetts General Laws ("MGL").

**SC-1.01.A.29** ***Owner:*** Add the following at the end of the definition.

Also referred to as "*Awarding Authority*" or "*contracting authority*" or "*general Contractor*" in applicable statutory provisions which may be used interchangeably and shall have the same meaning.

**SC-1.01.A.44** ***Substantial Completion:*** Add the following language at the end of the definition.

For the purposes of MGL Chapter 30, Section 39G, *Completion of public works; semi-final and final estimates; payments*; *extra work; disputed items*, Substantial Completion shall also mean either that the Work has been completed except for Work having a valued at less than 1 percent of the then adjusted total Contract Price, or substantially all of the Work has been completed and opened to public use except for minor incomplete or unsatisfactory Work items that do not materially impair the usefulness of the Work as required by the Contract.

**SC-1.01.B** ***Additional Terms:*** Add the following new definition.

7. *material or Material* -- As used in MGL Chapter 30, Section 39M, *Contracts for construction and materials; manner of awarding,* regarding items equal to those specified, the word "material" shall mean and include any article, assembly, system, included in the Work, or any component part thereof.

**SC-4.03** ***Differing Subsurface or Physical Conditions:*** Delete Paragraph 4.03.B in its entirety and insert the following in its place.

B. Pursuant to MGL Chapter 30, Section 39N, *Construction contracts; equitable adjustment in contract price for differing subsurface or latent physical conditions*, if, during the progress of the Work, the Contractor or the Awarding Authority discovers that the actual subsurface or latent physical conditions encountered at the Site differ substantially or materially from those shown on the Plans or indicated in the Contract Documents either the Contractor or the contracting authority may request an equitable adjustment in the Contract Price of the Contract applying to Work affected by the differing Site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a Contractor, or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the Plans or indicated in the Contract Documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Plans and Contract Documents and are of such a nature as to cause an increase or decrease in the cost of performance of the Work or a change in the construction methods required for the performance of the Work which results in an increase or decrease in the cost of the Work, the contracting authority shall make an equitable adjustment in the Contract Price and the Contract shall be modified in writing accordingly.

**SC-5.01** ***Performance, Payment, and Other Bonds:*** Add the following new paragraphs immediately after Paragraph 5.01.A.

1. Pursuant to MGL Chapter 30, Section 39A, *Construction contracts for public ways, airports or public works; truck rentals; security for payment,* and MGL Chapter 149, Section 29, *Bonds for payment for labor, materials, rentals or transportation charges (et al),* the required payment bond shall also cover payment by the Contractor and Subcontractors for the rental or hire of dump trucks and "the rental or hire of vehicles, steam shovels, rollers propelled by steam or other power, concrete mixers, tools and other appliances and equipment employed in such construction," and for payment of transportation charges directly related to such rental or hire. Such security for payment of transportation charges shall be incorporated by appropriate reference thereto as an additional obligation or condition in the required bonds.

2. In addition, such bonds shall cover payment by Contractor and Subcontractors of any sums due trustees or other persons authorized to collect such payments from the Contractor or Subcontractors, for health and welfare plans, supplementary unemployment benefit plans and other fringe benefits which are payable in cash and provided for in collective bargaining agreements between organized labor and the Contractor or Subcontractors.

**SC-5.02** ***Licensed Sureties and Insurers:*** Add the following new paragraphs immediately after Paragraph 5.02.A.

1. Pursuant to MGL Chapter 149, Section 29D, *Surety company; bonds*, every performance bond and every payment bond issued for any construction work in the Commonwealth shall be the bond of a surety company organized pursuant to Section 105 of MGL Chapter 175 or of a surety company authorized to do business in the Commonwealth under the provisions of Section 106 of said Chapter 175 and be approved by the U.S. Department of Treasury and are acceptable as sureties and reinsurers on federal bonds under Title 31 of the United States Code, sections 9304 to 9308.

2. If there is more than one surety company, the surety companies shall be jointly and severally liable.

**SC-5.04** ***Contractor's Insurance:***

Add the following language at the end of Paragraph 5.04.A.1.

, pursuant to MGL Chapter 149, Section 34A, *Contracts for public works; workers' compensation insurance; breach of contract; enforcement and violation of statute;*

Add the following language at the end of Paragraph 5.04.C.1,

, in compliance with MGL Chapter 152

**SC-6.02** ***Labor; Working Hours:***

Add the following new paragraphs immediately after Paragraph 6.02.A.1.

2. Pursuant to MGL Chapter 30, Section 39S, *Contracts for construction; requirements*, Contractor shall furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work.

3. Pursuant to MGL Chapter 149, Section 26, *Public works; preference to veterans and citizens; wages,* preference shall be given to citizens of the Commonwealth of Massachusetts, citizens of the town or city where the

Project is located, veterans and service-disabled veterans, and citizens of the United States.

4. The Contractor shall not participate in or cooperate with an international boycott, as defined in Section 999 (b)(3) and (4) of the Internal Revenue Code as amended, or engage in conduct declared to be unlawful by MGL Chapter 151E, *Prohibition Of Certain Discrimination By Businesses, Section 2.*

5. Any Work involving the removal, containment, or encapsulation of Asbestos or material containing Asbestos may only be performed by a licensed contractor in accordance with the provisions of MGL Chapter 149, Sections 6A-6E, applicable Laws and Regulations, and requirements as may be included in the Specifications and Drawings.

6. Sheet metal work must be performed by a contractor licensed in accordance with 271 CMR, *Rules and Regulations Governing Sheet Metal Workers,* governing licensing, permitting, and sheet metal work in Massachusetts.

Add the following new paragraph immediately after Paragraph 6.02.B.

1. MGL Chapter 149, Section 30, *Eight hour day and six day week; emergencies; work on highways,* and Section 34, *Public contracts; stipulation as to hours and days of work; void contracts*, apply to this Project which limits work hours of those employed on public construction to 8 hours in any one day or 48 hours in any one week or 6 days in any one week, except in cases of emergency.

**SC-6.05 *Substitutes and "Or-Equals":*** Add the following language at the end of Paragraph 6.05.A.

The provisions of MGL Chapter 30, Section 39M, subsection (b) also applies to this Paragraph.

**SC-6.10 *Taxes*:** Add the following new paragraph immediately after Paragraph 6.10.A.

1. MGL Chapter 64H, Section 6, *Exemptions,* subsection (f), exempts from Massachusetts sales tax, building materials and supplies to be used in the Project, and Contractor shall not include any amount therefor. The words "building materials and supplies" shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge, or other such public work, as well as such materials and supplies physically incorporated therein. Said words shall also include rental charges for construction vehicles, equipment and machinery rented

specifically for use on the Project Site, or while being used exclusively for the transportation of materials for the Project.

**SC-6.12** ***Record Documents*****:** Add the following new paragraphs immediately after Paragraph 6.12.A.

B. Subject to the provisions of MGL Chapter 266, Section 67C, *Capital facility construction projects, etc.; false entries in records; penalties,* and pursuant to MGL Chapter 30, Section 39R, *Definitions; contract provisions; management and financial statements; enforcement:*

1. the Contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the contractor, and until the expiration of six years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the Contractor or of his Subcontractors that directly pertain to, and involve transactions relating to, the Contractor or his Subcontractors.

2. the Contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the Awarding Authority and included in Section 00540, including in his description the date of the change and reasons therefor, and shall accompany said description with a letter from the Contractor's independent certified public accountant approving or otherwise commenting on the changes.

3. The Contractor shall annually file with the commissioner of capital asset management and maintenance during the term of the Contract, a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the Awarding Authority upon request.

4. Contractor's failure to satisfy any of the requirements of this section of the MGL may be grounds for debarment pursuant to MGL Chapter 149, Section 44C, *Suspension or debarment of contractors.*

**SC-9.08** ***Decisions on Requirements of Contract Documents and Acceptability of Work:*** In Paragraph 9.08.B, replace "with reasonable promptness" with "within 30 days pursuant to MGL Chapter 30, Section 39P, *Contracts for construction and materials; awarding authority's decisions on interpretation of specifications, etc.; time limit; notice".*

**SC-10.01** ***Authorized Changes in the Work***: Add the following paragraph immediately after Paragraph 10.01.A.

5. Changes to the Work are subject to the requirements of MGL Chapter 30, Section 39I, *Deviations from plans and specifications.*

**SC-10.05** ***Claims*:** Add the following paragraph immediately after Paragraph 10.05.G.

H. Presentation of false, fictitious, or fraudulent Claims is subject to the provisions of MGL Chapter 266, Section 67B, *Presentation of false claims.*

**SC-11.01.** ***Cost of the Work***:

Pursuant to subparagraph 11.01.A.1.a, prevailing wage requirements are included in Sections 00813 and 00814.

Add the following new paragraph immediately after Paragraph 11.01.A.5.d.

1) The Project is exempt from sales tax as set forth in SC-6.01.

**SC-14.02.** ***Progress Payments***

Add the following new paragraph immediately after subparagraph 14.02.A.1.

d. Pursuant to MGL Chapter 30, Section 39S, *Contracts for construction; requirements*, provide certification for each employee employed at the Work Site of successful completion of 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.

Add the following new paragraph immediately after Paragraph 14.02.C.1.

2. The provisions of MGL Chapter 30, Section 39G, *Completion of public works; semi-final and final estimates; payments; extra work; disputed items*, covering "periodic estimate" and "periodic payment" apply to this Project and shall be considered Progress Payments per Paragraph 14.02. However, the Engineer will perform some of indicated actions on behalf of the Awarding Authority as its representative, consistent with the role and responsibilities defined in the Standard General and Supplementary Conditions and Additional Supplementary Conditions, and the forms listed in Section 00605 and included in the Contract Documents will be utilized.

Add the following new paragraph immediately after Paragraph 14.02.D.3.

E. The following provisions regarding payment to Subcontractors are required by MGL Chapter 30, Section 39F, *Construction contracts; assignment and subrogation; subcontractor defined; enforcement of claim for direct payment; deposit, reduction of disputed amounts*. These provisions shall be included in any subcontract in connection with Work under the Contract Documents.

1. The Engineer will perform some of indicated actions on behalf of the Awarding Authority as its representative, consistent with the role and responsibilities defined in the Standard General and Supplementary Conditions and Additional Supplementary Conditions, if any.

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

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

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

d. If, within 70 days after the Subcontractor has substantially completed the subcontract Work, the Subcontractor has not received from the general Contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the general Contractor, less any amount retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of Work, the Subcontractor may demand direct payment of that balance from the Awarding Authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the general Contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the Subcontractor has substantially completed the subcontract work. Within 10 days after the Subcontractor has delivered or so mailed the demand to the Awarding Authority and delivered or so mailed a copy to the general Contractor, the general Contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general Contractor and of the amount due for each Claim made by the general Contractor against the Subcontractor.

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

payments made as provided in parts (i) and (ii) of this subparagraph.

f. The Awarding Authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) above in an interest-bearing joint account in the names of the general Contractor and the Subcontractor in a bank in Massachusetts selected by the Awarding Authority or agreed upon by the general Contractor and the Subcontractor and shall notify the general Contractor and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the general Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.

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

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

**SC 14.04 *Substantial Completion:*** Add the following new paragraph immediately after Paragraph 14.04.E.

F. The provisions of MGL Chapter 30, Section 39G, *Completion of public works; semi-final and final estimates; payments; extra work; disputed items,* covering substantial completion apply to this Project. However, the Engineer will perform some of indicated actions on behalf of the Awarding Authority as its representative, consistent with the role and responsibilities defined in the Standard General and Supplementary Conditions and Additional Supplementary Conditions if any, and the forms listed in Section 00605 and included in the Contract Documents will be utilized.

**SC 14.07** ***Final Payment:*** Add the following new paragraph immediately after Paragraph 14.07.C.1.

D. The provisions *of* MGL Chapter 30, Section 39G, *Completion of public works; semi-final and final estimates; payments; extra work; disputed items* covering the final estimate and completion of the Work apply to this Project. However, the Engineer will perform some of indicated actions on behalf of the Awarding Authority as its representative, consistent with the role and responsibilities defined in the Standard General and Supplementary Conditions and Additional Supplementary Conditions if any, and the forms listed in Section 00605 and included in the Contract Documents will be utilized.

**SC-15.01** ***Owner May Suspend Work:*** Add the following new paragraphs immediately after Paragraph 15.01.A.

1. Pursuant to MGL Chapter 30, Section 39O, *Contracts for construction and materials; suspension, delay or interruption due to order of awarding authority; adjustment in contract price; written claim*, the Awarding Authority may order the general Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as it may determine to be appropriate for the convenience of the Awarding Authority; provided however, that if there is a suspension, delay or interruption for 15 days or more or due to a failure of the Awarding Authority to act within the time specified in the Contract, the Awarding Authority shall make an adjustment in the Contract Price for any increase in the cost of performance of the Contract but shall not include any profit to the general Contractor on such increase; and provided further, that the Awarding Authority shall not make any adjustment in the Contract Price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this Contract provides for an equitable adjustment of the Contract Price under any other Contract provisions.

2. The general Contractor must submit the amount of a Claim under provision 1 above to the Awarding Authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under the Contract and, except for costs due to a suspension order, the Awarding Authority shall not approve any costs in the Claim incurred more than 20 days before the general Contractor notified the Awarding Authority in writing of the act or failure to act involved in the Claim.

3. In the event a suspension, delay, interruption or failure to act of the Awarding Authority increases the cost of performance to any Subcontractor, that Subcontractor shall have the same rights against the general Contractor for payment for an increase in the cost of his performance as provisions 1 and 2 above give the general Contractor against the Awarding Authority, but nothing in provisions 1 and 2 above shall in any way change, modify or alter any other rights which the general Contractor or the Subcontractor may have against each other.

***SC-17.05 Controlling Law:*** Add the following new paragraphs immediately after Paragraph 17.05.A.

1. This Contract is subject to all Laws and Regulations of the United States of America (including the U.S. Code of Federal Regulations), the Commonwealth of Massachusetts and other public authorities, and all amendments thereto. Where any requirements contained herein do not conform to or are inconsistent with such Laws and Regulations to which the Contract is subject or by which it is governed, such Laws and Regulations shall have precedence over any matters set forth herein.

2. The Project is specifically subject to MGL Chapters 30 and 149 for contracts awarded pursuant to MGL Chapter 30, Section 39M.

3. This Project is subject to the provisions and policies required by and the approval of the MassDEP, Division of Municipal Services under the State Revolving Loan Fund Program in accordance with Section 00805.

4. Statutes, Regulations, and portions and summaries thereof which are set forth or referred to in the Contract Documents shall be construed to include all amendments thereto in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids). The Owner and Engineer make no representation as to and assume no responsibility for the correctness or completeness of such statutory matters referred to or set forth herein.

5. Any provision in violation of the foregoing shall be deemed null, void and of no effect. Where conflicts with Laws and Regulations exist, the more stringent requirement shall apply.

**END OF SECTION**

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# SECTION 00813

## WAGE DETERMINATION SCHEDULE

The Project is subject to the following wage rates (included in this section) in accordance with the requirements included in Section 00814.

- Minimum wage rates as determined by the Commissioner of Department of Workforce Development pursuant to MGL Chapter 149, Sections 26 to 27D

- Federal minimum wage rates as determined by the United States Department of Labor under the Davis-Bacon Act

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

# Prevailing Wage Rates

DEVAL L. PATRICK
Governor

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

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

**Awarding Authority:** City of Lowell

**Contract Number:**

**City/Town:** LOWELL

**Description of Work:** DWSRF 3811 Contract 3 - Install 24,683 small diameter water meters & meter transmission units. Also providing data collection units to expand the existing Fixed Network Meter Reading System

**Job Location:** 815 Pawtucket Blvd, Lowell, MA 01852

## 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.
- Awarding authorities 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.
- 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. Once a contractor has been selected by the awarding authority, the wage schedule shall be made a part of the contract for that project. The wage schedule must be posted in a conspicuous place at the work site during 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 regardless of 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 Division of Apprentice Training (DAT). Apprentices must keep his/her apprentice identification card on his/her person during all work hours on the project. If an apprentice rate is listed on the prevailing wage schedule for the trade in which an apprentice is registered with the DAT, the apprentice may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **If an apprentice rate is not listed on the prevailing wage schedule for the trade in which an apprentice is registered with the DAT, the apprentice 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. 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 directly to the awarding authority and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at http://www.mass.gov/dols/pw.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| **Construction** | | | | | | |
| (2 AXLE) DRIVER - EQUIPMENT<br>*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B* | 12/01/2013 | $30.95 | $9.41 | $8.80 | $0.00 | $49.16 |
| | 06/01/2014 | $31.30 | $9.41 | $8.80 | $0.00 | $49.51 |
| | 08/01/2014 | $31.30 | $9.91 | $8.80 | $0.00 | $50.01 |
| | 12/01/2014 | $31.30 | $9.91 | $9.33 | $0.00 | $50.54 |
| | 06/01/2015 | $31.65 | $9.91 | $9.33 | $0.00 | $50.89 |
| | 08/01/2015 | $31.65 | $10.41 | $9.33 | $0.00 | $51.39 |
| | 12/01/2015 | $31.65 | $10.41 | $10.08 | $0.00 | $52.14 |
| | 06/01/2016 | $32.15 | $10.41 | $10.08 | $0.00 | $52.64 |
| | 08/01/2016 | $32.15 | $10.91 | $10.08 | $0.00 | $53.14 |
| | 12/01/2016 | $32.15 | $10.91 | $10.89 | $0.00 | $53.95 |
| (3 AXLE) DRIVER - EQUIPMENT<br>*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B* | 12/01/2013 | $31.02 | $9.41 | $8.80 | $0.00 | $49.23 |
| | 06/01/2014 | $31.37 | $9.41 | $8.80 | $0.00 | $49.58 |
| | 08/01/2014 | $31.37 | $9.91 | $8.80 | $0.00 | $50.08 |
| | 12/01/2014 | $31.37 | $9.91 | $9.33 | $0.00 | $50.61 |
| | 06/01/2015 | $31.72 | $9.91 | $9.33 | $0.00 | $50.96 |
| | 08/01/2015 | $31.72 | $10.41 | $9.33 | $0.00 | $51.46 |
| | 12/01/2015 | $31.72 | $10.41 | $10.08 | $0.00 | $52.21 |
| | 06/01/2016 | $32.22 | $10.41 | $10.08 | $0.00 | $52.71 |
| | 08/01/2016 | $32.22 | $10.91 | $10.08 | $0.00 | $53.21 |
| | 12/01/2016 | $32.22 | $10.91 | $10.89 | $0.00 | $54.02 |
| (4 & 5 AXLE) DRIVER - EQUIPMENT<br>*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B* | 12/01/2013 | $31.14 | $9.41 | $8.80 | $0.00 | $49.35 |
| | 06/01/2014 | $31.49 | $9.41 | $8.80 | $0.00 | $49.70 |
| | 08/01/2014 | $31.49 | $9.91 | $8.80 | $0.00 | $50.20 |
| | 12/01/2014 | $31.49 | $9.91 | $9.33 | $0.00 | $50.73 |
| | 06/01/2015 | $31.84 | $9.91 | $9.33 | $0.00 | $51.08 |
| | 08/01/2015 | $31.84 | $10.41 | $9.33 | $0.00 | $51.58 |
| | 12/01/2015 | $31.84 | $10.41 | $10.08 | $0.00 | $52.33 |
| | 06/01/2016 | $32.34 | $10.41 | $10.08 | $0.00 | $52.83 |
| | 08/01/2016 | $32.34 | $10.91 | $10.08 | $0.00 | $53.33 |
| | 12/01/2016 | $32.34 | $10.91 | $10.89 | $0.00 | $54.14 |
| ADS/SUBMERSIBLE PILOT<br>*PILE DRIVER LOCAL 56 (ZONE 1)* | 08/01/2013 | $84.21 | $9.80 | $18.17 | $0.00 | $112.18 |
| | 08/01/2014 | $87.36 | $9.80 | $18.17 | $0.00 | $115.33 |
| | 08/01/2015 | $90.51 | $9.80 | $18.17 | $0.00 | $118.48 |
| AIR TRACK OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 06/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 12/01/2014 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 06/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 12/01/2015 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 06/01/2016 | $33.10 | $7.30 | $12.10 | $0.00 | $52.50 |
| | 12/01/2016 | $33.85 | $7.30 | $12.10 | $0.00 | $53.25 |

For apprentice rates see "Apprentice- LABORER"

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| ASBESTOS REMOVER - PIPE / MECH. EQUIPT.<br>*HEAT & FROST INSULATORS LOCAL 6 (BOSTON)* | 12/01/2013 | $30.68 | $10.40 | $5.95 | $0.00 | $47.03 |
| | 06/01/2014 | $31.58 | $10.40 | $5.95 | $0.00 | $47.93 |
| | 12/01/2014 | $32.48 | $10.40 | $5.95 | $0.00 | $48.83 |
| | 06/01/2015 | $33.43 | $10.40 | $5.95 | $0.00 | $49.78 |
| | 12/01/2015 | $34.38 | $10.40 | $5.95 | $0.00 | $50.73 |
| ASPHALT RAKER<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.49 | $10.00 | $14.18 | $0.00 | $64.67 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| BACKHOE/FRONT-END LOADER<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.49 | $10.00 | $14.18 | $0.00 | $64.67 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| BARCO-TYPE JUMPING TAMPER<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | ~~$30.60~~ | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| BLOCK PAVER, RAMMER / CURB SETTER<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 06/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 12/01/2014 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 06/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 12/01/2015 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 06/01/2016 | $33.10 | $7.30 | $12.10 | $0.00 | $52.50 |
| | 12/01/2016 | $33.85 | $7.30 | $12.10 | $0.00 | $53.25 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| BOILER MAKER<br>*BOILERMAKERS LOCAL 29* | 01/01/2010 | $37.70 | $6.97 | $11.18 | $0.00 | $55.85 |

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

**Apprentice -** *BOILERMAKER - Local 29*

**Effective Date -** 01/01/2010

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 65 | $24.51 | $6.97 | $11.18 | $0.00 | $42.66 |
| 2 | 65 | $24.51 | $6.97 | $11.18 | $0.00 | $42.66 |
| 3 | 70 | $26.39 | $6.97 | $11.18 | $0.00 | $44.54 |
| 4 | 75 | $28.28 | $6.97 | $11.18 | $0.00 | $46.43 |
| 5 | 80 | $30.16 | $6.97 | $11.18 | $0.00 | $48.31 |
| 6 | 85 | $32.05 | $6.97 | $11.18 | $0.00 | $50.20 |
| 7 | 90 | $33.93 | $6.97 | $11.18 | $0.00 | $52.08 |
| 8 | 95 | $35.82 | $6.97 | $11.18 | $0.00 | $53.97 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)<br>*BRICKLAYERS LOCAL 3 (LOWELL)* | 09/01/2013 | $45.96 | $10.18 | $17.55 | $0.00 | $73.69 |
| | 03/01/2014 | $46.52 | $10.18 | $17.55 | $0.00 | $74.25 |
| | 09/01/2014 | $47.42 | $10.18 | $17.62 | $0.00 | $75.22 |
| | 03/01/2015 | $47.98 | $10.18 | $17.62 | $0.00 | $75.78 |
| | 09/01/2015 | $48.88 | $10.18 | $17.69 | $0.00 | $76.75 |
| | 03/01/2016 | $49.45 | $10.18 | $17.69 | $0.00 | $77.32 |
| | 09/01/2016 | $50.35 | $10.18 | $17.77 | $0.00 | $78.30 |
| | 03/01/2017 | $50.92 | $10.18 | $17.77 | $0.00 | $78.87 |

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

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

**Effective Date -** 09/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $22.98 | $10.18 | $17.55 | $0.00 | $50.71 |
| 2 | 60 | $27.58 | $10.18 | $17.55 | $0.00 | $55.31 |
| 3 | 70 | $32.17 | $10.18 | $17.55 | $0.00 | $59.90 |
| 4 | 80 | $36.77 | $10.18 | $17.55 | $0.00 | $64.50 |
| 5 | 90 | $41.36 | $10.18 | $17.55 | $0.00 | $69.09 |

**Effective Date -** 03/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $23.26 | $10.18 | $17.55 | $0.00 | $50.99 |
| 2 | 60 | $27.91 | $10.18 | $17.55 | $0.00 | $55.64 |
| 3 | 70 | $32.56 | $10.18 | $17.55 | $0.00 | $60.29 |
| 4 | 80 | $37.22 | $10.18 | $17.55 | $0.00 | $64.95 |
| 5 | 90 | $41.87 | $10.18 | $17.55 | $0.00 | $69.60 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| BULLDOZER/GRADER/SCRAPER<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| CAISSON & UNDERPINNING BOTTOM MAN<br>*LABORERS - FOUNDATION AND MARINE* | 12/01/2013 | $34.45 | $7.30 | $12.90 | $0.00 | $54.65 |
| | 06/01/2014 | $35.20 | $7.30 | $12.90 | $0.00 | $55.40 |
| | 12/01/2014 | $35.95 | $7.30 | $12.90 | $0.00 | $56.15 |
| | 06/01/2015 | $36.70 | $7.30 | $12.90 | $0.00 | $56.90 |
| | 12/01/2015 | $37.45 | $7.30 | $12.90 | $0.00 | $57.65 |
| | 06/01/2016 | $38.20 | $7.30 | $12.90 | $0.00 | $58.40 |
| | 12/01/2016 | $39.20 | $7.30 | $12.90 | $0.00 | $59.40 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| CAISSON & UNDERPINNING LABORER<br>*LABORERS - FOUNDATION AND MARINE* | 12/01/2013 | $33.30 | $7.30 | $12.90 | $0.00 | $53.50 |
| | 06/01/2014 | $34.05 | $7.30 | $12.90 | $0.00 | $54.25 |
| | 12/01/2014 | $34.80 | $7.30 | $12.90 | $0.00 | $55.00 |
| | 06/01/2015 | $35.55 | $7.30 | $12.90 | $0.00 | $55.75 |
| | 12/01/2015 | $36.30 | $7.30 | $12.90 | $0.00 | $56.50 |
| | 06/01/2016 | $37.05 | $7.30 | $12.90 | $0.00 | $57.25 |
| | 12/01/2016 | $38.05 | $7.30 | $12.90 | $0.00 | $58.25 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| CAISSON & UNDERPINNING TOP MAN<br>*LABORERS - FOUNDATION AND MARINE* | 12/01/2013 | $33.30 | $7.30 | $12.90 | $0.00 | $53.50 |
| | 06/01/2014 | $34.05 | $7.30 | $12.90 | $0.00 | $54.25 |
| | 12/01/2014 | $34.80 | $7.30 | $12.90 | $0.00 | $55.00 |
| | 06/01/2015 | $35.55 | $7.30 | $12.90 | $0.00 | $55.75 |
| | 12/01/2015 | $36.30 | $7.30 | $12.90 | $0.00 | $56.50 |
| | 06/01/2016 | $37.05 | $7.30 | $12.90 | $0.00 | $57.25 |
| | 12/01/2016 | $38.05 | $7.30 | $12.90 | $0.00 | $58.25 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| CARBIDE CORE DRILL OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| CARPENTER<br>*CARPENTERS -ZONE 2 (Eastern Massachusetts)* | 09/01/2013 | $34.53 | $9.80 | $15.61 | $0.00 | $59.94 |
| | 03/01/2014 | $35.13 | $9.80 | $15.61 | $0.00 | $60.54 |
| | 09/01/2014 | $35.90 | $9.80 | $15.61 | $0.00 | $61.31 |
| | 03/01/2015 | $36.67 | $9.80 | $15.61 | $0.00 | $62.08 |

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

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

**Effective Date -** 09/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $17.27 | $9.80 | $1.57 | $0.00 | $28.64 |
| 2 | 60 | $20.72 | $9.80 | $1.57 | $0.00 | $32.09 |
| 3 | 70 | $24.17 | $9.80 | $10.90 | $0.00 | $44.87 |
| 4 | 75 | $25.90 | $9.80 | $10.90 | $0.00 | $46.60 |
| 5 | 80 | $27.62 | $9.80 | $12.47 | $0.00 | $49.89 |
| 6 | 80 | $27.62 | $9.80 | $12.47 | $0.00 | $49.89 |
| 7 | 90 | $31.08 | $9.80 | $14.04 | $0.00 | $54.92 |
| 8 | 90 | $31.08 | $9.80 | $14.04 | $0.00 | $54.92 |

**Effective Date -** 03/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $17.57 | $9.80 | $1.57 | $0.00 | $28.94 |
| 2 | 60 | $21.08 | $9.80 | $1.57 | $0.00 | $32.45 |
| 3 | 70 | $24.59 | $9.80 | $10.90 | $0.00 | $45.29 |
| 4 | 75 | $26.35 | $9.80 | $10.90 | $0.00 | $47.05 |
| 5 | 80 | $28.10 | $9.80 | $12.47 | $0.00 | $50.37 |
| 6 | 80 | $28.10 | $9.80 | $12.47 | $0.00 | $50.37 |
| 7 | 90 | $31.62 | $9.80 | $14.04 | $0.00 | $55.46 |
| 8 | 90 | $31.62 | $9.80 | $14.04 | $0.00 | $55.46 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| CEMENT MASONRY/PLASTERING<br>*BRICKLAYERS LOCAL 3 (LOWELL)* | 01/01/2014 | $39.29 | $10.90 | $18.71 | $1.30 | $70.20 |
| | 07/01/2014 | $39.97 | $10.90 | $18.71 | $1.30 | $70.88 |
| | 01/01/2015 | $40.80 | $10.90 | $18.71 | $1.30 | $71.71 |
| | 07/01/2015 | $41.48 | $10.90 | $18.71 | $1.30 | $72.39 |
| | 01/01/2016 | $42.32 | $10.90 | $18.71 | $1.30 | $73.23 |

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

**Apprentice -** *CEMENT MASONRY/PLASTERING - Lowell*

**Effective Date -** 01/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $19.65 | $10.90 | $12.21 | $1.30 | $44.06 |
| 2 | 60 | $23.57 | $10.90 | $13.71 | $1.30 | $49.48 |
| 3 | 65 | $25.54 | $10.90 | $14.71 | $1.30 | $52.45 |
| 4 | 70 | $27.50 | $10.90 | $15.71 | $1.30 | $55.41 |
| 5 | 75 | $29.47 | $10.90 | $16.71 | $1.30 | $58.38 |
| 6 | 80 | $31.43 | $10.90 | $17.71 | $1.30 | $61.34 |
| 7 | 90 | $35.36 | $10.90 | $18.71 | $1.30 | $66.27 |

**Effective Date -** 07/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $19.99 | $10.90 | $12.21 | $1.30 | $44.40 |
| 2 | 60 | $23.98 | $10.90 | $13.71 | $1.30 | $49.89 |
| 3 | 65 | $25.98 | $10.90 | $14.71 | $1.30 | $52.89 |
| 4 | 70 | $27.98 | $10.90 | $15.71 | $1.30 | $55.89 |
| 5 | 75 | $29.98 | $10.90 | $16.71 | $1.30 | $58.89 |
| 6 | 80 | $31.98 | $10.90 | $17.71 | $1.30 | $61.89 |
| 7 | 90 | $35.97 | $10.90 | $18.71 | $1.30 | $66.88 |

**Notes:**

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

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

| | | | | | | |
|---|---|---|---|---|---|---|
| CHAIN SAW OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $41.49 | $10.00 | $14.18 | $0.00 | $65.67 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| COMPRESSOR OPERATOR<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $28.11 | $10.00 | $14.18 | $0.00 | $52.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| DELEADER (BRIDGE)<br>*PAINTERS LOCAL 35 - ZONE 2* | 01/01/2014 | $45.91 | $7.85 | $16.10 | $0.00 | $69.86 |
| | 07/01/2014 | $46.76 | $7.85 | $16.10 | $0.00 | $70.71 |
| | 01/01/2015 | $47.66 | $7.85 | $16.10 | $0.00 | $71.61 |
| | 07/01/2015 | $48.56 | $7.85 | $16.10 | $0.00 | $72.51 |
| | 01/01/2016 | $49.51 | $7.85 | $16.10 | $0.00 | $73.46 |
| | 07/01/2016 | $50.46 | $7.85 | $16.10 | $0.00 | $74.41 |
| | 01/01/2017 | $51.41 | $7.85 | $16.10 | $0.00 | $75.36 |

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

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

**Effective Date -** 01/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $22.96 | $7.85 | $0.00 | $0.00 | $30.81 |
| 2 | 55 | $25.25 | $7.85 | $3.66 | $0.00 | $36.76 |
| 3 | 60 | $27.55 | $7.85 | $3.99 | $0.00 | $39.39 |
| 4 | 65 | $29.84 | $7.85 | $4.32 | $0.00 | $42.01 |
| 5 | 70 | $32.14 | $7.85 | $14.11 | $0.00 | $54.10 |
| 6 | 75 | $34.43 | $7.85 | $14.44 | $0.00 | $56.72 |
| 7 | 80 | $36.73 | $7.85 | $14.77 | $0.00 | $59.35 |
| 8 | 90 | $41.32 | $7.85 | $15.44 | $0.00 | $64.61 |

**Effective Date -** 07/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $23.38 | $7.85 | $0.00 | $0.00 | $31.23 |
| 2 | 55 | $25.72 | $7.85 | $3.66 | $0.00 | $37.23 |
| 3 | 60 | $28.06 | $7.85 | $3.99 | $0.00 | $39.90 |
| 4 | 65 | $30.39 | $7.85 | $4.32 | $0.00 | $42.56 |
| 5 | 70 | $32.73 | $7.85 | $14.11 | $0.00 | $54.69 |
| 6 | 75 | $35.07 | $7.85 | $14.44 | $0.00 | $57.36 |
| 7 | 80 | $37.41 | $7.85 | $14.77 | $0.00 | $60.03 |
| 8 | 90 | $42.08 | $7.85 | $15.44 | $0.00 | $65.37 |

**Notes:**
Steps are 750 hrs.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| DEMO: ADZEMAN<br>*LABORERS - ZONE 2* | 12/01/2013 | $33.50 | $7.30 | $12.70 | $0.00 | $53.50 |
| | 06/01/2014 | $34.25 | $7.30 | $12.70 | $0.00 | $54.25 |
| | 12/01/2014 | $35.00 | $7.30 | $12.70 | $0.00 | $55.00 |
| | 06/01/2015 | $35.75 | $7.30 | $12.70 | $0.00 | $55.75 |
| | 12/01/2015 | $36.50 | $7.30 | $12.70 | $0.00 | $56.50 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| DEMO: BACKHOE/LOADER/HAMMER OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $34.50 | $7.30 | $12.70 | $0.00 | $54.50 |
| | 06/01/2014 | $35.25 | $7.30 | $12.70 | $0.00 | $55.25 |
| | 12/01/2014 | $36.00 | $7.30 | $12.70 | $0.00 | $56.00 |
| | 06/01/2015 | $36.75 | $7.30 | $12.70 | $0.00 | $56.75 |
| | 12/01/2015 | $37.50 | $7.30 | $12.70 | $0.00 | $57.50 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| DEMO: BURNERS<br>*LABORERS - ZONE 2* | 12/01/2013 | $34.25 | $7.30 | $12.70 | $0.00 | $54.25 |
| | 06/01/2014 | $35.00 | $7.30 | $12.70 | $0.00 | $55.00 |
| | 12/01/2014 | $35.75 | $7.30 | $12.70 | $0.00 | $55.75 |
| | 06/01/2015 | $36.50 | $7.30 | $12.70 | $0.00 | $56.50 |
| | 12/01/2015 | $37.25 | $7.30 | $12.70 | $0.00 | $57.25 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| DEMO: CONCRETE CUTTER/SAWYER<br>*LABORERS - ZONE 2* | 12/01/2013 | $34.50 | $7.30 | $12.70 | $0.00 | $54.50 |
| | 06/01/2014 | $35.25 | $7.30 | $12.70 | $0.00 | $55.25 |
| | 12/01/2014 | $36.00 | $7.30 | $12.70 | $0.00 | $56.00 |
| | 06/01/2015 | $36.75 | $7.30 | $12.70 | $0.00 | $56.75 |
| | 12/01/2015 | $37.50 | $7.30 | $12.70 | $0.00 | $57.50 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| DEMO: JACKHAMMER OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $34.25 | $7.30 | $12.70 | $0.00 | $54.25 |
| | 06/01/2014 | $35.00 | $7.30 | $12.70 | $0.00 | $55.00 |
| | 12/01/2014 | $35.75 | $7.30 | $12.70 | $0.00 | $55.75 |
| | 06/01/2015 | $36.50 | $7.30 | $12.70 | $0.00 | $56.50 |
| | 12/01/2015 | $37.25 | $7.30 | $12.70 | $0.00 | $57.25 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| DEMO: WRECKING LABORER<br>*LABORERS - ZONE 2* | 12/01/2013 | $33.50 | $7.30 | $12.70 | $0.00 | $53.50 |
| | 06/01/2014 | $34.25 | $7.30 | $12.70 | $0.00 | $54.25 |
| | 12/01/2014 | $35.00 | $7.30 | $12.70 | $0.00 | $55.00 |
| | 06/01/2015 | $35.75 | $7.30 | $12.70 | $0.00 | $55.75 |
| | 12/01/2015 | $36.50 | $7.30 | $12.70 | $0.00 | $56.50 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| DIRECTIONAL DRILL MACHINE OPERATOR<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| DIVER<br>*PILE DRIVER LOCAL 56 (ZONE 1)* | 08/01/2013 | $56.14 | $9.80 | $18.17 | $0.00 | $84.11 |
| | 08/01/2014 | $58.24 | $9.80 | $18.17 | $0.00 | $86.21 |
| | 08/01/2015 | $60.34 | $9.80 | $18.17 | $0.00 | $88.31 |
| DIVER TENDER<br>*PILE DRIVER LOCAL 56 (ZONE 1)* | 08/01/2013 | $40.10 | $9.80 | $18.17 | $0.00 | $68.07 |
| | 08/01/2014 | $41.60 | $9.80 | $18.17 | $0.00 | $69.57 |
| | 08/01/2015 | $43.10 | $9.80 | $18.17 | $0.00 | $71.07 |
| DIVER TENDER (EFFLUENT)<br>*PILE DRIVER LOCAL 56 (ZONE 1)* | 08/01/2013 | $60.15 | $9.80 | $18.17 | $0.00 | $88.12 |
| | 08/01/2014 | $62.40 | $9.80 | $18.17 | $0.00 | $90.37 |
| | 08/01/2015 | $64.65 | $9.80 | $18.17 | $0.00 | $92.62 |
| DIVER/SLURRY (EFFLUENT)<br>*PILE DRIVER LOCAL 56 (ZONE 1)* | 08/01/2013 | $84.21 | $9.80 | $18.17 | $0.00 | $112.18 |
| | 08/01/2014 | $87.36 | $9.80 | $18.17 | $0.00 | $115.33 |
| | 08/01/2015 | $90.51 | $9.80 | $18.17 | $0.00 | $118.48 |
| DRAWBRIDGE OPERATOR (Construction)<br>*ELECTRICIANS LOCAL 103* | 09/01/2013 | $43.96 | $13.00 | $14.42 | $0.00 | $71.38 |
| | 03/01/2014 | $44.45 | $13.00 | $14.68 | $0.00 | $72.13 |
| | 09/01/2014 | $45.12 | $13.00 | $14.70 | $0.00 | $72.82 |
| | 03/01/2015 | $45.84 | $13.00 | $14.72 | $0.00 | $73.56 |
| | 09/01/2015 | $46.80 | $13.00 | $14.75 | $0.00 | $74.55 |
| | 03/01/2016 | $47.75 | $13.00 | $14.78 | $0.00 | $75.53 |
| For apprentice rates see "Apprentice- ELECTRICIAN" | | | | | | |
| ELECTRICIAN<br>*ELECTRICIANS LOCAL 103* | 09/01/2013 | $43.96 | $13.00 | $14.42 | $0.00 | $71.38 |
| | 03/01/2014 | $44.45 | $13.00 | $14.68 | $0.00 | $72.13 |
| | 09/01/2014 | $45.12 | $13.00 | $14.70 | $0.00 | $72.82 |
| | 03/01/2015 | $45.84 | $13.00 | $14.72 | $0.00 | $73.56 |
| | 09/01/2015 | $46.80 | $13.00 | $14.75 | $0.00 | $74.55 |
| | 03/01/2016 | $47.75 | $13.00 | $14.78 | $0.00 | $75.53 |

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

**Apprentice -** *ELECTRICIAN - Local 103*

**Effective Date -** 09/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 40 | $17.58 | $13.00 | $0.53 | $0.00 | $31.11 |
| 2 | 40 | $17.58 | $13.00 | $0.53 | $0.00 | $31.11 |
| 3 | 45 | $19.78 | $13.00 | $10.78 | $0.00 | $43.56 |
| 4 | 45 | $19.78 | $13.00 | $10.78 | $0.00 | $43.56 |
| 5 | 50 | $21.98 | $13.00 | $11.11 | $0.00 | $46.09 |
| 6 | 55 | $24.18 | $13.00 | $11.45 | $0.00 | $48.63 |
| 7 | 60 | $26.38 | $13.00 | $11.77 | $0.00 | $51.15 |
| 8 | 65 | $28.57 | $13.00 | $12.11 | $0.00 | $53.68 |
| 9 | 70 | $30.77 | $13.00 | $12.43 | $0.00 | $56.20 |
| 10 | 75 | $32.97 | $13.00 | $12.77 | $0.00 | $58.74 |

**Effective Date -** 03/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 40 | $17.78 | $13.00 | $0.53 | $0.00 | $31.31 |
| 2 | 40 | $17.78 | $13.00 | $0.53 | $0.00 | $31.31 |
| 3 | 45 | $20.00 | $13.00 | $11.04 | $0.00 | $44.04 |
| 4 | 45 | $20.00 | $13.00 | $11.04 | $0.00 | $44.04 |
| 5 | 50 | $22.23 | $13.00 | $11.37 | $0.00 | $46.60 |
| 6 | 55 | $24.45 | $13.00 | $11.70 | $0.00 | $49.15 |
| 7 | 60 | $26.67 | $13.00 | $12.03 | $0.00 | $51.70 |
| 8 | 65 | $28.89 | $13.00 | $12.37 | $0.00 | $54.26 |
| 9 | 70 | $31.12 | $13.00 | $12.69 | $0.00 | $56.81 |
| 10 | 75 | $33.34 | $13.00 | $13.03 | $0.00 | $59.37 |

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

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

| | | | | | | |
|---|---|---|---|---|---|---|
| ELEVATOR CONSTRUCTOR<br>*ELEVATOR CONSTRUCTORS LOCAL 4* | 01/01/2012 | $52.45 | $8.78 | $6.96 | $0.00 | $68.19 |

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

**Apprentice -** *ELEVATOR CONSTRUCTOR - Local 4*

**Effective Date -** 01/01/2012

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $26.23 | $8.78 | $0.00 | $0.00 | $35.01 |
| 2 | 55 | $28.85 | $8.78 | $6.96 | $0.00 | $44.59 |
| 3 | 65 | $34.09 | $8.78 | $6.96 | $0.00 | $49.83 |
| 4 | 70 | $36.72 | $8.78 | $6.96 | $0.00 | $52.46 |
| 5 | 80 | $41.96 | $8.78 | $6.96 | $0.00 | $57.70 |

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

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

| | | | | | | |
|---|---|---|---|---|---|---|
| ELEVATOR CONSTRUCTOR HELPER<br>*ELEVATOR CONSTRUCTORS LOCAL 4*<br>For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR" | 01/01/2012 | $38.59 | $8.78 | $6.96 | $0.00 | $54.33 |
| FENCE & GUARD RAIL ERECTOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY<br>*OPERATING ENGINEERS LOCAL 4* | 11/01/2013 | $38.73 | $10.00 | $13.55 | $0.00 | $62.28 |
| | 05/01/2014 | $39.50 | $10.00 | $13.55 | $0.00 | $63.05 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY<br>*OPERATING ENGINEERS LOCAL 4* | 11/01/2013 | $40.15 | $10.00 | $13.55 | $0.00 | $63.70 |
| | 05/01/2014 | $40.92 | $10.00 | $13.55 | $0.00 | $64.47 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY<br>*OPERATING ENGINEERS LOCAL 4* | 11/01/2013 | $21.10 | $10.00 | $13.55 | $0.00 | $44.65 |
| | 05/01/2014 | $21.55 | $10.00 | $13.55 | $0.00 | $45.10 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| FIRE ALARM INSTALLER<br>*ELECTRICIANS LOCAL 103* | 09/01/2013 | $43.96 | $13.00 | $14.42 | $0.00 | $71.38 |
| | 03/01/2014 | $44.45 | $13.00 | $14.68 | $0.00 | $72.13 |
| | 09/01/2014 | $45.12 | $13.00 | $14.70 | $0.00 | $72.82 |
| | 03/01/2015 | $45.84 | $13.00 | $14.72 | $0.00 | $73.56 |
| | 09/01/2015 | $46.80 | $13.00 | $14.75 | $0.00 | $74.55 |
| | 03/01/2016 | $47.75 | $13.00 | $14.78 | $0.00 | $75.53 |
| For apprentice rates see "Apprentice- ELECTRICIAN" | | | | | | |
| FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING *ELECTRICIANS LOCAL 103* | 09/01/2013 | $32.97 | $13.00 | $12.77 | $0.00 | $58.74 |
| | 03/01/2014 | $33.44 | $13.00 | $13.03 | $0.00 | $59.47 |
| | 09/01/2014 | $33.84 | $13.00 | $13.05 | $0.00 | $59.89 |
| | 03/01/2015 | $34.38 | $13.00 | $13.06 | $0.00 | $60.44 |
| | 09/01/2015 | $35.10 | $13.00 | $13.08 | $0.00 | $61.18 |
| | 03/01/2016 | $35.81 | $13.00 | $13.10 | $0.00 | $61.91 |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN" | | | | | | |
| FIREMAN (ASST. ENGINEER)<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $33.76 | $10.00 | $14.18 | $0.00 | $57.94 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| FLAGGER & SIGNALER<br>*LABORERS - ZONE 2* | 12/01/2013 | $20.50 | $7.30 | $12.10 | $0.00 | $39.90 |
| | 06/01/2014 | $20.50 | $7.30 | $12.10 | $0.00 | $39.90 |
| | 12/01/2014 | $20.50 | $7.30 | $12.10 | $0.00 | $39.90 |
| | 06/01/2015 | $20.50 | $7.30 | $12.10 | $0.00 | $39.90 |
| | 12/01/2015 | $20.50 | $7.30 | $12.10 | $0.00 | $39.90 |
| | 06/01/2016 | $20.50 | $7.30 | $12.10 | $0.00 | $39.90 |
| | 12/01/2016 | $20.50 | $7.30 | $12.10 | $0.00 | $39.90 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| FLOORCOVERER<br>*FLOORCOVERERS LOCAL 2168 ZONE I* | 09/01/2013 | $38.61 | $9.80 | $16.71 | $0.00 | $65.12 |
| | 03/01/2014 | $38.61 | $9.80 | $16.71 | $0.00 | $65.12 |

