BIDDING REQUIREMENTS, CONTRACT DOCUMENTS

and

TECHNICAL SPECIFICATIONS

FOR THE CONSTRUCTION OF

PROPOSED HERITAGE RAIL TRAIL CONNECTION
TO MINE FALLS PARK
NHDOT PROJECT NO. 40429
FEDERAL PROJECT NO. X-A004(400)

for the

City of Nashua
Hillsborough County

January 2018

Prepared by:

Hoyle, Tanner & Associates, Inc.

150 Dow Street
Manchester, New Hampshire 03101
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Hoyle, Tanner Project No. 902603 - i -
SECTION 00111
ADVERTISEMENT FOR BIDS
(EJDC C-111 Modified)

Proposed Heritage Rail Trail Connection to Mine Falls Park
City of Nashua