**Apprentice -** *FLOORCOVERER - Local 2168 Zone I*

**Effective Date -** 09/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $19.31 | $9.80 | $1.79 | $0.00 | $30.90 |
| 2 | 55 | $21.24 | $9.80 | $1.79 | $0.00 | $32.83 |
| 3 | 60 | $23.17 | $9.80 | $11.34 | $0.00 | $44.31 |
| 4 | 65 | $25.10 | $9.80 | $11.34 | $0.00 | $46.24 |
| 5 | 70 | $27.03 | $9.80 | $13.13 | $0.00 | $49.96 |
| 6 | 75 | $28.96 | $9.80 | $13.13 | $0.00 | $51.89 |
| 7 | 80 | $30.89 | $9.80 | $14.92 | $0.00 | $55.61 |
| 8 | 85 | $32.82 | $9.80 | $14.92 | $0.00 | $57.54 |

**Effective Date -** 03/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $19.31 | $9.80 | $1.79 | $0.00 | $30.90 |
| 2 | 55 | $21.24 | $9.80 | $1.79 | $0.00 | $32.83 |
| 3 | 60 | $23.17 | $9.80 | $11.34 | $0.00 | $44.31 |
| 4 | 65 | $25.10 | $9.80 | $11.34 | $0.00 | $46.24 |
| 5 | 70 | $27.03 | $9.80 | $13.13 | $0.00 | $49.96 |
| 6 | 75 | $28.96 | $9.80 | $13.13 | $0.00 | $51.89 |
| 7 | 80 | $30.89 | $9.80 | $14.92 | $0.00 | $55.61 |
| 8 | 85 | $32.82 | $9.80 | $14.92 | $0.00 | $57.54 |

**Notes:**
Steps are 750 hrs.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| FORK LIFT/CHERRY PICKER<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.49 | $10.00 | $14.18 | $0.00 | $64.67 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| GENERATOR/LIGHTING PLANT/HEATERS<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $28.11 | $10.00 | $14.18 | $0.00 | $52.29 |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)<br>*GLAZIERS LOCAL 35 (ZONE 2)* | 01/01/2014 | $35.41 | $7.85 | $16.10 | $0.00 | $59.36 |
| | 07/01/2014 | $36.56 | $7.85 | $16.10 | $0.00 | $60.51 |
| | 01/01/2015 | $37.16 | $7.85 | $16.10 | $0.00 | $61.11 |
| | 07/01/2015 | $38.06 | $7.85 | $16.10 | $0.00 | $62.01 |
| | 01/01/2016 | $39.01 | $7.85 | $16.10 | $0.00 | $62.96 |
| | 07/01/2016 | $39.96 | $7.85 | $16.10 | $0.00 | $63.91 |
| | 01/01/2017 | $40.91 | $7.85 | $16.10 | $0.00 | $64.86 |

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

**Effective Date -** 01/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $17.71 | $7.85 | $0.00 | $0.00 | $25.56 |
| 2 | 55 | $19.48 | $7.85 | $3.66 | $0.00 | $30.99 |
| 3 | 60 | $21.25 | $7.85 | $3.99 | $0.00 | $33.09 |
| 4 | 65 | $23.02 | $7.85 | $4.32 | $0.00 | $35.19 |
| 5 | 70 | $24.79 | $7.85 | $14.11 | $0.00 | $46.75 |
| 6 | 75 | $26.56 | $7.85 | $14.44 | $0.00 | $48.85 |
| 7 | 80 | $28.33 | $7.85 | $14.77 | $0.00 | $50.95 |
| 8 | 90 | $31.87 | $7.85 | $15.44 | $0.00 | $55.16 |

**Effective Date -** 07/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $18.28 | $7.85 | $0.00 | $0.00 | $26.13 |
| 2 | 55 | $20.11 | $7.85 | $3.66 | $0.00 | $31.62 |
| 3 | 60 | $21.94 | $7.85 | $3.99 | $0.00 | $33.78 |
| 4 | 65 | $23.76 | $7.85 | $4.32 | $0.00 | $35.93 |
| 5 | 70 | $25.59 | $7.85 | $14.11 | $0.00 | $47.55 |
| 6 | 75 | $27.42 | $7.85 | $14.44 | $0.00 | $49.71 |
| 7 | 80 | $29.25 | $7.85 | $14.77 | $0.00 | $51.87 |
| 8 | 90 | $32.90 | $7.85 | $15.44 | $0.00 | $56.19 |

**Notes:**

Steps are 750 hrs.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| HOISTING ENGINEER/CRANES/GRADALLS<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.49 | $10.00 | $14.18 | $0.00 | $64.67 |

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

**Apprentice -** *OPERATING ENGINEERS - Local 4*

**Effective Date -** 12/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 55 | $22.27 | $10.00 | $0.00 | $0.00 | $32.27 |
| 2 | 60 | $24.29 | $10.00 | $14.18 | $0.00 | $48.47 |
| 3 | 65 | $26.32 | $10.00 | $14.18 | $0.00 | $50.50 |
| 4 | 70 | $28.34 | $10.00 | $14.18 | $0.00 | $52.52 |
| 5 | 75 | $30.37 | $10.00 | $14.18 | $0.00 | $54.55 |
| 6 | 80 | $32.39 | $10.00 | $14.18 | $0.00 | $56.57 |
| 7 | 85 | $34.42 | $10.00 | $14.18 | $0.00 | $58.60 |
| 8 | 90 | $36.44 | $10.00 | $14.18 | $0.00 | $60.62 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| HVAC (DUCTWORK)<br>*SHEETMETAL WORKERS LOCAL 17 - A* | 12/09/2013 | $42.35 | $9.82 | $19.33 | $2.14 | $73.64 |
| | 02/01/2014 | $42.76 | $9.82 | $19.74 | $2.17 | $74.49 |
| | 08/01/2014 | $43.61 | $9.82 | $19.74 | $2.17 | $75.34 |
| | 02/01/2015 | $44.51 | $9.82 | $19.74 | $2.17 | $76.24 |
| | 08/01/2015 | $45.51 | $9.82 | $19.74 | $2.17 | $77.24 |
| | 02/01/2016 | $46.51 | $9.82 | $19.74 | $2.17 | $78.24 |
| | 08/01/2016 | $47.66 | $9.82 | $19.74 | $2.17 | $79.39 |
| | 02/01/2017 | $48.76 | $9.82 | $19.74 | $2.17 | $80.49 |
| | 08/01/2017 | $49.86 | $9.82 | $19.74 | $2.17 | $81.59 |
| | 02/01/2018 | $51.01 | $9.82 | $19.74 | $2.17 | $82.74 |
| For apprentice rates see "Apprentice- SHEET METAL WORKER" | | | | | | |
| HVAC (ELECTRICAL CONTROLS)<br>*ELECTRICIANS LOCAL 103* | 09/01/2013 | $43.96 | $13.00 | $14.42 | $0.00 | $71.38 |
| | 03/01/2014 | $44.45 | $13.00 | $14.68 | $0.00 | $72.13 |
| | 09/01/2014 | $45.12 | $13.00 | $14.70 | $0.00 | $72.82 |
| | 03/01/2015 | $45.84 | $13.00 | $14.72 | $0.00 | $73.56 |
| | 09/01/2015 | $46.80 | $13.00 | $14.75 | $0.00 | $74.55 |
| | 03/01/2016 | $47.75 | $13.00 | $14.78 | $0.00 | $75.53 |
| For apprentice rates see "Apprentice- ELECTRICIAN" | | | | | | |
| HVAC (TESTING AND BALANCING - AIR)<br>*SHEETMETAL WORKERS LOCAL 17 - A* | 12/09/2013 | $42.35 | $9.82 | $19.33 | $2.14 | $73.64 |
| | 02/01/2014 | $42.76 | $9.82 | $19.74 | $2.17 | $74.49 |
| | 08/01/2014 | $43.61 | $9.82 | $19.74 | $2.17 | $75.34 |
| | 02/01/2015 | $44.51 | $9.82 | $19.74 | $2.17 | $76.24 |
| | 08/01/2015 | $45.51 | $9.82 | $19.74 | $2.17 | $77.24 |
| | 02/01/2016 | $46.51 | $9.82 | $19.74 | $2.17 | $78.24 |
| | 08/01/2016 | $47.66 | $9.82 | $19.74 | $2.17 | $79.39 |
| | 02/01/2017 | $48.76 | $9.82 | $19.74 | $2.17 | $80.49 |
| | 08/01/2017 | $49.86 | $9.82 | $19.74 | $2.17 | $81.59 |
| | 02/01/2018 | $51.01 | $9.82 | $19.74 | $2.17 | $82.74 |
| For apprentice rates see "Apprentice- SHEET METAL WORKER" | | | | | | |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| HVAC (TESTING AND BALANCING -WATER)<br>*PIPEFITTERS LOCAL 537* | 03/01/2013 | $49.34 | $8.75 | $14.39 | $0.00 | $72.48 |
| For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER" | | | | | | |
| HVAC MECHANIC<br>*PIPEFITTERS LOCAL 537* | 03/01/2013 | $49.34 | $8.75 | $14.39 | $0.00 | $72.48 |
| For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER" | | | | | | |
| HYDRAULIC DRILLS<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 06/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 12/01/2014 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 06/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 12/01/2015 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 06/01/2016 | $33.10 | $7.30 | $12.10 | $0.00 | $52.50 |
| | 12/01/2016 | $33.85 | $7.30 | $12.10 | $0.00 | $53.25 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| INSULATOR (PIPES & TANKS)<br>*HEAT & FROST INSULATORS LOCAL 6 (BOSTON)* | 09/01/2013 | $42.11 | $10.95 | $12.10 | $0.00 | $65.16 |
| | 09/01/2014 | $44.11 | $10.95 | $12.10 | $0.00 | $67.16 |

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

**Effective Date -** 09/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $21.06 | $10.95 | $9.00 | $0.00 | $41.01 |
| 2 | 60 | $25.27 | $10.95 | $9.62 | $0.00 | $45.84 |
| 3 | 70 | $29.48 | $10.95 | $10.24 | $0.00 | $50.67 |
| 4 | 80 | $33.69 | $10.95 | $10.86 | $0.00 | $55.50 |

**Effective Date -** 09/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $22.06 | $10.95 | $9.00 | $0.00 | $42.01 |
| 2 | 60 | $26.47 | $10.95 | $9.62 | $0.00 | $47.04 |
| 3 | 70 | $30.88 | $10.95 | $10.24 | $0.00 | $52.07 |
| 4 | 80 | $35.29 | $10.95 | $10.86 | $0.00 | $57.10 |

**Notes:**
Steps are 1 year

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

| | | | | | | |
|---|---|---|---|---|---|---|
| IRONWORKER/WELDER<br>*IRONWORKERS LOCAL 7 (LAWRENCE AREA)* | 09/16/2013 | $36.44 | $7.70 | $18.60 | $0.00 | $62.74 |

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

**Apprentice -** *IRONWORKER - Local 7 Lawrence*

**Effective Date -** 09/16/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 60 | $21.86 | $7.70 | $18.60 | $0.00 | $48.16 |
| 2 | 70 | $25.51 | $7.70 | $18.60 | $0.00 | $51.81 |
| 3 | 75 | $27.33 | $7.70 | $18.60 | $0.00 | $53.63 |
| 4 | 80 | $29.15 | $7.70 | $18.60 | $0.00 | $55.45 |
| 5 | 85 | $30.97 | $7.70 | $18.60 | $0.00 | $57.27 |
| 6 | 90 | $32.80 | $7.70 | $18.60 | $0.00 | $59.10 |

**Notes:**

Structural 1:6; Ornamental 1:4

**Apprentice to Journeyworker Ratio:**

| | | | | | | |
|---|---|---|---|---|---|---|
| JACKHAMMER & PAVING BREAKER OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| LABORER<br>*LABORERS - ZONE 2* | 12/01/2013 | $29.85 | $7.30 | $12.10 | $0.00 | $49.25 |
| | 06/01/2014 | $30.35 | $7.30 | $12.10 | $0.00 | $49.75 |
| | 12/01/2014 | $30.85 | $7.30 | $12.10 | $0.00 | $50.25 |
| | 06/01/2015 | $31.35 | $7.30 | $12.10 | $0.00 | $50.75 |
| | 12/01/2015 | $31.85 | $7.30 | $12.10 | $0.00 | $51.25 |
| | 06/01/2016 | $32.35 | $7.30 | $12.10 | $0.00 | $51.75 |
| | 12/01/2016 | $33.10 | $7.30 | $12.10 | $0.00 | $52.50 |

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

**Apprentice -** *LABORER - Zone 2*

**Effective Date -** 12/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 60 | $17.91 | $7.30 | $12.10 | $0.00 | $37.31 |
| 2 | 70 | $20.90 | $7.30 | $12.10 | $0.00 | $40.30 |
| 3 | 80 | $23.88 | $7.30 | $12.10 | $0.00 | $43.28 |
| 4 | 90 | $26.87 | $7.30 | $12.10 | $0.00 | $46.27 |

**Effective Date -** 06/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 60 | $18.21 | $7.30 | $12.10 | $0.00 | $37.61 |
| 2 | 70 | $21.25 | $7.30 | $12.10 | $0.00 | $40.65 |
| 3 | 80 | $24.28 | $7.30 | $12.10 | $0.00 | $43.68 |
| 4 | 90 | $27.32 | $7.30 | $12.10 | $0.00 | $46.72 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| LABORER: CARPENTER TENDER<br>*LABORERS - ZONE 2* | 12/01/2013 | $29.85 | $7.30 | $12.10 | $0.00 | $49.25 |
| | 06/01/2014 | $30.35 | $7.30 | $12.10 | $0.00 | $49.75 |
| | 12/01/2014 | $30.85 | $7.30 | $12.10 | $0.00 | $50.25 |
| | 06/01/2015 | $31.35 | $7.30 | $12.10 | $0.00 | $50.75 |
| | 12/01/2015 | $31.85 | $7.30 | $12.10 | $0.00 | $51.25 |
| | 06/01/2016 | $32.35 | $7.30 | $12.10 | $0.00 | $51.75 |
| | 12/01/2016 | $33.10 | $7.30 | $12.10 | $0.00 | $52.50 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| LABORER: CEMENT FINISHER TENDER<br>*LABORERS - ZONE 2* | 12/01/2013 | $29.85 | $7.30 | $12.10 | $0.00 | $49.25 |
| | 06/01/2014 | $30.35 | $7.30 | $12.10 | $0.00 | $49.75 |
| | 12/01/2014 | $30.85 | $7.30 | $12.10 | $0.00 | $50.25 |
| | 06/01/2015 | $31.35 | $7.30 | $12.10 | $0.00 | $50.75 |
| | 12/01/2015 | $31.85 | $7.30 | $12.10 | $0.00 | $51.25 |
| | 06/01/2016 | $32.35 | $7.30 | $12.10 | $0.00 | $51.75 |
| | 12/01/2016 | $33.10 | $7.30 | $12.10 | $0.00 | $52.50 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.05 | $7.30 | $12.05 | $0.00 | $49.40 |
| | 06/01/2014 | $30.55 | $7.30 | $12.05 | $0.00 | $49.90 |
| | 12/01/2014 | $31.05 | $7.30 | $12.05 | $0.00 | $50.40 |
| | 06/01/2015 | $31.55 | $7.30 | $12.05 | $0.00 | $50.90 |
| | 12/01/2015 | $32.05 | $7.30 | $12.05 | $0.00 | $51.40 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| LABORER: MASON TENDER<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| LABORER: MULTI-TRADE TENDER<br>*LABORERS - ZONE 2* | 12/01/2013 | $29.85 | $7.30 | $12.10 | $0.00 | $49.25 |
| | 06/01/2014 | $30.35 | $7.30 | $12.10 | $0.00 | $49.75 |
| | 12/01/2014 | $30.85 | $7.30 | $12.10 | $0.00 | $50.25 |
| | 06/01/2015 | $31.35 | $7.30 | $12.10 | $0.00 | $50.75 |
| | 12/01/2015 | $31.85 | $7.30 | $12.10 | $0.00 | $51.25 |
| | 06/01/2016 | $32.35 | $7.30 | $12.10 | $0.00 | $51.75 |
| | 12/01/2016 | $33.10 | $7.30 | $12.10 | $0.00 | $52.50 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| LABORER: TREE REMOVER<br>*LABORERS - ZONE 2* | 12/01/2013 | $29.85 | $7.30 | $12.10 | $0.00 | $49.25 |
| | 06/01/2014 | $30.35 | $7.30 | $12.10 | $0.00 | $49.75 |
| | 12/01/2014 | $30.85 | $7.30 | $12.10 | $0.00 | $50.25 |
| | 06/01/2015 | $31.35 | $7.30 | $12.10 | $0.00 | $50.75 |
| | 12/01/2015 | $31.85 | $7.30 | $12.10 | $0.00 | $51.25 |
| | 06/01/2016 | $32.35 | $7.30 | $12.10 | $0.00 | $51.75 |
| | 12/01/2016 | $33.10 | $7.30 | $12.10 | $0.00 | $52.50 |
| This classification applies to the wholesale removal of standing trees including all associated trimming of branches and limbs, and applies to the removal of branches at locations not on or around utility lines. For apprentice rates see "Apprentice- LABORER" | | | | | | |
| LASER BEAM OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| MARBLE & TILE FINISHERS<br>*BRICKLAYERS LOCAL 3 - MARBLE & TILE* | 08/01/2013 | $36.66 | $10.18 | $16.83 | $0.00 | $63.67 |
| | 02/01/2014 | $36.66 | $10.18 | $16.83 | $0.00 | $63.67 |
| | 08/01/2014 | $37.37 | $10.18 | $16.90 | $0.00 | $64.45 |
| | 02/01/2015 | $37.82 | $10.18 | $16.90 | $0.00 | $64.90 |
| | 08/01/2015 | $38.53 | $10.18 | $16.97 | $0.00 | $65.68 |
| | 02/01/2016 | $38.98 | $10.18 | $16.97 | $0.00 | $66.13 |
| | 08/01/2016 | $39.68 | $10.18 | $17.05 | $0.00 | $66.91 |
| | 02/01/2017 | $40.14 | $10.18 | $17.05 | $0.00 | $67.37 |

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

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

**Effective Date -** 08/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $18.33 | $10.18 | $16.83 | $0.00 | $45.34 |
| 2 | 60 | $22.00 | $10.18 | $16.83 | $0.00 | $49.01 |
| 3 | 70 | $25.66 | $10.18 | $16.83 | $0.00 | $52.67 |
| 4 | 80 | $29.33 | $10.18 | $16.83 | $0.00 | $56.34 |
| 5 | 90 | $32.99 | $10.18 | $16.83 | $0.00 | $60.00 |

**Effective Date -** 02/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $18.33 | $10.18 | $16.83 | $0.00 | $45.34 |
| 2 | 60 | $22.00 | $10.18 | $16.83 | $0.00 | $49.01 |
| 3 | 70 | $25.66 | $10.18 | $16.83 | $0.00 | $52.67 |
| 4 | 80 | $29.33 | $10.18 | $16.83 | $0.00 | $56.34 |
| 5 | 90 | $32.99 | $10.18 | $16.83 | $0.00 | $60.00 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| MARBLE MASONS,TILELAYERS & TERRAZZO MECH<br>*BRICKLAYERS LOCAL 3 - MARBLE & TILE* | 08/01/2013 | $48.10 | $10.18 | $18.15 | $0.00 | $76.43 |
| | 02/01/2014 | $48.10 | $10.18 | $18.15 | $0.00 | $76.43 |
| | 08/01/2014 | $49.00 | $10.18 | $18.22 | $0.00 | $77.40 |
| | 02/01/2015 | $49.56 | $10.18 | $18.22 | $0.00 | $77.96 |
| | 08/01/2015 | $50.46 | $10.18 | $18.29 | $0.00 | $78.93 |
| | 02/01/2016 | $51.03 | $10.18 | $18.29 | $0.00 | $79.50 |
| | 08/01/2016 | $51.93 | $10.18 | $18.37 | $0.00 | $80.48 |
| | 02/01/2017 | $52.50 | $10.18 | $18.37 | $0.00 | $81.05 |

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

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

**Effective Date -** 08/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $24.05 | $10.18 | $18.15 | $0.00 | $52.38 |
| 2 | 60 | $28.86 | $10.18 | $18.15 | $0.00 | $57.19 |
| 3 | 70 | $33.67 | $10.18 | $18.15 | $0.00 | $62.00 |
| 4 | 80 | $38.48 | $10.18 | $18.15 | $0.00 | $66.81 |
| 5 | 90 | $43.29 | $10.18 | $18.15 | $0.00 | $71.62 |

**Effective Date -** 02/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $24.05 | $10.18 | $18.15 | $0.00 | $52.38 |
| 2 | 60 | $28.86 | $10.18 | $18.15 | $0.00 | $57.19 |
| 3 | 70 | $33.67 | $10.18 | $18.15 | $0.00 | $62.00 |
| 4 | 80 | $38.48 | $10.18 | $18.15 | $0.00 | $66.81 |
| 5 | 90 | $43.29 | $10.18 | $18.15 | $0.00 | $71.62 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| MECH. SWEEPER OPERATOR (ON CONST. SITES)<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| MECHANICS MAINTENANCE<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| MILLWRIGHT (Zone 2)<br>*MILLWRIGHTS LOCAL 1121 - Zone 2* | 10/01/2013 | $32.81 | $9.80 | $16.01 | $0.00 | $58.62 |
| | 04/01/2014 | $33.41 | $9.80 | $16.01 | $0.00 | $59.22 |
| | 10/01/2014 | $34.17 | $9.80 | $16.01 | $0.00 | $59.98 |
| | 04/01/2015 | $34.94 | $9.80 | $16.01 | $0.00 | $60.75 |

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

**Apprentice -** *MILLWRIGHT - Local 1121 Zone 2*

**Effective Date -** 10/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 55 | $18.05 | $9.80 | $4.40 | $0.00 | $32.25 |
| 2 | 65 | $21.33 | $9.80 | $13.21 | $0.00 | $44.34 |
| 3 | 75 | $24.61 | $9.80 | $14.01 | $0.00 | $48.42 |
| 4 | 85 | $27.89 | $9.80 | $14.81 | $0.00 | $52.50 |

**Effective Date -** 04/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 55 | $18.38 | $9.80 | $4.40 | $0.00 | $32.58 |
| 2 | 65 | $21.72 | $9.80 | $13.21 | $0.00 | $44.73 |
| 3 | 75 | $25.06 | $9.80 | $14.01 | $0.00 | $48.87 |
| 4 | 85 | $28.40 | $9.80 | $14.81 | $0.00 | $53.01 |

**Notes:**

Steps are 2,000 hours

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

| | | | | | | |
|---|---|---|---|---|---|---|
| MORTAR MIXER<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| OILER (OTHER THAN TRUCK CRANES,GRADALLS)<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $20.96 | $10.00 | $14.18 | $0.00 | $45.14 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| OILER (TRUCK CRANES, GRADALLS)<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $24.43 | $10.00 | $14.18 | $0.00 | $48.61 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| OTHER POWER DRIVEN EQUIPMENT - CLASS II<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| PAINTER (BRIDGES/TANKS)<br>*PAINTERS LOCAL 35 - ZONE 2* | 01/01/2014 | $45.91 | $7.85 | $16.10 | $0.00 | $69.86 |
| | 07/01/2014 | $46.76 | $7.85 | $16.10 | $0.00 | $70.71 |
| | 01/01/2015 | $47.66 | $7.85 | $16.10 | $0.00 | $71.61 |
| | 07/01/2015 | $48.56 | $7.85 | $16.10 | $0.00 | $72.51 |
| | 01/01/2016 | $49.51 | $7.85 | $16.10 | $0.00 | $73.46 |
| | 07/01/2016 | $50.46 | $7.85 | $16.10 | $0.00 | $74.41 |
| | 01/01/2017 | $51.41 | $7.85 | $16.10 | $0.00 | $75.36 |

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

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

**Effective Date -** 01/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $22.96 | $7.85 | $0.00 | $0.00 | $30.81 |
| 2 | 55 | $25.25 | $7.85 | $3.66 | $0.00 | $36.76 |
| 3 | 60 | $27.55 | $7.85 | $3.99 | $0.00 | $39.39 |
| 4 | 65 | $29.84 | $7.85 | $4.32 | $0.00 | $42.01 |
| 5 | 70 | $32.14 | $7.85 | $14.11 | $0.00 | $54.10 |
| 6 | 75 | $34.43 | $7.85 | $14.44 | $0.00 | $56.72 |
| 7 | 80 | $36.73 | $7.85 | $14.77 | $0.00 | $59.35 |
| 8 | 90 | $41.32 | $7.85 | $15.44 | $0.00 | $64.61 |

**Effective Date -** 07/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $23.38 | $7.85 | $0.00 | $0.00 | $31.23 |
| 2 | 55 | $25.72 | $7.85 | $3.66 | $0.00 | $37.23 |
| 3 | 60 | $28.06 | $7.85 | $3.99 | $0.00 | $39.90 |
| 4 | 65 | $30.39 | $7.85 | $4.32 | $0.00 | $42.56 |
| 5 | 70 | $32.73 | $7.85 | $14.11 | $0.00 | $54.69 |
| 6 | 75 | $35.07 | $7.85 | $14.44 | $0.00 | $57.36 |
| 7 | 80 | $37.41 | $7.85 | $14.77 | $0.00 | $60.03 |
| 8 | 90 | $42.08 | $7.85 | $15.44 | $0.00 | $65.37 |

**Notes:**

Steps are 750 hrs.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| PAINTER (SPRAY OR SANDBLAST, NEW) * | 01/01/2014 | $36.81 | $7.85 | $16.10 | $0.00 | $60.76 |
| * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. *PAINTERS LOCAL 35 - ZONE 2* | 07/01/2014 | $37.66 | $7.85 | $16.10 | $0.00 | $61.61 |
| | 01/01/2015 | $38.56 | $7.85 | $16.10 | $0.00 | $62.51 |
| | 07/01/2015 | $39.46 | $7.85 | $16.10 | $0.00 | $63.41 |
| | 01/01/2016 | $40.41 | $7.85 | $16.10 | $0.00 | $64.36 |
| | 07/01/2016 | $41.36 | $7.85 | $16.10 | $0.00 | $65.31 |
| | 01/01/2017 | $42.31 | $7.85 | $16.10 | $0.00 | $66.26 |

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

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

**Effective Date -** 01/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $18.41 | $7.85 | $0.00 | $0.00 | $26.26 |
| 2 | 55 | $20.25 | $7.85 | $3.66 | $0.00 | $31.76 |
| 3 | 60 | $22.09 | $7.85 | $3.99 | $0.00 | $33.93 |
| 4 | 65 | $23.93 | $7.85 | $4.32 | $0.00 | $36.10 |
| 5 | 70 | $25.77 | $7.85 | $14.11 | $0.00 | $47.73 |
| 6 | 75 | $27.61 | $7.85 | $14.44 | $0.00 | $49.90 |
| 7 | 80 | $29.45 | $7.85 | $14.77 | $0.00 | $52.07 |
| 8 | 90 | $33.13 | $7.85 | $15.44 | $0.00 | $56.42 |

**Effective Date -** 07/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $18.83 | $7.85 | $0.00 | $0.00 | $26.68 |
| 2 | 55 | $20.71 | $7.85 | $3.66 | $0.00 | $32.22 |
| 3 | 60 | $22.60 | $7.85 | $3.99 | $0.00 | $34.44 |
| 4 | 65 | $24.48 | $7.85 | $4.32 | $0.00 | $36.65 |
| 5 | 70 | $26.36 | $7.85 | $14.11 | $0.00 | $48.32 |
| 6 | 75 | $28.25 | $7.85 | $14.44 | $0.00 | $50.54 |
| 7 | 80 | $30.13 | $7.85 | $14.77 | $0.00 | $52.75 |
| 8 | 90 | $33.89 | $7.85 | $15.44 | $0.00 | $57.18 |

**Notes:**
Steps are 750 hrs.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| PAINTER (SPRAY OR SANDBLAST, REPAINT)<br>*PAINTERS LOCAL 35 - ZONE 2* | 01/01/2014 | $34.87 | $7.85 | $16.10 | $0.00 | $58.82 |
| | 07/01/2014 | $35.72 | $7.85 | $16.10 | $0.00 | $59.67 |
| | 01/01/2015 | $36.62 | $7.85 | $16.10 | $0.00 | $60.57 |
| | 07/01/2015 | $37.52 | $7.85 | $16.10 | $0.00 | $61.47 |
| | 01/01/2016 | $38.47 | $7.85 | $16.10 | $0.00 | $62.42 |
| | 07/01/2016 | $39.42 | $7.85 | $16.10 | $0.00 | $63.37 |
| | 01/01/2017 | $40.37 | $7.85 | $16.10 | $0.00 | $64.32 |

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

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

**Effective Date -** 01/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $17.44 | $7.85 | $0.00 | $0.00 | $25.29 |
| 2 | 55 | $19.18 | $7.85 | $3.66 | $0.00 | $30.69 |
| 3 | 60 | $20.92 | $7.85 | $3.99 | $0.00 | $32.76 |
| 4 | 65 | $22.67 | $7.85 | $4.32 | $0.00 | $34.84 |
| 5 | 70 | $24.41 | $7.85 | $14.11 | $0.00 | $46.37 |
| 6 | 75 | $26.15 | $7.85 | $14.44 | $0.00 | $48.44 |
| 7 | 80 | $27.90 | $7.85 | $14.77 | $0.00 | $50.52 |
| 8 | 90 | $31.38 | $7.85 | $15.44 | $0.00 | $54.67 |

**Effective Date -** 07/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $17.86 | $7.85 | $0.00 | $0.00 | $25.71 |
| 2 | 55 | $19.65 | $7.85 | $3.66 | $0.00 | $31.16 |
| 3 | 60 | $21.43 | $7.85 | $3.99 | $0.00 | $33.27 |
| 4 | 65 | $23.22 | $7.85 | $4.32 | $0.00 | $35.39 |
| 5 | 70 | $25.00 | $7.85 | $14.11 | $0.00 | $46.96 |
| 6 | 75 | $26.79 | $7.85 | $14.44 | $0.00 | $49.08 |
| 7 | 80 | $28.58 | $7.85 | $14.77 | $0.00 | $51.20 |
| 8 | 90 | $32.15 | $7.85 | $15.44 | $0.00 | $55.44 |

**Notes:**
Steps are 750 hrs.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| PAINTER (TRAFFIC MARKINGS)<br>*LABORERS - ZONE 2* | 12/01/2013 | $29.85 | $7.30 | $12.10 | $0.00 | $49.25 |
| | 06/01/2014 | $30.35 | $7.30 | $12.10 | $0.00 | $49.75 |
| | 12/01/2014 | $30.85 | $7.30 | $12.10 | $0.00 | $50.25 |
| | 06/01/2015 | $31.35 | $7.30 | $12.10 | $0.00 | $50.75 |
| | 12/01/2015 | $31.85 | $7.30 | $12.10 | $0.00 | $51.25 |
| | 06/01/2016 | $32.35 | $7.30 | $12.10 | $0.00 | $51.75 |
| | 12/01/2016 | $33.10 | $7.30 | $12.10 | $0.00 | $52.50 |
| For Apprentice rates see "Apprentice- LABORER" | | | | | | |
| PAINTER / TAPER (BRUSH, NEW) *<br>* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.*PAINTERS LOCAL 35 - ZONE 2* | 01/01/2014 | $35.41 | $7.85 | $16.10 | $0.00 | $59.36 |
| | 07/01/2014 | $36.26 | $7.85 | $16.10 | $0.00 | $60.21 |
| | 01/01/2015 | $37.16 | $7.85 | $16.10 | $0.00 | $61.11 |
| | 07/01/2015 | $38.06 | $7.85 | $16.10 | $0.00 | $62.01 |
| | 01/01/2016 | $39.01 | $7.85 | $16.10 | $0.00 | $62.96 |
| | 07/01/2016 | $39.96 | $7.85 | $16.10 | $0.00 | $63.91 |
| | 01/01/2017 | $40.91 | $7.85 | $16.10 | $0.00 | $64.86 |

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

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

**Effective Date -** 01/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $17.71 | $7.85 | $0.00 | $0.00 | $25.56 |
| 2 | 55 | $19.48 | $7.85 | $3.66 | $0.00 | $30.99 |
| 3 | 60 | $21.25 | $7.85 | $3.99 | $0.00 | $33.09 |
| 4 | 65 | $23.02 | $7.85 | $4.32 | $0.00 | $35.19 |
| 5 | 70 | $24.79 | $7.85 | $14.11 | $0.00 | $46.75 |
| 6 | 75 | $26.56 | $7.85 | $14.44 | $0.00 | $48.85 |
| 7 | 80 | $28.33 | $7.85 | $14.77 | $0.00 | $50.95 |
| 8 | 90 | $31.87 | $7.85 | $15.44 | $0.00 | $55.16 |

**Effective Date -** 07/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $18.13 | $7.85 | $0.00 | $0.00 | $25.98 |
| 2 | 55 | $19.94 | $7.85 | $3.66 | $0.00 | $31.45 |
| 3 | 60 | $21.76 | $7.85 | $3.99 | $0.00 | $33.60 |
| 4 | 65 | $23.57 | $7.85 | $4.32 | $0.00 | $35.74 |
| 5 | 70 | $25.38 | $7.85 | $14.11 | $0.00 | $47.34 |
| 6 | 75 | $27.20 | $7.85 | $14.44 | $0.00 | $49.49 |
| 7 | 80 | $29.01 | $7.85 | $14.77 | $0.00 | $51.63 |
| 8 | 90 | $32.63 | $7.85 | $15.44 | $0.00 | $55.92 |

**Notes:**
Steps are 750 hrs.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| PAINTER / TAPER (BRUSH, REPAINT)<br>*PAINTERS LOCAL 35 - ZONE 2* | 01/01/2014 | $33.47 | $7.85 | $16.10 | $0.00 | $57.42 |
| | 07/01/2014 | $34.32 | $7.85 | $16.10 | $0.00 | $58.27 |
| | 01/01/2015 | $35.22 | $7.85 | $16.10 | $0.00 | $59.17 |
| | 07/01/2015 | $36.12 | $7.85 | $16.10 | $0.00 | $60.07 |
| | 01/01/2016 | $37.07 | $7.85 | $16.10 | $0.00 | $61.02 |
| | 07/01/2016 | $38.02 | $7.85 | $16.10 | $0.00 | $61.97 |
| | 01/01/2017 | $38.97 | $7.85 | $16.10 | $0.00 | $62.92 |

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

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

**Effective Date -** 01/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $16.74 | $7.85 | $0.00 | $0.00 | $24.59 |
| 2 | 55 | $18.41 | $7.85 | $3.66 | $0.00 | $29.92 |
| 3 | 60 | $20.08 | $7.85 | $3.99 | $0.00 | $31.92 |
| 4 | 65 | $21.76 | $7.85 | $4.32 | $0.00 | $33.93 |
| 5 | 70 | $23.43 | $7.85 | $14.11 | $0.00 | $45.39 |
| 6 | 75 | $25.10 | $7.85 | $14.44 | $0.00 | $47.39 |
| 7 | 80 | $26.78 | $7.85 | $14.77 | $0.00 | $49.40 |
| 8 | 90 | $30.12 | $7.85 | $15.44 | $0.00 | $53.41 |

**Effective Date -** 07/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $17.16 | $7.85 | $0.00 | $0.00 | $25.01 |
| 2 | 55 | $18.88 | $7.85 | $3.66 | $0.00 | $30.39 |
| 3 | 60 | $20.59 | $7.85 | $3.99 | $0.00 | $32.43 |
| 4 | 65 | $22.31 | $7.85 | $4.32 | $0.00 | $34.48 |
| 5 | 70 | $24.02 | $7.85 | $14.11 | $0.00 | $45.98 |
| 6 | 75 | $25.74 | $7.85 | $14.44 | $0.00 | $48.03 |
| 7 | 80 | $27.46 | $7.85 | $14.77 | $0.00 | $50.08 |
| 8 | 90 | $30.89 | $7.85 | $15.44 | $0.00 | $54.18 |

**Notes:**
Steps are 750 hrs.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| PANEL & PICKUP TRUCKS DRIVER<br>*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B* | 12/01/2012 | $30.28 | $9.07 | $8.00 | $0.00 | $47.35 |
| PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)<br>*PILE DRIVER LOCAL 56 (ZONE 1)* | 08/01/2013 | $40.10 | $9.80 | $18.17 | $0.00 | $68.07 |
| | 08/01/2014 | $41.60 | $9.80 | $18.17 | $0.00 | $69.57 |
| | 08/01/2015 | $43.10 | $9.80 | $18.17 | $0.00 | $71.07 |
| PILE DRIVER<br>*PILE DRIVER LOCAL 56 (ZONE 1)* | 08/01/2013 | $40.10 | $9.80 | $18.17 | $0.00 | $68.07 |
| | 08/01/2014 | $41.60 | $9.80 | $18.17 | $0.00 | $69.57 |
| | 08/01/2015 | $43.10 | $9.80 | $18.17 | $0.00 | $71.07 |

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

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

**Effective Date -** 08/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $20.05 | $9.80 | $18.17 | $0.00 | $48.02 |
| 2 | 60 | $24.06 | $9.80 | $18.17 | $0.00 | $52.03 |
| 3 | 70 | $28.07 | $9.80 | $18.17 | $0.00 | $56.04 |
| 4 | 75 | $30.08 | $9.80 | $18.17 | $0.00 | $58.05 |
| 5 | 80 | $32.08 | $9.80 | $18.17 | $0.00 | $60.05 |
| 6 | 80 | $32.08 | $9.80 | $18.17 | $0.00 | $60.05 |
| 7 | 90 | $36.09 | $9.80 | $18.17 | $0.00 | $64.06 |
| 8 | 90 | $36.09 | $9.80 | $18.17 | $0.00 | $64.06 |

**Effective Date -** 08/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $20.80 | $9.80 | $18.17 | $0.00 | $48.77 |
| 2 | 60 | $24.96 | $9.80 | $18.17 | $0.00 | $52.93 |
| 3 | 70 | $29.12 | $9.80 | $18.17 | $0.00 | $57.09 |
| 4 | 75 | $31.20 | $9.80 | $18.17 | $0.00 | $59.17 |
| 5 | 80 | $33.28 | $9.80 | $18.17 | $0.00 | $61.25 |
| 6 | 80 | $33.28 | $9.80 | $18.17 | $0.00 | $61.25 |
| 7 | 90 | $37.44 | $9.80 | $18.17 | $0.00 | $65.41 |
| 8 | 90 | $37.44 | $9.80 | $18.17 | $0.00 | $65.41 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| PIPEFITTER & STEAMFITTER<br>*PIPEFITTERS LOCAL 537* | 03/01/2013 | $49.34 | $8.75 | $14.39 | $0.00 | $72.48 |

**Apprentice -** *PIPEFITTER - Local 537*

**Effective Date -** 03/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 40 | $19.74 | $8.75 | $6.50 | $0.00 | $34.99 |
| 2 | 45 | $22.20 | $8.75 | $14.39 | $0.00 | $45.34 |
| 3 | 60 | $29.60 | $8.75 | $14.39 | $0.00 | $52.74 |
| 4 | 70 | $34.54 | $8.75 | $14.39 | $0.00 | $57.68 |
| 5 | 80 | $39.47 | $8.75 | $14.39 | $0.00 | $62.61 |

**Notes:**

** 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.

Refrig/AC Mechanic **1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

**Apprentice to Journeyworker Ratio:****

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| PIPELAYER<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| PLUMBERS & GASFITTERS<br>*PLUMBERS & GASFITTERS LOCAL 12* | 09/01/2013 | $49.06 | $9.82 | $14.04 | $0.00 | $72.92 |
| | 03/01/2014 | $50.06 | $9.82 | $14.04 | $0.00 | $73.92 |
| | 09/01/2014 | $51.06 | $9.82 | $14.04 | $0.00 | $74.92 |
| | 03/01/2015 | $52.06 | $9.82 | $14.04 | $0.00 | $75.92 |
| | 09/01/2015 | $53.06 | $9.82 | $14.04 | $0.00 | $76.92 |
| | 03/01/2016 | $54.21 | $9.82 | $14.04 | $0.00 | $78.07 |
| | 09/01/2016 | $55.26 | $9.82 | $14.04 | $0.00 | $79.12 |
| | 03/01/2017 | $56.26 | $9.82 | $14.04 | $0.00 | $80.12 |

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

**Effective Date -** 09/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 35 | $17.17 | $9.82 | $5.26 | $0.00 | $32.25 |
| 2 | 40 | $19.62 | $9.82 | $5.92 | $0.00 | $35.36 |
| 3 | 55 | $26.98 | $9.82 | $7.95 | $0.00 | $44.75 |
| 4 | 65 | $31.89 | $9.82 | $9.30 | $0.00 | $51.01 |
| 5 | 75 | $36.80 | $9.82 | $10.65 | $0.00 | $57.27 |

**Effective Date -** 03/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 35 | $17.52 | $9.82 | $5.26 | $0.00 | $32.60 |
| 2 | 40 | $20.02 | $9.82 | $5.92 | $0.00 | $35.76 |
| 3 | 55 | $27.53 | $9.82 | $7.95 | $0.00 | $45.30 |
| 4 | 65 | $32.54 | $9.82 | $9.30 | $0.00 | $51.66 |
| 5 | 75 | $37.55 | $9.82 | $10.65 | $0.00 | $58.02 |

**Notes:**

** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic$54.16 Step5 with lic$60.40

**Apprentice to Journeyworker Ratio:****

| | | | | | | |
|---|---|---|---|---|---|---|
| PNEUMATIC CONTROLS (TEMP.)<br>*PIPEFITTERS LOCAL 537* | 03/01/2013 | $49.34 | $8.75 | $14.39 | $0.00 | $72.48 |
| For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER" | | | | | | |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| PNEUMATIC DRILL/TOOL OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| POWDERMAN & BLASTER<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.85 | $7.30 | $12.10 | $0.00 | $50.25 |
| | 06/01/2014 | $31.35 | $7.30 | $12.10 | $0.00 | $50.75 |
| | 12/01/2014 | $31.85 | $7.30 | $12.10 | $0.00 | $51.25 |
| | 06/01/2015 | $32.35 | $7.30 | $12.10 | $0.00 | $51.75 |
| | 12/01/2015 | $32.85 | $7.30 | $12.10 | $0.00 | $52.25 |
| | 06/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| | 12/01/2016 | $34.10 | $7.30 | $12.10 | $0.00 | $53.50 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| POWER SHOVEL/DERRICK/TRENCHING MACHINE<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.49 | $10.00 | $14.18 | $0.00 | $64.67 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| PUMP OPERATOR (CONCRETE)<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.49 | $10.00 | $14.18 | $0.00 | $64.67 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| PUMP OPERATOR (DEWATERING, OTHER)<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $28.11 | $10.00 | $14.18 | $0.00 | $52.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| READY-MIX CONCRETE DRIVER<br>*TEAMSTERS LOCAL 49* | 05/01/2010 | $22.88 | $6.97 | $3.94 | $0.00 | $33.79 |
| RECLAIMERS<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| RESIDENTIAL WOOD FRAME (All Other Work)<br>*CARPENTERS -ZONE 2 (Residential Wood)* | 04/01/2011 | $24.24 | $8.67 | $15.51 | $0.00 | $48.42 |
| RESIDENTIAL WOOD FRAME CARPENTER **<br>** The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories including the basement. *CARPENTERS -ZONE 2 (Residential Wood)* | 05/01/2011 | $24.24 | $6.34 | $6.23 | $0.00 | $36.81 |

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

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

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

**Effective Date -** 05/01/2011

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 60 | $14.54 | $6.34 | $0.00 | $0.00 | $20.88 |
| 2 | 60 | $14.54 | $6.34 | $6.23 | $0.00 | $27.11 |
| 3 | 65 | $15.76 | $6.34 | $6.23 | $0.00 | $28.33 |
| 4 | 70 | $16.97 | $6.34 | $6.23 | $0.00 | $29.54 |
| 5 | 75 | $18.18 | $6.34 | $6.23 | $0.00 | $30.75 |
| 6 | 80 | $19.39 | $6.34 | $6.23 | $0.00 | $31.96 |
| 7 | 85 | $20.60 | $6.34 | $6.23 | $0.00 | $33.17 |
| 8 | 90 | $21.82 | $6.34 | $6.23 | $0.00 | $34.39 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| RIDE-ON MOTORIZED BUGGY OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| ROLLER/SPREADER/MULCHING MACHINE<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)<br>*ROOFERS LOCAL 33* | 08/01/2013 | $38.31 | $10.50 | $10.70 | $0.00 | $59.51 |
| | 02/01/2014 | $39.21 | $10.50 | $10.70 | $0.00 | $60.41 |
| | 08/01/2014 | $40.11 | $10.50 | $10.70 | $0.00 | $61.31 |
| | 02/01/2015 | $41.01 | $10.50 | $10.70 | $0.00 | $62.21 |
| | 08/01/2015 | $41.91 | $10.50 | $10.70 | $0.00 | $63.11 |
| | 02/01/2016 | $42.81 | $10.50 | $10.70 | $0.00 | $64.01 |

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

**Apprentice -** *ROOFER - Local 33*

**Effective Date -** 08/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $19.16 | $10.50 | $3.38 | $0.00 | $33.04 |
| 2 | 60 | $22.99 | $10.50 | $10.70 | $0.00 | $44.19 |
| 3 | 65 | $24.90 | $10.50 | $10.70 | $0.00 | $46.10 |
| 4 | 75 | $28.73 | $10.50 | $10.70 | $0.00 | $49.93 |
| 5 | 85 | $32.56 | $10.50 | $10.70 | $0.00 | $53.76 |

**Effective Date -** 02/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $19.61 | $10.50 | $3.38 | $0.00 | $33.49 |
| 2 | 60 | $23.53 | $10.50 | $10.70 | $0.00 | $44.73 |
| 3 | 65 | $25.49 | $10.50 | $10.70 | $0.00 | $46.69 |
| 4 | 75 | $29.41 | $10.50 | $10.70 | $0.00 | $50.61 |
| 5 | 85 | $33.33 | $10.50 | $10.70 | $0.00 | $54.53 |

**Notes:** ** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1
Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.

**Apprentice to Journeyworker Ratio:****

| | | | | | | |
|---|---|---|---|---|---|---|
| ROOFER SLATE / TILE / PRECAST CONCRETE<br>*ROOFERS LOCAL 33* | 08/01/2013 | $38.56 | $10.50 | $10.70 | $0.00 | $59.76 |
| | 02/01/2014 | $39.46 | $10.50 | $10.70 | $0.00 | $60.66 |
| | 08/01/2014 | $40.36 | $10.50 | $10.70 | $0.00 | $61.56 |
| | 02/01/2015 | $41.26 | $10.50 | $10.70 | $0.00 | $62.46 |
| | 08/01/2015 | $42.16 | $10.50 | $10.70 | $0.00 | $63.36 |
| | 02/01/2016 | $43.06 | $10.50 | $10.70 | $0.00 | $64.26 |
| For apprentice rates see "Apprentice- ROOFER" | | | | | | |
| SHEETMETAL WORKER<br>*SHEETMETAL WORKERS LOCAL 17 - A* | 12/09/2013 | $42.35 | $9.82 | $19.33 | $2.14 | $73.64 |
| | 02/01/2014 | $42.76 | $9.82 | $19.74 | $2.17 | $74.49 |
| | 08/01/2014 | $43.61 | $9.82 | $19.74 | $2.17 | $75.34 |
| | 02/01/2015 | $44.51 | $9.82 | $19.74 | $2.17 | $76.24 |
| | 08/01/2015 | $45.51 | $9.82 | $19.74 | $2.17 | $77.24 |
| | 02/01/2016 | $46.51 | $9.82 | $19.74 | $2.17 | $78.24 |
| | 08/01/2016 | $47.66 | $9.82 | $19.74 | $2.17 | $79.39 |
| | 02/01/2017 | $48.76 | $9.82 | $19.74 | $2.17 | $80.49 |
| | 08/01/2017 | $49.86 | $9.82 | $19.74 | $2.17 | $81.59 |
| | 02/01/2018 | $51.01 | $9.82 | $19.74 | $2.17 | $82.74 |

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

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

**Effective Date -** 12/09/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 40 | $16.94 | $9.82 | $4.28 | $0.00 | $31.04 |
| 2 | 40 | $16.94 | $9.82 | $4.28 | $0.00 | $31.04 |
| 3 | 45 | $19.06 | $9.82 | $8.70 | $1.13 | $38.71 |
| 4 | 45 | $19.06 | $9.82 | $8.70 | $1.13 | $38.71 |
| 5 | 50 | $21.18 | $9.82 | $9.49 | $1.21 | $41.70 |
| 6 | 50 | $21.18 | $9.82 | $9.74 | $1.22 | $41.96 |
| 7 | 60 | $25.41 | $9.82 | $11.05 | $1.39 | $47.67 |
| 8 | 65 | $27.53 | $9.82 | $11.84 | $1.48 | $50.67 |
| 9 | 75 | $31.76 | $9.82 | $13.41 | $1.65 | $56.64 |
| 10 | 85 | $36.00 | $9.82 | $14.48 | $1.81 | $62.11 |

**Effective Date -** 02/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 40 | $17.10 | $9.82 | $4.28 | $0.00 | $31.20 |
| 2 | 40 | $17.10 | $9.82 | $4.28 | $0.00 | $31.20 |
| 3 | 45 | $19.24 | $9.82 | $8.70 | $1.13 | $38.89 |
| 4 | 45 | $19.24 | $9.82 | $8.70 | $1.13 | $38.89 |
| 5 | 50 | $21.38 | $9.82 | $9.49 | $1.22 | $41.91 |
| 6 | 50 | $21.38 | $9.82 | $9.74 | $1.23 | $42.17 |
| 7 | 60 | $25.66 | $9.82 | $11.05 | $1.40 | $47.93 |
| 8 | 65 | $27.79 | $9.82 | $11.84 | $1.48 | $50.93 |
| 9 | 75 | $32.07 | $9.82 | $13.41 | $1.66 | $56.96 |
| 10 | 85 | $36.35 | $9.82 | $14.48 | $1.82 | $62.47 |

**Notes:**
Steps are 6 mos.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| SIGN ERECTOR<br>*PAINTERS LOCAL 35 - ZONE 2* | 06/01/2013 | $25.81 | $7.07 | $7.05 | $0.00 | $39.93 |

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

**Apprentice -** *SIGN ERECTOR - Local 35 Zone 2*

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

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

**Notes:**
Steps are 4 mos.

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

| | | | | | | |
|---|---|---|---|---|---|---|
| SPECIALIZED EARTH MOVING EQUIP < 35 TONS<br>*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B* | 12/01/2013 | $31.24 | $9.41 | $8.80 | $0.00 | $49.45 |
| | 06/01/2014 | $31.59 | $9.41 | $8.80 | $0.00 | $49.80 |
| | 08/01/2014 | $31.59 | $9.91 | $8.80 | $0.00 | $50.30 |
| | 12/01/2014 | $31.59 | $9.91 | $9.33 | $0.00 | $50.83 |
| | 06/01/2015 | $31.94 | $9.91 | $9.33 | $0.00 | $51.18 |
| | 08/01/2015 | $31.94 | $10.41 | $9.33 | $0.00 | $51.68 |
| | 12/01/2015 | $31.94 | $10.41 | $10.08 | $0.00 | $52.43 |
| | 06/01/2016 | $32.44 | $10.41 | $10.08 | $0.00 | $52.93 |
| | 08/01/2016 | $32.44 | $10.91 | $10.08 | $0.00 | $53.43 |
| | 12/01/2016 | $32.44 | $10.91 | $10.89 | $0.00 | $54.24 |
| SPECIALIZED EARTH MOVING EQUIP > 35 TONS<br>*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B* | 12/01/2013 | $31.53 | $9.41 | $8.80 | $0.00 | $49.74 |
| | 06/01/2014 | $31.88 | $9.41 | $8.80 | $0.00 | $50.09 |
| | 08/01/2014 | $31.88 | $9.91 | $8.80 | $0.00 | $50.59 |
| | 12/01/2014 | $31.88 | $9.91 | $9.33 | $0.00 | $51.12 |
| | 06/01/2015 | $32.23 | $9.91 | $9.33 | $0.00 | $51.47 |
| | 08/01/2015 | $32.23 | $10.41 | $9.33 | $0.00 | $51.97 |
| | 12/01/2015 | $32.23 | $10.41 | $10.08 | $0.00 | $52.72 |
| | 06/01/2016 | $32.73 | $10.41 | $10.08 | $0.00 | $53.22 |
| | 08/01/2016 | $32.73 | $10.91 | $10.08 | $0.00 | $53.72 |
| | 12/01/2016 | $32.73 | $10.91 | $10.89 | $0.00 | $54.53 |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| SPRINKLER FITTER<br>*SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1* | 01/01/2014 | $53.33 | $8.42 | $12.85 | $0.00 | $74.60 |
| | 03/01/2014 | $54.58 | $8.42 | $12.85 | $0.00 | $75.85 |
| | 10/01/2014 | $55.73 | $8.42 | $12.85 | $0.00 | $77.00 |
| | 01/01/2015 | $55.73 | $8.42 | $13.00 | $0.00 | $77.15 |
| | 03/01/2015 | $56.73 | $8.42 | $13.00 | $0.00 | $78.15 |
| | 10/01/2015 | $57.88 | $8.42 | $13.00 | $0.00 | $79.30 |
| | 01/01/2016 | $57.88 | $8.67 | $13.15 | $0.00 | $79.70 |
| | 03/01/2016 | $58.88 | $8.67 | $13.15 | $0.00 | $80.70 |
| | 10/01/2016 | $60.03 | $8.67 | $13.15 | $0.00 | $81.85 |
| | 03/01/2017 | $61.03 | $8.67 | $13.15 | $0.00 | $82.85 |

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

**Effective Date -** 01/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 35 | $18.67 | $8.42 | $8.25 | $0.00 | $35.34 |
| 2 | 40 | $21.33 | $8.42 | $8.25 | $0.00 | $38.00 |
| 3 | 45 | $24.00 | $8.42 | $8.25 | $0.00 | $40.67 |
| 4 | 50 | $26.67 | $8.42 | $8.25 | $0.00 | $43.34 |
| 5 | 55 | $29.33 | $8.42 | $8.25 | $0.00 | $46.00 |
| 6 | 60 | $32.00 | $8.42 | $8.25 | $0.00 | $48.67 |
| 7 | 65 | $34.66 | $8.42 | $8.25 | $0.00 | $51.33 |
| 8 | 70 | $37.33 | $8.42 | $8.25 | $0.00 | $54.00 |
| 9 | 75 | $40.00 | $8.42 | $8.25 | $0.00 | $56.67 |
| 10 | 80 | $42.66 | $8.42 | $8.25 | $0.00 | $59.33 |

**Effective Date -** 03/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 35 | $19.10 | $8.42 | $8.25 | $0.00 | $35.77 |
| 2 | 40 | $21.83 | $8.42 | $8.25 | $0.00 | $38.50 |
| 3 | 45 | $24.56 | $8.42 | $8.25 | $0.00 | $41.23 |
| 4 | 50 | $27.29 | $8.42 | $8.25 | $0.00 | $43.96 |
| 5 | 55 | $30.02 | $8.42 | $8.25 | $0.00 | $46.69 |
| 6 | 60 | $32.75 | $8.42 | $8.25 | $0.00 | $49.42 |
| 7 | 65 | $35.48 | $8.42 | $8.25 | $0.00 | $52.15 |
| 8 | 70 | $38.21 | $8.42 | $8.25 | $0.00 | $54.88 |
| 9 | 75 | $40.94 | $8.42 | $8.25 | $0.00 | $57.61 |
| 10 | 80 | $43.66 | $8.42 | $8.25 | $0.00 | $60.33 |

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

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

| | | | | | | |
|---|---|---|---|---|---|---|
| STEAM BOILER OPERATOR<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN<br>*OPERATING ENGINEERS LOCAL 4*<br>For apprentice rates see "Apprentice- OPERATING ENGINEERS" | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |
| TELECOMMUNICATION TECHNICIAN<br>*ELECTRICIANS LOCAL 103* | 09/01/2013 | $32.97 | $13.00 | $12.77 | $0.00 | $58.74 |
| | 03/01/2014 | $33.44 | $13.00 | $13.03 | $0.00 | $59.47 |
| | 09/01/2014 | $33.84 | $13.00 | $13.05 | $0.00 | $59.89 |
| | 03/01/2015 | $34.38 | $13.00 | $13.06 | $0.00 | $60.44 |
| | 09/01/2015 | $35.10 | $13.00 | $13.08 | $0.00 | $61.18 |
| | 03/01/2016 | $35.81 | $13.00 | $13.10 | $0.00 | $61.91 |

**Apprentice -** *TELECOMMUNICATION TECHNICIAN - Local 103*

**Effective Date -** 09/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 40 | $13.19 | $13.00 | $0.40 | $0.00 | $26.59 |
| 2 | 40 | $13.19 | $13.00 | $0.40 | $0.00 | $26.59 |
| 3 | 45 | $14.84 | $13.00 | $10.04 | $0.00 | $37.88 |
| 4 | 45 | $14.84 | $13.00 | $10.04 | $0.00 | $37.88 |
| 5 | 50 | $16.49 | $13.00 | $10.29 | $0.00 | $39.78 |
| 6 | 55 | $18.13 | $13.00 | $10.53 | $0.00 | $41.66 |
| 7 | 60 | $19.78 | $13.00 | $10.78 | $0.00 | $43.56 |
| 8 | 65 | $21.43 | $13.00 | $11.03 | $0.00 | $45.46 |
| 9 | 70 | $23.08 | $13.00 | $11.28 | $0.00 | $47.36 |
| 10 | 75 | $24.73 | $13.00 | $11.53 | $0.00 | $49.26 |

**Effective Date -** 03/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 40 | $13.38 | $13.00 | $0.40 | $0.00 | $26.78 |
| 2 | 40 | $13.38 | $13.00 | $0.40 | $0.00 | $26.78 |
| 3 | 45 | $15.05 | $13.00 | $10.29 | $0.00 | $38.34 |
| 4 | 45 | $15.05 | $13.00 | $10.29 | $0.00 | $38.34 |
| 5 | 50 | $16.72 | $13.00 | $10.54 | $0.00 | $40.26 |
| 6 | 55 | $18.39 | $13.00 | $10.79 | $0.00 | $42.18 |
| 7 | 60 | $20.06 | $13.00 | $11.04 | $0.00 | $44.10 |
| 8 | 65 | $21.74 | $13.00 | $11.29 | $0.00 | $46.03 |
| 9 | 70 | $23.41 | $13.00 | $11.54 | $0.00 | $47.95 |
| 10 | 75 | $25.08 | $13.00 | $11.79 | $0.00 | $49.87 |

**Notes:**

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

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| TERRAZZO FINISHERS | 08/01/2013 | $47.00 | $10.18 | $18.15 | $0.00 | $75.33 |
| *BRICKLAYERS LOCAL 3 - MARBLE & TILE* | 02/01/2014 | $47.00 | $10.18 | $18.15 | $0.00 | $75.33 |
| | 08/01/2014 | $47.90 | $10.18 | $18.22 | $0.00 | $76.30 |
| | 02/01/2015 | $48.46 | $10.18 | $18.22 | $0.00 | $76.86 |
| | 08/01/2015 | $49.36 | $10.18 | $18.29 | $0.00 | $77.83 |
| | 02/01/2016 | $49.93 | $10.18 | $18.29 | $0.00 | $78.40 |
| | 08/01/2016 | $50.83 | $10.18 | $18.37 | $0.00 | $79.38 |
| | 02/01/2017 | $51.40 | $10.18 | $18.37 | $0.00 | $79.95 |

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

**Effective Date -** 08/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $23.50 | $10.18 | $18.15 | $0.00 | $51.83 |
| 2 | 60 | $28.20 | $10.18 | $18.15 | $0.00 | $56.53 |
| 3 | 70 | $32.90 | $10.18 | $18.15 | $0.00 | $61.23 |
| 4 | 80 | $37.60 | $10.18 | $18.15 | $0.00 | $65.93 |
| 5 | 90 | $42.30 | $10.18 | $18.15 | $0.00 | $70.63 |

**Effective Date -** 02/01/2014

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 50 | $23.50 | $10.18 | $18.15 | $0.00 | $51.83 |
| 2 | 60 | $28.20 | $10.18 | $18.15 | $0.00 | $56.53 |
| 3 | 70 | $32.90 | $10.18 | $18.15 | $0.00 | $61.23 |
| 4 | 80 | $37.60 | $10.18 | $18.15 | $0.00 | $65.93 |
| 5 | 90 | $42.30 | $10.18 | $18.15 | $0.00 | $70.63 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| TEST BORING DRILLER | 12/01/2013 | $34.70 | $7.30 | $12.90 | $0.00 | $54.90 |
| *LABORERS - FOUNDATION AND MARINE* | 06/01/2014 | $35.45 | $7.30 | $12.90 | $0.00 | $55.65 |
| | 12/01/2014 | $36.20 | $7.30 | $12.90 | $0.00 | $56.40 |
| | 06/01/2015 | $36.95 | $7.30 | $12.90 | $0.00 | $57.15 |
| | 12/01/2015 | $37.70 | $7.30 | $12.90 | $0.00 | $57.90 |
| | 06/01/2016 | $38.45 | $7.30 | $12.90 | $0.00 | $58.65 |
| | 12/01/2016 | $39.45 | $7.30 | $12.90 | $0.00 | $59.65 |

For apprentice rates see "Apprentice- LABORER"

| | | | | | | |
|---|---|---|---|---|---|---|
| TEST BORING DRILLER HELPER | 12/01/2013 | $33.42 | $7.30 | $12.90 | $0.00 | $53.62 |
| *LABORERS - FOUNDATION AND MARINE* | 06/01/2014 | $34.17 | $7.30 | $12.90 | $0.00 | $54.37 |
| | 12/01/2014 | $34.92 | $7.30 | $12.90 | $0.00 | $55.12 |
| | 06/01/2015 | $35.67 | $7.30 | $12.90 | $0.00 | $55.87 |
| | 12/01/2015 | $36.42 | $7.30 | $12.90 | $0.00 | $56.62 |
| | 06/01/2016 | $37.17 | $7.30 | $12.90 | $0.00 | $57.37 |
| | 12/01/2016 | $38.17 | $7.30 | $12.90 | $0.00 | $58.37 |

For apprentice rates see "Apprentice- LABORER"

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| TEST BORING LABORER<br>*LABORERS - FOUNDATION AND MARINE* | 12/01/2013 | $33.30 | $7.30 | $12.90 | $0.00 | $53.50 |
| | 06/01/2014 | $34.05 | $7.30 | $12.90 | $0.00 | $54.25 |
| | 12/01/2014 | $34.80 | $7.30 | $12.90 | $0.00 | $55.00 |
| | 06/01/2015 | $35.55 | $7.30 | $12.90 | $0.00 | $55.75 |
| | 12/01/2015 | $36.30 | $7.30 | $12.90 | $0.00 | $56.50 |
| | 06/01/2016 | $37.05 | $7.30 | $12.90 | $0.00 | $57.25 |
| | 12/01/2016 | $38.05 | $7.30 | $12.90 | $0.00 | $58.25 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| TRACTORS/PORTABLE STEAM GENERATORS<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.11 | $10.00 | $14.18 | $0.00 | $64.29 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| TRAILERS FOR EARTH MOVING EQUIPMENT<br>*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B* | 12/01/2013 | $31.82 | $9.41 | $8.80 | $0.00 | $50.03 |
| | 06/01/2014 | $32.17 | $9.41 | $8.80 | $0.00 | $50.38 |
| | 08/01/2014 | $32.17 | $9.91 | $8.80 | $0.00 | $50.88 |
| | 12/01/2014 | $32.17 | $9.91 | $9.33 | $0.00 | $51.41 |
| | 06/01/2015 | $32.52 | $9.91 | $9.33 | $0.00 | $51.76 |
| | 08/01/2015 | $32.52 | $10.41 | $9.33 | $0.00 | $52.26 |
| | 12/01/2015 | $32.52 | $10.41 | $10.08 | $0.00 | $53.01 |
| | 06/01/2016 | $33.02 | $10.41 | $10.08 | $0.00 | $53.51 |
| | 08/01/2016 | $33.02 | $10.91 | $10.08 | $0.00 | $54.01 |
| | 12/01/2016 | $33.02 | $10.91 | $10.89 | $0.00 | $54.82 |
| TUNNEL WORK - COMPRESSED AIR<br>*LABORERS (COMPRESSED AIR)* | 12/01/2013 | $45.58 | $7.30 | $13.30 | $0.00 | $66.18 |
| | 06/01/2014 | $46.33 | $7.30 | $13.30 | $0.00 | $66.93 |
| | 12/01/2014 | $47.08 | $7.30 | $13.30 | $0.00 | $67.68 |
| | 06/01/2015 | $47.83 | $7.30 | $13.30 | $0.00 | $68.43 |
| | 12/01/2015 | $48.58 | $7.30 | $13.30 | $0.00 | $69.18 |
| | 06/01/2016 | $49.33 | $7.30 | $13.30 | $0.00 | $69.93 |
| | 12/01/2016 | $50.33 | $7.30 | $13.30 | $0.00 | $70.93 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)<br>*LABORERS (COMPRESSED AIR)* | 12/01/2013 | $47.58 | $7.30 | $13.30 | $0.00 | $68.18 |
| | 06/01/2014 | $48.33 | $7.30 | $13.30 | $0.00 | $68.93 |
| | 12/01/2014 | $49.08 | $7.30 | $13.30 | $0.00 | $69.68 |
| | 06/01/2015 | $49.83 | $7.30 | $13.30 | $0.00 | $70.43 |
| | 12/01/2015 | $50.58 | $7.30 | $13.30 | $0.00 | $71.18 |
| | 06/01/2016 | $51.33 | $7.30 | $13.30 | $0.00 | $71.93 |
| | 12/01/2016 | $52.33 | $7.30 | $13.30 | $0.00 | $72.93 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| TUNNEL WORK - FREE AIR<br>*LABORERS (FREE AIR TUNNEL)* | 12/01/2013 | $37.65 | $7.30 | $13.30 | $0.00 | $58.25 |
| | 06/01/2014 | $38.40 | $7.30 | $13.30 | $0.00 | $59.00 |
| | 12/01/2014 | $39.15 | $7.30 | $13.30 | $0.00 | $59.75 |
| | 06/01/2015 | $39.90 | $7.30 | $13.30 | $0.00 | $60.50 |
| | 12/01/2015 | $40.65 | $7.30 | $13.30 | $0.00 | $61.25 |
| | 06/01/2016 | $41.40 | $7.30 | $13.30 | $0.00 | $62.00 |
| | 12/01/2016 | $42.40 | $7.30 | $13.30 | $0.00 | $63.00 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| TUNNEL WORK - FREE AIR (HAZ. WASTE)<br>*LABORERS (FREE AIR TUNNEL)* | 12/01/2013 | $39.65 | $7.30 | $13.30 | $0.00 | $60.25 |
| | 06/01/2014 | $40.40 | $7.30 | $13.30 | $0.00 | $61.00 |
| | 12/01/2014 | $41.15 | $7.30 | $13.30 | $0.00 | $61.75 |
| | 06/01/2015 | $41.90 | $7.30 | $13.30 | $0.00 | $62.50 |
| | 12/01/2015 | $42.65 | $7.30 | $13.30 | $0.00 | $63.25 |
| | 06/01/2016 | $43.40 | $7.30 | $13.30 | $0.00 | $64.00 |
| | 12/01/2016 | $44.40 | $7.30 | $13.30 | $0.00 | $65.00 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| VAC-HAUL<br>*TEAMSTERS JOINT COUNCIL NO. 10 ZONE B* | 12/01/2013 | $31.24 | $9.41 | $8.80 | $0.00 | $49.45 |
| | 06/01/2014 | $31.59 | $9.41 | $8.80 | $0.00 | $49.80 |
| | 08/01/2014 | $31.59 | $9.91 | $8.80 | $0.00 | $50.30 |
| | 12/01/2014 | $31.59 | $9.91 | $9.33 | $0.00 | $50.83 |
| | 06/01/2015 | $31.94 | $9.91 | $9.33 | $0.00 | $51.18 |
| | 08/01/2015 | $31.94 | $10.41 | $9.33 | $0.00 | $51.68 |
| | 12/01/2015 | $31.94 | $10.41 | $10.08 | $0.00 | $52.43 |
| | 06/01/2016 | $32.44 | $10.41 | $10.08 | $0.00 | $52.93 |
| | 08/01/2016 | $32.44 | $10.91 | $10.08 | $0.00 | $53.43 |
| | 12/01/2016 | $32.44 | $10.91 | $10.89 | $0.00 | $54.24 |
| WAGON DRILL OPERATOR<br>*LABORERS - ZONE 2* | 12/01/2013 | $30.10 | $7.30 | $12.10 | $0.00 | $49.50 |
| | 06/01/2014 | $30.60 | $7.30 | $12.10 | $0.00 | $50.00 |
| | 12/01/2014 | $31.10 | $7.30 | $12.10 | $0.00 | $50.50 |
| | 06/01/2015 | $31.60 | $7.30 | $12.10 | $0.00 | $51.00 |
| | 12/01/2015 | $32.10 | $7.30 | $12.10 | $0.00 | $51.50 |
| | 06/01/2016 | $32.60 | $7.30 | $12.10 | $0.00 | $52.00 |
| | 12/01/2016 | $33.35 | $7.30 | $12.10 | $0.00 | $52.75 |
| For apprentice rates see "Apprentice- LABORER" | | | | | | |
| WASTE WATER PUMP OPERATOR<br>*OPERATING ENGINEERS LOCAL 4* | 12/01/2013 | $40.49 | $10.00 | $14.18 | $0.00 | $64.67 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" | | | | | | |
| WATER METER INSTALLER<br>*PLUMBERS & GASFITTERS LOCAL 12* | 09/01/2013 | $49.06 | $9.82 | $14.04 | $0.00 | $72.92 |
| | 03/01/2014 | $50.06 | $9.82 | $14.04 | $0.00 | $73.92 |
| | 09/01/2014 | $51.06 | $9.82 | $14.04 | $0.00 | $74.92 |
| | 03/01/2015 | $52.06 | $9.82 | $14.04 | $0.00 | $75.92 |
| | 09/01/2015 | $53.06 | $9.82 | $14.04 | $0.00 | $76.92 |
| | 03/01/2016 | $54.21 | $9.82 | $14.04 | $0.00 | $78.07 |
| | 09/01/2016 | $55.26 | $9.82 | $14.04 | $0.00 | $79.12 |
| | 03/01/2017 | $56.26 | $9.82 | $14.04 | $0.00 | $80.12 |
| For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER" | | | | | | |
| **Outside Electrical - East** | | | | | | |
| CABLE TECHNICIAN (Power Zone)<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104* | 09/01/2013 | $25.66 | $8.70 | $4.48 | $0.00 | $38.84 |
| For apprentice rates see "Apprentice- LINEMAN" | | | | | | |
| CABLEMAN (Underground Ducts & Cables)<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104* | 09/01/2013 | $36.55 | $8.70 | $6.58 | $0.00 | $51.83 |
| For apprentice rates see "Apprentice- LINEMAN" | | | | | | |
| DRIVER / GROUNDMAN CDL<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104* | 09/01/2013 | $29.94 | $8.70 | $6.05 | $0.00 | $44.69 |
| For apprentice rates see "Apprentice- LINEMAN" | | | | | | |

| Classification | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs)<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*<br>For apprentice rates see "Apprentice- LINEMAN" | 09/01/2013 | $23.52 | $8.70 | $5.24 | $0.00 | $37.46 |
| EQUIPMENT OPERATOR (Class A CDL)<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*<br>For apprentice rates see "Apprentice- LINEMAN" | 09/01/2013 | $36.35 | $8.70 | $9.43 | $0.00 | $54.48 |
| EQUIPMENT OPERATOR (Class B CDL)<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*<br>For apprentice rates see "Apprentice- LINEMAN" | 09/01/2013 | $32.08 | $8.70 | $6.59 | $0.00 | $47.37 |
| GROUNDMAN<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*<br>For apprentice rates see "Apprentice- LINEMAN" | 09/01/2013 | $23.52 | $8.70 | $3.72 | $0.00 | $35.94 |
| GROUNDMAN -Inexperienced (<2000 Hrs.)<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*<br>For apprentice rates see "Apprentice- LINEMAN" | 09/01/2013 | $19.25 | $8.70 | $2.85 | $0.00 | $30.80 |
| JOURNEYMAN LINEMAN<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104* | 09/01/2013 | $42.77 | $8.70 | $11.78 | $0.00 | $63.25 |

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

**Effective Date -** 09/01/2013

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|---|---|---|---|---|---|
| 1 | 60 | $25.66 | $8.70 | $4.24 | $0.00 | $38.60 |
| 2 | 65 | $27.80 | $8.70 | $4.71 | $0.00 | $41.21 |
| 3 | 70 | $29.94 | $8.70 | $5.43 | $0.00 | $44.07 |
| 4 | 75 | $32.08 | $8.70 | $6.16 | $0.00 | $46.94 |
| 5 | 80 | $34.22 | $8.70 | $6.88 | $0.00 | $49.80 |
| 6 | 85 | $36.35 | $8.70 | $7.62 | $0.00 | $52.67 |
| 7 | 90 | $38.49 | $8.70 | $8.83 | $0.00 | $56.02 |

**Notes:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| TELEDATA CABLE SPLICER<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104* | 07/16/2012 | $26.33 | $4.18 | $2.79 | $0.00 | $33.30 |
| TELEDATA LINEMAN/EQUIPMENT OPERATOR<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104* | 07/16/2012 | $24.78 | $4.18 | $2.74 | $0.00 | $31.70 |
| TELEDATA WIREMAN/INSTALLER/TECHNICIAN<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104* | 07/16/2012 | $24.78 | $4.18 | $2.74 | $0.00 | $31.70 |
| TREE TRIMMER<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*<br>This classification applies only to the trimming of branches on and around utility lines. | 01/29/2012 | $17.18 | $3.37 | $0.00 | $0.00 | $20.55 |
| TREE TRIMMER GROUNDMAN<br>*OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*<br>This classification applies only to the trimming of branches on and around utility lines. | 01/29/2012 | $15.15 | $3.37 | $0.00 | $0.00 | $18.52 |

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

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) unless otherwise specified.

* Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof.
** 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.

General Decision Number: MA140001 01/03/2014 MA1

Superseded General Decision Number: MA20130001

State: Massachusetts

Construction Type: Building

Counties: Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk and Suffolk Counties in Massachusetts.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes and apartments up to and including 4 stories)

| Modification Number | Publication Date |
|---|---|
| 0 | 01/03/2014 |

ASBE0006-001 09/01/2012

| | Rates | Fringes |
|---|---|---|
| Insulator/asbestos worker<br>Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems | | |
| (ZONE A) | $ 41.46 | 22.58 |
| (ZONE B) | $ 37.31 | 22.58 |

ZONES:

ZONE A
BARNSTABLE COUNTY (Brewster, Chatham, Dennis, Eastham, Harwich, Orleans, Provincetown, Truro, Wellfleet, Yarmouth) BRISTOL COUNTY (Easton), MIDDLESEX COUNTY, and NORFOLK COUNTY (Avon, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxborough, Holbrook, Medfield, Medway, Millis, Milton, Needham, Norfolk, Norwood, Quincy, Randolph, Sharon, Stoughton, Walpole, Wellesley, Westwood, Weymouth)

ZONE B
BARNSTABLE COUNTY (Barnstable, Bourne, Falmouth, Mashpee, Sandwich), BRISTOL COUNTY (All cities except Easton),and NORFOLK COUNTY (Bellingham, Franklin, Plainville)

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ASBE0006-002 06/01/2013

BARNSTABLE (Brewster, Chatham, Dennis, Eastham, Harwich, Orleans, Provincetown, Truro, Wellfleet and Yarmouth); BRISTOL (Easton); ESSEX; MIDDLESEX; NORFOLK (Avon, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxboro, Holbrook, Hull, Medfield, Medway, Millis, Milton, Needham, Norfolk, Norwood, Quincy, Randolph, Sharon Stoughton, Walpole,

Wellesley, Westwood, and Weymouth) AND SUFFOLK COUNTIES

| | Rates | Fringes |
|---|---|---|
| HAZARDOUS MATERIAL HANDLER (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems whether they contain asbestos or not) | $ 29.38 | 17.00 |

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ASBE0006-010 09/01/2012

BARNSTABLE (Barnstable, Bourne, Falmouth, Mashpee and Sandwich); BRISTOL (Acushnet, Attleboro city, Berkeley, Dartmouth, Dighton, Fairhaven, Fall river City, Freetown, Marion, Mansfield, New Bedford City, North Attleboro, Norton, Raynham, Rehoboth, Seekonk, Somerset, Swansea, Taunton City and Westport); DUKES; NANTUCKET; NORFOLK (Bellingham, Franklin, Plainville, and Wrentham); PLYMOUTH (Lakeville, Mattapoisett, Middleboro, Rochester and Wareham)

| | Rates | Fringes |
|---|---|---|
| Insulator/asbestos worker (Includes the application of all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.) | $ 37.31 | 22.58 |

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BOIL0029-001 10/01/2009

| | Rates | Fringes |
|---|---|---|
| BOILERMAKER | $ 38.25 | 17.04 |

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* BRMA0001-008 09/01/2013

FOXBORO CHAPTER
BRISTOL (Attleboro, Berkley, Dighton, Mansfield, North Attleboro, Norton, Raynham, Rehoboth, Seekonk, Taunton) AND NORFOLK (Bellingham, Canton, Dedham, Foxboro, Franklin, Norfolk, Norwood, Plainville, Sharon, Walpole, Westrwood, Wrentham) COUNTIES

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Cement Mason, Plasterer | $ 45.96 | 29.74 |

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* BRMA0001-009 09/01/2013

LOWELL CHAPTER
MIDDLESEX (Acton, Asby, Ayer, Bedford, Billerica, Boxboro,

Carlisle, Chemsford, Dracut, Dunstble, Ft. Denvens, Groton, Littleton, Lowell, North Acton, Pepperell, Shirley, South Acton, Tewksbury, Townsend, Tyngsboro, West Acton, Westford, Wilmington)

| | Rates | Fringes |
|---|---|---|
| Bricklayer and plasterer..... | $ 45.96 | 29.74 |

* BRMA0001-010 09/01/2013

LOWELL CHAPTER
MIDDLESEX (Ashland, Framingham, Holliston, Hopkinton, Hudson, Maynard, Natick, Sherbvorn, Stow); and NORFOLK (Medfield, Medway,Millis)

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER..... | $ 45.96 | 29.74 |

BRMA0003-001 02/01/2013

| | Rates | Fringes |
|---|---|---|
| Marble & Tile Finisher..... | $ 36.20 | 25.08 |
| Marble, Tile & Terrazzo Workers..... | $ 47.45 | 27.22 |
| TERRAZZO FINISHER..... | $ 46.35 | 26.43 |

BRMA0003-003 02/18/2013

BOSTON CHAPTER
MIDDLESEX (Arlington, Cambridge, Everett, Malden, Medford, Melrose, Somerville); NORFOLK (Brookline, Milton); and SUFFOLK

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER..... | $ 47.41 | 26.65 |

BRMA0003-006 02/01/2013

LYNN CHAPTER
ESSEX (Amesbury, Andover, Beverly, Boxford, Danvers, Essex, Georgetown, Gloucester, Groveland, Hamilton, Haverhill, Ipsewich, Lawrence, Lynn, Lynnfield, Manchester, Marblehead, Merrimac, Methuen, Middleton, Nahant, Newbury, Newburyport, North Andover, Peabody, Rockport, Rowley, Salisbury, Salem, Saugus, Swampscott, Topsfield Wakefield, Wenham, West Newbury); and MIDDLESEX (Reading, North Reading, Wakefield)

| | Rates | Fringes |
|---|---|---|
| Bricklayer, cement mason and plasterer..... | $ 47.41 | 26.65 |

BRMA0003-007 02/01/2013

WALTHAM CHAPTER
MIDDLESEX (Belmont, Burlington, Concord, Lexington, Lincoln, Stoneham, Sudbury, Waltham, Watertown, Wayland, Weston, Winchester, Woburn)

| | Rates | Fringes |
|---|---|---|
| Bricklayer and plasterer | $ 47.41 | 26.65 |

BRMA0003-008 02/01/2013

NEWTON CHAPTER
MIDDLESEX (Newton) and NORFOLK (Dover, Needham, Wellesley)

| | Rates | Fringes |
|---|---|---|
| Bricklayer, cement mason and plasterer | $ 47.41 | 26.65 |

BRMA0003-009 02/01/2013

NEW BEDFORD
BARNSTABLE; BRISTOL (Acushnet, Darmouth, Farhaven, Fall River, Freetown, New Bedford, Somerset, Swansea, Westport); DUKES; and NANTUCKET COUNTIES

| | Rates | Fringes |
|---|---|---|
| Bricklayer, cement mason and plasterer | $ 47.41 | 26.65 |

BRMA0003-010 02/01/2013

QUINCY CHAPTER
NORFOLK COUNTY (Avon, Braintree, Cohasset, Holbrook, Quincy, Randolph, Soughton, Weymouth)

| | Rates | Fringes |
|---|---|---|
| Bricklayer, cement mason and plasterer | $ 47.41 | 26.65 |

CARP0026-001 09/01/2013

BRISTOL (Attleborough, North Attleborough); ESSEX; MIDDLESEX (Except Belmont, Cambridge, Everett, Malden, Medford, Somerville); AND NORFOLK (Bellingham, Canton, Foxboro, Franklin, Medfield, Medway, Millis, Needham, Norfolk, Norwood, Plainville, Sharon, Walpole, Wellesley, Westwood, Wrentham)

| | Rates | Fringes |
|---|---|---|
| CARPENTER | $ 34.28 | 26.06 |

CARP0033-001 09/01/2013

MIDDLESEX (Belmont, Cambridge, Everett, Malden, Medford, Somerville); NORFOLK (Brookline, Dedham, Milton); and SUFFOLK

| | Rates | Fringes |
|---|---|---|
| CARPENTER | $ 40.10 | 26.56 |

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* CARP0056-011 08/01/2013

SUFFOLK (All of County); and those areas of BARNSTABLE, BRISTOL, ESSEX, MIDDLESEX & NORFOLK COUNTIES situated inside Boston Beltway (I-495) and North of Cape Cod Canal. ALL of DUKES AND NANTUCKET COUNTIES

| | Rates | Fringes |
|---|---|---|
| PILEDRIVERMAN | $ 40.10 | 28.57 |

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* CARP0056-012 08/01/2013

The areas of BARNSTABLE, BRISTOL, and NORFOLK COUNTIES situated OUTSIDE Boston Beltway (I-495) and South of Cape Cod Canal

| | Rates | Fringes |
|---|---|---|
| PILEDRIVERMAN | $ 40.10 | 28.57 |

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* CARP0056-013 08/01/2013

Those areas of ESSEX and MIDDLESEX COUNTIES situated OUTSIDE Boston Beltway (I-495)

| | Rates | Fringes |
|---|---|---|
| PILEDRIVERMAN | $ 40.10 | 28.57 |

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CARP0424-003 09/01/2013

NORFOLK COUNTY (Braintree, Cohassett, Scituate, Weymouth, Quincy)

| | Rates | Fringes |
|---|---|---|
| CARPENTER | $ 34.28 | 26.06 |

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CARP0624-005 03/01/2013

BARNSTABLE; BRISTOL (Except Attleboro & North Attleboro); DUKES; NANTUCKET; AND NORFOLK (Avon, Holbrook, Randolph, Stoughton) COUNTIES

| | Rates | Fringes |
|---|---|---|

| | | |
|---|---|---|
| CARPENTER | $ 33.92 | 26.20 |

CARP1121-001 04/01/2013

| | Rates | Fringes |
|---|---|---|
| MILLWRIGHT | $ 34.68 | 26.49 |

CARP2168-001 09/01/2013

MIDDLESEX (Belmont, Cambridge, Everett, Malden, Medford, Somerville); NORFOLK (Brookline, Dedham, Milton); and SUFFOLK

| | Rates | Fringes |
|---|---|---|
| FLOOR LAYER: Carpet | $ 39.14 | 27.34 |

CARP2168-004 09/01/2013

BRISTOL; ESSEX; MIDDLESEX (Except Belmont, Cambridge, Everett, Malden, Medford, Somerville); Remainder of Norfolk County

| | Rates | Fringes |
|---|---|---|
| FLOOR LAYER: Carpet | $ 39.14 | 27.34 |

CARP2168-005 09/01/2013

BARNSTABALE; DUKES; AND NANTUCKET

| | Rates | Fringes |
|---|---|---|
| FLOOR LAYER: Carpet | $ 39.14 | 27.34 |

* ELEC0096-001 12/01/2013

MIDDLESEX (Ashby, Ashland, Ayer, Ft. Devens, Groton, Hopkinton, Hudson, Marlboro, Pepperell, Shirley, Stow, Townsend)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 37.87 | 11%+16.63 |
| Teledata System Installer | $ 25.86 | 3%+17.37 |

ELEC0099-001 06/01/2013

BRISTOL (Attleboro, North Attleboro, Seekonk)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 34.08 | 62.86% |
| Teledata System Installer | $ 25.56 | 14.26%+13.57 |

ELEC0103-001 09/01/2013

ESSEX; MIDDLESEX (Excluding Ashby, Ashland, Ayer, Ft. Devens,

Groton, Hopkinton, Hudson, Marlboro, Pepperell, Shirley, Stow, Townsend); NORFOLK (Excluding Avon, Holbrook, Plainville, Randolph, Stoughton) SUFFOLK

| | Rates | Fringes |
|---|---|---|
| Teledata System Installer | $ 32.97 | 26.23 |

ELEC0103-002 09/01/2013

ESSEX (Amesbury, Andover, Boxford, Georgetown, Groveland, Haverhill, Lawrence, Merrimac, Methuen, Newbury, Newburyport, North Andover, Rowley, Salisbury, West Newbury); MIDDLESEX (Bedford, Billerica, Boxboro, Burlington, Carlisle, Chelmsford, Dracut, Dunstable littleton, Lowell, North Reading, Tewksbury, Tyngsboro, Westford, Wilmington)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 43.96 | 28.04 |

ELEC0103-004 09/01/2013

ESSEX (Beverly, Danvers, Essex, Gloucester, Hamilton, Ipswich, Manchester, Marblehead, Middleton, Peabody, Rockport, Salem, Topsfield, Wenham)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 43.96 | 28.04 |

ELEC0103-005 09/01/2013

ESSEX (Lynn, Lynnfield, Nahant, Saugus, Swampscott); MIDDLESEX (Acton, Arlington, Belmont, Cambridge, Concord, Everett, Framingham, Holliston, Lexington, Lincoln, Malden, Maynard, Medford, Melrose, Natick, Newton, Reading, Sherborn, Somerville, Stoneham, Sudbury, Wakefield, Waltham, Watertown, Wayland, Weston, Winchester, Woburn); NORFOLK (Bellingham, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxboro, Frankloin, Medfield, Medway, Millis, Milton, Needham, Norfolk, Norwood, Quincy, Sharon, Walpole, Wellesley, Westwood, Weymouth, Wrentham); PLYMOUTH (Hingham and Hull);SUFFOLK

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 43.96 | 28.04 |

ELEC0104-001 09/03/2012

| | Rates | Fringes |
|---|---|---|
| Line Construction: | | |
| Cableman | $ 41.97 | 19.08+A |
| Equipment Operator | $ 35.67 | 17.54+A |
| Groundman | $ 23.08 | 11.85+A |

| | | |
|---|---|---|
| Lineman | $ 41.97 | 19.08+A |

A. PAID HOLIDAYS: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Christmas Day and Columbus Day, provided the employee has been employed 5 working days prior to any one of the listed holidays.

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* ELEC0223-005 09/01/2013

BARNSTABLE; BRISTOL (Except Attleboro, North Attleboro, Seekonk); DUKES; NANTUCKET AND NORFOLK (Avon, Halbrook, Plainville, Randolph, Stoughton)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 36.41 | 32.25%+7.70 |

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* ELEC0223-006 09/01/2013

BARNSTABLE; BRISTOL (Except Attleboro, North Attleboro, Seekonk); DUKES; NANTUCKET AND NORFOLK (Avon, Halbrook, Plainville, Randolph, Stoughton)

| | Rates | Fringes |
|---|---|---|
| Teledata System Installer | $ 36.41 | 32.25%+7.70 |

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ELEV0004-001 01/01/2013

| | Rates | Fringes |
|---|---|---|
| ELEVATOR MECHANIC | $ 51.42 | 25.185+a |

FOOTNOTE FOR ELEVATOR MECHANICS:

A. 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.

Eight paid holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day and Christmas Day.

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* ENGI0004-001 12/01/2013

| | Rates | Fringes |
|---|---|---|
| Power equipment operators: | | |
| Group 1 | $ 40.49 | 25.02+A |
| Group 2 | $ 40.11 | 25.02+A |
| Group 3 | $ 28.11 | 25.02+A |
| Group 4 | $ 33.76 | 25.02+A |
| Group 5 | $ 20.96 | 25.02+A |
| Group 6 | $ 24.43 | 25.02+A |

FOOTNOTE FOR POWER EQUIPMENT OPERATORS:

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

HOURLY PREMIUM FOR BOOM LENGTHS (Including Jib):
Over 150 ft. +2.12
Over 185 ft. +3.72
Over 210 ft. +5.23
Over 250 ft. +7.92
Over 295 ft. +10.97
Over 350 ft. +12.76

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1: Crane; shovel; truck crane; cherry picker; dragline; trench hoe; backhoe; three drum machine; derrick; pile driver; elevator tower; hoist; gradall; shovel dozer; front end loader; fork lift; suger; boring machine; rotaryu drill; post hole hammer; post hole digger; pumpcrete machine; asphalt plant (on site); concrete batching and/or mixing plant (on site); crusher plant (on site); paving concrete mixer; timber jack

Group 2: Sonic or vibratory hammer; grader; scraper; tandem scraper; concrete pump; bulldozer; tractor; york rake; mulching machine; portable steam boiler; portable steam generator; roller; spreader; tamper (self propelled or tractor drawn); asphalt paver; mechanic - maintenance; paving screed machine; stationary steam boiler; paving concrete finishing machine; cal truck; ballast regulator; switch tamper; rail anchor machine; tire truck

Group 3: Pumps (1-3 grouped); compressor; welding machine (1-3 grouped); generator; concrete vibrator; heater (power driven 1- 5); well point system (operating); syphon-pulsometer; concrete mixer; valves controlling permanent plant air or steam; conveyor; Jackson type tamper; single diaphragm pump; lighting plant

Group 4: Assistant engineer (fireman)

Group 5: Oiler (other than truck cranes and gradalls)

Group 6: Oiler (on truck cranes and gradalls) stant engineer (on truck crane and gradall)

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IRON0007-006 03/01/2013

AREA 1: BRISTOL (Easton); ESSEX (Beverly Gloucester, Lynn,Lynnfield, Manchester, Marblehead Nahant, Salem, Saugus, Swampscott); MIDDLESEX (Arlington, Bedford, Belmont, Burlington, Cambridge, Concord, Everett, Framingham, Lexington, Lincoln, Malden, Maynard, Medford, Melrose, Natick, Newton, Reading, Sherborn, Somerville, Stoneham, Sudbury, Wakefield, Waltham, Watertown, Wayland, Weston, Winchester, Woburn); NORFOLK (Except Medway); SUFFOLK

AREA 2: ESSEX (Amesbury, Andover, Boxford, Danvers, Essex, Georgetown, Hamilton, Haverhill, Ipswich, Lawrence, Merrimac, Methuen, Newbury, Newburyport, North Andover, Rockport, Rowley, Salisbury, Topsfield, Wenham, West Newbury); MIDDLESEX (Action, Billericia, Carlisle, Chelmsford, Dracut, Dunstable, Groton, Groveland, Littleton, Lowell, Middleton, North Reading, Pepperell, Tewksbury, Tyngsboro, Westford, Wilmington)

| | Rates | Fringes |
|---|---|---|
| Ironworkers: | | |
| AREA 1 | $ 40.12 | 26.88 |
| AREA 2 | $ 35.71 | 26.88 |

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IRON0007-010 09/01/2012

MIDDLESEX (Ashby, Ashland, Ayer, Boxboro, Holliston, Hopkinton, Hudson, Marlboro, Shirley, Stow, Townsend); NORFOLK (Medway)

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 38.68 | 26.86 |

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IRON0037-005 03/16/2013

BARNSTABLE; BRISTOL (Acushnet, Attleboro, Berkley, Dartmouth, Dighton, Fairhaven, Fall River, Freetown, Mansfield, New Bedford, North Attleboro, Norton, Raynham, Rehoboth, Seekonk, Somerset, Swansea, Taunton, Westport); DUKES; NANTUCKET; NORFOLK (Billingham, Franklin, Plainville, Wrentham)

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 32.81 | 22.22 |

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LABO0014-001 06/01/2011

| | Rates | Fringes |
|---|---|---|
| Plasterer tender BARNSTABLE, BRISTOL, DUKES, ESSEX, NANTUCKET, MIDDLESEX (with the exception of Arlington, Belmont, Burlington, Cambridge, Everett, Malden, Medford, Melrose, Reading, Somerville, Stoneham, Wakefield, Winchester, Winthrop and Woburn); NORFOLK (with the exception of Brookline Dedham and Milton) COUNTIES. SUFFOLK COUNTY (Boston, Chelsea, Revere, Winthrop, Deer Island, Nut Island); MIDDLESEX COUNTY | $ 28.60 | 19.00 |

(Arlington, Belmont,
Burlington, Cambridge,
Everett, Malden, Medford,
Melrose, Reading,
Somerville, Stoneham,
Wakefield, Winchester,
Winthrop and Woburn only);
NORFOLK COUNTY (Brookline,
Dedham, and Milton only)....$ 31.05 19.90

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LABO0022-009 12/01/2012

SUFFOLK COUNTY (Boston, Chelsea, Revere, Winthrop, Deer & Nut Islands); MIDDLESEX COUNTY (Arlington, Belmont, Burlington, Cambridge, Everett, Malden, Medford, Melrose, Reading, Somerville, Stoneham, Wakefield, Winchester, Winthrop, and Woburn only); NORFOLK COUNTY (Brookline, Dedham, and Milton only)

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| Group 1 | $ 32.30 | 20.40 |
| Group 2 | $ 32.55 | 20.40 |
| Group 3 | $ 33.05 | 20.40 |
| Group 4 | $ 33.30 | 20.40 |
| Group 5 | $ 33.05 | 20.40 |
| Group 6 | $ 34.30 | 20.40 |
| Group 7 | $ 20.50 | 20.40 |

LABORERS CLASSIFICATIONS

GROUP 1: Laborers; Carpenter Tenders

GROUP 2: Jackhammer operator; pavement breaker; asphalt raker carbide core drilling machine; chain saw operator; pipelayer; barco type jumping tampers; laser beam; concrete pump; mason tender; motorized mortar mixer; ride-on motorized buggy; fence and beam rail erector

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

GROUP 4: Blaster; powderman

GROUP 5: Pre-cast floor and roof plank erector

GROUP 6: Asbestos removal laborers/haz-mat laborers

GROUP 7: Flaggers

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LABO0022-010 12/01/2012

Counties of BARNSTABLE; BRISTOL; DUKES; ESSEX; NANTUCKET; MIDDLESEX (with the exception of Arlington, Belmont, Burlington, Cambridge, Everett, Malden, Medford, Melrose, Reading, Somerville, Stoneham, Wakfield, Winchester, Winthrop and Woburn); NORFOLK (with the exception of Brookline, Dedham

and Milton)

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| Group 1 | $ 29.60 | 19.50 |
| Group 2 | $ 29.85 | 19.50 |
| Group 3 | $ 30.35 | 19.50 |
| Group 4 | $ 30.60 | 19.50 |
| Group 5 | $ 30.35 | 19.50 |
| Group 6 | $ 31.60 | 19.50 |

LABORERS CLASSIFICATIONS

GROUP 1: Laborers; Carpenter Tenders

GROUP 2: Jackhammer operator; pavement breaker; asphalt raker carbide core drilling machine; chain saw operator; pipelayer; barco type jumping tampers; laser beam; concrete pump; mason tender; motorized mortar mixer; ride-on motorized buggy; fence and beam rail erector

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

GROUP 4: Blaster; powderman

GROUP 5: Pre-cast floor and roof plank erector

GROUP 6: Asbestos removal laborers/haz-mat laborers

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LABO1421-004 06/01/2011

BARNSTABLE, BRISTOL, DUKES, ESSEX, MIDDLESEX, NANTUCKET NORFOLK AND SUFFOLK COUNTIES

| | Rates | Fringes |
|---|---|---|
| Laborers: (Wrecking) | | |
| Group 1 | $ 31.05 | 19.75 |
| Group 2 | $ 31.80 | 19.75 |
| Group 3 | $ 32.05 | 19.75 |
| Group 4 | $ 27.05 | 19.75 |
| Group 5 | $ 30.15 | 19.75 |
| Group 6 | $ 31.05 | 19.75 |

Group 1: Adzeman, Wrecking Laborer.
Group 2: Burners, Jackhammers.
Group 3: Small Backhoes, Loaders on tracks, Bobcat Type Loaders, Hydraulic "Brock" Type Hammer Operators, Concrete Cutting Saws.
Group 4: Yardman (Salvage Yard Only).
Group 5: Yardman, Burners, Sawyers.
Group 6: Asbestos, Lead Paint, Toxic and Hazardous Waste.

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PAIN0011-007 06/01/2013

BARNSTABLE, BRISTOL, DUKES, AND NANTUCKET COUNTIES

| | Rates | Fringes |
|---|---|---|
| GLAZIER | $ 34.18 | 17.75+A |

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)

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PAIN0035-004 01/01/2013

BARNSTABLE; BRISTOL; ESSEX; NANTUCKET; DUKES; COUNTIES; REMAINDER OF NORFOLK; MIDDLESEX AND SUFFOLK COUNTIES

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| NEW CONSTRUCTION: | | |
| Brush, Taper | $ 34.51 | 24.40 |
| Spray, Sandblast | $ 35.91 | 24.40 |
| REPAINT: | | |
| Brush, Taper | $ 32.57 | 24.40 |
| Spray, Sandblast | $ 33.97 | 24.40 |

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PAIN0035-013 01/01/2013

MIDDLESEX (Cambridge, Everett, Malden, Medford, Somerville) SUFFOLK COUNTY (Boston, Chelsea) NORFOLK COUNTY (Brookline)

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| NEW CONSTRUCTION: | | |
| Brush, Taper | $ 40.30 | 24.40 |
| Spray, Sandblast | $ 41.70 | 24.40 |
| REPAINT: | | |
| Brush, Taper | $ 38.36 | 24.40 |
| Spray, Sandblast | $ 39.76 | 24.40 |

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PAIN0035-020 01/01/2013

ESSEX; MIDDLESEX; NORFOLK; SUFFOLK

| | Rates | Fringes |
|---|---|---|
| GLAZIER | $ 34.51 | 24.40 |

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PLAS0534-001 07/01/2012

ESSEX; MIDDLESEX; NORFOLK AND SUFFOLK COUNTY

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER | $ 35.50 | 31.01 |

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PLAS0534-004 07/01/2012

MIDDLESEX; NORFOLK AND SUFFOLK COUNTIES

| | Rates | Fringes |
|---|---|---|
| PLASTERER | $ 35.50 | 13.01 |

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PLUM0004-001 03/01/2013

MIDDLESEX (Ashby, Ayer-West of Greenville branch of Boston and Maine Railroad, Ft. Devens, Groton, Shirley, Townsend)

| | Rates | Fringes |
|---|---|---|
| Plumbers and Pipefitters | $ 40.01 | 24.21 |

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* PLUM0012-005 09/01/2013

ESSEX (Ames, Andover, Beverly, Boxford, Byfield, Danvers, Essex, Georgetown, Gloucester, Groveland, Hamilton, Haverhill, Ipswich, Lawrence, Manchester, Marblehead, Merrimac, Methuem, Middleton, Newbury, Newburyport, North Andover, Peabody, Rockport, Rowley, Salem, Salisbury, Topsfield, Wenham, West Newbury)

| | Rates | Fringes |
|---|---|---|
| PLUMBER | $ 44.98 | 24.56 |

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* PLUM0012-007 09/01/2013

ESSEX (Lynn, Lynnfield, Nahant, Saugus, and Swampscott); MIDDLESEX (Acton, Arlington, Ashford, Ayer-except west of Greenville Branch of Boston & Maine Rail Road, Bedford, Belmont, Billerica, Boxboro, Burlington, Cambridge, Carlise, Chelmsford, Concord, Dracut, Dunstable, Everett, Framingham, Hudson, Holliiston, Hopkinton, Lexington, Lincoln, Littleton, Lowell, Malden, Marlboro, Maynard, Medford, Melrose, Natick, Newton, North Reading, Pepperell, Reading, Sherborn, Somerville, Stoneham, Stow, Sudbury, Tewksbury, Tyngsboro, Wakefield, Watham, Watertown, Wayland, Westford, Wilmington, Winchester and Woburn), NORFOLK (Bellingham, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxboro, Franklin, Medford, Medway, Millis, Milton, Needham, Norfolk, Norwood, Plainville, Quincy, Sharon, Walpole, Wellesley, Westwood, Weymouth and Wrentham); PLYMOUTH (Hingham, Hull, Scituate); SUFFOLK; WORCESTER (Hopedale and Southboro)

| | Rates | Fringes |
|---|---|---|
| PLUMBER | $ 49.06 | 24.56 |

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PLUM0051-004 03/01/2013

BARNSTABLE; BRISTOL; DUKES; NANTUCKET; AND NORFOLK (Avon,

Holbrook, Randolph, Stoughton) COUNTIES

| | Rates | Fringes |
|---|---|---|
| Plumbers and Pipefitters | $ 34.96 | 27.12 |

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* PLUM0537-005 09/01/2013

ESSEX (Ames, Andover, Beverly, Boxford, Byfield, Danvers, Essex, Georgetown, Gloucester, Groveland, Hamilton, Haverhill, Ipswich, Lawrence, Lynn, Lynnfield, Manchester, Marblehead, Merrimac, Methuem, Middleton, Nahant, Newbury, Newburyport, North Andover, Peabody, Rockport, Rowley, Salem, Salisbury, Saugus, Swampscott,Topsfield, Wenham, West Newbury); MIDDLESEX (Acton, Arlington, Ashford, Ayer-except west of Greenville Branch of Boston & Maine Rail Road, Bedford, Belmont, Billerica, Boxboro, Burlington, Cambridge, Carlise, Chelmsford, Concord, Dracut, Dunstable, Everett, Framingham, Hudson, Holliiston, Hopkinton, Lexington, Lincoln, Littleton, Lowell, Malden, Marlboro, Maynard, Medford, Melrose, Natick, Newton, North Reading, Pepperell, Reading, Sherborn, Somerville, Stoneham, Stow, Sudbury, Tewksbury, Tyngsboro, Wakefield, Watham, Watertown, Wayland, Westford, Wilmington, Winchester and Woburn), NORFOLK (Bellingham, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxboro, Franklin, Medford, Medway, Millis, Milton, Needham, Norfolk, Norwood, Plainville, Quincy, Sharon, Walpole, Wellesley, Westwood, Weymouth and Wrentham); PLYMOUTH (Hingham, Hull, Scituate); SUFFOLK; WORCHESTER (Hopedale and Southboro)

| | Rates | Fringes |
|---|---|---|
| PIPEFITTER | $ 47.94 | 26.51 |

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ROOF0033-001 08/01/2012

| | Rates | Fringes |
|---|---|---|
| Roofers: | | |
| 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 | $ 36.41 | 22.02 |

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* SFMA0550-001 10/01/2013

BRISTOL (Portion within 35 mile radius from Boston City Hall; ESSEX; MIDDLESEX (Except Ashby, Townsend, and portions of Pepperell and Shirley beyond 35 mile radius from Boston City Hall); NORFOLK; PLYMOUTH (Portion within 35 mile radius of Boston City Hall); SUFFOLK

| | Rates | Fringes |
|---|---|---|

SPRINKLER FITTER.....$ 53.55 21.83

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SFMA0669-001 07/01/2013

BARNSTABLE; BRISTOL (Beyond 35 mile radius of Boston City Hall); DUKES; MIDDLESEX (Ashby, Townsend, portions of Pepperell and Shirley beyond 35 mile radius of Boston City Hall); NANTUCKET; PLYMOUTH (Beyond 35 mile radius of Boston City Hall)

| | Rates | Fringes |
|---|---|---|
| SPRINKLER FITTER..... | $ 36.53 | 20.45 |

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SFMA0676-001 01/01/2010

BRISTOL (Seekonk, Swansea, and Somerset)

| | Rates | Fringes |
|---|---|---|
| SPRINKLER FITTER..... | $ 39.50 | 17.85 |

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 holiday.

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SHEE0017-003 02/01/2012

BRISTOL (Attleboro, Berkley, Easton, Mansfield, North Attleboro, Norton, Raynham, Taunton); ESSEX; MIDDLESEX; NORFOLK; PLYMOUTH (except except Marion, Mattapoisett, Rochester, Wareham); SUFFOLK

| | Rates | Fringes |
|---|---|---|
| Sheet metal worker..... | $ 40.79 | 28.83 |

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SHEE0017-007 02/01/2012

BARNSTABLE; BRISTOL (Acushnet, Assonet, Dartmouth, Dighton, Fairhaven, Fall River, Freetown, New Bedford, Rehoboth, Seeekonk, Somerset, Swansea, Westport); DUKES; AND NANTUCKET

| | Rates | Fringes |
|---|---|---|
| Sheet metal worker..... | $ 40.79 | 28.83 |

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TEAM0379-001 08/01/2013

| | Rates | Fringes |
|---|---|---|
| Truck drivers: | | |
| Group 1..... | $ 30.78 | 18.37+A+B |
| Group 2..... | $ 30.95 | 18.37+A+B |
| Group 3..... | $ 31.02 | 18.37+A+B |
| Group 4..... | $ 31.14 | 18.37+A+B |

| | | |
|---|---|---|
| Group 5..... | $ 31.24 | 18.37+A+B |
| Group 6..... | $ 31.53 | 18.37+A+B |
| Group 7..... | $ 31.82 | 18.37+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

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

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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)).

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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 union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows 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. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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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.

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END OF GENERAL DECISION

General Decision Number: MA140004 01/03/2014 MA4

Superseded General Decision Number: MA20130004

State: Massachusetts

Construction Type: Residential

Counties: Barnstable, Berkshire, Bristol, Essex, Hampden, Hampshire, Middlesex, Norfolk, Plymouth, Suffolk and Worcester Counties in Massachusetts.

RESIDENTIAL CONSTRUCTION PROJECTS (including single family homes and apartments up to and including 4 stories)

| Modification Number | Publication Date |
|---|---|
| 0 | 01/03/2014 |

* BRMA0001-026 09/01/2013

LOWELL CHAPTER

MIDDLESEX COUNTY (Acton, Asby, Ashland, Ayer, Bedford, Billerica, Boxboro, Carlisle, Chemsford, Dracut, Dunstable, Framingham, Ft. Devens, Groton, Holliston, Hopkinton, Hudson, Littleton, Lowell, Maynard, Natick, North Acton, Pepperell, Sherborn, Shirley, South Acton, Stow, Tewksbury, Townsend, Tyngsboro, West Acton, Westford, Wilmington) NORFOLK (Medfield, Medway, Mills) WORCESTER (Ashbumham, Athol, Fitchburg, Gardner, Harvard, Hopedale, Hubbardston, Lancaster, Leominster, Luneburg, Milford, Petersham, Phillipston, Princeton, Royalston, Southboro, Sterling, Templeton, Westminster, Winchendon)

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Plasterer, Stonemason | $ 45.96 | 29.74 |

* BRMA0001-027 09/01/2013

SPRINGFIELD/PITTSFIELD CHAPTER
BERKSHIRE, HAMPDEN, HAMPSHIRE, WORCESTER (Warren) COUNTIES

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Plasterers, Stonemasons, Tile Layers | $ 36.56 | 27.87 |

* BRMA0001-028 09/01/2013

FOXBORO CHAPTER
BRISTOL (Attleboro, Berkley, Dighton, Mansfield, North Attleboro, Norton, Raynham, Rehoboth, Seekonk, Taunton) NORFOLK (Bellingham, Canton, Dedham, Foxboro, Franklin, Norfolk,

Norwood, Plainville, Sharon, Walpole, Westwood, Wrenhtham)
PLYMOUTH (Lakeville)

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 45.96 | 29.74 |

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* BRMA0001-029 09/01/2013

WORCESTER CHAPTER
(Auburn, Barre, Blackstone, Berlin, Bolton, Boylston, Brookfield, Charlton, Clinton, Douglas, Dudley, Grafton, hardwick, Holden, Leicester, Mendon, Millbury, Millville, New Braintree, Northboro, Northbridge, Oakham, Oxford, Paxton, Rutland, Shrewbury, Southbridge, Spencer, Sturbridge, Sutton, Upton, Uxbridge, Webster, Westboro, West Boylston, Worcester)

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Plasterer, Stonemason | $ 45.96 | 29.74 |

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BRMA0003-026 02/01/2013

BOSTON CHAPTER
MIDDLESEX (Arlington, Cambridge, Everett, Malden, Medford, Melrose, Somerville) NORFOLK (Brookline, Milton) SUFFOLK

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 47.41 | 26.65 |

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BRMA0003-027 02/01/2013

LYNN CHAPTER
ESSEX (Amesbury, Andover, Beverly, Boxford, Danvers, Essex, Georgetown, Gloucester, Groveland, Hamilton, Haverhill, Ipsewich, Lawrence, Lynn, Lynnfield, Manchester, Nahant, Newbury, Newburyport, North Andover, Peabody, Rockport, Rowley, Salisbury, Salem, Saugus, Swampscott, Topsfield, Wakefield, Wenham, West Newbury) MIDDLESEX (Reading, North Reading, Wakefield)

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Plasterer | $ 47.41 | 26.65 |

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BRMA0003-028 02/01/2013

NEWTON CHAPTER
MIDDLESEX (Newton); NORFOLK (Dover, Needham, Wellesley)

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Plasterer | $ 47.41 | 26.65 |

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BRMA0003-029 02/01/2013

NEW BEDFORD CHAPTER
BARNSTABLE, BRISTOL (Acushnet, Darmouth, Fairhave, Fall River, Freetown, New Bedford, Somerset, Swansea, Westport) PLYMOUTH (Marion, Mattapoisett, Rochester, Wareham)

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 47.41 | 26.65 |

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BRMA0003-030 02/01/2013

QUINCY CHAPTER
NORFOLK (Avon, Braintree, Cohasset, Holbrook, Quincy, Randolph, Stoughton, Weymouth) PLYMOUTH (Abington, Bridgewater, Brockton, Carver, Duxbury, East Bridgewater, Halifax, hanover, Hanson, Hingham, Hull, Kingston, Marshfield, Middleboro, Norwell, Pembroke, Plymouth, Rockland, Scituate, West Bridgewater, Whitman)

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Plasterer | $ 47.41 | 26.65 |

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BRMA0003-031 02/01/2013

WALTHAM CHAPTER
MIDDLESEX (Belmont, Burlington, Concord, Lixington, Lincoln, Stoneham, Sudbury, Waltham, Watertown, Wayland, Weston, Winchester, Woburn)

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Plasterer | $ 47.41 | 26.65 |

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BRMA0003-032 02/01/2013

BARNSTABLE, BRISTOL, SUFFOLK AND WORCESTER

| | Rates | Fringes |
|---|---|---|
| Tile Layer | $ 36.20 | 28.08 |

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CARP0026-007 09/01/2013

BRISTOL (Attleborough, North Attleborough) ESSEX, MIDDLESEX (Except Belmont, Cambridge, Everett, Malden, Medford, Somerville) NORFOLK (Bellingham, Canton, Foxboro, Franklin, Medfield, Medway, Millis, Needham, Norfolk, Norwood, Plainville, Quincy, Sharon, Walpole, Wellesley, Westwood, Wrentham) and PLYMOUTH (Duxbury, Hanover, Hingham, Hull, Marshfield, Norwell, Pembroke, Rockland and Scituate)

| | Rates | Fringes |
|---|---|---|

| | | |
|---|---|---|
| Carpenters (Including Drywall Hanging & Acoustical Ceiling Installation) | $ 34.28 | 26.06 |

CARP0033-006 09/01/2013

MIDDLESEX (Belmont, Cambridge, Everett, Malden, Medford, Somerville) NORFOLK (Brookline, Dedham, Milton) and SUFFOLK

| | Rates | Fringes |
|---|---|---|
| Carpenters (Including Drywall Hanging & Acoustical Ceiling Installation) | $ 40.10 | 26.56 |

CARP0107-011 09/01/2013

WORCESTER COUNTY
(except Gilbertville, Hardwick, Warren, West Brookfield)

| | Rates | Fringes |
|---|---|---|
| Carpenters (Including Drywall Hanging & Acoustical Ceiling Installation) | $ 34.28 | 26.56 |

CARP0108-012 03/04/2013

BERKSHIRE, HAMPDEN, HAMPSHIRE AND WORCESTER (Gilbertville, Hardwick, Warren, West Brookfield)

| | Rates | Fringes |
|---|---|---|
| Carpenters (Including Drywall Hanging & Acoustical Ceiling Installation) | $ 31.04 | 20.88 |

CARP0624-008 09/01/2013

BARNSTABLE, BRISTOL (Except Attleboro and North Attleboro) AND PLYMOUTH (Bridgewater, Brockton, Kingston, Lakeville, Middleboro, Plymouth, South Hanover, Whitman)

| | Rates | Fringes |
|---|---|---|
| Carpenters (Including Drywall Hanging & Acoustical Ceiling Installation) | $ 34.28 | 26.06 |

* CARP0723-001 04/01/2013

ZONE 2: BARNSTABLE, BERKSHIRE, BRISTOL, ESSEX, HAMPDEN, HAMPSHIRE, PLYMOUTH, WORCESTER COUNTIES AND PART OF MIDDLESEX, NORFOLK AND SUFFOLK COUNTIES
(All other cities and towns in Massachusetts + Chelsea &

Winthrop)

| | Rates | Fringes |
|---|---|---|
| CARPENTER (New Wood Frame Construction not exceeding 4 stories including basement) | | |
| Wood framing, siding and exterior trim work | $ 24.30 | 13.76 |
| All other carpentry work on wood frame projects | $ 24.30 | 13.76 |

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* CARP0723-002 04/01/2013

ZONE 1: MIDDLESEX, NORFOLK AND SUFFOLK COUNTIES (Consists of Boston, Islands of Boston Harbor, Brookline, Cambridge, Dedham, Malden, Medford and Somerville)

| | Rates | Fringes |
|---|---|---|
| Carpenters (New Wood Frame Construction not exceeding 4 stories including basement) | | |
| Wood framing, siding and exterior trim work | $ 27.80 | 13.76 |
| All other carpentry work on wood frame projects | $ 27.80 | 13.76 |

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* ELEC0007-008 07/01/2013

HAMPDEN (Except Chester and Holyoke); HAMPSHIRE (Belchertown, Ware); WORCESTER (Warren)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 36.36 | 18.84 |

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* ELEC0007-009 07/01/2013

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

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 36.36 | 18.84 |
| Teledata System Installer (Berkshire County) | $ 36.36 | 18.84 |

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* ELEC0096-004 12/01/2013

MIDDLESEX (Ashby, Ashland, Ayer, Ft. Devens, Groton, Hopkinton, Hudson, Marlboro, Pepperell, Shirley, Stow, Townsend); WORCESTER (Except Warren)

| | Rates | Fringes |
|---|---|---|

ELECTRICIAN.....$ 37.87 11%+16.63
Teledata System Installer.....$ 25.86 3%+17.37

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ELEC0099-005 06/01/2011

BRISTOL (North & South Attleboro, Seekonk)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 25.56 | 14.16 |

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ELEC0103-002 09/01/2013

ESSEX (Amesbury, Andover, Boxford, Georgetown, Groveland, Haverhill, Lawrence, Merrimac, Methuen, Newbury, Newburyport, North Andover, Rowley, Salisbury, West Newbury); MIDDLESEX (Bedford, Billerica, Boxboro, Burlington, Carlisle, Chelmsford, Dracut, Dunstable littleton, Lowell, North Reading, Tewksbury, Tyngsboro, Westford, Wilmington)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 43.96 | 28.04 |

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ELEC0103-004 09/01/2013

ESSEX (Beverly, Danvers, Essex, Gloucester, Hamilton, Ipswich, Manchester, Marblehead, Middleton, Peabody, Rockport, Salem, Topsfield, Wenham)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 43.96 | 28.04 |

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ELEC0103-010 09/01/2013

ESSEX (Lynn, Lynnfield, Nahant, Saugus, Swampscott); MIDDLESEX (Acton, Arlington, Belmont, Cambridge, Concord, Everett, Framingham, Holliston, Lexington, Lincoln, Malden, Maynard, Medford, Melrose, Natick, Newton, Reading, Sherborn, Somerville, Stoneham, Sudbury, Wakefield, Waltham, Watertown, Wayland, Weston, Winchester, Woburn); NORFOLK (Bellingham, Braintree, Brookline, Canton, Coahasset, Dedham, Dover, Foxboro, Franklin, Medfield, Medway, Millis, Milton, Needham, Norfolk, Norwood, Quincy, Sharon, Walpole, Wellesley, Westwood, Weymouth, Wrentham); PLYMOUTH (Hingham and Hull); SUFFOLK

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 43.96 | 28.04 |
| Teledata System Installer (ESSEX; MIDDLESEX {Excluding Ashby, Ashland, Ayer, Ft. Devens, Groton, Hokinton, Hudson, Marlboro, Pepperell, Shirley, Stow, Townsend; | | |

NORFOLK (Excluding Avon,
Holbrook, Plainville,
Randolph, Stoughton; SUFFOLK)...$ 32.97 26.23

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* ELEC0223-011 09/01/2013

BARNSTABLE, BRISTOL (Except Attleboro, North Attleboro, Seekonk); NORFOLK (Avon, Halbrook, Randolph, Sloughton); PLYMOUTH (Except Hingham and Hull Townships)

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 36.41 | 32.25%+7.70 |
| Teledata System Installer (PLYMOUTH COUNTY (except Townships of Hingham and Hull)) | $ 29.86 | 30.5%+7.70 |

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ELEV0004-003 01/01/2013

BARNSTABLE, BRISTOL, ESSEX, MIDDLESEX, NORFOLK AND SUFFOLK

| | Rates | Fringes |
|---|---|---|
| ELEVATOR MECHANIC | $ 51.42 | 25.185+a |

a. FOOTNOTE FOR ELEVATOR MECHANICS
A. 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.

Eight (8) Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day and Christmas Day

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ELEV0041-007 01/01/2013

BERKSHIRE, HAMPDEN AND HAMPSHIRE

| | Rates | Fringes |
|---|---|---|
| ELEVATOR MECHANIC | $ 46.19 | 25.185+a |

FOOTNOTES:
a. Employer contributes 8% of regular basic hourly rate as vacation pay credit for employees with more than 5 years of service; and 6% for 6 months to 5 years of service.

8 Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day

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* ENGI0004-017 12/01/2013

BARNSTABLE; BRISTOL; ESSEX; MIDDLESEX, NORFOLK; PLYMOUTH; SUFFOLK; and WORCESTER (Remainder of County)

| | Rates | Fringes |
|---|---|---|
| Power Equipment Operator: Excavators & Loaders | $ 40.49 | 25.02+A |

FOOTNOTE:

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

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* ENGI0004-018 12/01/2013

WORCESTER (Athol, Barre, Brookfield, East Brookfield, hardwick, New Braintree, North Brookfield, Oakham, Petersham, Phllipston, Royalston, Struthbridge, Templeton, Warren, West Brookfield, Winchendon)

| | Rates | Fringes |
|---|---|---|
| Power Equipment Operator: Excavators & Loaders | $ 40.49 | 25.02+A |

FOOTNOTES:

a. New Year's Day, Washington's Birthday, Memborial Day, Independence Day, Labor Day, Patriots Day, Columbus Day, Veteran's Day, Thanksgiving Day and Christmas Day.

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ENGI0098-012 12/01/2009

BERKSHIRE; HAMPDEN and HAMPSHIRE COUNTIES

| | Rates | Fringes |
|---|---|---|
| Power Equipment Operator: Excavators & Loaders | $ 29.12 | 16.52+A |

FOOTNOTE:

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

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LABO0022-014 12/01/2012

| | Rates | Fringes |
|---|---|---|
| Laborers: Mason Tender, Stone/Stucco | $ 29.85 | 19.50 |

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LABO0473-003 12/01/2012

BERKSHIRE, HAMPSHIRE (Chesterfield, Cummington, Goshen,

Middlefield, Plainfield and Worthington)

| | Rates | Fringes |
|---|---|---|
| Laborers: Mason Tender, Stone/Stucco | $ 23.05 | 16.25 |

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* LABO0596-007 06/03/2013

HAMPDEN, HAMPSHIRE (except Chesterfield, Cummington, Goshen, Middlefield, Plainfield and Worthington)

| | Rates | Fringes |
|---|---|---|
| Laborers: Mason Tender, Stone/Stucco | $ 27.65 | 18.63 |

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PLAS0534-006 07/01/2012

MIDDLESEX; NORFOLK AND SUFFOLK COUNTIES

| | Rates | Fringes |
|---|---|---|
| PLASTERER | $ 35.50 | 13.01 |

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PLUM0004-006 03/01/2013

MIDDLESEX (Ashby, Ayer-West of Greenville branch of Boston and Maine Railroad, Ft. Devens, Groton, Shirley, Townsend)
WORCESTER (except Hopedale and Southboro)

| | Rates | Fringes |
|---|---|---|
| Plumbers, Pipefitters (including HVAC work) | $ 40.01 | 24.21 |

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* PLUM0012-008 09/01/2013

ESSEX(Ames, Andover, Beverly, Boxford, Byfield, Danvers, Essex, Georgetown, Gloucester, Groveland, Hamilton, Haverhill, Ipswich, Lawrence,Manchester, Marblehead, Merrimac, Methuem, Middleton, Newbury, Newburyport, North Andover, Peabody, Rockport, Rowley, Salem, Salisbury, Topsfieild, Wenham, West Newbury)

| | Rates | Fringes |
|---|---|---|
| PLUMBER | $ 44.98 | 24.56 |

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* PLUM0012-009 09/01/2013

ESSEX(Lynn, Lynnfield, Nahant, Saugus, and Swampscott);
MIDDLESEX (Acton, Arlington, Ashland, Ayer-except west of Greenville Branch of Boston & Maine Rail Road, Bedford, Belmont, Billerica, Boxboro, Burlington, Cambridge, Carlisle, Chelmsford, Concord, Dracut, Dunstable, Everett, Framingham,

Hudson, Holliston, Hopkinton, Lexington, Lincoln, Littleton, Lowell, Malden, Marlboro, Maynard, Medford, Melrose, Natick, Newton, North Reading, Pepperell, Reading, Sherborn, Somerville, Stoneham, Stow, Sudbury, Tewksbury, Tyngsboro, Wakefield, Waltham, Watertown, Wayland, Westford, Wilmington, Winchester, Wobrun); NORFOLK (Bellingham, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxboro, Franklin, Medfield, Medway, Millis, Milton, Needham, Norfolk, Norwood, Plainville, Quincy, Sharon, Walpole, Wellesley, Westwood, Weymouth, Wrentham); PLYMOUTH (Hingham, Hull, Scituate); SUFFOLK; WORCESTER (Hopedale and Southboro)

| | Rates | Fringes |
|---|---|---|
| PLUMBER | $ 49.06 | 24.56 |

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PLUM0051-006 03/01/2013

BARNSABLE; BRISTOL; PLYMOUTH (Except Hingham, Hull, Scituate)

| | Rates | Fringes |
|---|---|---|
| Plumbers, Pipefitters (including HVAC work) | $ 34.96 | 27.12 |

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* PLUM0104-005 09/17/2013

BERKSHIRE (Becket, Otis, Sandisfield); HAMPDEN; HAMPSHIRE

| | Rates | Fringes |
|---|---|---|
| Plumbers, Pipefitters (including HVAC work) | $ 36.31 | 22.80 |

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* PLUM0104-011 09/17/2013

BERKSHIRE (Except Becket, Otis, Sandisfield)

| | Rates | Fringes |
|---|---|---|
| Plumbers, Pipefitters (including HVAC work) | $ 36.31 | 22.80 |

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* PLUM0537-006 09/01/2013

ESSEX (Ames, Andover, Beverly, Boxford, Byfield, Danvers, Essex, Georgetown, Gloucester, Groveland, Hamilton, Haverhill, Ipswich, Lawrence, Lynn, Lynnfield, Manchester, Marblehead, Merrimac, Methuem, Middleton, Nahant, Newbury, Newburyport, North Andover, Peabody, Rockport, Rowley, Salem, Salisbury, Saugus, Swampscott,Topsfield, Wenham, West Newbury); MIDDLESEX (Acton, Arlington, Ashford, Ayer-except west of Greenville Branch of Boston & Maine Rail Road, Bedford, Belmont, Billerica, Boxboro, Burlington, Cambridge, Carlise, Chelmsford, Concord, Dracut, Dunstable, Everett, Framingham, Hudson, Holliiston, Hopkinton, Lexington, Lincoln, Littleton, Lowell, Malden, Marlboro, Maynard, Medford, Melrose, Natick, Newton, North Reading, Pepperell, Reading, Sherborn, Somerville, Stoneham, Stow, Sudbury, Tewksbury, Tyngsboro,

Wakefield, Watham, Watertown, Wayland, Westford, Wilmington, Winchester and Woburn), NORFOLK (Bellingham, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxboro, Franklin, Medford, Medway, Millis, Milton, Needham, Norfolk, Norwood, Plainville, Quincy, Sharon, Walpole, Wellesley, Westwood, Weymouth and Wrentham); PLYMOUTH (Hingham, Hull, Scituate); SUFFOLK; WORCHESTER (Hopedale and Southboro)

| | Rates | Fringes |
|---|---|---|
| Pipefitter including HVAC work... | $ 47.94 | 26.51 |

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ROOF0033-006 08/01/2012

BARNSTABLE, BRISTOL, ESSEX, MIDDLESEX, NORFOLK, SUFFOLK, WORCESTER

| | Rates | Fringes |
|---|---|---|
| Roofer, Waterproofers/Caulkers... | $ 36.41 | 22.02 |

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ROOF0248-004 01/01/2013

BERKSHIRE, HAMPDEN, HAMPSHIRE

| | Rates | Fringes |
|---|---|---|
| Roofer, Waterproofers/Caulkers... | $ 26.35 | 20.40 |
| ROOFER: Slate & Tile Roof..... | $ 26.85 | 20.90 |

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SHEE0017-004 02/01/2012

WORCESTER (Harvard, Lancaster)

| | Rates | Fringes |
|---|---|---|
| Sheet metal worker..... | $ 40.79 | 28.83 |

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SHEE0017-010 02/01/2012

BARNSTABLE, BRISTOL (Acushnet, Dartmouth, Dighton, Fairhaven, Fall River, Freetown, New Bedford, Rehoboth, Seekonk, Somerset, Swansea, Westport); PLYMOUTH (Marion, Mattapoisett, Rochester, Wareham)

| | Rates | Fringes |
|---|---|---|
| Sheet Metal Worker..... | $ 40.79 | 28.83 |

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SHEE0017-011 02/01/2012

BRISTOL (Attleboro, Berkley, Easton, Mansfield, North Attleboro, Norton, Raynham, Taunton); ESSEX; MIDDLESEX; NORFOLK; PLYMOUTH (Except Marion Mattapoisett, Rochester, Wareham); SUFFOLK

| | Rates | Fringes |
|---|---|---|
| Sheet Metal Worker..... | $ 40.79 | 28.83 |

SHEE0063-002 07/01/2012

WORCESTER (Except Harvard & Lancaster)

| | Rates | Fringes |
|---|---|---|
| Sheet metal worker..... | $ 31.23 | 23.69 |

SHEE0063-004 07/01/2012

BERKSHIRE, HAMPDEN AND HAMPSHIRE COUNTIES

| | Rates | Fringes |
|---|---|---|
| Sheet metal worker..... | $ 31.23 | 23.69 |

SUMA2003-001 01/08/2003

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER... | $ 39.38 | |
| FLOOR LAYER: Carpet..... | $ 31.96 | |
| LABORER | | |
| Unskilled..... | $ 18.73 | 6.33 |
| PAINTER | | |
| Brush & Roller, excluding drywall finishing..... | $ 30.86 | |

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

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 union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows 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. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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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.

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END OF GENERAL DECISION

# SECTION 00814

# WAGE RATES REQUIREMENTS

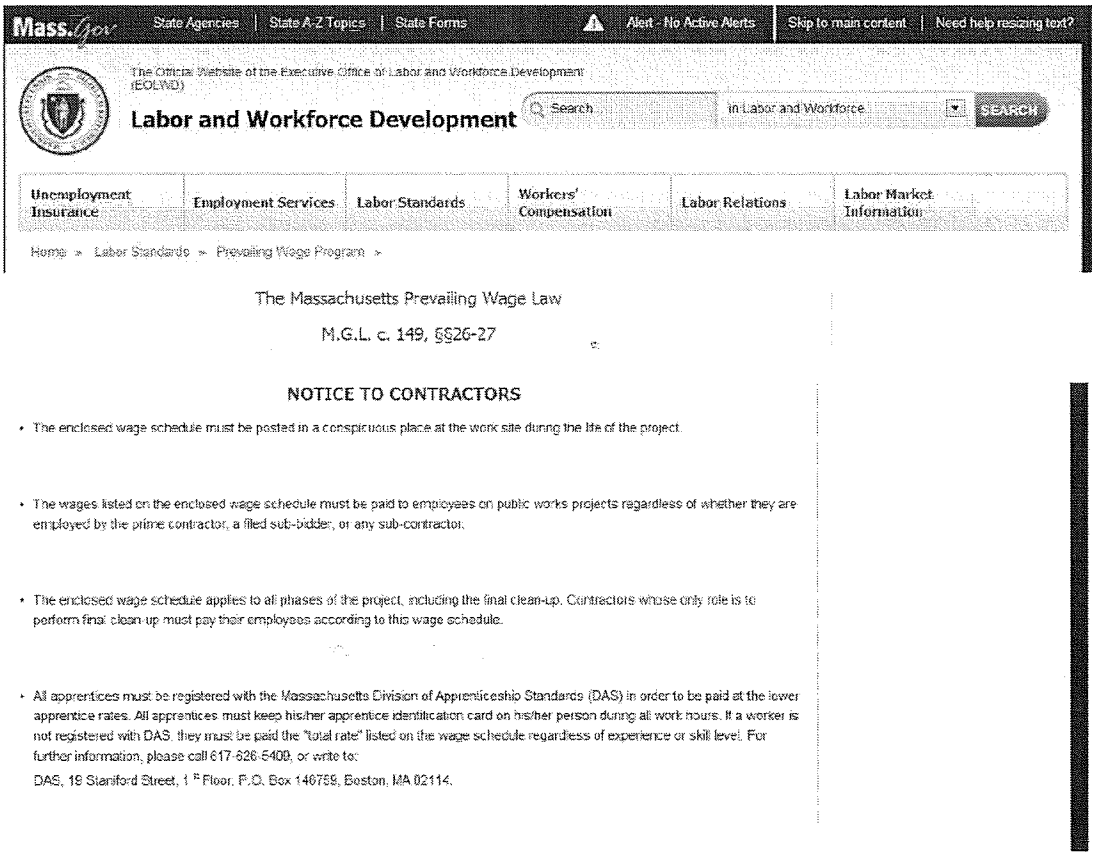
The content of this Section does not represent or reflect all applicable Laws and Regulations and may only include excerpts and portions of certain Laws and Regulations. Other provisions required by statute shall be deemed to be so included and incorporated herein. Contractor is solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.

## 1.01 Commonwealth of Massachusetts

The Project is subject to minimum wage rates as determined by the Commissioner of Department of Workforce Development. Wage Determination Schedules are included in Section 00813. In addition, pursuant to MGL Chapter 149, Section 34B, wages paid to reserve police officers shall be the same prevailing rate of wage paid to regular police officers at the location of the Project.

Obtain the latest Weekly Payroll and Compliance forms from the following website.
http://www.mass.gov/lwd/labor-standards/prevailing-wage-program

**Portions of requirements of MGL Chapter 149, Sections 26, 27, and 27A through 27D**


Mass.gov | State Agencies | State A-Z Topics | State Forms | Alert - No Active Alerts | Skip to main content | Need help resizing text?

The Official Website of the Executive Office of Labor and Workforce Development (EOLWD)

Labor and Workforce Development | Search | in Labor and Workforce | SEARCH

Unemployment Insurance | Employment Services | Labor Standards | Workers' Compensation | Labor Relations | Labor Market Information

Home » Labor Standards » Prevailing Wage Program »

The Massachusetts Prevailing Wage Law

M.G.L. c. 149, §§26-27

NOTICE TO CONTRACTORS

- The enclosed wage schedule must be posted in a conspicuous place at the work site during the life of the project.
- The wages listed on the enclosed wage schedule must be paid to employees on public works projects regardless of whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- The enclosed wage schedule applies to all phases of the project, including the final clean-up. Contractors whose only role is to perform final clean-up must pay their employees according to this wage schedule.
- All apprentices must be registered with the Massachusetts Division of Apprenticeship Standards (DAS) in order to be paid at the lower apprentice rates. All apprentices must keep his/her apprentice identification card on his/her person during all work hours. If a worker is not registered with DAS, they must be paid the "total rate" listed on the wage schedule regardless of experience or skill level. For further information, please call 617-626-5409, or write to:

DAS, 19 Staniford Street, 1st Floor, P.O. Box 146759, Boston, MA 02114.

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# WEEKLY PAYROLL RECORDS REPORT
# & STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c. 149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority. This is required to be done on a weekly basis. Once collected, the awarding authority is also required to preserve those records for three years from the date of completion of the project.

Each such contractor or subcontractor shall furnish to the awarding authority directly within 15 days after completion of its portion of the work, a statement, executed by the contractor, subcontractor or by any authorized officer thereof who supervised the payment of wages, this form.

## STATEMENT OF COMPLIANCE

_____, 20_____

I,_____,_____
(Name of signatory party) (Title)

do hereby state:

That I pay or supervise the payment of the persons employed by

_____ on the _____
(Contractor, subcontractor or public body) (Building or project)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws.

Signature _____

Title _____

09/11

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# MASSACHUSETTS WEEKLY CERTIFIED PAYROLL REPORT FORM

| Company's Name: | Address: | Phone No.: | Payroll No.: |
|---|---|---|---|
| | | | |

| Employer's Signature: | Title: | Contract No: | Tax Payer ID No: | Work Week Ending: |
|---|---|---|---|---|
| | | | | |

| Awarding Authority's Name: | Public Works Project Name: | Public Works Project Location: | Min. Wage Rate Sheet No. |
|---|---|---|---|
| | | | |

| General / Prime Contractor's Name: | Subcontractor's Name: | | "Employer" Hourly Fringe Benefit Contributions | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | (B+C+D+E) | (A x F) |

| Employee Name & Complete Address | Employee is OSHA 10 Certified (?) | Work Classification | Appr. Ratio (%) | Hours Worked Su. | Mo. | Tu. | We. | Th. | Fr. | Sa. | Project Hours (A) All Other Hours | Hourly Base Wage (B) | Health & Welfare Insurance (C*) | ERISA Pension Plan (D) | Supp Unemp. (E) | Total Hourly Prev. Wage (F) | Project Gross Wages (G) Total Gross Wages | Check No. (H) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ☐ | | | | | | | | | | | | | | | | | |
| | ☐ | | | | | | | | | | | | | | | | | |
| | ☐ | | | | | | | | | | | | | | | | | |
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| | ☐ | | | | | | | | | | | | | | | | | |
| | ☐ | | | | | | | | | | | | | | | | | |

NOTE: Pursuant to MGL Ch. 149 s.27B, every contractor and subcontractor is required to submit a "true and accurate" copy of their weekly payroll records directly to the awarding authority. Failure to comply may result in the commencement of a criminal action or the issuance of a civil citation.

Page ____ of ____

Date recieved by awarding authority
/ /

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## 1.02 U.S. Department of Labor

The Project is also subject to Federal Minimum Wage Rates determined by the United States Department of Labor under the Davis-Bacon Act. The Wage Determination Schedules are included in Section 00813. Additional information and forms can be obtained from the following website.

www.wdol.gov

eCFR — Code of Federal Regulations Page 1 of 3

**ELECTRONIC CODE OF FEDERAL REGULATIONS**

**e-CFR Data is current as of November 8, 2013**

Title 48: Federal Acquisition Regulations System
PART 52—SOLICITATION PROVISIONS AND CONTRACT CLAUSES
Subpart 52.2—Text of Provisions and Clauses

**52.222-6 Davis-Bacon Act.**

As prescribed in 22.407(a), insert the following clause:

DAVIS-BACON ACT (JUL 2005)

(a) *Definition—Site of the work*—(1) Means—

(i) *The primary site of the work.* The physical place or places where the construction called for in the contract will remain when work on it is completed; and

(ii) *The secondary site of the work, if any.* Any other site where a significant portion of the building or work is constructed, provided that such site is—

(A) Located in the United States; and

(B) Established specifically for the performance of the contract or project;

(2) Except as provided in paragraph (3) of this definition, includes any fabrication plants, mobile factories, batch plants, borrow pits, job headquarters, tool yards, etc., provided—

(i) They are dedicated exclusively, or nearly so, to performance of the contract or project; and

(ii) They are adjacent or virtually adjacent to the "primary site of the work" as defined in paragraph (a)(1)(i), or the "secondary site of the work" as defined in paragraph (a)(1)(ii) of this definition;

(3) Does not include permanent home offices, branch plant establishments, fabrication plants, or tool yards of a Contractor or subcontractor whose locations and continuance in operation are determined wholly without regard to a particular Federal contract or project. In addition, fabrication plants, batch plants, borrow pits, job headquarters, yards, etc., of a commercial or material supplier which are established by a supplier of materials for the project before opening of bids and not on the Project site, are not included in the "site of the work." Such permanent, previously established facilities are not a part of the "site of the work" even if the operations for a period of time may be dedicated exclusively or nearly so, to the performance of a contract.

(b)(1) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, or as may be incorporated for a secondary site of the work, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Any wage determination incorporated for a secondary site of the work shall be effective from the first day on which work under the contract was performed at that site and shall be incorporated without any adjustment in contract price or estimated cost. Laborers employed by the construction Contractor or construction subcontractor that are transporting portions of the building or work between the secondary site of the work and the primary site of the work shall be paid in accordance with the wage determination applicable to the primary site of the work.

http://www.ecfr.gov/cgi-bin/text-idx?SID=9d4296e6baac49c6f55c93fa38f415e0&node=4... 11/13/2013

(2) Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (e) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period.

(3) Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

(4) The wage determination (including any additional classifications and wage rates conformed under paragraph (c) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the primary site of the work and the secondary site of the work, if any, in a prominent and accessible place where it can be easily seen by the workers.

(c)(1) The Contracting Officer shall require that any class of laborers or mechanics, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(iv) With respect to helpers, such a classification prevails in the area in which the work is performed.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for Determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (c)(2) and (c)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(d) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(e) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; *provided*, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

# ELECTRONIC CODE OF FEDERAL REGULATIONS

## e-CFR Data is current as of November 12, 2013

Title 29: Labor

## PART 5—LABOR STANDARDS PROVISIONS APPLICABLE TO CONTRACTS COVERING FEDERALLY FINANCED AND ASSISTED CONSTRUCTION (ALSO LABOR STANDARDS PROVISIONS APPLICABLE TO NONCONSTRUCTION CONTRACTS SUBJECT TO THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT)

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AUTHORITY: 5 U.S.C. 301; R.S. 161, 64 Stat. 1267; Reorganization Plan No. 14 of 1950, 5 U.S.C. appendix; 40 U.S.C. 3141 *et seq.*; 40 U.S.C. 3145; 40 U.S.C. 3148; 40 U.S.C. 3701 *et seq.*; and the laws listed in 5.1(a) of this part; Secretary's Order 01-2008; and Employment Standards Order No. 2001-01.

## *FROM SECTION 5.5*

(1) *Minimum wages.* (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in §5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(*1*) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(*2*) The classification is utilized in the area by the construction industry; and

(*3*) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) *Withholding.* The (write in name of Federal Agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) *Payrolls and basic records.* (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency). The payrolls

submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (*e.g.*, the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at *http://www.dol.gov/esa/whd/forms/wh347instr.htm* or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(*1*) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(*2*) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(*3*) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the (write the name of the agency) or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) *Apprentices and trainees*—(i) *Apprentices.* Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an

apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) *Trainees.* Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) *Equal employment opportunity.* The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) *Compliance with Copeland Act requirements.* The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be

responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) *Contract termination: debarment.* A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) *Compliance with Davis-Bacon and Related Act requirements.* All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) *Disputes concerning labor standards.* Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) *Certification of eligibility.* (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(b) *Contract Work Hours and Safety Standards Act.* The Agency Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by §5.5(a) or4.6 of part 4 of this title. As used in this paragraph, the terms *laborers* and *mechanics* include watchmen and guards.

(1) *Overtime requirements.* No contractor or subcontractor contracting for any part of the conract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) *Withholding for unpaid wages and liquidated damages.* The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted

contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in §5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

(The information collection, recordkeeping, and reporting requirements contained in the following paragraphs of this section were approved by the Office of Management and Budget:

| Paragraph | OMB Control Number |
|---|---|
| (a)(1)(ii)(B) | 1215-0140 |
| (a)(1)(ii)(C) | 1215-0140 |
| (a)(1)(iv) | 1215-0140 |
| (a)(3)(i) | 1215-0140, |
| | 1215-0017 |
| (a)(3)(ii)(A) | 1215-0149 |
| (c) | 1215-0140, |
| | 1215-0017 |

[48 FR 19540, Apr. 29, 1983, as amended at 51 FR 12265, Apr. 9, 1986; 55 FR 50150, Dec. 4, 1990; 57 FR 28776, June 26, 1992; 58 FR 58955, Nov. 5, 1993; 61 FR 40716, Aug. 5, 1996; 65 FR 69693, Nov. 20, 2000; 73 FR 77511, Dec. 19, 2008]

# ELECTRONIC CODE OF FEDERAL REGULATIONS

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Title 29: Labor

## PART 3—CONTRACTORS AND SUBCONTRACTORS ON PUBLIC BUILDING OR PUBLIC WORK FINANCED IN WHOLE OR IN PART BY LOANS OR GRANTS FROM THE UNITED STATES

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§3.4 Submission of weekly statements and the preservation and inspection of weekly payroll records.
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§3.6 Payroll deductions permissible with the approval of the Secretary of Labor.
§3.7 Applications for the approval of the Secretary of Labor.
§3.8 Action by the Secretary of Labor upon applications.
§3.9 Prohibited payroll deductions.
§3.10 Methods of payment of wages.
§3.11 Regulations part of contract.

AUTHORITY: R.S. 161, sec. 2, 48 Stat. 848; Reorg. Plan No. 14 of 1950, 64 Stat. 1267; 5 U.S.C. 301; 40 U.S.C. 3145; Secretary's Order 01-2008; and Employment Standards Order No. 2001-01.

SOURCE: 29 FR 97, Jan. 4, 1964, unless otherwise noted.

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### §3.1 Purpose and scope.

This part prescribes "anti-kickback" regulations under section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c), popularly known as the Copeland Act. This part applies to any contract which is subject to Federal wage standards and which is for the construction, prosecution, completion, or repair of public buildings, public works or buildings or works financed in whole or in part by loans or grants from the United States. The part is intended to aid in the enforcement of the minimum wage provisions of the Davis-Bacon Act and the various statutes dealing with federally assisted construction that contain similar minimum wage provisions, including those provisions which are not subject to Reorganization Plan No. 14 (e.g., the College Housing Act of 1950, the Federal Water Pollution Control Act, and the Housing Act of 1959), and in the enforcement of the overtime provisions of the Contract Work Hours Standards Act whenever they are applicable to construction work. The part details the obligation of contractors and subcontractors relative to the weekly submission of statements regarding the wages paid on work covered thereby; sets forth the circumstances and procedures governing the making of payroll deductions from the wages of those employed on such work; and delineates the methods of payment permissible on such work.

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### §3.2 Definitions.

As used in the regulations in this part:

(a) The terms *building* or *work* generally include construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work. The terms include, without limitation, buildings, structures, and improvements of all types, such as bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, powerlines, pumping stations, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals; dredging, shoring, scaffolding, drilling, blasting, excavating, clearing, and landscaping. Unless conducted in connection with and at the site of such a building or work as is described in the foregoing sentence, the manufacture or furnishing of materials, articles, supplies, or equipment (whether or not a Federal or State agency acquires title to such materials, articles, supplies, or equipment during the course of the manufacture or furnishing, or owns the materials from which they are manufactured or furnished) is not a *building* or *work* within the meaning of the regulations in this part.

(b) The terms *construction, prosecution, completion,* or *repair* mean all types of work done on a particular building or work at the site thereof, including, without limitation, altering, remodeling, painting and decorating, the transporting of materials and supplies to or from the building or work by the employees of the construction contractor or construction subcontractor, and the manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work, by persons employed at the site by the contractor or subcontractor.

(c) The terms *public building* or *public work* include building or work for whose construction, prosecution, completion, or repair, as defined above, a Federal agency is a contracting party, regardless of whether title thereof is in a Federal agency.

(d) The term *building or work financed in whole or in part by loans or grants from the United States* includes building or work for whose construction, prosecution, completion, or repair, as defined above, payment or part payment is made directly or indirectly from funds provided by loans or grants by a Federal agency. The term includes building or work for which the Federal assistance granted is in the form of loan guarantees or insurance.

(e) Every person paid by a contractor or subcontractor in any manner for his labor in the construction, prosecution, completion, or repair of a public building or public work or building or work financed in whole or in part by loans or grants from the United States is *employed* and receiving *wages,* regardless of any contractual relationship alleged to exist between him and the real employer.

(f) The term *any affiliated person* includes a spouse, child, parent, or other close relative of the contractor or subcontractor; a partner or officer of the contractor or subcontractor; a corporation closely connected with the contractor or subcontractor as parent, subsidiary, or otherwise, and an officer or agent of such corporation.

(g) The term *Federal agency* means the United States, the District of Columbia, and all executive departments, independent establishments, administrative agencies, and instrumentalities of the United States and of the District of Columbia, including corporations, all or substantially all of the stock of which is beneficially owned by the United States, by the District of Columbia, or any of the foregoing departments, establishments, agencies, and instrumentalities.

[29 FR 97, Jan. 4, 1964, as amended at 38 FR 32575, Nov. 27, 1973]

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**§3.3 Weekly statement with respect to payment of wages.**

(a) As used in this section, the term *employee* shall not apply to persons in classifications higher than that of laborer or mechanic and those who are the immediate supervisors of such employees.

(b) Each contractor or subcontractor engaged in the construction, prosecution, completion, or repair of any public building or public work, or building or work financed in whole or in part by loans or grants from the United States, shall furnish each week a statement with respect to the wages paid each of its employees engaged on work covered by this part 3 and part 5 of this title during the

preceding weekly payroll period. This statement shall be executed by the contractor or subcontractor or by an authorized officer or employee of the contractor or subcontractor who supervises the payment of wages, and shall be on the back of Form WH 347, "Payroll (For Contractors Optional Use)" or on any form with identical wording. Copies of Form WH 347 may be obtained from the Government contracting or sponsoring agency or from the Wage and Hour Division Web site at *http://www.dol.gov/esa/whd/forms/wh347instr.htm* or its successor site.

(c) The requirements of this section shall not apply to any contract of $2,000 or less.

(d) Upon a written finding by the head of a Federal agency, the Secretary of Labor may provide reasonable limitations, variations, tolerances, and exemptions from the requirements of this section subject to such conditions as the Secretary of Labor may specify.

[29 FR 97, Jan. 4, 1964, as amended at 33 FR 10186, July 17, 1968; 47 FR 23679, May 28, 1982; 73 FR 77511, Dec. 19, 2008]

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**§3.4 Submission of weekly statements and the preservation and inspection of weekly payroll records.**

(a) Each weekly statement required under §3.3 shall be delivered by the contractor or subcontractor, within seven days after the regular payment date of the payroll period, to a representative of a Federal or State agency in charge at the site of the building or work, or, if there is no representative of a Federal or State agency at the site of the building or work, the statement shall be mailed by the contractor or subcontractor, within such time, to a Federal or State agency contracting for or financing the building or work. After such examination and check as may be made, such statement, or a copy thereof, shall be kept available, or shall be transmitted together with a report of any violation, in accordance with applicable procedures prescribed by the United States Department of Labor.

(b) Each contractor or subcontractor shall preserve his weekly payroll records for a period of three years from date of completion of the contract. The payroll records shall set out accurately and completely the name and address of each laborer and mechanic, his correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid. Such payroll records shall be made available at all times for inspection by the contracting officer or his authorized representative, and by authorized representatives of the Department of Labor.

(Reporting and recordkeeping requirements in paragraph (b) have been approved by the Office of Management and Budget under control number 1215-0017)

[29 FR 97, Jan. 4, 1964, as amended at 47 FR 145, Jan. 5, 1982]

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**§3.5 Payroll deductions permissible without application to or approval of the Secretary of Labor.**

Deductions made under the circumstances or in the situations described in the paragraphs of this section may be made without application to and approval of the Secretary of Labor:

(a) Any deduction made in compliance with the requirements of Federal, State, or local law, such as Federal or State withholding income taxes and Federal social security taxes.

(b) Any deduction of sums previously paid to the employee as a bona fide prepayment of wages when such prepayment is made without discount or interest. A *bona fide prepayment of wages* is considered to have been made only when cash or its equivalent has been advanced to the person employed in such manner as to give him complete freedom of disposition of the advanced funds.

(c) Any deduction of amounts required by court process to be paid to another, unless the deduction is in favor of the contractor, subcontractor, or any affiliated person, or when collusion or collaboration exists.

(d) Any deduction constituting a contribution on behalf of the person employed to funds established by the employer or representatives of employees, or both, for the purpose of providing either from principal or income, or both, medical or hospital care, pensions or annuities on retirement, death benefits, compensation for injuries, illness, accidents, sickness, or disability, or for insurance to provide any of the foregoing, or unemployment benefits, vacation pay, savings accounts, or similar payments for the benefit of employees, their families and dependents: *Provided, however,* That the following standards are met:

(1) The deduction is not otherwise prohibited by law;

(2) It is either:

(i) Voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of or for the continuation of employment, or

(ii) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees;

(3) No profit or other benefit is otherwise obtained, directly or indirectly, by the contractor or subcontractor or any affiliated person in the form of commission, dividend, or otherwise; and

(4) The deductions shall serve the convenience and interest of the employee.

(e) Any deduction contributing toward the purchase of United States Defense Stamps and Bonds when voluntarily authorized by the employee.

(f) Any deduction requested by the employee to enable him to repay loans to or to purchase shares in credit unions organized and operated in accordance with Federal and State credit union statutes.

(g) Any deduction voluntarily authorized by the employee for the making of contributions to governmental or quasi-governmental agencies, such as the American Red Cross.

(h) Any deduction voluntarily authorized by the employee for the making of contributions to Community Chests, United Givers Funds, and similar charitable organizations.

(i) Any deductions to pay regular union initiation fees and membership dues, not including fines or special assessments: *Provided, however,* That a collective bargaining agreement between the contractor or subcontractor and representatives of its employees provides for such deductions and the deductions are not otherwise prohibited by law.

(j) Any deduction not more than for the "reasonable cost" of board, lodging, or other facilities meeting the requirements of section 3(m) of the Fair Labor Standards Act of 1938, as amended, and part 531 of this title. When such a deduction is made the additional records required under §516.25(a) of this title shall be kept.

(k) Any deduction for the cost of safety equipment of nominal value purchased by the employee as his own property for his personal protection in his work, such as safety shoes, safety glasses, safety gloves, and hard hats, if such equipment is not required by law to be furnished by the employer, if such deduction is not violative of the Fair Labor Standards Act or prohibited by other law, if the cost on which the deduction is based does not exceed the actual cost to the employer where the equipment is purchased from him and does not include any direct or indirect monetary return to the employer where the equipment is purchased from a third person, and if the deduction is either

(1) Voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of employment or its continuance; or

(2) Provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees.

[29 FR 97, Jan. 4, 1964, as amended at 36 FR 9770, May 28, 1971]

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**§3.6 Payroll deductions permissible with the approval of the Secretary of Labor.**

Any contractor or subcontractor may apply to the Secretary of Labor for permission to make any deduction not permitted under §3.5. The Secretary may grant permission whenever he finds that:

(a) The contractor, subcontractor, or any affiliated person does not make a profit or benefit directly or indirectly from the deduction either in the form of a commission, dividend, or otherwise;

(b) The deduction is not otherwise prohibited by law;

(c) The deduction is either (1) voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of employment or its continuance, or (2) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees; and

(d) The deduction serves the convenience and interest of the employee.

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**§3.7 Applications for the approval of the Secretary of Labor.**

Any application for the making of payroll deductions under §3.6 shall comply with the requirements prescribed in the following paragraphs of this section:

(a) The application shall be in writing and shall be addressed to the Secretary of Labor.

(b) The application need not identify the contract or contracts under which the work in question is to be performed. Permission will be given for deductions on all current and future contracts of the applicant for a period of 1 year. A renewal of permission to make such payroll deduction will be granted upon the submission of an application which makes reference to the original application, recites the date of the Secretary of Labor's approval of such deductions, states affirmatively that there is continued compliance with the standards set forth in the provisions of §3.6, and specifies any conditions which have changed in regard to the payroll deductions.

(c) The application shall state affirmatively that there is compliance with the standards set forth in the provisions of §3.6. The affirmation shall be accompanied by a full statement of the facts indicating such compliance.

(d) The application shall include a description of the proposed deduction, the purpose to be served thereby, and the classes of laborers or mechanics from whose wages the proposed deduction would be made.

(e) The application shall state the name and business of any third person to whom any funds obtained from the proposed deductions are to be transmitted and the affiliation of such person, if any, with the applicant.

[29 FR 97, Jan. 4, 1964, as amended at 36 FR 9771, May 28, 1971]

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**§3.8 Action by the Secretary of Labor upon applications.**

The Secretary of Labor shall decide whether or not the requested deduction is permissible under provisions of §3.6; and shall notify the applicant in writing of his decision.

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**§3.9 Prohibited payroll deductions.**

Deductions not elsewhere provided for by this part and which are not found to be permissible under §3.6 are prohibited.

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**§3.10 Methods of payment of wages.**

The payment of wages shall be by cash, negotiable instruments payable on demand, or the additional forms of compensation for which deductions are permissible under this part. No other methods of payment shall be recognized on work subject to the Copeland Act.

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**§3.11 Regulations part of contract.**

All contracts made with respect to the construction, prosecution, completion, or repair of any public building or public work or building or work financed in whole or in part by loans or grants from the United States covered by the regulations in this part shall expressly bind the contractor or subcontractor to comply with such of the regulations in this part as may be applicable. In this regard, see §5.5(a) of this subtitle.

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**END OF SECTION**

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# SECTION 00815

## EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

A. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; provision of non-segregated facilities and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

B. The Contractor shall, in all solicitations or advancements for employees placed by or on behalf of the Contractor, state that all qualified applicants shall receive consideration for employment without regard to race, color, religion, sex or national origin.

C. The Contractor shall comply with all provisions of Executive Order No. 11246 as amended, and of the rules, Regulations, and relevant orders of the Secretary of Labor as applicable, and additional provisions for federally-assisted construction contracts, including those required by 41 CFR 60 and 48 CFR 52.

D. In the event of the Contractor's noncompliance with the nondiscrimination clauses of the Contract or with any of such rules, Regulations, or orders, the Contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further contracts in accordance with procedures authorized in Executive Order No. 11246 as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 as amended, or by rule, Regulation, or order of the Secretary of Labor, or as otherwise provided by Law.

E. The Contractor shall include the applicable provisions of the above paragraphs in every subcontract or purchase order unless exempted by rules, Regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 as amended, so that such provisions shall be binding upon each Subcontractor or vendor or Supplier.

**END OF SECTION**

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# SECTION 00818

# HEALTH AND SAFETY CRITERIA

Contractor shall comply with the following minimum requirements and is solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.

A. Code of Federal Regulations, Chapter XVII-Occupational Safety and Health Administration (OSHA), Department of Labor, Title 29, Part 1926, Safety and Health Regulations for Construction.

1. Contractor shall strictly comply with the Hazard Communication Standard 1910.1200 regulated by OSHA, including providing and maintaining Safety Data Sheets, labeling of hazardous substances, and providing required protective equipment and training and instruction to personnel on the Site including Owner and Engineer's personnel.

B. ANSI/ASSE A10 series of safety construction standards including the "Manual of Accident Prevention In Construction" published by The Associated General Contractors of America.

C. Protection of personnel and equipment under electric lines: comply with the AASHTO Guide on Occupational Safety on Highway Construction Projects, Subpart N, 1926.550, relating to construction equipment clearances at overhead electric lines especially during operations using large vehicles.

D. Pursuant to *MGL Chapter 30, Section 39M and 39S*, all employees to be employed at the Work Site 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. Any employee found on a Work Site subject to this section without documentation of successful completion of 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 shall be subject to immediate removal.

E. This Project is also subject to the following.

- MGL Chapter 82, *The Laying Out, Alteration, Relocation and Discontinuance Of Public Ways, And Specific Repairs Thereon, Section 40:*

  Section 40 Definitions
  Section 40A Excavations; notice
  Section 40B Designation of location of underground facilities
  Section 40C Excavator's responsibility to maintain designation markings; damage caused by excavator
  Section 40D Local laws requiring excavation permits; public ways

- MGL Chapter 82A, *Excavation and Trench Safety:*

  Section 1 Unattended open trenches; safety hazards; rules and regulations; fines
  Section 2 Trench excavating permits; permits issued by board or officer; certificate of insurance; fees
  Section 3 Form of trench excavation permits; required statements
  Section 4 Definitions
  Section 5 Additional requirements

- MGL Chapter 149:

  *Section 6C Health and safety of general public and asbestos workers; rules and regulations*
  *Section 18A Sanitary and safety conditions; tools*
  *Section 18B Confined spaces; ventilation*
  *Section 18C Power transmission equipment*
  *Section 18D Ropes, hooks and cranes; use and operation*
  *Section 18E Safety precautions in dangerous undertakings*
  *Section 18F Explosives*
  *Section 18G Industrial truck and internal combustion equipment*
  *Section 129A Shoring Trenches for local governments*

- Massachusetts Department of Labor and Industries, Division of Occupational Safety (Chapter 454 CMR 10.00 et seq.)

- Massachusetts Department of Public Safety "*Excavation and Trench Safety*" (Chapter 520 CMR 14.00 et seq.)

**END OF SECTION**

# SECTION 00838

# D/MBE & D/WBE REQUIREMENTS

**This project is subject to the following. "Special Provisions for Disadvantaged Business Enterprises" of the Massachusetts Department of Environmental Protection Division of Municipal Services, June 2012.**

## I. CONTRACT GOALS

The fair share goals for disadvantaged business enterprise (DBE) participation for this Contract are a minimum of **3.40 percent Disadvantaged Minority Business Enterprise (D/MBE)** participation and **3.80 percent Disadvantaged Women Business Enterprise (D/WBE)** participation, applicable to the total dollar amount paid for the construction Contract. The Contractor shall take all affirmative steps necessary to achieve this goal, and shall provide reports documenting the portion of Contract and subcontract dollars paid to DBEs, and its efforts to achieve the goals, with each invoice submitted or at such greater intervals as specified by the Owner. The Contractor shall require similar reports from its Subcontractors.

## DISADVANTAGED BUSINESS ENTERPRISE PROGRAM BACKGROUND

In May 2008 a new United States Environmental Protection Agency (EPA) rule became effective that changed the Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) Program to a Disadvantaged Business Enterprise (DBE) Program.

For firms to qualify under the old MBE/WBE program they needed to be socially disadvantaged and had to be certified by the State Office of Minority and Women Business Assistance (SOMWBA), recently renamed the Supplier Diversity Office (SDO). Under the new DBE rule, the firms must be both **socially** and **economically** disadvantaged, citizens of the United States, and certified as a DBE. Women and certain minorities are presumed to be socially disadvantaged. The economic disadvantage is measured by the owner's initial and continuing personal net worth of less than $1,320,000.

Because the Clean Water Act requires the use of MBEs and WBEs, these firms will still be utilized in the State Revolving Fund (SRF) Loan Program, but they must also be certified as DBEs.

SDO (formerly SOWMBA) will continue to be the certifying agency for the SRF program.

## II. DEFINITIONS

For the purpose of these provisions, the following terms are defined as follows:

A. Awarding Authority – Entity that awards a prime contract under a State Revolving Fund loan. Also "Owner".

B. Bidder – Any individual, partnership, joint venture, corporation, or firm submitting a price, directly or through an authorized representative, for the purpose of performing construction or construction related activities under a contract.

C. Certified DBE – A DBE certified by the United States Small Business Administration, under its 8(a) Business Development Program (13 CFR part 124, subpart A) or its Small Disadvantaged Business Program (13 CFR part 124, subpart B); The United States Department of Transportation (DOT), under its regulations for Participation by DBSs in DOT programs (49 CFR parts 23 and 26); or SDO in accordance with 40 CFR part 33; provided that the certification meets the U.S. citizenship requirement under 40 CFR §33.202 or §33.203.

D. Compliance Unit – A subdivision of MassDEP's Affirmative Action Office designated to ensure compliance under these provisions.

E. Contractor – Any business that contracts or subcontracts for construction, demolition, renovation, survey, or maintenance work in the various classifications customarily used in work and that is acting in this capacity under the subject Contract.

F. Construction Related Services – Those services performed at the Work Site ancillary to, and/or in support of, the construction work, such as hauling, trucking, equipment operation, surveying or other technical services, etc. For the purposes hereof, supply and delivery of materials (e.g., pre-cast concrete elements) to the Site by a Supplier who has manufactured those goods, or substantially altered them before re-sales shall be considered as "Construction Related Services".

G. Construction Work – The activities at the Work Site, or labor and use of materials in the performance of constructing, reconstructing, erecting, demolishing, altering, installing, disassembling, excavating, etc., all or part of the work required by the Contract Documents.

H. Disadvantaged Business Enterprise (DBE) – An entity owned or controlled by a socially and economically disadvantaged individual as described by Public Law 102-389 (42 U.S.C. 4370d) or an entity owned and controlled by a socially and economically disadvantaged individual as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note); a Small Business Enterprise (SBE); a Small Business in a Rural Area (SBRA); or a Labor Surplus Area Firm (LAF), a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.

I. Equipment Rental Firm – A firm that owns equipment and assumes actual and contractual responsibility for renting said equipment to perform a useful function of the work of the Contract consistent with normal industry practice.

J. Good Faith Efforts – The race and/or gender neutral measures described in 40 CFR 33, subpart C.

K. HUBZone – A historically underutilized business zone, which is an area located within one or more qualified census tracts, qualified metropolitan counties, or lands within the external boundaries of an Indian reservation.

L. HUBZone small business concern – A small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

M. Joint Venture – An agreement between SDO certified DBE and a non-DBE or non-DBE controlled enterprise.

1. A pairing of companies will be considered a DBE joint venture if the SDO certified DBE which is part of the relationship has more than 51% of the profits that are derived from that project.

2. A joint venture between a certified DBE Subcontractor and a non DBE Subcontractor, in which the DBE for that proportion of the joint venture's contract equal to the DBE participation in the joint venture.

3. Whenever a general bid is filed by a joint venture with a certified DBE participant in the joint venture that does not exercise more than 51% control over management and profits, that joint venture shall be entitled to credit as a DBE for that portion of the joint venture's contract equal to the DBE participation in the joint venture.

N. Minority – As deemed by SDO.

O. Labor surplus area firm (LSAF) – A concern that together with its first-tier Subcontractors will perform substantially in labor surplus areas (as identified by the Department of Labor in accordance with 20 CFR part 654). Performance is substantially in labor surplus areas if the costs incurred under the Contract on account of manufacturing, production or performance of appropriate services in labor surplus areas exceed 50 percent of the Contract Price.

P. Letter of Intent – Certified document signed by the principal(s) of the DBE with respect to the Work to be performed under the Contract.

Q. Local Government Unit (LGU) – A city, town, or municipal district which applies for a loan under the Water Pollution Abatement Trust Program. Also "Owner".

R. Material Supplier – A vendor or Supplier certified by SDO as a DBE in sales to supply industry from an established place of business or source of supply, and that vendor:

1. Manufactures goods from raw materials, or substantially utilizes them in the work, or substantially alters them before resale, entitling the general Contractor to DBE credit for 100% of the purchase order; or

2. Provides and maintains a storage facility for materials utilized in the Work, entitling the general Contractor to DBE credit for 10% of the purchase order.

S. Minority and Women Business Enterprise (M/WBE) – Any business concern certified by the SDO as a bona-fide M/WBE. A bona-fide M/WBE is a business whose minority group/women ownership interests are real, which have at least 51% ownership and control over management and operation.

T. Percent of Total Contract Price – Is the percentage to be paid to the DBE for Work they perform, as compared to the total Contract Price.

U. Recipient – An agency, person or political subdivision which has been awarded or received financial assistance by the Trust or MassDEP. Also "Owner".

V. Small business, small business concern or small business enterprise (SBE) – A concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding, and qualified as a small business under the criteria and size standards in 13 CFR part 121.

W. Small business in a rural area (SBRA) – A small business operating in an area identified as a rural county with a code 6-9 in the Rural-Urban continuum Classification Code developed by the United States Department of Agriculture in 1980.

X. SDO – The Supplier Diversity Office.

Y. Subcontractor – A company, firm, joint venture, or individual who enters into an agreement with the Contractor to provide services pursuant to an award of financial assistance.

Z. Total Contract Price – The total amount of compensation to be paid for all materials, Work or services rendered in the performance of the Contract.

AA. Trust – The Massachusetts Water Pollution Abatement Trust established by M.G.L. c.29.

## III. DISADVANTAGED BUSINESS ENTERPRISES PARTICIPATION

A. Reporting Requirements

1. The Contractor's utilization of certified DBEs will be documented based upon submittal of the LGU's monthly Payment Requisitions as reported on Form-2000. The Form-2000 form will show all certified DBEs performing work on the Project regardless of any billing activity for that month. For auditing and accounting purposes, the Contractor periodically may be required to submit copies of canceled checks verifying that payments have been made to the certified DBE as listed on the schedule. The Contractor may also be required to submit current schedules on utilization of all DBEs to indicate when their services will commence and be billed for.

2. During the life of the Contract, the Contractor's fulfillment of the percentage requirements in Part I shall be determined with reference to the Contract Price as follows:

   a. If the price in the Contract executed exceeds the base Bid price (e.g., because an alternate was selected or because unit prices were used in awarding the Contract), the Contractor shall submit for approval by MassDEP a revised Schedule of Participation by certified DBEs satisfying the percentage requirements and such other information concerning additional DBE participation as may be requested by MassDEP.

   b. If the Contract price increases after execution due to change orders or other adjustments, MassDEP may require the Contractor to subcontract additional work or to purchase additional goods and services from certified DBEs up to the percentages stated in Part I.

## IV. COMPLIANCE

A. The Contractor shall not perform with its own organization, or subcontract to any other primary or Subcontractor any Work designated for the named certified DBEs on the Schedule of Participation (Form EEO-DEP-190) submitted by the Contractor prior to award without the approval of MassDEP.

B. A Contractor's compliance with the percentage requirement in Part I shall continue to be determined by reference to the required percentage of the total Contract Price as stated in Part I even though the total of actual Contract payments may be greater or less than the Bid price.

C. If the Contractor for reasons beyond its control cannot comply with Schedule of Participation, the Contractor must submit to MassDEP as soon as it is aware of the deficiency, the reason for its inability to comply. Proposed revisions to the Schedule of Participation stating how the Contractor intends to meet its obligations under these conditions must be submitted within ten (10) working days of notification.

D. If the Contractor becomes aware by any means that the DBE is no longer certified, the Contractor shall immediately notify MassDEP. The Contractor shall use good faith efforts to retain a substitute certified DBE.

E. If a certified DBE listed in the Schedule of Participation fails to obtain a performance or payment bond requested by the Contractor, said failure shall not entitle the Contractor to avoid the requirements of Part I or the Schedule of Participation. The Contractor shall not change the certified DBE listed in its Schedule of Participation at the time of the award or make any other such substitutions without the written approval of MassDEP.

## V. SANCTIONS

A. If the Contractor does not comply with the terms of these Special Provisions, the Awarding Authority may (1) suspend any payment for the Work that should have been performed by a certified DBE pursuant to the Schedule of Participation, or (2) require specific performance of the Contractor's obligation by requiring the Contractor to subcontract with a DBE for any contract or specialty item at the Contract Price established for that item in the Bid submitted by the Contractor.

B. To the extent that the Contractor has not complied with the terms of these Special Provisions, the Awarding Authority may retain in connection with Estimates and Payments, an amount determined by multiplying the Contractor Price by the percentages in Section I, less the amount paid to DBE's for Work performed under the Contract and any payments already suspended under V.A above.

C. The Awarding Authority may suspend, terminate or cancel this Contract, in whole or in part, or may call upon the Contractor's surety to perform all terms and conditions in the Contract, unless the Contractor is able to demonstrate his compliance with the terms of these Special Provisions, and further deny to the Contractor, the right to participate in any future contracts awarded by the Awarding Authority for a period of up to three years.

D. In any proceeding involving the imposition of sanctions by the Awarding Authority, no sanctions shall be imposed if the Awarding Authority finds that the Contractor has taken every possible measure to comply with these Special Provisions or that some other justifiable reason exists for waiving these Special Provisions in whole or in part.

E. The Contract shall provide such information as is necessary in the judgment of the Awarding Authority to ascertain its compliance with the terms of these Special Provisions.

F. A Contractor shall have the right to request suspension of any sanctions imposed under this section upon demonstrating that he is in compliance with these Special Provisions.

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## DISADVANTABED BUSINESS ENTERPRISE PROGRAM
## DBE SUBCONTRACTOR PARTICIPATION FORM

The United States Environmental Protection Agency (EPA) requires that this form be provided to all subcontractors on the project. At the option of the subcontractor, this form may be filled out and submitted directly to the EPA DBE Coordinator.

| | |
|---|---|
| NAME OF SUBCONTRACTOR | PROJECT NAME |
| ADDRESS | CONTRACT NO. |
| TELEPHONE NO. | E-MAIL ADDRESS |
| PRIME CONTRACTOR NAME: | |

Please use the space below to report any concerns regarding the above EPA-funded project (e.g., reason for termination by prime contractor, late payment, etc.).

_____

_____

_____

_____

_____

| CONTRACT ITEM NO. | ITEM OF WORK OR DESCRIPTION OF SERVICES RECEIVED FROM THE PRIME CONTRACTOR | AMOUNT SUBCONTRACTOR WAS PAID BY PRIME CONTRACTOR |
|---|---|---|
| | | |

_____ _____

Subcontractor Signature Title/Date

Equivalent to EPA form 6100-2

## REQUEST FOR WAIVER FOR SRF CONSTRUCTION

Upon exhausting all known sources and making every possible effort to meet the minimum requirements for DBE participation, the Bidder may seek relief either partially or entirely from these requirements by submitting a completed waiver package by the close of business on the third business day after notification by the LGU. Failure to comply with this process shall be cause to reject the bid thereby rendering the Bidder not eligible for award of the contract.

### General Information

Project Title: _____ Project Location: _____

Bid Opening (time/date) _____

Bidder: _____

Mailing Address: _____

Contact Person: _____ Telephone No. ( ) _____ Ext. _____

### Minimum Requirements

The bidder must demonstrate that good faith efforts were undertaken to comply with the percentage goals as specified. The firm seeking relief must show that such efforts were taken appropriately in advance of the time set for opening bid proposals to allow adequate time for response(s) by submitting the following:

A. A detailed record of the effort made to contact and negotiate with disadvantaged minority and/or woman owned businesses, including:

1. names, addresses, telephone numbers and contact dates of all such companies contacted;

2. copies of written notice(s) which were sent to DBE potential subcontractors prior to bid opening;

3. a detailed statement as to why each subcontractor contacted (i) was not willing to do the job or (ii) was not qualified to perform the work as solicited; and

4. in the case(s) where a negotiated price could not be reached the bidder should detail what efforts were made to reach an agreement on a competitive price.

5. copies of advertisements, dated not less than ten (10) days prior to bid opening, as appearing in general publications, trade-oriented publications, and applicable minority/women-focused media detailing the opportunities for participation;

B. MassDEP may require the bidder to produce such additional information as it deems appropriate.

C. No later than fifteen (15) days after submission of all required information and documentation, MassDEP shall make a determination, in writing, whether the waiver request is granted and shall provide that determination to the bidder and Awarding Authority. If the waiver request is denied, the facts upon which a denial is based will be set forth in writing.

CERTIFICATION

The undersigned herewith certifies that the above information and appropriate attachments are true and accurate to the best of my knowledge and that I have been authorized to act on behalf of the bidder in this matter.

_____ _____

(authorized original signature) DATE

June 2012 EEO-DEP-490C

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF MUNICIPAL SERVICES

## STATE REVOLVING FUND LOAN PROGRAM – SCHEDULE OF SUBCONTRACTOR PARTICIPATION

Local Governmental Unit _____

Project Name _____

SRF Identification Number _____

General Contractor _____

Contract Value _____

The United States Environmental Protection Agency (EPA) requires that all SRF borrowers develop and maintain a list of all MBE/WBE and non MBE/WBE subcontractors on the project.

This form must be completed and returned to MassDEP within 90 days of award of the contract.

| Subcontractor | Point of Contact | Mailing Address | Telephone Number | E-Mail Address | MBE | WBE | DBE | Subcontract Value |
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# DIVISION 01

# GENERAL REQUIREMENTS

# SECTION 01001

# OVERALL GENERAL REQUIREMENTS

## PART 1 – GENERAL

### 1.01 SUMMARY

A. This Section specifies the overall general requirements for execution of the Work and applies to all Specifications and Drawings, including:

1. administrative and procedural requirements (relating to the process of contract administration, and the methods of communicating, controlling, and assuring quality);
2. temporary facilities and controls (put into place for use only during the period of construction and that will be removed when no longer required for construction operations);
3. general execution requirements; and
4. startup/commissioning and performance testing.

B. **Provisions of this Section may be modified and supplemented in Section 01003**. All provisions which are not so modified or supplemented remain in full force and effect.

C. Section Includes

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Payment Procedures
Change Procedures
Measurement and Payment Procedures
Correlation of Submittals

1.03 ADMINISTRATIVE REQUIREMENTS
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3.07 ATTACHMENTS

## 1.02 PRICE AND PAYMENT PROCEDURES

A. Schedule of Values

1. Submit preliminary and final Schedule of Values in accordance with Article 2 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

2. Provide sufficient detail to allow for determination of the value of the Work at any degree of completion.

B. Payment Procedures

1. Reference Article 14 of Standard General and Supplementary Conditions and Additional Supplementary Conditions. Submit 6 copies of each Application for Payment using the form included in the Project Forms section. Utilize latest approved Schedule of Values for listing items in Application for Payment. Provide supporting documentation for items included in the Application for Payment.

2. Payment Period: at intervals stipulated in the Agreement.

3. Submit an updated Progress Schedule with each Application for Payment.

C. Change Procedures

1. Reference Articles 10 and 12 of Standard General and Supplementary Conditions and Additional Supplementary Conditions and forms included in the Project Forms section.

a. Field Order: issued by Engineer or Owner to advise of minor changes in the Work not involving an adjustment to Contract Price or Contract Time as authorized by Paragraph 9.04 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

b. Change Request: issued by Engineer, Owner or Contractor to request or authorize minor variations and deviations, amendments or supplements to the Contract Documents per the Standard General and Supplementary Conditions and Additional Supplementary Conditions, Paragraph 3.04. Initiate requests for substitute items per Paragraph 6.05 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions using a Change Request.

1) Engineer or Owner to include a detailed description of a proposed change with supplementary or revised Drawings and Specifications, including a change in Contract Times related to the change (with a stipulation for any overtime work required) and the period of time during which the requested price will be considered valid. Prepare and submit an estimate within 15 days.

2) Contractor to describe the proposed change and its full effect on the Work. Describe the reason for the change and the effect on the Contract Price and Contract Time with full documentation (and a statement describing the effect on Work by separate or other contractors). Document any requested substitutions in accordance with the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

c. Work Change Directive: issued by Engineer or Owner, signed by Engineer or Owner and instructing Contractor to proceed with a change in the Work. Work authorized in a Work Change Directive will be included in a subsequent Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Price or Contract Time. Promptly execute the change.

d. Change Order: issued by Engineer or Owner in accordance with the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

1) *Stipulated Price Change Order*: based on Contractor's maximum price quotation or Contractor's request for a Change Order as approved by Engineer or Owner.

2) *Unit Price Change Order*: for pre-determined unit prices and quantities and executed on a fixed unit price basis. Execute Work under a Work Change Directive for unit costs or quantities of work not pre-determined. Changes in Contract Price and Contract Time to be computed as specified for Time and Material Change Order.

3) *Time and Material Change Order*: based on itemized account and supporting data after completion of change within time limits indicated in the Standard General and Supplementary Conditions and Additional Supplementary Conditions. Engineer or Owner and Contractor to determine the change allowable in Contract Price and Contract Time as provided in the Standard General and Supplementary Conditions and Additional Supplementary Conditions. Maintain detailed records of work done on this basis, provide full information required for evaluation of proposed changes, and substantiate costs for changes in the Work.

e. Substitutes and "Or Equals": Request substitute items as a Change Request in accordance with subparagraph C.1.b. above, with complete data substantiating compliance of proposed substitution with Contract Documents.

1) Substitute items will be processed in accordance with Article 1.03 subaragraph C.6 below and Paragraph 6.05 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

2) Substitute items will not be considered when indicated or implied on Shop Drawing or material and equipment data submittals without separate written request, or when acceptance will require revision to the Contract Documents.

D. Measurement and Payment Procedures

1. Unit Prices

a. Take measurements in presence of Engineer and compute quantities. Engineer or Owner to verify and also take measurements and quantities. Notify Engineer or Owner in advance when measurements must be taken.

b. Unit quantities and measurements indicated in the Bid Form and Bid Form Supplements, if any, are for Contract purposes only. Actual quantities and measurements supplied or placed in the Work determine amount of payment.

2. Payment includes full compensation for required labor, material and equipment, tools, plant, transportation, services and incidentals; erection, application or installation and construction of an item of the Work; and overhead and profit, unless otherwise indicated.

E. Correlation of Submittals

1. Promptly revise Schedule of Values (if any) and Applications for Payment to record each authorized Change Order as a separate line item and adjust the Contract Price.

2. Promptly revise Progress Schedule to reflect any change in Contract Times and revise sub-schedules to adjust time for other items of the Work affected by the change.

**3.** Promptly enter changes in Project Record Documents.

## 1.03 ADMINISTRATIVE REQUIREMENTS

A. Project Management and Coordination; Meetings

1. Contact information for Owner and other entities related to the Project and special coordination requirements and contacts during prosecution of the Work are included in the **Specific Project Requirements and Procedures**.

2. Inform Owner and Engineer of the address for sending official correspondence and the address and telephone number of Contractor's representative who will be project manager and Site superintendent for the Contract and identify the 24 hour, 7 days per week emergency response telephone or cell phone number that is staffed by a person (not a passive answering machine) or provide that a phone call will be returned within one hour.

3. During periods of construction and testing keep Owner and Engineer informed in writing with name, address, and telephone number of Contractor's representative who will be responsible and available outside of normal working hours for emergency repairs and the maintenance of safety devices.

4. Identify correspondence, drawings, data and materials, packing slips or other items associated with this Contract as specified in the **Specific Project Requirements and Procedures**.

5. Coordinate scheduling, submittals, and Work of the various Specifications to effectuate an efficient and orderly sequence for installing interdependent construction elements, with provisions for accommodating items installed later.

6. Preconstruction Conference and Site Mobilization Meeting

   a. Owner to schedule an initial preconstruction conference in accordance with the Standard General and Supplementary Conditions and Additional Supplementary Conditions Paragraph 2.06.

   b. Attendance required by Owner, Contractor, Engineer, Contractor's Superintendent, Project Manager, Subcontractors and major Suppliers as needed.

   c. Agenda

      - Distribute Contract Documents
      - Discuss design concepts
      - Discuss preliminary Progress Schedule, Schedule of Submittals, Schedule of Values and preliminary cash flow projections.
      - Designate personnel representing each party; communication procedures
      - Procedures and processing of submittals, substitutions, applications for payments, Change Orders and Contract closeout procedures
      - Scheduling
      - Use of premises by Owner and Contractor
      - Owner's requirements and partial occupancy
      - Construction facilities and controls provided by Owner
      - Temporary utilities provided by Owner and Contractor
      - Survey and Site Layout
      - Security and housekeeping procedures
      - Schedules
      - Procedures for testing
      - Procedures for maintaining record documents
      - Requirements for start-up
      - Inspection and acceptance of equipment put into service during construction period
      - Access, laydown and coordination with others

   d. Engineer will record minutes and distribute draft copies within 2 days after meeting to Owner and Contractor for review, then revise as required and distribute within 5 days thereafter to meeting participants, with copies to Owner and Contractor, and those affected by decisions made.

7. Progress Meetings

   a. Owner to schedule progress meetings beginning no later than 60 days after the Initial Conference and continue thereafter on a weekly, biweekly or monthly basis throughout progress of the Work as specified in the **Specific Project Requirements and Procedures**.

   b. Attendance required by Contractor, Contractor's Superintendent, major Subcontractors and Suppliers, Owner and Engineer as appropriate to agenda topics for each meeting.

   c. Agenda:

      - Review minutes of previous meetings
      - Unresolved Issues
      - Review Work progress
      - Observations, problems, and decisions
      - Identification of problems which impede planned progress
      - Review of Schedule of Submittals and status of submittals
      - Review of off-Site fabrication and delivery schedules
      - Maintenance of progress schedule
      - Corrective measures to regain projected schedules
      - Planned progress during succeeding Work period
      - Coordination of projected progress
      - Maintenance of quality and Work standards
      - Effect of proposed changes on Progress Schedule and coordination
      - Other business relating to Work

   d. Engineer will record minutes and distribute draft copies within 2 days after meeting to Owner and Contractor for review, then revise as required and distribute within 5 days thereafter to meeting participants, with copies to Owner and Contractor, and those affected by decisions made.

8. Pre-installation Conference and Coordination Meetings

   a. When required, convene a pre-installation conference at Site before commencing certain Work that requires coordination or has special requirements or approvals or convene coordination meetings as may be generally required.

   b. Attendance required by parties directly affecting, or affected by, Work of the specific Specification section. Notify Owner and Engineer 5 days in advance of pre-installation conference. Party requesting general coordination meeting to notify other party.

   c. Review conditions, preparation and procedures, and coordination with related Work.

B. Documentation of Progress

1. Submit preliminary and final Progress Schedules as specified in Paragraphs 2.05 and 2.07 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions or as established in Notice to Proceed.

   a. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.

   b. Indicate estimated percentage of completion for each item of Work at each submission.

   c. Indicate dates for fabrication, factory testing, delivery, shipping and field testing, and material and equipment delivery dates, including those furnished by Owner. Coordinate with Schedule of Submittals.

2. Submit revised Progress Schedule on monthly basis and with each Application for Payment, identifying changes since previous version. Coordinate content with Schedule of Values, if any.

3. Provide documentation of pre-construction conditions and construction progress using either or both of the following methods as specified in the **Specific Project Requirements and Procedures**.

   a. Construction Photographs

      1) Prior to starting construction, submit photographs of existing Site conditions to Owner to establish a record of pre-construction conditions. Ensure existing conditions of roadway surfaces, curbing, berms, sidewalks, driveways, property bounds, landscaped areas, abutters property and any other items that might be affected by the Work are clearly recorded.

      2) Format: electronic in PDF or JPG format with maximum 4 prints on 8-1/2 by 11 sheets.

      3) Identify photographs with date, time, orientation and Project identification.

      4) Submit photographs monthly during progress of Work with Payment Application.

b. Digital Video Recording

1) Prior to the start of construction, video record, in color, all areas of the Project Site in the presence of the Engineer to establish a record of pre-construction conditions. Ensure existing conditions of roadway surfaces, curbing, berms, sidewalks, driveways, property bounds, landscaped areas, abutters' property and any other items that might be affected by the Work are clearly recorded.

2) Arrange for video recordings to be conducted by a professional video-photographer in digital videodisc (DVD) format. Include clear and concise audio descriptions of the existing Project Site conditions.

3) Submit a copy of the first completed video recording to the Engineer for review of visual and audio quality. Once approved, submit 2 copies of video recordings. Re-record any recording furnished which, in the opinion of the Engineer, are poor quality or incomplete at no additional cost to Owner.

4. Reports

a. Submit weekly Safety Reports signed by the responsible on-Site person.

b. Submit other reports as specified in **Specific Project Requirements and Procedures**, if any.

C. Submittal Procedures

1. Schedule submittals to expedite the Project and coordinate with schedules required by Article 1.03 Paragraph B above. Deliver each submittal in the quantity indicated to Engineer (with copy to Owner where required) at the addresses specified in the **Specific Project Requirements and Procedures**. Coordinate submission of related items.

2. Present submittals in a clear and thorough manner, in English and using English units. Use sheet size of not less than 8 1/2 by 11 inches and not more than 24 by 36 inches. Provide space for Contractor, Engineer, and Owner's review stamps.

3. Revise and resubmit documents as required. Identify all changes made since previous submittal. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions. Submittals not requested on the submittal schedule may not be recognized or processed.

4. Submit preliminary and final Schedule of Submittals as specified in Article 2 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions or as established in Notice to Proceed. Include all submittals specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions, General Requirements, and other Specification sections.

   a. Include description of each submittal, date by which each submittal will be delivered to Engineer and Owner date by which each submittal must be approved to maintain project schedule, and relevant section reference.

   b. Allow 15-30 days from receipt of submittal/resubmittal for Engineer review of submittals and possible resubmittal.

5. Shop Drawings and Samples: Submit in accordance with Paragraph 6.17 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions and the **Specific Project Requirements and Procedures,** and coordinate with the Schedule of Submittals required in subparagraph 4 above. Submission of any Shop Drawing or Sample bearing Contractor's and Engineer's approval shall constitute a representation to Owner that the requirements of Paragraph 6.17 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions have been fulfilled.

   a. Complete the submittal transmittal form included as Attachment A to this Section as is indicated, numbering each submittal consecutively. Assign resubmittals the same transmittal number as the original with a suffix of a sequential letter to indicate the resubmittal (e.g. the first resubmittal of submittal 25 would be number 25A.) Include only those documents previously issued under original transmittal number in resubmittals. Do not combine new submittals with resubmittals.

   b. Attach a transmittal form to each group of Shop Drawings, manufacturer's literature, equipment data and Samples submitted. Use a sufficient number of transmittal forms so that: items on a single transmittal form pertain to the same equipment item, specification section or element of Work; items on a single transmittal form are either original submittals or the same number resubmittal; and each Sample is listed on a separate transmittal form.

   c. Engineer to complete review in accordance with Paragraph 6.17.D. of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

d. Submittals which do not have a fully completed transmittal form will be returned along with unreviewed attachments. Returned submittals, even though incomplete, will be counted as a submittal in accordance with the Supplementary Conditions.

e. Contractor shall reimburse Owner for Engineer's time beyond one re-submittal per the Standard General and Supplementary Conditions.

6. Variations: Identify variations from Contract Documents and material and equipment or system limitations which may be detrimental to successful performance of the completed Work and identify reasons therefor in accordance with subparagraph 6.17.C.3 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

   a. Clearly identify requests for "Or-Equal" and substitute items and submit per Paragraph 6.05 of Standard General and Supplementary Conditions and Additional Supplementary Conditions and Article 1.02 subparagraph C.1.b above. Substitute items will not be considered when indicated or implied on Shop Drawing or material and equipment data submittals without separate written request, or when acceptance will require revision to the Contract Documents.

7. Manufacturers' Installation Instructions and Certificates: Submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing in accordance with the **Specific Project Requirements and Procedures**. Indicate special procedures, perimeter conditions requiring special attention and special environmental criteria required for application or installation.

   a. Submit manufacturers' certificates for recent or previous test results on material or equipment, but they must be acceptable to Engineer and Owner. Indicate material or equipment conforms to or exceeds specified requirements and provide supporting reference date, affidavits, and certifications as appropriate.

   b. Submit test results, data, and reports and certifications to Engineer based on tests performed. Submit test reports and certifications for independent testing services specified.

8. Record Documents and Closeout Submittals: submit in accordance with Paragraph 6.12 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions and Article 1.03 Paragraph D below.

   a. *As-Builts for Material and Equipment*: Submit as specified in the **Specific Project Requirements and Procedures**. Indicate "As-Supplied" in revision block and sign. Show all changes and revisions to Final Completion per Article 3.05 Paragraph D.

b. *Conformed to Construction Record Drawings*: Submit as specified in the **Specific Project Requirements and Procedures**. Indicate "Conformed by Contractor to Construction Records" in revision block and sign. Show all changes and revisions to Final Completion per Article 3.05 Paragraph D.

c. *Warranties and Guarantees*: Submit duplicate notarized copies of warranty documents which are executed and transferable from Subcontractors, Suppliers, and manufacturers. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of Warranty Period. Assemble in three ring binders with durable plastic cover with a table of contents.

d. *Operation and Maintenance Data*

1) Submit one draft copy of completed volumes 15 days prior to final inspection. Include 2 copies of completed manuals with major equipment when equipment is shipped. Draft copies will be reviewed and returned after final inspection, with Engineer's comments. Revise content of all sets as required prior to final submission as specified in the **Specific Project Requirements and Procedures**.

2) Submit data in ring binders with durable plastic covers with 8 1/2 by 11 inch text pages. Cover: title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of Project, and subject matter of binder when multiple binders are required.

3) Subdivide binder contents with permanent page dividers, logically organized as described below with laminated plastic tabs and clearly print the contents. Prepare a Table of Contents for each volume, with material, equipment, or system description identified, in three parts as follows:

**Part 1**: Directory, listing names, addresses, and telephone numbers of Contractor, Subcontractors, and major equipment Suppliers, and service representative.

**Part 2**: Operation and maintenance instructions arranged by system and subdivided by Specification section.

For each system, identify names, addresses, and telephone numbers of Subcontractors and Suppliers. Identify the following:

- Significant design criteria
- List of equipment with As-Builts certified "As-Supplied"
- Parts list for each component
- Operating instructions
- Inspection, maintenance and adjustment instructions for equipment and systems
- Lubrication and maintenance schedules
- Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents
- Troubleshooting guides
- Schematic diagrams

**Part 3**: Material Safety Data Sheets

**Part 4**: Other Project documents and certificates, including the following:

- Certificates
- Photocopies of warranties

D. Closeout Procedures

1. Substantial Completion shall have been achieved when the following has been completed and the requirements of Paragraph 14.04 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions have been met.

   a. Work is complete, systems are successfully operating, and final testing has been successfully completed.

   b. A full inventory of the spare parts and special tools purchased by the Owner are replenished and in the custody of the Owner.

   c. The Site has been restored to the satisfaction of the Owner.

   d. An inspection of the Work has been completed by the Engineer and the Owner.

   e. An updated Punch List is provided.

f. The Contractor's written warranty and guarantee has been submitted as required by Paragraph 16.19.D of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

g. A Certificate of Substantial Completion has been provided in accordance with Paragraph 14.04.C. of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

2. The Contractor shall have sole care, custody, and control of the Work until achievement of Substantial Completion. During the period between Substantial Completion and the date for Final Completion, Contractor shall be given access to correct items on the Punch List and achieve Final Completion.

3. The date of achieving Substantial Completion is the date set forth in the Certificate of Substantial Completion that is accepted and signed by the Owner.

4. Final Completion shall have been achieved when the Work is complete, when the following is complete, and the requirements of Paragraphs 14.06 and 14.07 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions have been met.

   a. Substantial Completion has been achieved and liquidated damages for failure to meet Substantial Completion Date have been paid.

   b. All Work including Punch List Items has been completed.

   c. Final cleaning has been conducted and Contractor equipment and supplies including waste materials have been removed from the Site and legally disposed of.

   d. A full set of record documents have been submitted as specified in Article 1.03 subparagraph C.8 above and Contractor's written warranty and guarantee has been resubmitted if adjusted.

   e. Inspections required by Laws and Regulations are complete. Certificates and permits to occupy and operate have been issued if required.

   f. Spare parts, maintenance and extra materials have been delivered in quantities specified to Project Site and stored as directed.

   g. A request for final inspection in accordance with Paragraph 14.06 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions has been submitted to the Engineer and the inspection has been completed and the results accepted by the Owner.

h. A Certificate of Completion has been provided in accordance with Paragraph 14.07.B of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

i. A Final Application for Payment has been submitted to the Engineer identifying total adjusted Contract Price, previous payments, and balance due along with required documentation in accordance with Paragraph 14.07.A. of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

5. Owner will make Final payment and acceptance in accordance with Paragraphs 14.07 C and 14.08 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

## 1.04 QUALITY REQUIREMENTS

A. Reference Standards and Regulatory Requirements

1. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or Laws or Regulations of any governmental authority are used in accordance with Paragraph 3.02 of the Standard General and Supplementary Conditions.

2. Acronyms and abbreviations used are defined in the applicable versions of the Encyclopedia of Associations published by Gale (part of Cengage Learning) generally available in large libraries and on the internet.

B. Qualifications

1. Meet or provide capability to meet the criteria specified in connection with the Work of the Contract Documents.

2. As a minimum, Contractor shall:

a. have been regularly and actively engaged in similar Work as described in the Contract Documents, operating under the same business name and business organization structure, for the last 5 years on at least 5 projects;

b. have successfully completed at least 3 projects involving construction of similar facilities in the same state as the Project covered by the Contract Documents;

c. have a full-time project manager in responsible charge of the Work with at least 10 years' experience as project manager on comparable projects; and

d. carry at least the insurance coverage and amounts required in Article 5 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

## PART 2 – PRODUCTS

### 2.01 SOURCE QUALITY CONTROL

A. General

1. Subject material and equipment furnished under these Contract Documents to a complete factory testing program as specified.

2. Shop Drawings and submittals: reviewed by Engineer before initiating testing program.

3. Perform checks and tests in accordance with manufacturer's recommendations and referenced standards.

4. Evaluate test results and advise Owner immediately of any discrepancy between test results and test limits or the failure of any device or system under test. Include test limits for acceptability applicable to each test on the certified test records.

5. Record test information, including the evaluation of testing results, on forms approved by Owner and Engineer.

B. Independent Testing Agency Certification

1. If specified, furnish certificates from an independent testing agency.

2. Independent testing agency to certify that material and equipment components have been examined and tested and are in conformance with the requirements specified in the Contract Documents.

3. Take Samples in accordance with the requirements specified in the Contract Documents, as selected by Owner or independent testing agency. Furnish and ship at no additional cost to Owner.

C. Factory Testing

1. Provide 14 days prior written notice of factory inspections and tests to Owner and Engineer.

2. If failure to give proper written notice results in material and equipment being assembled or covered before a factory inspection or test, make material and equipment ready for inspection or test and reassemble or recover at no additional cost to Owner.

3. Owner may inspect any portion of material and equipment furnished at any reasonable time during manufacture and may witness testing of any portion of material and equipment wherever located. Owner and Engineer to witness tests only.

4. Furnish, set up and operate test equipment and facilities.

5. If facilities for conducting required tests are unavailable to the manufacturer, conduct tests elsewhere or have them performed by an independent agency approved by Owner.

6. Protect material and equipment after testing and checking to provide that subsequent testing of other equipment or systems does not disturb, damage or otherwise interfere with functional capability of material and equipment.

7. Assume responsibility for protection of material and equipment and safety of all personnel during factory testing program.

8. Grounds for rejection: failure to withstand tests; failure to meet ratings; failure to meet applicable standards.

9. In the event of failure

   a. Submit revisions of documents requiring approval for changes required for rectification.

   b. Obtain Owner's and Engineer's approval before making such changes.

   c. Provide written details of any changes to be made not requiring approval.

   d. Notify Owner and Engineer in writing before retesting.

   e. Furnish new material and equipment which meets requirements of the Specifications if rejected material and equipment cannot be rectified to satisfaction of Owner and Engineer.

   f. Retest after rectification in presence of Owner or Engineer.

10. Assume responsibility for all costs, including, but not limited to: loss or damage to materials and equipment resulting from testing; retesting; rectification; new material and equipment to replace damaged or non-rectifiable material and equipment; removal, furnishing, transportation, unloading, and installation of replacement material and equipment; and witness of testing by Owner and Engineer including travel, lodging, meals, and payroll.

11. Submit certified test reports which define tests, list results, and are signed by Contractor's representative, and copies of raw data collected during tests in accordance with Article 1.03 Paragraph C above. Submission of certified test reports does not relieve Contractor of responsibility for material and equipment meeting requirements of the Contract Documents after installation.

## 2.02 PRODUCT REQUIREMENTS

A. General

1. Products include new material and equipment incorporated into the Work and may also include existing material and equipment required for reuse. This does not include machinery and equipment used for preparation, fabrication, conveying, installation and erection of the Work.

2. Do not use materials and equipment removed from existing Work Site, except as specifically permitted.

3. Provide complete with accessories, trim, finished, safety guards, and other devices and details need for a complete installation and for the intended use or effect.

4. Provide standard products which have been produced and used successfully on other similar projects for similar applications. Provide products which are likely to be available to Owner in the future for items required for maintenance and repair or replacement Work.

5. Furnish interchangeable components of the same manufacturer, for similar components.

B. Transportation and Handling

1. Transport and handle material and equipment in accordance with manufacturer's instructions.

2. Notify Engineer and Owner in writing upon acceptance of a shipment.

3. Promptly inspect shipments to assure that material and equipment comply with requirements, quantities are correct, and material and equipment are undamaged.

4. Furnish equipment and personnel to handle material and equipment by methods to prevent soiling, disfigurement, or damage.

5. Uncrate equipment and dispose of packing material properly.

C. Storage and Protection

1. Store and protect material and equipment in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive material and equipment in weather tight, climate controlled enclosures.

2. For exterior storage of fabricated material and equipment, place on sloped supports, above ground.

3. Provide for bonded off Site storage and protection when Site does not permit on Site storage or protection.

4. Cover material and equipment subject to deterioration with impervious sheet covering. Furnish ventilation to avoid condensation or potential degradation of material and equipment.

5. Store loose granular materials on solid flat surfaces in a well-drained area. Avoid mixing with foreign matter.

6. Furnish equipment and personnel to store material and equipment by methods to prevent soiling, disfigurement, or damage.

7. Arrange storage of material and equipment to permit access for inspection. Periodically inspect to assure material and equipment are undamaged and are maintained in acceptable conditions.

8. After receipt of material and equipment, assume responsibility for loss and damage including but not limited to breakage, corrosion, weather damage, and distortion.

## PART 3 – EXECUTION

## 3.01 TEMPORARY CONSTRUCTION FACILITIES

A. Barriers

1. Comply with the requirements of Paragraph 6.11. of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

2. Furnish barriers to prevent unauthorized entry to and clear delineation of construction areas, to allow for Owner's use of Site, and to protect existing facilities and adjacent properties from damage from construction operations as recommended by OSHA and as otherwise required for the protection of life and property during construction.

3. Construct barricades and protective facilities in accordance with local and state regulations. Furnish and install signs, lights, reflectors, and such protection facilities as may be required.

4. Furnish barricades required by governing authorities for public rights of way.

5. Provide protection for plant life designated to remain. Replace damaged plant life.

6. Protect non owned vehicular traffic, stored materials, Site and structures from damage.

7. If required, furnish commercial grade, minimum 8 foot high chain link fence around construction Site. Equip with vehicular gates with locks.

B. Protection of Work

1. Protect Work during working and non-working hours.

2. Provide special protection where specified in Specifications or Drawings and in accordance with manufacturer recommendations.

3. Furnish temporary and removable protection for installed equipment and material. Control activity in immediate Work area to minimize damage.

4. Protect exterior areas of Work from damage. Prohibit traffic from landscaped areas.

5. Buildings and Enclosures

   a. Furnish protective coverings at walls, projections, jambs, sills, and soffits of openings and protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

   b. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

6. Whenever gale or high winds are forecast, take measures to secure loose material, equipment or other items that could be blown and be damaged or cause damage. Do not leave such loose items unsecured at end of a working day. Particular attention shall be taken with scaffolding and items placed or stored on roofs or within a structure prior to being enclosed.

7. Provide for removal of snow and ice which may impede Work, damage the finishes or materials, be detrimental to workers, or impede trucking, delivery, or moving of materials at the Site, or prevent adequate drainage of the Site or adjoining areas.

C. Security

1. Provide protection to stored items, the Work and Owner's operations from unauthorized entry, vandalism, or theft, and against fire, storms and other losses during working and non-working hours.

2. Coordinate with Owner's security program.

D. Safety Facilities

1. Provide first aid and other safety facilities required by Laws and Regulations during working and non-working hours.

E. Access Roads

1. Construct and maintain temporary roads accessing public thoroughfares to serve construction area. Control dust and water.

2. Extend and relocate as Work progress requires. Provide detours necessary for unimpeded traffic flow.

3. Provide for emergency access and maintain throughout the Work Site.

F. Parking

1. Construct temporary gravel surface parking areas to accommodate construction personnel. When Site space is inadequate, provide for off-Site parking.

2. Do not allow construction vehicle parking on existing pavement or sidewalks.

G. Field Offices

1. Furnish weather tight office with lighting, electrical outlets, heating, cooling and ventilating equipment, and equip with furnishings and accessories to accommodate supervision of Work, maintenance of records, and project meetings, including, but not limited to the following.

- Desk and chairs (2 cushioned office desk chairs and 4 metal fold chairs)
- Plan table with light and stool
- 3 locking file cabinets
- Hanging plan rack
- Book case with 4 shelves
- "All-in-one" color copier, printer, scanner and fax machine, capable of 11 by 17 output (OR separate color copier, color printer, color scanner, all capable of 11 by 17 output, and fax machine)
- Paper stock for duration of Project
- Telephone with answering machine (or telephone service with voicemail feature)
- Refrigerator, microwave, and water cooler with bottled water supply for duration of Project
- First aid kit

2. Furnish separate office for use by Engineer and Resident Project Representative similarly equipped with new equipment and furniture.

3. Locate field offices as specified in **Specific Project Requirements and Procedures** or as shown on the Drawings and maintain utilities per Article 3.02 for the duration of the Project.

H. Staging Area: Locate as specified in **Specific Project Requirements and Procedures** or as shown on the Drawings.

I. Project Identification: If required by Laws and Regulations or Owner, furnish signs with required Project information at designated locations in accordance with Laws and Regulations and as may be specified in **Specific Project Requirements and Procedures**.

J. Progress Cleaning and Waste Removal

1. Comply with the requirements of Paragraph 6.11. B and C of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

2. Maintain areas free of waste materials, debris, and rubbish and maintain the Site in a clean and orderly condition.

3. Remove debris and rubbish from spaces and other closed or remote spaces before enclosing the space.

4. Collect and remove waste materials, debris, and rubbish from Site at least weekly and legally dispose off-Site.

## 3.02 TEMPORARY UTILITIES

A. Arrange for and pay for required power service from local electric utility for duration of Project. Exercise measures to conserve energy. Arrange for temporary electric service at location designated by Owner or as shown on the Drawings. Furnish and install required equipment including pole of sufficient height to provide proper clearance and install weatherproof box of such size to house service disconnect, overcurrent protection, electric meter, and other required equipment.

B. Arrange for, pay for, and maintain telephone service and internet access to field offices at time of Project mobilization and for duration of Project.

1. Obtain voicemail feature if answering machine not provided.

2. Provide wireless, high speed broadband internet access via DSL, cable, satellite, or T1.

C. Arrange for, pay for and maintain suitable quality water service as required for duration of Project.

D. Furnish lighting for construction operations. Furnish lighting for exterior staging and storage areas and for security purposes. Maintain lighting and provide routine repairs.

E. Furnish and pay for heat devices and heat and cooling devices as required to maintain specified conditions for construction operations.

F. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

G. Furnish and maintain required sanitary facilities and enclosures. Do not use existing facilities.

H. Fire Protection

1. Provide temporary fire protection equipment and services during construction until the permanent system is serviceable per NFPA and local fire code and regulations, and fire marshal's requirements.

2. Use Work procedures that minimize fire hazards to the extent practicable and materials that are fire resistant where possible. Collect and remove combustible debris and waste materials from the Site each day. Store fuels, solvents, and other volatile or flammable materials away from the construction and storage areas in well-marked, safe containers in accordance with Laws and Regulations.

## 3.03 TEMPORARY CONTROLS

A. Dust Control: Execute Work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere. Utilize the application of sprinkled water to reduce the emission of air-borne soil particulates from the Project Site.

B. Water Control and Dewatering

1. Grade Site to drain away from excavations to approved drainage collection facilities. Ensure collected surface drainage water meets permitted criteria for sediment content prior to discharge.

2. Maintain excavations free of water. Furnish, operate and maintain pumping equipment.

3. Dewater excavations and legally dispose of water in a manner that will not cause injury to public and private property.

4. Protect Site from puddling, ponding or running water.

5. Design, furnish, install, maintain, operate and remove temporary dewatering systems as required to lower and control water levels and hydrostatic pressures in excavations during construction; legally dispose of pumped water; construct, maintain, observe and, except where indicated or required to remain in place, remove dewatering equipment and system at the completion of construction.

a. Dewatering may include: lowering the water table, intercepting and collecting seepage which may penetrate the support of excavation, slopes or bottom of the excavation; increasing the stability of excavated slopes; preventing loss of material from beneath the slopes or bottom of the excavation; reducing lateral loads on sheeting and bracing; limiting horizontal displacements and stresses in support of excavation to tolerable and allowable levels; preventing displacements of existing structures, utilities, pavements, and sidewalks; improving the excavation and hauling characteristics of sandy soil; preventing rupture or heaving of the bottom of any excavation; and disposing of pumped water.

b. *Normal dewatering* is defined as using conventional pumps installed in open excavations, ditches, or sumps to control water and allow for installation of the pipe in a dry trench. *Special dewatering* is defined as installing wellpoints, deep wells, or eductor and ejector systems to control groundwater and hydrostatic pressures to allow for installation of the work. Special dewatering includes design of the dewatering system by a Professional Engineer currently registered in the state where the Project is

located in good standing, and conducting additional borings or subsurface explorations deemed necessaryby the Contractor, and approved by the Engineer, to support design.

c. For Special Dewatering, retain the services of a Professional Engineer currently registered in the state where the Project is located in good standing, experienced in design of dewatering systems, to independently evaluate the boring logs and other soils information available to determine those areas that will require special dewatering techniques and to design the required system. If, in the opinion of the Contractor or Contractor's Dewatering Professional Engineer, additional borings are needed to design special dewatering systems or determine areas where special dewatering techniques will be required, the Contractor shall retain and pay for the services of a boring subcontractor. Contractor's Dewatering Professional Engineer shall provide sufficient on-Site inspection and supervision to assure that the dewatering is carried out in accordance with the approved design.

d. Design a dewatering system capable of:

1) effectively reducing the hydrostatic pressure and lowering the groundwater levels to a minimum of 2 feet below excavation subgrade in the existing fills and any organic peat, and below the excavation subgrade in the existing organic silts/clays unless otherwise directed by the Engineer, so that all excavation bottoms are firm and dry;

2) maintaining a dry and stable subgrade until the structures, pipes, appurtenances, and drainage pipe and structure bedding to be built therein have been completed to the extent that structures, pipes, and appurtenances will not be floated or otherwise damaged;

3) lowering of the groundwater level within the work area without adversely affecting existing structures, utilities, pavements, sidewalks or wells outside of the Work area.

e. Submit the following in accordance with Article 1.03 Paragraph C above.

1) Plans and description of the Normal and/or Special Dewatering systems, including the number, location and depth of wells, wellpoints or sumps; designs of filters to prevent pumping of fine soil; method and location for filtering, sedimentation tanks and legal disposal of pumped water; and flow capacity of proposed system, accounting for groundwater level relative to tide cycles if applicable.

2) Design calculations, description and complete layout drawings, stamped and signed by Contractor's Dewatering Professional Engineer, at least two weeks prior to scheduled installation of Special Dewatering system

3) Locations of observation wells

4) Records of pump operation and groundwater elevations

6. Dewatering Operations and Procedures

a. Provide electrically operated dewatering equipment, powered with independent generators adequately sized to operate the dewatering system and capable of running on commercial power. Provide standby equipment independent of commercial power and provide for dewatering within 24 hours upon primary pump or power failure. No work shall be performed by the Contractor below the pre-construction groundwater level during dewatering system failure.

b. Provide suitable temporary pipes, flumes or channels for water that may flow along or across the Site of the Work.

c. Provide dewatering equipment with noise attenuation systems capable of meeting the governing noise regulation requirements.

d. Encapsulate the suction end of the pump with crushed stone, filter fabric, and other materials to minimize the amount of silt discharged to the amount allowed by the construction dewatering permit.

e. Do not operate equipment on paved surfaces to prevent damaging these surfaces.

f. Locate dewatering facilities to prevent interference with utilities and construction work to be done by others.

g. For dewatering operations with relatively minor flows, direct pump discharges using filtration bag or system per Erosion and Sediment Control below, or pump into hay bale sedimentation traps lined with filter fabric. Filter water through the hay bales and filter fabric prior to seepage into storm drainage or any natural water course.

h. For dewatering operations with larger flows, provide pump discharges into a steel dewatering/sedimentation basin. Use steel baffle plates to slow water velocities, to increase the contact time, and allow adequate settlement of sediment prior to discharge into waterways, storm drainage or discharge point allowed by the construction dewatering permit.

i. Utilize silt sacks in catch basins when excess silt is suspended in the discharge water per Erosion and Sediment Control below.

j. If siltation basin is used, size to effectively filter for the volume and discharge rate of water anticipated without overflow.

k. Provide treatment necessary to prevent discharge of silty and/or contaminated ground water caused by the Contractor's operations, or any contaminated ground water that may pass from excavated surfaces and/or through the excavation support system selected by the Contractor.

l. Dispose of water pumped or drained from the Work in accordance with permit requirements and in a manner to prevent undue interference with other work or damage to adjacent properties, pavements and other surfaces, buildings, structures and utilities.

m. Obtain necessary regulatory approvals for the disposal of dewatering flows, including, among others, approval by the Environmental Protection Agency under the National Pollutant Discharge Elimination System (NPDES) program for construction dewatering activities. Submit the completed and approved construction dewatering permit to the Engineer immediately upon receipt.

7. Special Dewatering

a. Use Special Dewatering as necessary if Normal Dewatering methods are inadequate to ensure dry and stable excavation subgrade conditions.

b. Special Dewatering techniques may consist of one- or two-stage wellpoint systems, deep wells, or eductor and ejector type systems. Design with suitable screens to prevent pumping of fines and to address specified Work Site conditions.

c. In areas requiring special dewatering, lower the groundwater level to a minimum of 2 feet below the existing fill and/or organic peat subgrades or to the excavation subgrade for organic silt/clay subgrades prior to any installation and maintain that groundwater level until the excavation has been backfilled and provide monitoring by Contractor's Dewatering Professional Engineer to ensure conformance with the requirements herein.

d. Furnish materials and install at least two observation wells at each excavation area. The location of the wells shall be proposed in the field by the Contractor's Dewatering Professional Engineer and reviewed and approved by the Engineer.

C. Erosion and Sediment Control

1. Plan and execute construction using methods to control surface drainage from cuts and fills, from borrow and waste disposal areas and prevent erosion and sedimentation.

2. Submit erosion and sediment control plan to Engineer prior to the start of construction.

3. Install erosion and sediment controls as may be shown on the Drawings and as required by Laws and Regulations. Install additional erosion and sedimentation control measures beyond those shown on the Drawings as necessary to stabilize the Site. Coordinate temporary erosion controls with permanent erosion controls to the extent practical. Provide and maintain devices to control erosion, siltation, and sedimentation that occur during construction operations. Undertake reasonable precautions and measures to avoid erosion of soil and to prevent silting of drainage ditches, storm sewers, rivers, streams, and lakes.

4. Employ pollution prevention measures, erosion and sedimentation control before, during, and after soils are exposed. Implement measures prior to soil disturbance or soil storage to the extent possible to ensure that such measures are in place before activity occurs and employ additional measures as the Work progresses. Implement and maintain as necessary until the Site is permanently stabilized.

5. Perform inspections of disturbed soil areas, material storage areas exposed to precipitation, and erosion control measures with Engineer a minimum of once every 14 days and also within 24 hours after any storm event greater than 0.5-inches of rainfall. Immediately correct deficiencies in the erosion control measures identified or indicated by failures or erosion by implementing additional measures or different techniques to correct and prevent subsequent erosion at no additional cost to Owner.

6. In the event that silt or debris breaches erosion control, immediately remove and clean silt or debris from drainage ditches and storm sewers and revise erosion control measures as required by the Conservation Commission or the Engineer. Should silt or debris breach erosion controls and reach rivers, streams or lakes, immediately notify local, state or Federal representatives as required and implement required remediation methods at no additional cost to Owner.

7. Limit duration of the exposure of soils on embankments, excavations, and graded areas to a minimum.

8. Provide temporary measures such as berms, dikes and drains to prevent water flow. Install erosion control measures in any ditch, swale or channel before water is allowed to flow in the waterway. Handle water pumped from trenches to minimize discharge of silty water to the maximum extent practicable.

9. Stabilize storm drain outfalls as shown on the Drawings before the discharge points become operational. Install inlet protection immediately upon construction of culverts.

10. Stabilize disturbed areas with temporary and permanent erosion control practices as soon as practicable, but no more than 14 days after construction activity on a particular portion of the Site has temporarily or permanently ceased. Exceptions to this time requirement include: a) where construction activities will resume on the particular portion of the Site within 21 days; and b) where snow cover delays initiation of stabilization measures.

11. Place stockpiled topsoil on the Site away from natural drainages, in piles with side slopes of 50 percent to 70 percent. Install siltation fence around the base of the pile to prevent eroding soil from washing into drainages. Cover topsoil piles which are to remain for a period of 21 days or more with temporary seed and mulch immediately following stockpiling.

12. Conduct pavement sweeping to remove sediment and soil debris accumulation on pavement resulting from construction activity

13. Siltation/Silt Fence

    a. Filter fabric: suitable for erosion control.

    b. Wood posts: oak, 2 inches by 2 inches in section, and at least 4.5 feet in length.

    c. Erosion control fencing: heavy-duty filter fabric towed into the existing soil as shown on the Drawings.

    d. Construct as shown on Drawings or as directed by Engineer. Install parallel to contours where possible, prior to Site clearing and grading activities.

        1) Dig a 6 inch by 6 inch minimum trench where the fence is to be installed. Position the fence in the trench with the fence posts set at 8 feet on center (maximum). Curve ends of fence uphill to prevent flow around ends.

2) Staple sedimentation control fabric and the industrial netting to each post. When joints are necessary, splice filter fabric together only at support posts with 6-inch overlap and securely seal.

3) Bury lower edge of fabric at least 6 inches below ground surface to prevent underflow. Backfill trench and compact soil over filter fabric.

4) Installed height: minimum 2.5 feet and 36 inches maximum.

5) Inspect frequently; repair or replace any damaged sections.

14. Temporary Erosion Control Matting

a. Rolled matting blanket consisting of curled wood excelsior, coconut fiber, straw or paper bound with a weave of twisted craft paper, cotton cord or plastic mesh.

b. Provide staples for fastening matting to the ground. Staples: fabricated in a "U" shape from 11 gage or heavier stiff steel wire, 6 to 12 inches in length and 1 to 2 inches across.

c. Surface Preparation and Installation

1) Conform to grades and cross sections for slopes and ditches shown on the Drawings. Finish to a smooth and even condition with all debris, roots, stones, and lumps raked out and removed. Loosen soil surface to permit bedding of the matting.

2) Unless otherwise directed, apply seed prior to placement. When directed, spread additional seed over matting, particularly at those locations disturbed by building slots. Press matting onto the ground with a light lawn roller or by other similar means.

3) Bury edges of matting around the edges of catch basins and other structures.

15. Seeding

a. Select seed variety and applied rates based upon the date of application per the following table. Equivalent seed mixture based on suitability for use in controlling erosion of the various soil types and slopes may be used as approved by the Engineer.

| Dates | Seed | Applied Rate (pounds per 1,000 feet$^2$) |
|---|---|---|
| 4/1 to 7/1<br>8/15 to 9/15 | Oats | 1.8 |
| 4/1 to 7/1 | Annual Ryegrass | 0.9 |
| 5/15 to 8/15 | Sundangrass | 0.9 |
| 9/15 to 10/15 | Winter Ryegrass | 2.6 |

1) Sow seed at the rates indicated, on the pure live seed basis.

2) Mulch areas where temporary seeding has been applied. Do not mulch seeded areas where matting will be immediately installed. If temporary seeding does not achieve adequate growth by November 1, apply an additional layer of mulch.

3) Mulch temporarily or permanently seeded areas, areas which cannot be seeded within the recommended seeding dates, and any soil stockpile areas, immediately following seeding. Straw or hay mulch, wood fiber mulch, and hydromulch are recommended.

16. Sod: grown from certified seed of adapted varieties to produce high quality sod free of any serious thatch, weeds, insects, diseases and other pest problem, be at least one year old and not older than three years, and cut with a 1/2 inch to 1 inch layer of soil.

    a. Lay sod strips on the prepared soil, perpendicular to the slope or direction of water flow, starting at the lowest elevation. Butt the edges and ends of the sod strips together and tamp or roll. Stagger joints.

    b. Staple sod strips at ends and at 3-foot intervals along the center of the strip.

    c. Irrigate sodded area immediately after installation.

17. Catch Basin Silt Sacks

    a. Style: Silt Sack Regular Flow.

    b. Test Method: ASTM D-4884 165.0 lbs./inch.

    c. Silt sack seams: certified average wide width strength.

    d. Meet the following ASTM D-4884 standards. Properties are Minimum Average Roll Values (MARV).

| Property | Test Method | Units | Test Results |
|---|---|---|---|
| Grab Tensile | ASTM D-4632 | lbs. | 315x300 |
| Grab Elongation | ASTM D-4632 | % | 15x15 |
| Puncture | ASTM D-4833 | lbs. | 125 |
| Mullen Burst | ASTM D-3786 | psi | 650 |
| Trapezoid Tear | ASTM D-4533 | lbs | 120x150 |
| UV Resistance | ASTM D-4355 | % | 90 |
| Apparent Opening | ASTM D-4751 | US Sieve | 40 |
| Flow Rate | ASTM D-4491 | gal/min/ft $^2$ | 40 |
| Permittivity | ASTM D-4491 | sec -1 | 0.55 |

1) Utilize silt sacks in catch basins as required when excess silt is suspended in discharge water.

18. Filtration Bag or System for Discharge from Trench Dewatering

a. Meet the following standards. Properties are Minimum Average Roll Values (MARV).

| Property | Test Method | Units | Test Results |
|---|---|---|---|
| Flow Rate | ASTM D-4491 | gal/min/ft $^2$ | 40 |
| Permittivity | ASTM D-4491 | sec -1 | 0.55 |

b. For discharge from trench dewatering, install filtration bag or system or dewatering siltation basin constructed of a hay bale barrier lined with filter fabric sized to handle the volume of dewatering without overflowing.

19. Compost Filter Socks

a. Furnish and install biodegradable mesh "socks" filled with mature, clean compost per EPA National Pollutant Discharge Elimination System (NPDES) specifications.

1) Install per EPA and manufacturers recommendations.

2) Install parallel to contours where possible. Stake socks as needed to stabilize. Inspect frequently and repair as necessary.

20. Provide detention basins or water filtration systems for dewatering and coordinate locations with Engineer. See Dewatering in Article 3.03 Paragraph B. above.

21. Other Temporary Measures

    a. Provide and maintain temporary slope drains as required.

    b. Employ other temporary erosion control measures as directed by the Engineer or local Conservation Commission.

22. Maintenance

    a. Inspect erosion control practices immediately after each rainfall and at least daily during prolonged rainfall or snowmelt for damage. Make appropriate repairs or replacement until Final Completion at no additional cost to the Owner.

    b. Remove silt from siltation fence and/or haybale when it has reached one-quarter of the bale and/or fence height, or prior to expected heavy runoff or siltation.

    c. Repair matting if any staples become loosened or raised, or if any matting becomes loose, torn, or undermined, make satisfactory repairs immediately.

    d. Maintain areas mulched or matted until Final Completion, at no additional cost to the Owner.

    e. Maintain sediment basins by removing silt that reaches a depth of over one foot, at no additional cost to the Owner, until Final Completion.

23. Removal of Temporary Erosion Control

    a. Remove temporary materials and devices upon completion of the Work when permanent soil stabilization has been achieved. Re-use materials in good condition if approved by Engineer.

        1) If silt socks are used, remove in paved areas or cut open and disperse media in unpaved areas.

    b. Level and grade to preconstruction conditions and to the extent required to prevent any obstruction of the flow of water or any other interference with the operation of or access to the permanent works.

    c. Remove siltation fences only when adequate grass growth has been established.

    d. Repair areas damaged by silt fences and hay bales to preconstruction conditions to the satisfaction of the local Conservation Commission and the Engineer.

    e. Remove unsuitable materials from Site and dispose of in a lawful manner.

D. Noise Control

1. Provide methods, means, and facilities to minimize noise from construction operations.

2. Provide noise attenuation systems capable of meeting the Department of Environmental Protection Division of Air Quality Control regulations governed by the following policy:

*"A source of sound will be considered to be violating the Department's noise regulation (310 CMR 7.10) if the source:*

- *Increases the broadband sound level by more than 10 dB(A) above ambient, or*
- *Produces a "pure tone" condition when any octave band center frequency sound pressure level exceeds the two adjacent center frequency sound pressure levels by 3 decibels or more.*

*"These criteria are measured both at the property line and at the nearest inhabited residence. Ambient is defined as the background A-weighted sound level that is exceeded 90% of the time measured during equipment operating hours. The ambient may also be established by other means with the consent of the Department."*

3. Construct sound enclosures or utilize other noise reduction techniques if the equipment does not meet the noise level requirements.

E. Pollution Control

1. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

a. Water Pollution Control

1) Assure that sediment, debris, petroleums, chemicals, or other contaminants will not enter existing drainage facilities and channels. Use construction methods that will prevent entrance of pollutants and wastes into existing streams, rivers, lakes, and flowing and dry watercourses.

2) Obtain legal disposal sites and dispose of pollutants and wastes in a legal manner.

3) Respond immediately to emergencies as directed when water quality of existing streams, rivers, lakes and flowing and dry watercourses is threatened. Take corrective action to remove or contain pollutants until a permanent solution is determined.

b. Air Pollution Control

1) Equipment and vehicles that exhibit excessive exhausts emissions due to poor engine adjustments or inefficient operation will not be permitted to operate until corrective repairs or adjustments are made.

2) Burning of materials from clearing or grubbing operations, combustible construction materials, and rubbish will not be allowed.

F. Traffic Regulation

1. Control and maintain traffic within the Project area. Submit traffic control plans and coordinate with Owner and local agencies. Submit plan for traffic control to Owner for review 14 days in advance of any Work within public right-of-way, street closure or detour.

2. Provide and maintain traffic control and maintenance devices in accordance with Part 6, Temporary Traffic Control, of the "*Manual on Uniform Traffic Control Devices for Streets and Highways*", published by the U.S. Department of Transportation, Federal Highway Administration and other applicable codes and standards as specified. Operate devices 24 hours per day as required.

3. Provide for access by emergency vehicles, such as police, fire, and disaster units at all times. Contractor shall be liable for damages resulting from failure to provide such access.

4. During construction hours, traffic flow must be controlled by uniformed traffic police officers. The services of uniformed traffic police officers shall in no way relieve the Contractor of its responsibilities under the Contract.

5. Maintain minimum of one moving lane on roadways at all times.

a. Where detours are permitted, provide necessary barricades, flashers, flashing arrows and signs in accordance with referenced Manuals and Laws and Regulations.

b. Provide gravel borrow and bituminous concrete to maintain temporary passable travel lane ramps, temporary bridging, steel plates, temporary pavement, wood-framed walkways, caution, safety and other necessary signs directing the pedestrian and vehicular traffic towards unblocked and safe areas.

6. Provide safe access/egress to businesses and abutting property owners within the Project area. In areas where the construction activity is in progress, install directional signs in front of businesses indicating "OPEN FOR BUSINESS" or similar for guidance of customers.

   a. Certain construction operations such as utility work and roadway/sidewalk reconstruction may restrict access/egress on some roads and to businesses and abutting property owners. Under these circumstances, schedule operations during off-peak hours or late evenings with Owner approval so that a particular work activity can be completed in the shortest possible time.

   b. Provide 48 hours notice to businesses and abutting property owners when access/egress will not be available or restrictions will exist.

7. Exercise particular care to establish and maintain such methods and procedures that will not create hazards.

   a. Remove or properly cover traffic control, safety devices and/or signs having messages that are irrelevant to normal traffic conditions at the end of each Work period. Keep signs clean at all times and provide that legends are distinctive and unmarred.

   b. Place excavated material and construction equipment so that vehicular and pedestrian traffic is maintained at all times unless road closure permit is obtained. If the Contractor's operations cause traffic hazards, implement appropriate safety measures immediately.

   c. In areas of high pedestrian and vehicular traffic volume, the remove waste materials and construction equipment from the Work Site on a daily basis. Do not park construction equipment overnight on the Site or the adjacent roads unless permitted by Owner.

   d. Provide night watchmen where special hazards exist.

8. Post signage clearly stating that any vehicle impeding the progress of construction will be towed at the vehicle owner's expense. Towing charges incurred by Owner for Contractor's failure to post such signs will be borne by the Contractor.

## 3.04 REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, and facilities before Final Application for Payment inspection.

B. Remove temporary underground installations and grade Site as indicated. Clean and repair damage caused by installation or use of temporary utilities, facilities, and controls.

C. Restore existing facilities and areas used during construction to original condition. Restore permanent facilities used during construction to specified condition.

## 3.05 OVERALL EXECUTION REQUIREMENTS

A. Coordination

1. Conduct preconstruction and pre-installation meetings before commencing certain Work that requires coordination or has special requirements or approvals in accordance with Article 1.03 Paragraph A.

2. Coordinate space requirements and installation of Work. Utilize spaces efficiently to maximize accessibility for other installations, maintenance, and repairs.

3. Coordinate Work of the various Specifications with interdependent responsibilities for installing, connecting to, and placing in service, operating equipment.

4. Coordinate related Work at the Site in accordance with Article 7 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

5. Coordinate completion and cleanup of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for Owner's partial occupancy.

6. After Owner occupancy of premises, coordinate access to Site for correction of defective Work and/or incomplete Work to minimize disruption of Owner's activities.

7. See other coordination requirements in **Specific Project Requirements and Procedures.**

B. Existing Conditions

1. Information regarding subsurface/physical conditions and Hazardous Environmental Conditions, if any, are included in the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

2. Existence and location of Underground Facilities and other utilities and construction indicated as existing are not guaranteed. Before beginning Work investigate and verify the existence and location of Underground Facilities and other utilities and construction.

3. See additional details included in **Specific Project Requirements and Procedures**, if any.

C. Field Engineering

1. Prior to initiating construction, engage an independent professional land surveyor registered in the state where the Project is located to provide surveys and permanent reference points for all bounds and property markers along the line of the Work that may be disturbed during construction. Submit copies of all ties to the bounds and property markers to the Engineer prior to excavation at the Site(s).

2. Maintain surveyor's log of control and other survey work. Keep log available for reference.

3. Verify layout information shown on the Drawings in relation to existing benchmarks before lay out of the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.

4. Promptly report lost or destroyed reference points, benchmarks, or control points. Promptly report requirements relocate reference and control points due to changes in grades. Promptly replace lost or destroyed bounds or markers and control points based on the original survey control points utilizing the services of a professional land surveyor registered in the state where the Project is located. The cost of replacing markers disturbed by the Contractor's operations shall be at the Contractor's expense.

D. Record Documents

1. Provide Record Documents in accordance with Paragraph 6.12 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions and Article 1.03 subparagraph C.8.

2. Store Record Documents separate from documents used for construction. Record information concurrent with construction progress.

3. Legibly mark each item to record description of actual equipment and material installed and actual construction on approved submittals, including the following.

   a. Manufacturer's name and equipment and material model and number

   b. Material and equipment substitutions or alternates utilized

   c. Approved changes

   d. Measured depths of foundations

e. Measured horizontal and vertical locations of Underground Facilities and appurtenances, referenced to permanent surface improvements

f. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work

g. Field changes of dimension and detail

h. Details not on original Contract Documents or Shop Drawings

4. Submit final record documents as specified in Article 1.03 subparagraph C.8.

E. Cutting and Patching

1. Employ skilled and experienced personnel to perform cutting and patching.

2. Submit written request in advance of cutting or alteration which affects:

a. structural integrity of any element of Project;

b. integrity of weather exposed or moisture resistant elements;

c. efficiency, maintenance, or safety element;

d. safety, traffic, or hazard barriers;

e. visual qualities of sight exposed elements; and

f. work of Owner or separate contractor.

3. Execute cutting, fitting, and patching including excavation and fill to complete Work and to:

a. fit materials together, to integrate with other work;

b. uncover Work to install ill-timed Work;

c. remove and replace defective or non-conforming Work;

d. remove Samples of installed Work for testing when requested; and

e. provide openings in element of Work for penetration of mechanical and electrical work.

4. Execute Work by methods to avoid damage to other work and which will provide appropriate surfaces to receive patching and finishing.

5. Provide adequate temporary support for Work to be cut.

6. Restore Work with new materials in accordance with requirements of Contract Documents. Use materials identical with original materials where recognized that satisfactory results can be produced.

7. Provide protection from elements for areas which may be exposed by uncovering work.

8. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit. Restore exposed finishes of patched areas; and, where necessary extend finish restoration onto retained adjoining Work in a manner, which will eliminate evidence of patching.

9. Identify any Hazardous Waste, Hazardous Environmental Condition, or hazardous substance exposed during the Work to Owner for decision or remedy in accordance with Paragraph 4.06 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

10. Cut work by methods least likely to damage Work to be retained and work adjoining. Cut Work with sawing and grinding tools, not with hammering, chopping, or burning tools. Cut masonry and concrete materials with masonry saw or core drill. Do not use pneumatic tools without prior approval. Core drill openings through concrete Work. Adhere to mandatory cutback requirements when saw cutting concrete and roadway openings.

11. Do not cut and patch structural Work in a manner resulting in reduction of load-carrying capacity or load/ deflection ratio.

12. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Maintain supports to ensure structural integrity of the Work. Provide devices and methods to protect other portions of Project from damage and seal voids. For interior work at penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire resistant material, to full thickness of the penetrated element.

13. Do not cut and patch operational or safety-related components that reduce capacities to perform in manner intended. Do not cut and patch Work that reduces visual qualities. Remove and replace unsatisfactory cutting patching as directed by Engineer or Owner.

F. Electrolytic Corrosion Prevention

1. Prevent galvanic action, bimetallic corrosion, anodic or cathodic action, and electrolysis at all electrical grounds and for all galvanic scale (electromotive series or table of oxidation potentials). Do not allow contact of dissimilar metals further apart than 0.35 on the galvanic scale (electromotive series or table of oxidation potentials). The electrode potential of common metals is listed below.

| | Electrode Potential Volts (Relative to Hydrogen) |
|---|---|
| Magnesium | +2.37 |
| Aluminum | +1.70 |
| Zinc+ | +0.76 |
| Chromium | +0.56 |
| Iron and Steel | +0.44 |
| Cadmium | +0.40 |
| Nickel | +0.25 |
| Tin | +0.14 |
| Lead | +0.13 |
| Copper | -0.34 |

2. Unless otherwise indicated, provide dielectric insulators between ferrous and nonferrous pipe and equipment.

G. Quality Assurance and Control of Installation

1. Monitor quality control of Subcontractors, Suppliers, manufacturers, material, equipment, services, Site conditions, and workmanship, to produce Work of specified quality. Conduct field quality control and testing specified.

2. Comply fully with manufacturers' installation instructions, including each step in sequence. If manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

3. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

4. Perform Work using persons qualified to produce workmanship of specified quality.

5. Install field Samples and mockups at the Site as required in Specifications for review. Acceptable Samples and mockups represent a quality level for the Work. Where field Sample or mockup is specified to be removed, clear area after field Sample or mockup has been accepted by Engineer or after Work is complete when mockup is to serve as a control reference.

6. Protect adjacent construction in accordance with Paragraph 6.11 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

H. Manufacturers' Field Services

1. If required in the Specifications, arrange and pay for material or equipment Suppliers or manufacturers to provide qualified staff personnel (field representative) to perform the following services and services specified. Submit reports of activities, actions taken and test results to Engineer within 10 days of completion in accordance Article 1.03 Paragraph C above.

   a. Observe Site conditions, conditions of surfaces and installation, quality of workmanship.

   b. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

   c. Assist with field assembly as required.

   d. Furnish, setup, and operate required test equipment and facilities.

   e. Perform and record results of manufacturer recommended inspections and tests, and tests specified for material and equipment.

   f. Be responsible for protection of material and equipment and safety of all personnel during testing.

   g. Perform any other services normally provided by field representative's company.

   h. Instruct operating personnel in proper use of material and equipment.

   i. Instruct and supervise field repairs before acceptance by Owner.

I. Independent Testing

1. Employ and pay for specified services of an independent firm in accordance with Paragraph 13.03 of the Standard General Conditions and Supplementary Conditions to perform inspection and testing as may be specified.

2. Reports will be submitted by the independent firm to Owner, in duplicate indicating observations and results of tests and indicating compliance or noncompliance with Contract Documents.

3. Inspection, testing, and source quality control may occur on or off the Project Site.

4. Cooperate with independent firm. Furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.

5. Notify Owner and independent firm 24 hours before expected time for operations requiring services.

6. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.

7. Retesting required because of nonconformance to specified requirements will be performed by the same independent firm if instructed by Owner. Payment for retesting will be charged to Contractor by deducting inspection or testing charges from the Contract Price.

8. Testing or inspecting does not relieve Contractor from performing Work in accordance with requirements of the Contract Documents.

## 3.06 STARTUP, TESTING, AND COMMISSIONING

A. Spare Parts

1. Provide spare parts required for construction, startup, testing and commissioning of the Work prior to achievement of Substantial Completion, including spare parts for flushing and consumable supplies such as bolts, nuts, gaskets, filters, insulating tape, etc., normally consumed in the construction, commissioning and testing.

2. If spare parts are purchased by Owner, Contractor shall have the right to use the spare parts purchased by Owner provided that such spare parts are replaced prior to Substantial Completion at Contractor's expense. Replacement spare parts, replaced by Contractor, shall be new, unused and identical as the original spare part used.

B. Consumables

1. Provide initial fills of consumables including equipment lubricants, resins, chemicals, desiccants, and fuels. Provide subsequent fills if required during Warranty Period if acts or omissions of Contractor cause such consumables to require replacement.

2. Coordinate with Owner for consumables required.

C. Checkout and Starting Systems

1. Coordinate schedule for startup and operation of various equipment and systems with Owner.

2. Notify Owner 7 days before startup of each major piece of equipment or system, including a staffing request for Owner's operations and maintenance personnel required to adequately and safely support each specific start-up and operation activity.

3. Verify that each system or piece of equipment item has been assembled, constructed, or completed in accordance with the Contract and capable of functioning as intended.

4. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, magnetic center alignment, belt tension, control sequence, or other conditions which may cause damage.

5. Verify that each piece of equipment or system has successfully completed construction testing and cold commissioning, including hydrostatic testing, loop checks, relay checks, calibration, and continuity checks and that all tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.

6. Verify wiring and support components for equipment are complete and tested.

7. Execute start up under supervision of responsible manufacturers' representative or Contractor's personnel in accordance with manufacturers' instructions utilizing Owner's qualified operations and maintenance staff trained by Contractor.

8. When specified in individual Specification Sections, require manufacturer to provide field representative to be present at Site to inspect, check and approve equipment or system installation before start up, and to supervise placing equipment or system in operation.

D. Starting, Adjusting, and Balancing

1. Supply necessary equipment, material, construction power, and consumables (except for those provided by Owner) needed to startup and fully test the Work and replenish the same until Substantial Completion is achieved. Contractor may utilize Owner's operating spare parts, such use requiring timely replacement at Contractor's expense.

2. Coordinate as required for conduct of independent testing.

3. Perform specified and required adjusting and balancing concurrently to the maximum extent possible on individual equipment and systems and prior to startup and commissioning/performance testing.

E. Startup and Commissioning/Performance Testing

1. Conduct startup and commissioning/performance tests to demonstrate the Work meets the requirements of the Contract Documents, satisfies the Owner's requirements, and is in accordance with Paragraph 14.04. of the Standard General and Supplementary Conditions and Additional Supplementary Conditions. Conduct testing in accordance with the separate Startup and Commissioning section, if included.

2. Prepare and submit a written startup and commissioning/performance testing procedures no later than 60 days prior to start of testing for review and final test procedures no later than 30 days prior to start of testing. Submit a staffing request for Owner's operations and maintenance personnel.

3. Calibrate test equipment and instrumentation on Site or provide acceptable certificate of calibration conducted within 30 days of testing.

4. Complete functional testing prior to initiating the startup and commissioning/performance testing as specified.

5. Complete specified startup and commissioning/performance tests prior to Substantial Completion. Owner and Engineer will witness Performance Testing. Notify Owner and Engineer in writing at least 7 days prior to starting any startup and commissioning/performance testing. Coordinate for witnessing of tests by required regulatory representatives.

6. Submit written test reports per Article 1.03 subparagraph C.7.b and Paragraph D above.

F. Demonstration and Training

1. Provide formal demonstration and training of Owner's personnel as specified in individual Specification sections, in accordance with the separate Demonstration and Training section (if any), or per **Specific Project Requirements and Procedures**.

## 3.07 ATTACHMENTS

A. Transmittal form

**END OF SECTION**

# TRANSMITTAL FORM

| | | | |
|---|---|---|---|
| Owner: | | Transmittal No.: | |
| Project: | | Date: | |
| Contract No.: | | | |
| Contract Title: | | | |
| Specification Section No.: | | | |

*Assign a consecutive, unique number to each submittal and use same on resubmittals. Example: 25 =original submittal; 25A = 1st resubmittal; 25B (and beyond) = additional resubmittals*

| Submittal (Item) No. | Resubmittal (A B C etc.) | Date | Title/Description | Vendor/Manufacturer | Copies |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

☐ The material and equipment, and requirements for construction/installation contained in Submittal No.(s) _____ have been reviewed and we certify that they are correct and in strict conformance with the requirements specified (no exceptions or deviations)

☐ The material and equipment and requirements for construction/installation contained in Submittal No.(s) _____ have been reviewed and we certify that they are correct and in strict conformance with the requirements specified except for the following deviations (list below or attach listing):

_____

_____

CONTRACTOR'S NAME _____

ADDRESS _____

BY: _____ DATE: _____

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# SECTION 01002

# SUMMARY OF WORK

## PART 1 – GENERAL

### 1.01 SECTION INCLUDES

A. Project Description

B. Description of the Work

C. Work Sequence and Coordination

D. Special Requirements

E. Attachments

### 1.02 PROJECT DESCRIPTION

A. The Project is to remove existing water meters, provide new water meters, provide new meter transmission units and provide additional data collection units to support automatic meter reading throughout the City of Lowell, Massachusetts and to communicate with Owner's existing fixed network automatic meter reading system for billing.

### 1.03 DESCRIPTION OF THE WORK

A. The Work includes labor, material and equipment, and services required, in accordance with the Contract Documents and as more specifically described in the Specifications and includes, but is not limited to, the following:

1. Perform a desktop and field verified propagation study to determine the quantity of additional data collection units and antennas (DCUs) required to cover the entire distribution area.

2. Remove existing water meters at various locations throughout the City, and transport and store removed water meters in a locked, sheltered, heated, and secure location for later use in verifying final readings.

3. Furnish and install new water meters and meter transmission units (MTUs), compatible with Owner's existing system, including mounting, wiring, and testing, at various locations throughout the City. Utilize specified process to notify and obtain permission to access locations for installations.

4. Furnish and install DCUs in quantities based on Contractor's estimate in various locations throughout the City.

   a. Pay for backhaul fees associated with transmitting from DCUs to Owner's base station and other fees (cellular, internet access, maintenance, rental fees, etc.).

   b. Provide security fencing.

5. Provide field and office training to Owner's staff.

6. Furnish record documents including information for system maintenance and support.

7. Remove meter registers from existing meters removed and store existing meter registers for a period of 12 months from the date of meter replacement. Legally dispose of the meter and reimburse the Owner with the salvage value.

8. Provide all other materials and equipment and services inherent to the Work.

B. Work Site locations: meter addresses shall be provided to the Contractor after award.

C. Existing conditions and Site data: per Section 00300.

## 1.04 WORK SEQUENCE AND COORDINATION

A. The Work will extend over more than one construction season and must be sequenced to limit impacts to the City residents and areas affected by installation.

B. Access to businesses and residences must be maintained during execution of the Work.

## 1.05 SPECIAL PROJECT REQUIREMENTS

A. Comply with notification and access requirements specified, including obtaining permission to access properties and locations for installations. Coordinate with Owner and Engineer. Comply with Laws and Regulations regarding accessing private property on behalf the Owner.

## PART 2 PRODUCTS - NOT USED

## PART 3 EXECUTION - NOT USED

**END OF SECTION**

# SECTION 01003

# SPECIFIC PROJECT REQUIREMENTS AND PROCEDURES

The following supplement shall modify the requirements and procedures of Section 01001 using the same Article heading to which the supplement or modification applies. All provisions which are not so modified or supplemented remain in full force and effect.

The terms used herein have the meanings stated in the Standard General and Supplementary Conditions, Section 01001, and as may be defined herein.

Certain provisions required by Laws and Regulations may be referenced. Contractor is responsible to determine and obtain applicable Laws and Regulations and to review and interpret the full text of such Laws and Regulations.

## 1.02 PRICE AND PAYMENT PROCEDURES

Pursuant to Paragraph A.2. Schedule of Values, delineate SRF Eligible and Non Eligible items per MassDEP-DMS requirements.

Pursuant to subparagraph C.1.d regarding Change Orders, comply with MassDEP-DMS requirements in Section 00805 utilizing the SRF Change Order form provided in addition to the Project form C-00639.

Pursuant to Paragraph D, Measurement and Payment Requirements, see Section 01225 for requirements for this Project and add the following.

3. Documentation required to substantiate quantities for change orders and Final Payment: per MassDEP-DMS Policy Memorandum CG-16 included as an attachment to this Section.

4. The following items have limitations on financial participation by the MassDEP-DMS under the State Revolving Loan Fund Program. Policy Memoranda referenced below as "CG" are included as an attachment to this Section.

   Permits – see applicable portion of CG-2
   Mobilization – see CG-7
   Pavement – see CG-8
   Rock Excavation – see CG-14
   Traffic Police – see CG-15

## 1.03 ADMINISTRATIVE REQUIREMENTS

Pursuant to Paragraph A, Project Management and Coordination; Meetings,

subparagraph 1 regarding contact information,

- the Project contact list will be provided at the Preconstruction Conference and Site Mobilization Meeting.
- Provide a 24 hour answering service in accordance with Section 02501.

subparagraph 4, identify documents and items for the Project as follows.

**Installation of Water Meters and MTUs**

subparagraph 7.a, Progress Meetings, monthly progress meetings or as needed will be held for the Project.

Pursuant to Paragraph B, Documentation of Progress,

subparagraph 3, provide construction photographs prior to start of construction to establish pre-construction conditions and to show progress in accordance with subparagraph 3 and Section 02501.

subparagraph 4, reports, submit the following additional reports.

Weekly progress/installation reports in accordance with Section 02501.

Pursuant to Paragraph C, Submittal Procedures,

subparagraph 1, address submittals as follows.

Engineer: Woodard & Curran
40 Shattuck Road, Suite 110
Andover, MA 01810
Attention: Rachel Gilbert
Phone: (978) 557-8150 Fax: 978-557-7948
Email: rgilbert@woodardcurran.com

subparagraph 5, Shop Drawings, submit 6 prints and electronic files in PDF by email to Engineer.

subparagraph 7, Manufacturers' Installation Instructions and Certificates, submit 6 prints and electronic files in PDF by email to Engineer.

subparagraph 8.a, As-Builts for Material and Equipment, submit 6 prints and electronic files in PDF by email to Engineer.

subparagraph 8.b, Conformed to Construction Record Drawings, will not be required.

subparagraph 8.d, Operation and Maintenance Data, submit 6 copies of final volumes, with electronic files in PDF format on CD, within 10 days after final inspection to Engineer.

## 1.04 QUALITY REQUIREMENTS

Add the following after subparagraph B.2 regarding Qualifications.

3. Qualifications must include the following specialty experience.

- Meter installation for at least 3 public utilities in the Commonwealth of Massachusetts, within the last 5 years, each with a contract value of $1 million dollars or greater and a scope of work which includes the replacement of at least 3,000 water meters with a demonstrated failure rate of less than 5 percent during the first year of use.

- Projects for at least 4 public utilities where same meter as that specified in the Contract Documents has been in use for at least 2 years with a demonstrated failure rate of less than 5 percent during the first year of use.

- Meter suppliers must have been manufacturing meters for at least 20 years.

# PART 2 – PRODUCTS

## 2.02 PRODUCT REQUIREMENTS

Add the following at the end of subparagraph A.1.

The definition of "material" also includes that defined in Section 00811, as required by Massachusetts General Law.

# PART 3 – EXECUTION

## 3.01 TEMPORARY CONSTRUCTION FACILITIES

Pursuant to Paragraph F, Traffic Regulation,

subparagraph 4, regarding use of police officers, coordinate schedule of police details which will be direct billed to the Owner. See Section 01225.

Add the following to subparagraph F.1, Parking.

> Off-Site construction parking area to be established at a location determined by Contractor.

Add the following to subparagraph F.2, regarding the MUTCD.

> Also comply with applicable portions of the "Massachusetts Amendments to the 2009 Manual on Uniform Traffic Control Devices and the Standard Municipal Traffic Code" published by the Massachusetts Department of Transportation Highway Division *and the following.*

Delete Paragraph G, Field Offices, in its entirety. Field offices are not required for the Project.

Pursuant to Paragraph H, Staging Area, Owner is not providing a location for staging area. Determine and secure a location for staging area.

Pursuant to Paragraph I, Project Identification, display signs as required by MassDEP with the following information:

**Lowell Regional Water Utility – Public Water Works Improvements**
**MassDEP DWSRF #3811**
**Water Meter Replacement and AMR System**

## 3.02 TEMPORARY UTILITIES

Whereas field offices are not required for the Project, delete requirements relating to utilities for field offices in Paragraphs A, B, C, and G.

## 3.03 TEMPORARY CONTROLS

The following paragraphs generally do not apply to this Project, except if Contractor erects an antenna tower as part of the Work.

A. regarding dust control
B. Water Control and Dewatering
C. Erosion and Sediment Control
D. Noise Control
E. Pollution Control

Pursuant to Paragraph F, Traffic Regulation,

Add the following to subparagraph 1, Site specific traffic control plan.

In addition to a Site specific traffic control plan, submit a schedule of road closures/detours and obtain a road closure and road blockage permit for every location where Work is being performed.

Add the following to subparagraph 2, regarding the MUTCD.

Also comply with applicable portions of the "Massachusetts Amendments to the 2009 Manual on Uniform Traffic Control Devices and the Standard Municipal Traffic Code" published by the Massachusetts Department of Transportation Highway Division.

Add the following to subparagraph 4, regarding use of police officers.

a. Coordinate schedule of police details which will be direct billed to the Owner per Section 01225.

## 3.05 OVERALL EXECUTION REQUIREMENTS

Pursuant to Paragraph A, Coordination,

Add the following to subparagraph 3, regarding Work coordination.

a. Comply with the required Work sequence and coordination specified in Section 01002 and reflect in the Project scheduling.

Pursuant to subparagraph 7, other coordination requirements include the following.

- Coordinate with Owner and Engineer prior to performing any Work that will impact City operations.
- Coordinate Work with the Lowell Regional Water Utility that may interrupt or affect the Owner's existing system.
- Coordinate Work such that Work on each street is completed with minimum disruption to residents and businesses.

Pursuant to Paragraph B, Existing Conditions,

Pursuant to subparagraph 1, Project specific conditions, see information regarding existing conditions identified in 03000.

Add the following to subparagraph 2, existence and location of underground and other utilities and construction.

- Contact DIGSAFE (www.digsafe.com) by dialing 811.

Pursuant to Paragraph C, Field Engineering, generally does not apply to this Project, except if Contractor erects an antenna tower as part of the Work.

## 3.06 STARTUP, TESTING AND COMMISSIONING

Pursuant to Paragraph E, Starting and Commissioning/Performance Testing, see requirements in individual Specification sections.

Pursuant to Paragraph F, Demonstration and Training, see requirements in individual Specification sections.

## 3.07 ATTACHMENTS

Add the following.

B. DEP-DMS Policy Memorandum CG-16

C. DEP-DMS Policy Memoranda CG-2, CG-7, CG-8, CG-14, and CG-15

**END OF SECTION**

**POLICY MEMORANDUM NO. CG-16** **DOCUMENTATION REQUIRED TO SUBSTANTIATE CONTRACT QUANITITES**

| Unit | Documentation required |
|---|---|
| Acres (A) | Location, station, offset and calculations.<br>Location = Street right-of-way, etc;<br>Station = Point on Baseline;<br>Offset = Distance left or right of Baseline |
| Cubic Yard (C.Y.) | Location, stations, widths, depths, calculations and<br>Cross sections as necessary |
| Each (Ea.) | Location, station, and offset. |
| Gallon (Gal.) | Location, stations, calculations (if appropriate) and delivery slips. |
| Hour (Hr.) | Hours and location. |
| Linear Feet (L.F.) | Location, stations, and offsets. |
| Month (Mo.) | Location, period of time and calculations if applicable. |

| | |
|---|---|
| 1000 Foot Board Measure (MFBM) | Location, stations, offset, elevations, grade, and calculations.<br><br>Attach invoices where applicable. |
| Pound (Lb.) | Locations, stations, and calculations (if applicable). Attach Delivery weight slips. |
| Square Feet (S.F.) | Locations, stations and calculations |
| Square Yard (S.Y.) | Locations, stations and calculations |
| Ton | Locations, stations and calculations (if applicable). Attach Delivery weight slips. |
| Vertical Feet (V.F.) | Locations, stations, elevations, and offsets. |

Note:

1. All of the above, that apply must be submitted with a final payment request or change order as applicable.
2. Where in place measurement is not possible or practical, delivery slips may be used to substantiate quantities.
3. Change orders – See CG-10 in which some of the above may be applicable in justifying materials, equipment and labor.
4. When necessary, itemized quantities must be separated into eligible and non-eligible units with separate calculations to justify eligible costs.
5. Overruns and underruns of any specific item shall be explained with an appropriate sentence or paragraph.
6. On all quantities, units of payment shall be maintained at the project site and shall be updated daily so that upon field inspection by the C.O.E., EPA or DMS, the quantities paid to date can be substantiated.
7. In the case of unforeseen conditions, photos should be submitted with the applicable item in addition to the recommended documentation.
8. Documentation of units of payment shall be clearly legible and cross referenced to the applicable sheets of the record drawings.
9. For record drawings policy, please see CG-4.

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DMS Policies 1 through 16 Approved By:

Steven J. McCurdy
Division of Municipal Services

The contractor shall be responsible for obtaining all permits required of his equipment, work force, or particular operations (such as blasting) in the performance of the contract and not otherwise specified in ~~the two preceding paragraphs as~~ to be obtained by the owner. These permit fees shall be paid by the contractor. the Project Specific Requirements of the Additional Supplementary Conditions

The owner shall be responsible for the payment of all other permit fees required by the construction. per paragraph 6.08 of the Standard General and Supplementary Conditions, and the Additional Supplementary Conditions if any

The following permits shall not be eligible for financial participation by the Department of Environmental Protection (DEP).

- Permits and insurance for construction in railroads' rights of way;
- Building permits;
- Permits for opening public streets and other public or municipal rights of way;
- Permits for the use of explosives;
- Permits for the disposal of waste materials;
- Permits and fees for connecting to municipal utilities.

Permits required by extraordinary circumstances and not specifically excluded from eligibility above may be eligible for DEP participation. For such permits to be so eligible, the owner or his representative must notify the DEP project engineer in advance of obtaining such permit and receive from the engineer specific agreement that such permit will be eligible for DEP participation. Eligibility for such participation will not be made retroactively.

Additional costs which result from interruptions of construction or extensions of contract time resulting from the owner's or the contractor's failure to obtain the necessary permits may be ineligible for participation.

**POLICY MEMORANDUM NO. CG-7** **BREAKDOWN OF BID ITEMS**

The following items shall, where applicable, be listed separately in the bid documents.

1. Mobilization

2. Pavement
   a. Municipal
      i. temporary
      ii. permanent
   b. State
      i. temporary
      ii. permanent

3. Concrete cradle or encasement
   (to be identified where applicable)

4. Rock-Excavation

5. Wood or steel sheeting left in place

6. Excavation of unsuitable materials below grade.

7. Select and/or borrow material

8. Dewatering

9. Special Dewatering (coffer dam)

Mobilization costs are the costs of initiating the contract, exclusive of the cost of materials. Payment for mobilization shall be a lump sum at the price bid for this item in the proposal and shall be payable when the contractor is operational on the site. For purposes of this policy, "operational" shall mean the substantial commencement of work on site.

The lump sum price bid for mobilization shall not exceed five per centum (5%) of the total amount of the bid.

**POLICY MEMORANDUM NO. CG-8** **PAVEMENT**

All roads and trenches therein shall be refilled and repaved in accordance with specifications provided by the owner in the contract documents. Please note that this policy may be excludable on federally assisted projects where bid alternative items may be required (i.e. trench width vs. full width pavement). You are advised to seek project specific clarification.

Loan eligibility shall be limited to the following:

A. Where the depth of the pipe invert is 0 to 8', the maximum pavement widths which shall be eligible for financial assistance are as follows:

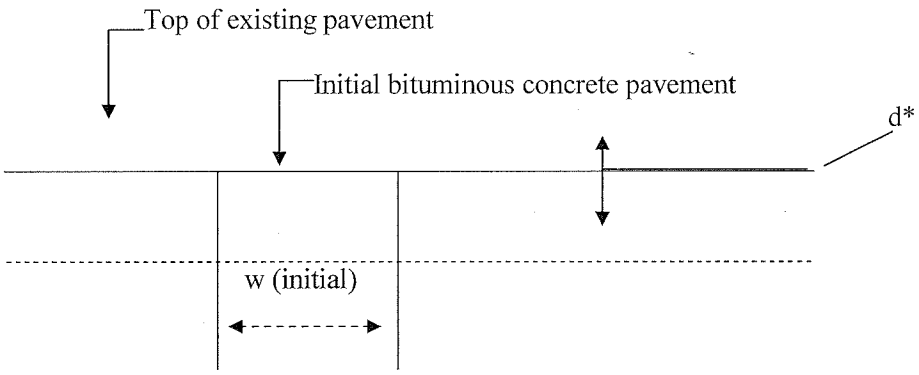
| Nominal Pipe Diameter | Maximum Eligible Widths | |
|---|---|---|
| | Initial Pavement | Permanent Trench |
| 0-24" | 6'-6" | 8'-6" |

Where the nominal pipe diameter is greater than 24" the maximum eligible width for initial re-paving shall be the nominal diameter of the pipe plus four (4) feet, and for permanent trench re-paving the maximum eligible width shall be the nominal pipe diameter plus six (6) feet.

B. For each additional four (4) feet (or fraction thereof) of pipe invert depth, add three feet to the eligible width limits stated in paragraph A.

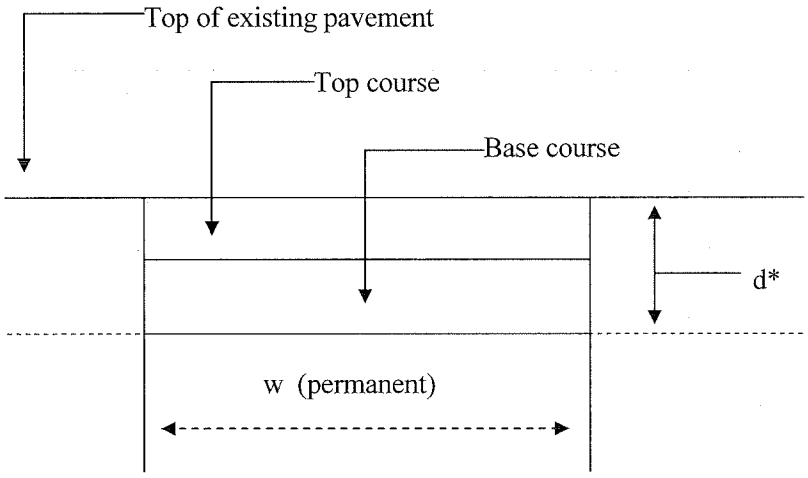
At the design phase of a project the owner has the option to elect either Initial Pavement with Option I (Permanent Trench replacement) or Initial with Option II (curb to curb over initial)

Initial Pavement




d*= depth of existing pavement to a maximum of 3 inches (see general notes #3)
w = maximum eligible Initial pavement width as described in paragraphs "A" & "B" on page DEP-DMS-CG's-P4.

OPTION I Permanent Trench Pavement




d*= depth of existing pavement trench to a maximum of 3 inches (see general notes #3)
w = maximum eligible permanent pavement width as described in paragraphs "A" & "B". equals initial width plus 2 feet and includes:

- Cutting edges for the permanent trench
- Removal of initial patch plus two feet of existing pavement
- Fine grading/compacting gravel

- Placement of Permanent Trench pavement in two courses.

**POLICY MEMORANDUM NO. CG-14** **PAYMENT FOR ROCK EXCAVATION**

There shall be in the contract documents a separate pay item for rock excavation. For such purposes, "rock" shall mean igneous, sedimentary, metamorphic, and conglomerate rock, which for excavation must be drilled, blasted, broken, or ripped by power tools. Boulders and concrete structures one cubic yard or greater, however removed, are included within this definition of rock for payment purposes. At the option of the owner or his representative a separate pay item for boulders, concrete structures, or concrete road base may be used.

| Depth From Ground Surface To Invert Pipe | Pay Width (Nominal Pipe Diameter) | |
|---|---|---|
| | 0-24" | Over 24" |
| * 0 – 12' | 5'0" | D+3'0" |
| * Over 12' – 20' | 7'0" | D+5' |

Engineer's plans and specifications shall establish pay limits below pipe and structures.

- See CG-14 Attachment #1 (typical cross section)

Payment width for depths over twenty feet (20') shall be determined on a case-by-case basis consistent with the foregoing chart.

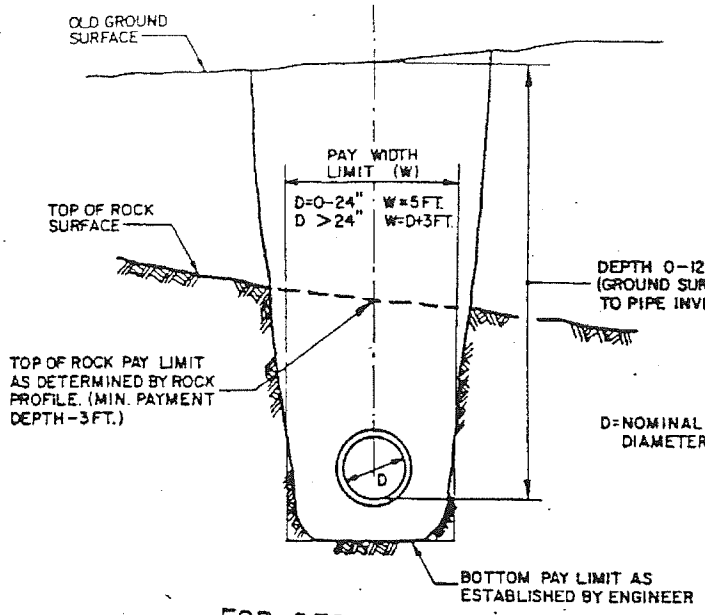
The pay limit for rock removal outside proposed manholes shall commence one foot (1') outside the widest dimension of the structure of shall be the maximum connecting trench width, whichever is greater.

Payment depth for rock which is encountered in a trench shall be no less than three feet (3') when removal can be accomplished only by drilling and blasting or by use of jack (air or hydraulic) hammers.

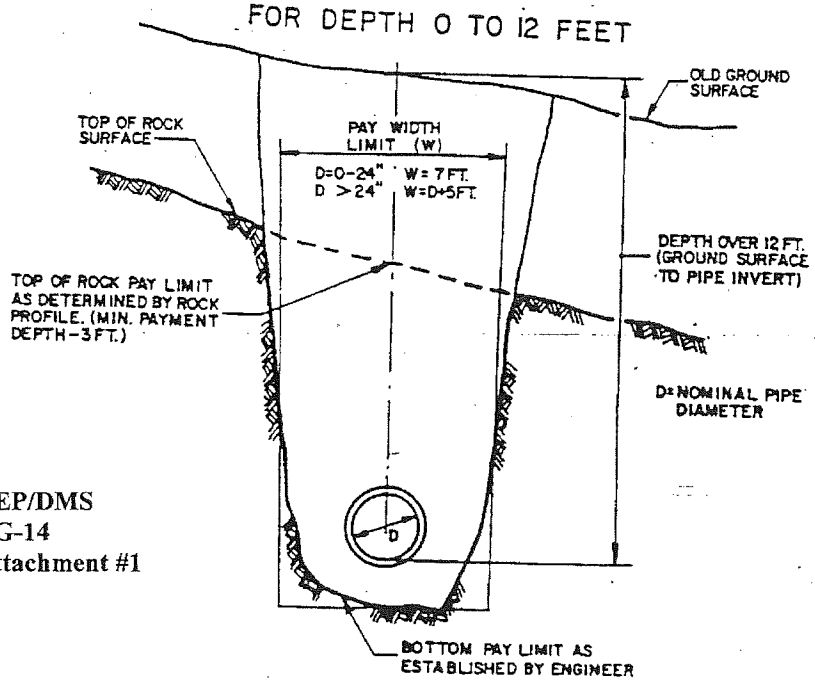
Payment for rock removed, using the same or equal equipment as utilized for normal trench excavation, shall be limited to the actual depth removed within the limits established by the contract documents.

Boulders encountered within the pay limits of excavation, whose volume is one cubic yard or greater, part of which extends outside said limits shall be paid in accordance with the actual volume excavated.

# CG-14 ROCK EXCAVATION




FOR DEPTH 0 TO 12 FEET




FOR DEPTH OVER 12 FEET AND UP TO 20 FEET

**DEP/DMS**
**CG-14**
**Attachment #1**

**POLICY MEMORANDUM NO. CG-15** **TRAFFIC POLICE**

The reasonable costs for police details required for traffic control on a construction project which receives financial assistance shall be considered as an eligible administrative cost. A police detail item shall not be included as a bid item in the contract documents.

"Police" as used in this memorandum includes local, county, capital, state, regular and auxiliary police.

Owner's Responsibility CONTRACTOR TO COORDINATE SCHEDULING WITH OWNER.

It shall be the owner's responsibility to submit in writing the hourly rate of pay to be established for detailed traffic police and each change in rate during the course of the project. It is the owner's responsibility to arrange, document and pay for such police details. The owner or its representative shall meet with the police chief or other officer in charge of police detail duty to review contract needs. The owner shall maintain a daily record of the following:

a. Officer's name
b. Hours worked
c. Location of assignment
d. Hourly rate

# SECTION 01225

# MEASUREMENT AND PAYMENT

## PART 1 - GENERAL

### 1.01 DESCRIPTION

A. This Section describes the measurement and payment for the Work to be completed under each item included on the Bid Form.

B. Payment procedures are in accordance with the Agreement, Article 14 of the Standard General and Supplementary Conditions, the Additional Supplementary Conditions (if any), and the General Requirements.

C. Measurement: as determined, verified, or approved by Engineer in accordance with Paragraph 11.03 of the Standard General and Supplementary Conditions, the Additional Supplementary Conditions (if any), and the General Requirements, except as otherwise specified.

D. The Work described in each item shall be as described in the Specifications and shown on the Drawings and not included in other items.

1. Item descriptions are general and may not specifically describe all associated Work or elements thereof, do not constitute Specifications, and do not supersede the content of the Specifications and Drawings.

2. Review the Specifications and Drawings for Work associated with each item. Claims for being unfamiliar with the content of the Specifications and Drawings will not be considered.

E. The following Work is not specifically described or designated as an item, is considered incidental to all items, and shall not be measured separately for payment.

1. General Requirements specified in Sections 01001 and 01003 except for items that may be included in Mobilization/Demobilization

2. Restoration of all areas disturbed by the Contractor within the limits of Work

3. Labor, materials, and equipment necessary to verify existing field conditions

F. No compensation will be paid for damage or areas disturbed by the Contractor outside the limits of Work.

G. Design, installation and removal of utility/structure support systems temporary and permanent utility/structure support systems be associated with an item of Work shall be considered incidental to that item.

H. Police details will be direct billed by the police department to Owner. Provide daily detail slips to the Engineer. Police details scheduled and not used by the Contractor will be back-charged to Contractor.

I. No compensation will be paid for additional DCUs/antennas beyond the guaranteed maximum quantity determined by Contractor and shown in the Bid form or Schedule of Values.

## 1.02 MEASUREMENT AND PAYMENT BASIS FOR EACH BID ITEM

| **ITEM 1A:**<br>**PROVIDE 5/8 INCH X 3/4 INCH COLD WATER METER WITH ENCODER REGISTER**<br>**ITEM 1B:**<br>**PROVIDE 1 INCH COLD WATER METER WITH ENCODER REGISTER**<br>**ITEM 1C: PROVIDE METER NUT SEAL** | |
|---|---|
| **Measurement** | Portion of Work completed and accepted |
| **Payment** | Unit price each |
| **Schedule of Payment** | Monthly based on quantity installed, tested and accepted |
| Services, material and equipment as specified in Section 02501 and inherent to the Work, for complete Standard Installation of cold water meters, including conducting the necessary pre-installation investigations, gaining access to locations, removal and storage of existing meters and registers, verifying final readings, installing and testing new meters, installing wires and making connection to MTUs, coordination with Owner's fixed network, and training. Excludes Non-standard Installation. | |

| ITEM 2: CREDIT FOR EXISTING METER SALVAGE VALUE 5/8 INCH, 3/4 INCH, AND 1 INCH | |
|---|---|
| **Measurement** | Upon disposal of existing meter |
| **Payment** | Unit price each |
| **Schedule of Payment** | Monthly deduction on Application for Payment |
| Salvage value for each existing water meter removed from service and replaced with a new meter, to be credited to Owner upon disposal of meters as specified in Section 02501. | |

| ITEM 3A: PROVIDE METER TRANSMISSION UNIT<br>ITEM 3B: PROVIDE PIT METER TRANSMISSION UNIT | |
|---|---|
| **Measurement** | Portion of Work completed and accepted |
| **Payment** | Unit price each |
| **Schedule of Payment** | Monthly based on quantity installed, tested and accepted |
| Services, material and equipment as specified in Section 02501 and inherent to the Work, for complete Standard Installation of Meter Transmission Units (MTU) and Pit MTUs including conducting the necessary pre-installation investigations, gaining access to locations, removal and disposal of existing MTU, installing and testing new MTUs, installing wires and making connection to new water meters, furnish Neptune handhelds for testing and turn over to Owner, coordination with Owner's fixed network, and training. Excludes Non-standard Installation. | |

| ITEM 4: PERFORM PROPAGATION STUDY | |
|---|---|
| **Measurement** | Portion of Work completed and accepted |
| **Payment** | Percent of lump sum price based on Schedule of Values |
| **Schedule of Payment** | Monthly based on progress |
| Services, review, and acceptance as specified in Section 02502 and inherent to the Work. | |

| ITEM 5: PROVIDE DATA COLLECTION UNITS (DCUS)/ANTENNAS | |
|---|---|
| **Measurement** | Portion of Work completed and accepted based on guaranteed maximum quantity determined by Contractor |
| **Payment** | Unit price for each |
| **Schedule of Payment** | Monthly based on quantity installed, tested and accepted |
| Services, material and equipment as specified in Section 02502 and inherent to the Work, for installation of DCUs and antennas, including pre-installation investigations, power equipment, system protection and security measures, testing, security fencing, backhaul fees, Owner's fixed network, and training. | |

| ITEM 6: MOBILIZATION/DEMOBILIZATION | |
|---|---|
| **Measurement** | N/A |
| **Payment** | Percent of lump sum price based on the Schedule of Values **not to exceed 5% of the total Contract Price (EXCLUDES items 7 and 8)** |
| **Schedule of Payment** | 50% at Project commencement<br>50% at Substantial Completion |
| Includes delivery to and removal of Contractor's equipment and facilities at the Project Site, temporary utilities, facilities and controls, obtaining necessary permits including associated fees, insurance and bond costs, signage, development of pre-construction schedules and plans required by the General and Supplementary Conditions and General Requirements; necessary pre-construction investigations; coordination, and Site clean-up, restoration and closeout. | |

| ITEM 7: OWNER'S CONTINGENCY | |
|---|---|
| **Measurement** | Portion of contingency amount authorized per Paragraph 11.02 of the General Conditions as requested |
| **Payment** | Percent of not to exceed contingency amount authorized |
| **Schedule of Payment** | Monthly based on progress |
| Additional computer hardware and software required for deployment of the DCUs and coordination with Owner's fixed network per Section 02502 as requested by Owner, recommended by Engineer, and approved by Owner in a Change Order. | |

| ITEM 8: ALLOWANCE FOR NON-STANDARD INSTALLATIONS | |
|---|---|
| **Measurement** | Portion of Work completed and accepted |
| **Payment** | Percent of lump sum price authorized by Change Order |
| **Schedule of Payment** | Monthly based on progress |
| Services, material and equipment as specified in Section 02501 and inherent to the Work, for complete Non-standard installations of cold water meters, registers, MTUs, Pit MTUs, and appurtenances as specified in Section 02501, as recommended by Engineer and approved by Owner in a Change Order. | |

**PART 2 – PRODUCTS (not used)**

**PART 3 – EXECUTION (not used)**

**END OF SECTION**

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# DIVISION 02

# SITE CONSTRUCTION

# SECTION 02501

# WATER METERS AND METER TRANSMISSION UNITS

## PART 1 – GENERAL

### 1.01 SUMMARY

A. Remove existing water meters, store for 90 days and use to verify final readings.

B. Remove meter registers from existing meters removed and store existing meter registers for a period of 12 months from the date of meter replacement.

C. Furnish and install new water meters with encoded registers.

D. Furnish and install new Meter Transmission Units (MTUs) manufactured by Neptune Technology Group, Model Neptune R450 Meter Interface Unit. Test for proper installation using Neptune CE 5320 ARB FixedBase AMI Field Service Tool.

1. The Owner has determined that specifying this proprietary equipment for the Project is in the public's best interest as the Owner has a fixed network automatic meter reading system which is programmed with a dedicated FCC licensed frequency. MTUs must be manufactured by the same manufacturer as the Owner's fixed network for compatibility purposes.

E. Geocode each meter/MTU installation location with a latitude and longitude provided on the required work order.

F. Remove and dispose of existing water meters and appurtenances.

### 1.02 PRICE AND PAYMENT PROCEDURES

A. Measurement and payment requirements: per Division 01 General Requirements.

### 1.03 ADMINISTRATIVE REQUIREMENTS

A. Coordination, Sequencing, and Scheduling: per Division 01 General Requirements.

### 1.04 SUBMITTALS

A. Submit in accordance with Division 01 General Requirements.

B. Proposed Control and Management Plan, detailing planned procedure for the notification of Customers, procedure for scheduling of installations, installation procedures, database formats, protocol for handling non-standard installations, protocol for handling curb stops, protocol for handling repairs, and template of work order form for review prior to performing any of the notifications and installations.

C. Shop Drawings: manufacturer's instructions, literature, illustrations, specifications, drawings, data and descriptive literature on all pieces of equipment.

D. Performance specifications

E. Affidavit of compliance from manufacturers stating that the meters provided comply with the latest version of AWWA C700, as appropriate, the registers and encoders provided comply with the latest version of AWWA C707 and all other items meet all requirements specified herein

F. Copy of the National Type Evaluation Program (NTEP) Certificate of Conformance (COC) from manufacturer certifying and listing the meter size and register type as legal for trade and the NTEP COC shall list the meter size and register type being supplied as approved for use in utility billing, commercial metering, and legal sub-metering applications

G. Copies of all advertisements, door hangers, letters and flyers to be distributed during the contract for approval by the Owner. Once approved, submit final copies for Engineer and Owner's records

H. Copy of database fields and format for approval by the Owner

I. Meter, register, and MTU warranties

J. Closeout and Maintenance Material Submittals: per Division 01 General Requirements.

1. Operation and Maintenance Data for each component: including copies of all Shop Drawings, reports, maintenance data and schedules, description of operation, and spare parts informationwith ordering numbers, nearest location where the spare parts may be obtained current price list for parts.

## 1.05 QUALITY ASSURANCE

A. Provide in accordance with Division 01 General Requirements.

B. Manufacturers not complying with the field or production experience identified in Section 01003 shall submit their meters for endurance testing evaluation.

## 1.06 DELIVERY, STORAGE AND HANDLING

A. Contractor shall take delivery of associated water meter equipment and provide adequate storage space to accommodate its staff, new water meters, MTUs, meter hardware and any other parts or equipment necessary to conduct the Work. The Contractor shall return all un-used water meter equipment, MTUs, and appurtenances to the Owner.

B. Contractor is responsible for transporting adequate quantities of water meters, MTUs, and appurtenances from their storage area to the Work Site.

C. Store existing water meters removed in a locked, sheltered, heated, and secure location for later use in verifying final readings for a period of 90 days from the date the meter is replaced.

## 1.07 SITE CONDITIONS

A. Existing Conditions: per Division 01 General Requirements.

B. Prevent damage to the public and private property and restore damaged property at no additional cost to Owner.

C. Photographs

1. Photographs of the installation location shall be taken both before and after the installation. All photographs must be labeled, by file name, with the date and meter address of photograph (YYYYMMDD – METER ADDRESS). Photograph file names shall be date, street location, followed by street number, followed by a suite or apartment number if appropriate, followed by "B" for before and "A" for after. The photographs shall be uniquely identified.

2. Pre-installation photographs shall include a minimum of two (2) digital photographs including (I) a photograph of the existing meter, in place, prior to removal, and (II) a photograph of the meter register that clearly displays the final meter reading. Post-installation photographs shall include a minimum of two (2) digital photographs including (I) a photograph of the new meter, in place, and (II) a photograph of the meter register that clearly displays the initial meter reading. Photographs shall be taken of any notable "Miscellaneous data" as described in Section 3.16.A. A dry-erase board or other acceptable means of indicating the Customer account number, meter number, meter reading, date and "before" or "after" status shall be included in all photographs.

3. Photographs shall be taken with a minimum resolution of 6.0 megapixels and stored in JPEG format.

D. Digital photographs of the installation location taken before and after the installation shall be submitted to the Engineer with the weekly reports on CD. Files shall be JPEG images with a minimum of 300 dpi quality.

## 1.08 WARRANTY

A. Special Warranties/Extended Correction Period and Backhaul fees: in accordance with Section 00805 of the Additional Supplementary Conditions.

## PART 2 – PRODUCTS

### 2.01 GENERAL

A. Meters shall be compatible with Owner's existing R450 Fixed Network AMR reading system by Neptune Technology Group.

B. New meter data shall be in a format suitable for mass upload to the Owner's MUNIS billing system.

C. Provide water meters complete with an electronic register that meet the American Water Works Association (AWWA) standards C700, C701, and NSF 61.

D. All meter materials shall meet the 2014 Safe Water Drinking Act future requirement of no lead or less than 0.25 percent (0.25%) lead content.

E. All meters and absolute encoder registers shall allow for and be compatible with future upgrades of the manufacturers' product.

F. Meters and registers shall be fabricated by the same manufacturer.

G. Meters and meter parts shall be manufactured, assembled and tested within the United States. Manufacturers may be required to provide proof of where and what percentage of the meter register, chamber and maincase is manufactured in the United States.

H. Performance

1. Meters shall conform minimally to current AWWA C-700, current revision, test flows, headloss and accuracy standards. To ensure accuracy, each meter shall be accompanied by a factory test tag certifying the accuracy at the flows required by AWWA C700.

2. Meters shall operate up to a working pressure of 150 pounds per square inch (psi), without leakage or damage to any parts. The accuracy shall not be affected by variation in pressure up to 150 psi.

3. Meters shall meet the flow ranges indicated in Table 1.

### 2.02 WATER METERS –COLD WATER NUTATING DISC WATER METERS (5/8 - INCH x 3/4 - INCH TO 1-INCH)

A. General

1. All meters, 5/8 x 3/4-inch to 1-inch, furnished shall meet or exceed the performance required by the "Standard Specifications for Cold Water Meters" – AWWA-C700, or as otherwise specified. Meters shall conform minimally to current AWWA C-700, for test flows, headloss and accuracy standards.

2. All 5/8-inch and ¾-inch meters shall be 5/8-inch x 3/4-inch meters with adapters. All parts associated with converting existing 5/8-inch and ¾-inch meters to 5/8-inch x 3/4-inch meters with adapters shall be included to install new meters.

3. All meters shall be NSF 61 Certified for Low Lead (less than 0.25 percent).

4. All cold water meters shall be produced from an ISO 9001 manufacturing facility and be certified to the National Conference on Weights and Measures (NCWM) regulatory standards.

5. Meters shall meet the performance specifications outlined in Table 1. Contractor shall submit technical documentation to support performance claims.

**Table 1 – AWWA Meter Flow Rate Requirements**

| METER SIZE | Minimum Flow Rate | Maximum Flow Rate |
|---|---|---|
| 5/8" x ¾" | 1/4 GPM | 20 GPM |
| 1" | 3/4 GPM | 50 GPM |

B. Type – Residential Cold Water Meter

1. Magnetically driven, nutating disc with positive displacement and floating chamber shall be provided. Piston type positive displacement, Electromagnetic, Fluidic Oscillator, and Ultrasonic meters are unacceptable. The maximum number of disc nutations is not to exceed those specified in AWWA C700 latest revision.

2. Registers shall be secured to the maincase by means of a plastic tamper proof seal to allow for inline service replacement. Register seal screws are only acceptable when supplied with attached sealing wire to at least one bottom cap bolt with seal wire holes of not less than 3/32-inches in diameter.

3. All meters must be adaptable to a field programmable absolute encoder register without interruption of the Customer's service.

C. Lay Length: AWWA Standard C700 (latest revision)

D. Meter Maincase

1. All lead free maincases shall be guaranteed free from manufacturing defects in workmanship and material for the life of the meter.

2. The meter maincase and cover shall be cast from NSF/ANSI 61, Annex G and Annex F certified lead free alloy containing a minimum of 85 percent copper. The serial number should be stamped between the inlet or outlet port of the maincase and the register. Maincase markings shall be cast raised and shall indicate size, model, direction of flow, and NSF 61 certification. Plastic maincases are not acceptable.

3. Maincases for 5/8-inch x 3/4-inch, and 1-inch meters shall be of the removable bottom cap type with the bottom cap secured by 4 bolts on 5/8-inch x 3/4-inch sizes and 6 bolts on the 1 inch size. Meters with a frost plug, a screw-on design, or no bottom cap shall not be accepted in 5/8-inch x 3/4-inch or 1 inch sizes.

E. Bolts: 300 series non-magnetic stainless steel

F. Measuring Chamber

1. The measuring chamber shall be of a two-piece, snap-joint type with no fasteners allowed. The chamber shall be made of a non-hydrolyzing synthetic polymer.

2. The control block shall be the same material as the measuring chamber and be located on the top of the chamber. The control block shall be located after the strainer.

3. The measuring chamber outlet port shall be sealed to the maincase outlet port by means of an O-ring gasket.

4. The flat nutating disc shall be a single piece made from non-hydrolyzing synthetic polymer and shall contain a type 316 stainless steel spindle. The nutating disc shall be equipped with a synthetic polymer thrust roller located within the disc slot. The thrust roller head shall roll on the buttressed track provided by the diaphragm.

G. Encoder Register Unit

1. All meters shall be equipped with encoder remote registers per AWWA C707.

2. All registers shall be calibrated to display cubic foot unit of measure.

3. All registers shall be direct mounting self-contained solid state metering systems with electromagnetically encoded measuring elements feeding an electronic solid state odometer.

4. Registers shall provide a nine-digit visual reading at the meter on a LCD display capable of testing the meter and an eight-digit meter reading through transmission.

5. Registers shall be capable of detecting leaks, tampering and reverse flowboth visually on the register and through communication with the MTU. Flow rate shall be, at a minimum, visually indicated on the register.

6. Registers shall be offered in 2 model types: one that is suitable for interior installations and another that is fully weatherproof and suitable for submerged pit installation.

7. Encoder registers shall be solid state incorporating an application specific integrated circuit and firmware designed for accurate measurement verification and information transmission.

8. Register shall be updated to the manufacturer's latest firmware version at the time of installation.

H. Meter Connection Nut Seals

1. All meters shall be installed with meter connection nut seals with stainless steel retaining clips as manufactured by Inner-Tite or approved equal.

I. Strainers

1. Meters that require non-integral strainers are not acceptable.

2. All meters shall contain a removable polyproplene plastic strainer screen. The strainer shall be located near the maincase inlet port before the measuring chamber. The strainer shall also function as the device that holds the measuring chamber in place within the maincase. Straps or other types of fasteners shall not be acceptable.

J. Change Gears

1. Change gears will not be allowed to calibrate the meter.

K. Valves

1. In the event that an inside valve needs to be replaced under the Non-Standard Installation allowance, valve shall be Ford Meter Box B11-333-NL no lead full port quarter turn ball valve in open right configuration or approved equal.

## 2.03 METER TRANSMISSION UNITS (MTU)

A. Provide R450 Meter Interface Units as manufactured by Neptune Technology Group for compatibility with the Owner's Neptune's Fixed Base System. All MTUs shall be designed for exterior installation on the side of homes and/or buildings. All MTUs shall

be weatherproof. MTUs to be installed in pits shall be of watertight construction suitable for submerged applications.

B. Frequency Range: All MTUs shall operate in the 450-470 MHz frequency range.

C. Power: All MTUs shall be powered by Lithium batteries in conjunction with a capacitor.

D. Operation Temperatures: All MTUs shall be designed to operate between the temperatures of minus 22 degrees F (minus 30 degres C) and 149 degrees F (65 degrees C).

E. Compliance: All MTUs shall comply with the Owner's FCC Part 90 Land Mobile Radio Service License Agreement.

F. Furnish a quantity determined by Contractor of Neptune CE 5320 ARB FixedBase AMI Field Service Tools, handheld (Neptune handhelds) necessary to ensure proper installation.

## PART 3 – EXECUTION

### 3.01 CUSTOMER NOTIFICATION AND APPOINTMENT SCHEDULING

A. All installations shall be made at the convenience of the Customer. All appointments shall be made in a courteous and professional manner during reasonable hours, via letter notices, door hangers, telephone calls, post cards, door-to-door solicitation or by additional letters. The Contractor must supply a sufficient number of toll-free telephone lines to receive all incoming requests for appointments 24 hours a day, seven days a week that is suitable for handling calls for both field support and appointments. Contractor shall also provide appointment scheduling on a website.

B. A spreadsheet of available information containing Customer name, owner address, meter address, account number, and meter size shall be provided to the Contractor after award. The Contractor shall be responsible to gather any/all missing information required to schedule meter replacements. The Contractor shall verify the meter sizes during pre-inspections, and update the aforementioned spreadsheet as new information becomes available. To expedite the installation Project, the Owner will advertise the Project in the local paper of record and provide a Project overview on the Owner's website, publicizing the Project. The Contractor shall assume all responsibility for attaining entry into the businesses and residences. If phone calls are required, the Contractor shall be responsible for obtaining a list of phone numbers for the Customers.

C. The Contractor shall make 4 attempts within a 3 week timeframe to schedule an installation. Three of these attempts shall be made with first, second, and final written notices mailed to the meter & owner's addresses. The fourth attempt shall be made by use of a door hanger. All content in notices and door hangers and associated paper color shall be approved by the Owner prior to distribution. All mailings shall be sent first class and shall originate from Massachusetts. The Contractor shall maintain a database record

of attempts made. The Contractor shall provide a database, which shall include the date, time, type of contact attempted for each account, and additional information required by the Owner. A sample of the database that includes a list of database field entries shall be submitted to the Owner, for approval, prior to population of the database.

D. A "lockout" occurs after 4 or more unsuccessful attempts to schedule an installation, as specified, in paragraph C, above. If a "lockout" occurs,:

1. Make at least 3 visits within a 2-week timeframe: 1 visit on a weekday in the morning, 1 visit on a weekday after 6:00 PM, and 1 visit on a Saturday. A door hanger must be left after each attempted contact explaining the purpose of contact, together with a toll-free telephone number and email address, and where the Contractor should be reached to schedule an appointment. A sample of the notice shall be submitted to the Owner, for approval, prior to the first visit. The color of the door hangers for each attempt shall be approved by the Owner.

2. If a telephone number for the water Customer is available, the Contractor shall continue to attempt to contact the Customer or owner at least 3 times over a 2 week period. The installation and call backs shall be at no additional cost to Owner. If after 3documented telephone contacts the Customer has not responded, the Contractor shall add the Customer's information to the database and provide the Owner and Engineer with a complete listing of the no response contacts on a monthly basis. The Owner will then be responsible for scheduling the installation on the Contractor's behalf.

E. If the Contractor receives returned mail, it is the responsibility of the Contractor to notify the Owner once the returned mail is received prior to future mailings. If the Owner provides an updated address, it is the responsibility of the Contractor to note the updated address in the database and send out future mailings with the updated address.

F. It is expected a large percentage of installations will result from door-to-door solicitation. The Contractor's field personnel shall use the following procedure for door to door contact.

1. Attempt to contact the Customer by ringing the doorbell or knocking on the door only. Do not knock on windows.

2. If Customer is present, inform them of the Meter Installation Program and attempt to complete installation. If installation cannot be accomplished due to Customer inconvenience, the Contractor shall be capable of scheduling an appointment while on site. At no time shall a Contractor threaten any Customer with termination of service or any other action for failure to comply with the installation.

3. The Contractor shall not enter a residence without permission or presence of an adult, of age 18 or older.

4. If Customer is not present, the Contractor shall leave an approved door hanger notice in a visible location. The notices shall not be left in the mail box.

G. The Contractor may find some Customers are not accessible during daytime working hours. The Contractor shall be available during evening hours and on weekends to accommodate Customers' reasonable requests for appointments, per approval by the Owner, on a case by case basis, at no additional cost to Owner.

H. The Contractor shall immediately notify the Owner of vacant or abandoned premises. Contractor shall consider a premise vacant/abandoned by documenting the lack of an electric meter head.

I. Delays caused by non-responsive Customers, no-show appointments, or repeat visits shall be at no additional cost to Owner.

## 3.02 NEWSPAPER ADVERTISEMENTS

A. The Contractor shall place informational advertisements for the Project in the local newspapers on a monthly basis at no additional cost to Owner. The wording and format shall be approved by the Owner.

## 3.03 PERSONNEL AND IDENTIFICATION

A. The Contractor shall provide a qualified project manager to oversee the Project. The Contractor shall provide personnel that are of acceptable character and personality for meter replacement Work that involves unsupervised entry into homes.

1. All employees of the Contractor who may have direct supervised and or/unsupervised contact with any Customers of the Owner must have complete pre-employment drug and alcohol screening tests, and criminal background checks (CORI and SORI), and must provide this information to the Owner.

2. The names, photographs and social security numbers of all installers must be provided to the Owner. The Contractor shall notify the Owner of any changes to the list of personnel during the Project.

3. All of the Contractor's installers shall be registered with the local police department prior to commencement of the Project. All personnel assigned to the Project by the Contractor shall be in approved company uniform, have an approved picture I.D. and wear a meter installer badge showing the Owner's Project information.

## 3.04 VEHICLE IDENTIFICATION

A. All vehicles used by the Contractor shall display identification acceptable to the Owner at all times. This identification shall be visible from/on both sides of the vehicle.

## 3.05 WORKING HOURS, ENTRY AND CONDUCT

A. Work performed under this Contract may be conducted during ALL hours of the day, 7 days a week, provided that the Contractor has the consent of the Customer and does not create a nuisance or disturb the peace. The Contractor shall have a crew available to perform night installations where service interruption is not allowed before 10 PM. No claim for additional payment shall be allowed for evening and weekend Work. The Contractor shall coordinate Work with the Owner and the Engineer on a daily basis. Contractor shall reschedule "no-show" properties at no additional cost to the Owner.

B. The Contractor shall not perform any Work in the building other than that required to complete the meter and MTU replacement. The Contractor shall not solicit any additional business from the Owner's Customers. Personnel shall not accept payment for Work or tips during the meter replacement or building inspection.

C. Any inappropriate conduct shall be grounds for termination of the Contract. Any reports of lack of courtesy or workmanship must be investigated by the Contractor within 24 hours.

D. The Contractor shall not request use of homeowners' sanitary facilities.

## 3.06 COMMUNICATIONS/EMERGENCY RESPONSE

A. The Contractor shall have a 24 hour answering service capable of handling the call volume and complete with emergency personnel to respond to any emergency that may arise within 30 minutes. If the Owner directs the Contractor to make repairs, the problem shall be corrected by the Contractor within 4 hours of notification. If the Contractor non-responsive to the Owner's request, the Contractor shall be liable for all costs incurred by the Owner to resolve the problem.

## 3.07 PROGRESS REPORTING

A. The Contractor shall provide weekly installation reports to the Owner. The reports shall contain, but not be limited to, work order number, account number, installation date, account address, MTU number, new meter number, new meter size, old meter number, old meter size and old meter reading. Other information may be requested by the Owner.

## 3.08 MTU INSTALLATION

A. The Contractor should be prepared for all possibilities. The Contractor shall remove and dispose of the existing touchpad and wiring. MTUs should NOT be located near any large metallic objects that can impede the radio signal.

B. The Contractor shall install and activate the MTUs. MTUs shall be installed concurrently with water meter installation Work.

C. The MTU shall be sealed with a tamper resistant seal and all connections are to be watertight. All mounting holes in the building shall be sealed and watertight.

D. The Contractor shall install and connect the wire to the new meter/register and program the MTU. Contractor shall provide a strain relief loop around the meter head and all wiring shall be secured with anchors or cable ties.

E. The Contractor shall be responsible for verifying that MTUs are properly transmitting data to the meter reading system. When connected to the subject water meter, the MTU shall automatically detect or require minimal programming to read the meter. Once the MTU is connected and activated to the meter reading system, the Contractor shall verify the installed MTU is reading properly and the data is being received using the Neptune handheld to ensure proper installation. All Neptune handhelds shall be turned over to the Owner at the end of the Project.

F. If it is determined that the meter and/or MTU provided is faulty, the Contractor shall immediately correct, replace, and install equipment at no additional cost to the Owner. Contractor shall not make claims for additional compensation to replace faulty MTUs. Following repair and/or correction of the system components, the system shall be re-tested as described above. The Contractor shall maintain a list of faulty MTUs. The information provided in the list shall be approved by the Owner. Repairs shall be documented according Article 3.15.

G. For a MTU installation to be considered successful, radio transmissions between the MTUs and DCUs (both ways) shall have a strong Received Signal Strength Indication (RSSI) of 90dBm or better. MTUs that fail the verification testing shall be relocated until positive and acceptable results are obtained at no additional cost to Owner.

H. Contractor shall clean any and all debris from the Work area and store tools.

I. MTUs shall be installed on the outside of the building a minimum of 36 inches above grade. All MTUs shall be strategically located so they will easily communicate with DCUs and also be accessible to maintenance personnel.

J. Care shall be taken by the Contractor to conceal any wiring or gel-cap connectors. The Contractor shall take steps to minimize the use of splices in the wiring between the MTU and the meter in all cases. If outside placement of the MTU is not feasible, the Contractor shall place the MTU inside in an accessible location acceptable to the Owner and Customer.

## 3.09 MTU PIT INSTALLATION

A. The requirements specified in Article 3.08, paragraphs A through H, shall apply to MTU Pit installations.

B. Owner has a quantity of pit set meters that will require replacement MTU installation. Pit covers may consist of heavy cast iron, non-metallic concrete, light gauge steel, and light gauge aluminum construction, etc. Installation instructions for each type of environment shall be done in accordance with the manufacturer's recommendations. If required, the Contractor shall coordinate with the manufacturer to provide training on the proper installation of the MTUs in a pit environment.

C. The Work includes the installation of the MTU either under the existing meter cover or through the existing meter cover. All light gauge steel or aluminum covers will have the MTU antenna installed through the pit cover unless this presents some form of traffic or pedestrian tripping hazard. If there is any question about placement of the MTU, the Contractor should consult with the Owner to determine the best location for the MTU.

D. There may be instances where the MTU shall be installed away from the meter pit. This will be in high traffic locations or where the existing cover is of heavy cast iron type construction and will not permit good meter reading integrity. In these instances, the Contractor shall be prepared to make saw cuts or perform excavation to run the wiring from the meter to the mounting location for the MTU. Any additional Work required to mount the MTU shall be pre-approved by the Owner and shall be considered Nonstandard Installation.

## 3.10 WATER METER INSTALLATION

A. For all meter installations, pre-inspections are required to confirm the type and lay length of the existing meter. During the pre-inspection, the Contractor shall determine the required lay length so that proper spool piece(s) will be on site when meter replacement occurs. In addition, the Contractor shall inspect the site for any possible issues that will be encountered during meter replacement. If any potential issues are observed, the Contractor shall notify the Engineer, so that the issue can be resolved prior to meter installation. Claims will not be granted for delays caused by failure to conduct a pre-inspection.

B. If requested by the Owner, Engineer, or property owner, the Contractor shall provide temporary water bypass to the property during the meter installation process. The Contractor shall be responsible to furnish, install, and remove all pipe and fittings required to provide temporary water service. The cost of providing temporary water service shall be paid for under the allowance for Non-standard Installations. All proposed temporary bypasses shall be submitted to the Engineer, for approval prior to installation.

C. The Contractor shall make a determination upon entry to the building that there are no branches or connections to the service line between the point of entry and the water meter. The Contractor also should not have to move any equipment, furniture, appliances, or other articles to access the meter setting. Depending on the findings upon initial entry and inspection, meter replacement will fall into one of the classifications as listed below:

1. Standard Installation: A standard setting will have an operable valve at the meter, an operable curb stop or one that can be frozen, and the service line must be free of any connections before the service valve. The condition of the service line shall be of sufficient integrity to allow a meter installation without causing damage to the service line. The MTU shall be installed on the exterior within 50 feet of the meter register. If exterior installation of the MTU is not feasible as standard and/or non-standard installation classification, the MTU may be installed in the interior of the building.

2. Non-standard Installation: Any settings that have conditions present where a Standard Installation cannot be performed shall be considered Non-standard. These are special or unusual cases that may involve moving drain taps or fixtures, preexisting leaks at or near the meter connection, finished basements with paneling requiring extensive extra wiring, or a restricted indoor space which will not allow an installation without rearranging plumbing. These situations, plus others not listed, shall be considered Non-standard and referred to the Owner for further review. At no time is the Contractor to pursue Non-standard Installation Work without advance written approval of the Owner's representative.

D. The Contractor shall be responsible to remove existing meters and install all new meters per the manufacturer's specifications and installation instructions. The Contractor shall also be responsible to ensure that the new meter installation is free of leaks and defects.

E. The Contractor shall wire seal the register head, meter screws, and seal both meter tailpieces with a tamper resistant plastic protector meter seal upon the completion of testing.

F. The Contractor shall test each meter installation upon completion by running water through the meter and observing that the register operates. Should the water meter fail to operate during the test, the Contractor shall remove the newly set meter and install another new meter in its place. The Contractor shall be responsible for coordinating with the meter vendor to exchange the faulty meter for a replacement meter. A list of faulty meters shall be maintained. The information provided in the list shall be approved by the Owner. Repairs shall be documented according to Article 3.15.

G. Final Meter Reading: The Contractor shall obtain a final meter read on the existing meter prior to replacing it with a new meter.

H. The Contractor shall be responsible to coordinate with all property owners to resolve any plumbing issues caused by the meter installation, including rusty water, debris removal from sink screens, debris removal from toilet diaphragms, etc.

I. Upon completion of the installation Work the approved installation work order shall be completed to ensure accurate recording of all required information.

J. Prior to leaving the premise the Customer and/or building occupant shall be provided with written explanation of meter operation, Contractor contact information and notification period for defects due to the Work.

K. Take photographs of the installation location after the installation in accordance with Article 1.07.

L. The Contractor shall be responsible to clean the Work area after the meter installation is complete. The Contractor shall be responsible to handle any water discharged during the meter installation process. The Contractor shall be responsible to prevent any/all damage or destruction of property during the meter replacement and MTU installation process. The Contractor shall be responsible to repair any damage at no expense to the Owner, Customer, or property owner.

## 3.11 CURB STOPS

A. If the inside valve is not capable of a shutdown, the Contractor shall be responsible to locate, clean-out, and shut off the curb stop. Each crew shall, at a minimum, carry a metal detector, a gate key to operate the curb stops, a picker to pull material from curb stop risers, 8-feet and 10-feet valve wrenches for deep services, and a blower to blow out debris from curb stops. The Contractor shall be responsible for any damage caused to the curb stop during operation. The Contractor shall note all accounts requiring curb stop operation. If a curb stop is deemed inoperable the Contractor shall freeze the service with appropriately experienced staff. The Contractor shall be responsible for any damage caused to the pipe during the freezing and thawing process. Contractor shall have an appropriate sized pipe crimper(s) and rounder(s) available during installations.

## 3.12 WARNING STICKER

A. The Contractor shall install a tamper warning sticker on the water meter and the MTU device that clearly advises the Customer of penalties in the event of damage or tampering. Stickers shall be tamper proof and tear if equipment is tampered with.

## 3.13 REMOVAL OF EXISTING METERS

A. Remove existing water meters at various locations throughout the City, and transport to and store removed water meters in a locked, sheltered, heated, and secure location for later use in verifying final readings for a period of 90 days from the date the meter is replaced.

B. The Contractor shall be responsible for any lost or stolen meters during this period. Transportation and storage of existing water meters shall be included in the unit price for meter replacements. The Contractor shall pull meters, as required, from storage to verify final readings. **Failure to record the final reading may result in the Contractor being responsible for payment of the Customers' final water and sewer bill.**

C. After the 90 day period, Contractor shall remove the register from the meter and properly dispose of the meter and reimburse the Owner for the salvage value specified by the Contractor. Store existing meter registers for a period of 12 months from the date of meter replacement. Legally dispose of meters and demolition debris (wire, conduit, pipe, etc.)

D. The Contractor shall be responsible to identify by Customer account number and store all existing meter registers for a period of 12 months from the date of meter replacement and shall be responsible for any lost or stolen registers during the 12 month period. The Contractor shall pull registers, as required, from storage to verify final readings.

## 3.14 INSTALLATION DOCUMENTATION AND PROGRESS REPORTING

A. The Contractor shall prepare 3 copies of all documentation of meter and MTU installations on a Meter Installation Form. One copy of the form shall be submitted to the Engineer within 1 week of completing each installation in both electronic and hard copy form. One copy of the form shall be submitted to the Owner within 1 week of completing each installation. One copy of the form shall be retained, by the Contractor.

B. The form shall provide, at a minimum, the following data and shall be in a layout acceptable to the Owner.

1. For the old meter removed: location of meter, date of installation of upgrading, size and type of meter, manufacturer, serial number, and final reading. Failure to record the final reading may result in the Contractor being responsible for payment of the Customers' final water and sewer bill.

2. For the new meter and MTU installed: location within the building, date of installation, manufacturer, size and type of new meter, condition of existing valves, size and type of backflow preventer (if applicable), serial number, MTU identification number, meter brass number, and initial reading (following all testing). The Contractor shall utilize bar code tags affixed to the meter and/or MTU whenever possible by removing the tag(s) and affixing them to the work order form. New meter test tags shall be affixed to the work order.

3. Miscellaneous data: inoperable valves (curb stops), corroded pipes, presence of electrical ground connections (for example, service pipes that are grounded to the building's internal electrical system), condition of water service, unusual situations, and extra parts required to complete the installation, etc. In cases where electrical grounds need to be removed, the Contractor shall provide the services of a licensed electrician to perform the Work.

4. Latitude and Longitude of the installation address. The Datum for Latitude and Longitudes recorded shall be NAD83.

5. Start and end times for the installation.

6. Additional information requested by the Owner.

7. Repairs: Items 1 through 5 shall apply. In addition, documentation shall note "Repair" at the top of the page and the type of repair. A copy of documentation for all previous installations for the given account shall be attached.

C. Summary Progress/Installation Reports

1. The Contractor shall provide the Owner and Engineer with electronic summary progress reports containing, at a minimum, the following information:

   - Customer names, addresses and account numbers.
   - Appointment scheduling and installation production status.
   - Listing of accounts that have been non-responsive or have refused entry. For accounts that have been non-responsive, the listing must also include documentation that the Contractor has attempted to contact the property owner as required in this Specification.
   - Listing of accounts where the meters are not transmitting a reading, or are not functioning properly, even after the corrective measures described have been taken.
   - List of "problem" accounts where the Contractor could not install meters and/or MTUs due to conditions such as blocked access to meter, faulty plumbing, meter sizing issues, or any other situation that prevents the Contractor from installing a meter or MTU.
   - List of accounts with inoperable valves (curb stops).

2. The summary reports shall be submitted to the Owner and Engineer on a weekly basis with the information broken down daily. Reports shall be submitted via email in PDF format and on a CD and shall be a requirement for payment. Weekly summaries MUST also be submitted for the Contractor to receive payment.

## 3.15 REPAIRS

A. Owner or Engineer will notify Contractor weekly of repairs that are required to be completed. Contractor shall contact Customer to gain access to complete the repair. All repairs shall be completed within 5 working days from the day the Contractor received notification from the Owner or Engineer.

## 3.16 OPERATION AND MAINTENANCE TRAINING

A. The Contractor shall prepare material and provide no less than 24 hours of training to Owner field and office staff on all aspects of product installation and system operation, and on mounting, wiring and testing the MTU units to the water meter. This training will take place at an Owner designated location and at a time coordinated by the Owner.

**END OF SECTION**

# SECTION 02502

# FIXED NETWORK DATA COLLECTORS AND ANTENNAS

## PART 1 - GENERAL

### 1.01 SUMMARY

A. Furnish, install and test new Neptune Technology Group, Model R450 Data Collectors with antennas, with full compatibility and accurate operation with Owner's existing fixed network automatic meter reading system, in a guaranteed quantity sufficient for 100 percent coverage of the City distribution area.

1. The Owner has determined that specifying this proprietary equipment for the Project is in the public's best interest as the Owner maintains a standardized replacement parts inventory for equipment manufactured by the same manufacturer, to ensure compatibility and interchangeability of parts and to simplify and reduce the cost of maintenance and repairs.

B. Items to be provided under this Section shall include, but are not limited to, the following:

1. Perform a desktop and field verified propagation study to determine additional quantity of DCUs required to cover the City's entire distribution area.
2. Provide DCUs and antennas in various locations throughout the City.
3. Provide security fencing.
4. Provide system security.
5. Commission and test DCUs.
6. Furnish record documents.
7. Provide training to City Staff.

### 1.02 PRICE AND PAYMENT PROCEDURES

A. Measurement and payment requirements: per Division 01 General Requirements.

### 1.03 ADMINISTRATIVE REQUIREMENTS

A. Coordination, Sequencing, and Scheduling: per Division 01 General Requirements.

B. Shop Drawings: manufacturer's instructions, literature, illustrations, specifications, drawings, data and descriptive literature on all pieces of equipment.

C. Submit details of suggested features or components that can be future added to the FNAMRS to permit services that are complementary to the meter reading process. These added services and features might include, but not be limited to; security measures, telemetry, SCADA operation, irrigation control, and leak detection.

D. Sketches for proposed DCU locations including power source, wiring runs, antenna support method and new service if needed.

E. Propagation and wireless network design

F. List of ports required for normal and emergency operations

G. Configurations of all network equipment

H. Network security design

I. New account information and passwords via protected media

J. Closeout and Maintenance Material Submittals: per Division 01 General Requirements.

1. Operation and Maintenance Data: including copies of all Shop Drawings, reports, maintenance data and schedules, description of operation, and spare parts information

## 1.04 QUALITY ASSURANCE

A. Provide in accordance with Division 01 General Requirements.

## 1.05 DELIVERY, STORAGE AND HANDLING

A. Provide in accordance with Division 01 General Requirements.

B. Deliver equipment in a timely fashion to insure uninterrupted progress of the Work.

C. Handle all equipment and software very carefully. Equipment and accessories that are cracked, dented, or otherwise damaged or dropped will be rejected.

D. Store equipment to permit easy access for inspection and identification.

## 1.06 WARRANTY

A. Special Warranties/Extended Correction Period and Backhaul fees: in accordance with Section 00805 of the Additional Supplementary Conditions.

# PART 2 - PRODUCTS

## 2.01 PROPAGATION STUDY

A. The coverage area for the propagation study shall include the following:
1. Entire municipal boundary of the City of Lowell.

2. Area in Dracut bounded by Bridge Street to the West, Arlington Street to the North, Methuen Street to the Northeast, Varnum Street to the East and Merrimack Ave to the South.
3. Area in Dracut bounded by Skyline Drive and Mammoth Road to the West, Donohue Rd, Phineas St, Lakeview Ave and Old Road (and a line extending west to east from Old Road at Hildreth to Bridge Street) to the North, Bridge Street to the East and the Lowell City Boundary to the South.
4. Area in Chelmsford bounded by the Lowell City Boundary to the West and North, Gorham Street to the East and Route 495 to the South.
5. Area in Chelmsford bounded by Steadman Street from the Lowell City Boundary southeasterly to Route 3.
6. Area in Tyngsborough bounded by Varnum Ave/Sherburne Ave to the Northeast, the City of Lowell boundary to the East, Pawtucket Blvd to Southwest and Butterfield Road to the West.

B. To ensure proper design, installation and operation of the system, research and study the entire area of the City's water distribution system to compensate for, topology, RFI, physical structures, foliage and other issues that may affect the proper operation of the DCUs. The City has five (5) existing DCUs installed at locations identified in Section 00300.

C. A radio frequency propagation study, field surveys, and network design shall also be performed by a qualified and certified company to ensure that signals will be received within the limits of the City for all water meters with no interference with existing equipment including but not limited to fire and police antennas, water/wastewater antennas and other emergency antennas. In the event that interference does occur, the Contractor shall be responsible for resolution of the issues.

D. The Contractor shall be responsible for conducting a propagation study of each network data collector, as well as preparing a wireless network design showing expected RF signal levels to end devices prior to any Work being performed. The Contractor shall submit the propagation and wireless network design to the Engineer for informational purposes.

## 2.02 FIXED NETWORK DATA COLLECTOR UNITS (DCU)/ANTENNAS:

A. Acceptable DCUs/Antennas: R450 as manufactured by Neptune Technology Group (no substitution allowed), for full compatibility and accurate operation with Owner's existing Neptune fixed network automatic meter reading system.

B. Contractor shall provide the guaranteed quantity of DCUs determined by the Contractor during bidding to cover 100 percent of the distribution area. Additional DCUs subsequently determined to be required shall be furnished and installed at no additional cost to Owner.

C. DCUs

1. Operating Temperature -22 degrees F to 140 degrees F
2. NEMA 4X enclosure
3. Operating Humidity of 0 to 95 percent non-condensing
4. Licensed Frequency in the 450 to 470 MHz range
5. 110-220V AC
6. CDMA, GPRS and Ethernet Backhaul Options
7. Tower based installation

D. DCU features

1. Two-way Communications
2. Multiple backhaul options
3. Priority alarm support
4. Over the air programming
5. Backup of data
6. Optimized cell size
7. Remote system monitoring
8. Hourly usage/consumption data

E. The DCUs shall be powered using solar panels with battery backup, and contained in NEMA rated cabinets to retrieve and relay meter readings to the Owner's fixed network base station.

1. Solar panels and battery backups shall be designed for continuous duty appropriate for the geographic area.

2. In the event that conditions warrant line power, DCU/antennas may be powered using the building's AC electrical service with written approval by the owner on a location by location basis. Provide equipment and material necessary to meet the requirements for such electrical service at no additional cost to Owner, including, but not limited to:

   - grounding and surge protection per the MEC
   - separate surge protection box in the panel for the DCU dedicated circuit
   - rigid conduit for all wiring and cables

3. Provide outdoor rated UV protected Cat 5E cables, gel filled, shielded and terminated with drain wire connections. All cables will be tested and certified to specifications of the cable.

4. Provide surge protectors for the Ethernet cable.

F. Provide for protection against static discharge, electrical, surges, and indirect lightning strikes. Antenna systems shall have electromagnetic pulse (EMP) protection.

G. The DCUs must be capable of receiving signals from the MTUs and then forwarding them wirelessly to the central computer system at the Owner's fixed network base station. The DCUs shall have an integral three day back up battery supply.

H. Provide for the highest signal strength between DCUs and MTUs necessary for a fully functioning system that covers the distribution area even during weather events.

I. All equipment and software must be registered to the City of Lowell.

J. All DCU equipment is expected to have a useful and maintenance free service life of not less than 20 years.

K. Provide complete installation and operating instructions for all supplied hardware and software equipment and provide support materials needed for installation.

L. Each wireless device shall be provided with security mechanisms, such as passwords or security codes, to protect the device from unauthorized modification or use.

## 2.03 CHAIN LINK SECURITY FENCING:

A. In areas where DCUs and antennas are proposed that will not be enclosed by existing security fencing, chain link fencing shall be provided to protect the DCU and antenna in accordance with the following and the attached detail.

B. Fabric: No. 9 gauge (0.148 inch) finished size steel wires (9 gauge steel core with 1,290 pound break strength) with vinyl clad interwoven into 2-inch mesh, with top selvages knuckled for fabric 96 inches high and under, and both top and bottom selvages twisted and barbed for fabric over 96 inches high. Furnish one-piece fabric widths.

1. Fabric shall be securely fastened to the line post and top rail with 9 gauge vinyl coated steel core tie wires or 1/2 inch Bandit type ties of not less than 6 gauge spaced not more than 14-inches on centers on line posts and not more than 24-inches on centers on top rail. Stretcher bars with stretcher bar bands shall be provided at all pull, corner, and terminal posts; stretcher bar bands shall be provided at intervals of not more than 12-inches on centers for full height of fence; stretcher bars shall be ¼-inch by ¾-inch and full height of fabric.

C. Framework: Vinyl Clad Galvanized steel, ASTM A 120 or A 123, with not less than 1.8 oz. zinc per square foot of surface.

D. Hardware and Accessories: Galvanized, ASTM A 152, with zinc weights not less than 1.5 oz. per square foot of surface.

E. Barbed Wire: three strands of twisted wire, 12-1/2 gage, with 4 point barbs of 14 gauge wire on 3 inch spacing. Barbed wire shall be galvanized and conform to ASTM A-121, chain link fence grade. Barbed wire supporting arms shall be at an

angle of 45 degrees and shall be of sufficient strength a 250 pound load applied at the outer strand.

F. Gate Frames: fabricated of 2-inch outside diameter pipe weighting 3.65 pounds per foot. Frames shall be of all-welded construction with malleable iron corners, rigid enough to be free of twist or sag. Each gate shall have horizontal and diagonal 2-inch tubular brace welded to sides of gate frame. Swing gate shall be fitted with heavy zinc-coated malleable iron hinges; bottom hinges shall be of the ball-and-socket type to receive vertical member of gate frame. After fabrication the gate frames shall be hot-dip zinc-coated, as specified herein.

G. Gate Hardware:

1. Hinges: Size and material to suit gate size, non-lift-off type, offset to permit 180 degree gate opening. Provide 1-1/2 pair of hinges for each leaf over 6 feet nominal height.

2. Latch: Forked type or plunger-bar type to permit operation from either side of gate, with padlock eye as integral part of latch.

## PART 3 – EXECUTION

### 3.01 DCU INSTALLATION

A. The Contractor shall install the DCUs/antennas as per the manufacturer's installation instructions and at Owner approved locations. These locations are included in Section 00300.

B. Perform required pre-installation activities.

C. Owner requires that all installed equipment is as unobtrusive as possible and nearly invisible to the community while still achieving optimal performance.

D. No electrical, cable or telephone pole mountings shall be permitted. DCUs shall be hidden as much as possible and mounted in such a way as to cause no damage to existing buildings or structures. Mounting holes shall be properly sealed.

E. Contractor shall use the utmost caution with installation personnel and practices when working at elevated locations or near power lines.

F. City-owned property is available to locate DCUs/antennas. All DCU equipment shall be installed only at City-owned properties. The structure/building on a City-owned property MAY NOT be available for the installation of DCUs.

G. Install DCUs on City-owned properties including any towers or poles that need to be installed or special bracketing required to secure antennas to structures. The final locations of DCUs/antennas shall be approved by the City and Engineer.

1. If the Contractor selects a water storage tank for antenna mounting and DCU installation, the Contractor is responsible for complying with the latest MassDEP Public Water Supply Guidelines section for storage tanks. The Contractor shall also comply with MassDEP Policy DWP 98-01 on antennae being attached to Public Drinking Water Storage Tanks.

2. Contractor is responsible for all structural analyses required to ensure all mountings will not affect the structural integrity of the building or structure.

3. The Contractor is responsible for properly securing the antenna to the building or structure including painting, etc. if required. If it is not feasible to attach the antenna to the structure provide a tower or pole as approved by the Owner at no additional cost to the Owner. If a building or property previously approved by the City is deemed infeasible, the Contractor shall select an alternate City-owned property/building at no additional cost to the Owner.

4. The Contractor is responsible for ensuring that antenna mountings are in accordance with Federal Aviation Administration requirements.

H. Power shall be provided through solar panels with backup batteries installed by the Contractor.

1. If electrical service to power DCUs is required:

- Obtain all required permits to perform electrical Work.
- Comply with Electrical Code (MEC) and all other applicable Regulations. Provide grounding and surge protection per the MEC.
- Provide a dedicated circuit back to the panel board for the DCU and shall not tie into an existing circuit.
- Install a separate surge protection box in the panel for the DCU dedicated circuit
- Install rigid conduit for all wiring and cables.

I. Install outdoor rated UV protected Cat 5E cables and test and certify to specifications of the cable.

J. Install surge protectors for the Ethernet cable.

K. The DCUs units and antennas shall be electrically isolated and protected against static discharge, electrical, surges, and indirect lightning strikes.

L. In areas where security fencing is required, disturbed land area for fence installation shall be restored.

M. After all DCU/antennas are installed, Contractor is responsible for testing the entire City of Lowell for adequate signal coverage prior to MTU installation including testing areas identified in the initial propagation study that showed poor signal coverage. Contractor is responsible for any and all measures necessary to provide full and adequate coverage for 100 percent of the distribution area at no additional cost to the Owner.

1. The DCUs must receive the signals from the MTUs and then forward them wirelessly to the central computer system at the Owner's fixed network base station.

2. Signal strength between DCUs and MTUs shall be the highest necessary for a fully functioning system that covers the distribution area even during weather events.

## 3.02 SYSTEM SECURITY

A. Provide a Network Security Design for the Owner's fixed network.

B. The Contractor shall configure all network equipment and the Network Management System ensuring compliance to all applicable City of Lowell security standards.

C. The configurations of all network equipment shall be reviewed and approved by Owner's Information Technology Department and Owner's smart grid consultants before being placed into service.

D. All wireless and wired data transmissions shall be encrypted. Data transmissions between MTUs and DCUs, and between DCUs and the Owner's fixed network base station shall be in a proprietary format to reduce the risk of deciphering by outside entities.

E. All IP based network equipment shall be configured to allow traffic based on IP addresses and TCP/IP port. Only ports required for normal and emergency operations will be enabled. A list of those ports shall be part of the Project delivery by the Contractor.

F. Contractor shall install and update all tested and validated security patches prior to installation. The Contractor shall verify and provide documentation that all updates have been tested and installed.

G. The Contractor shall clearly identify the security mechanisms and methods used (such as passwords or security codes) so the Contractor-configured or manufacturer default conditions may be changed.

1. The Contractor shall obtain manufacturer recommendations in writing on which accounts need to be active and those that can be disabled, removed, or modified.

2. The Contractor shall disable, remove, or modify all the accounts pursuant to the approved recommendation.

3. The Contractor shall disable or remove all default and guest accounts prior to testing and acceptance. Once changed, new accounts shall not be published except that new account information and passwords shall be provided to the Owner via protected media.

4. After installation and acceptance, the Contractor shall disable, remove, or modify all Contractor-owned accounts or negotiate account ownership with the Owner.

## 3.03 OPERATION AND MAINTENANCE TRAINING

A. The Contractor shall prepare material and provide no less than 80 hours of training to Owner field and office staff on all aspects of product installation and system operation. This training will take place at an Owner designated location and at a time coordinated by the Owner.

## 3.04 ATTACHMENTS

A. Figure 1 – Chain Link Fence Detail

**END OF SECTION**

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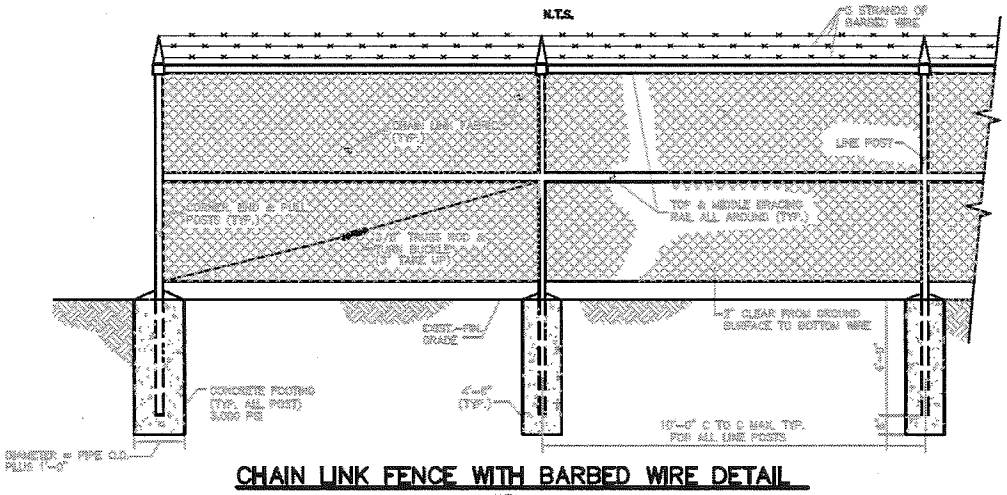
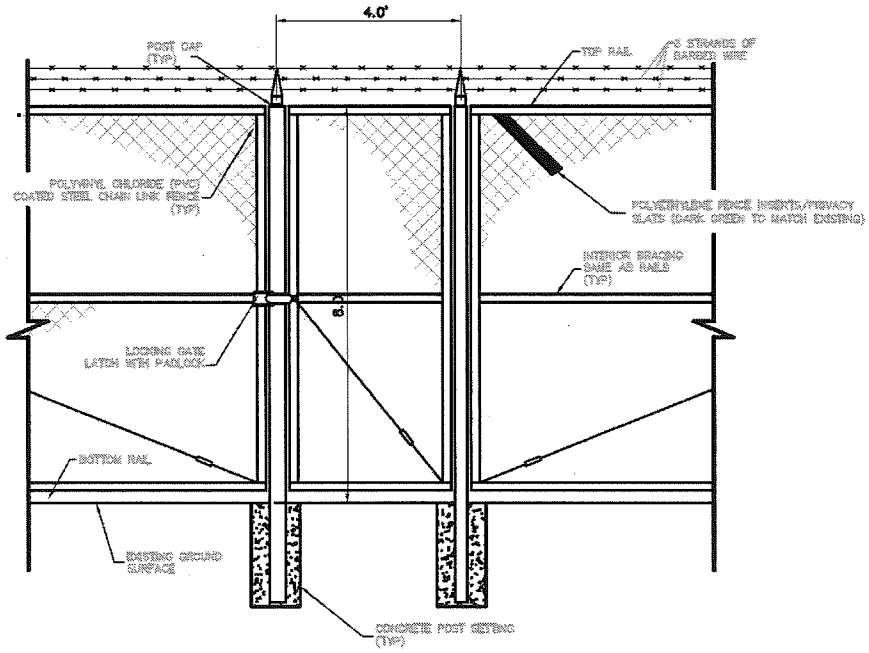



## CHAIN LINK FENCE WITH BARBED WIRE DETAIL

N.T.S.




## PEDESTRIAN GATE

N.T.S.

WOODARD &CURRAN
40 SHATTUCK ROAD | SUITE 110
ANDOVER, MASSACHUSETTS 01810
866.702.9371 | www.woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

CHAIN LINK FENCE DETAIL

DESIGNED BY:
CHECKED BY:
DRAWN BY:

LOWELL, MASSACHUSETTS

METER REPLACEMENT AND AMR SYSTEM

JOB NO. 22729
DATE FEBRUARY 2018
SCALE N.T.S.

FIGURE 1

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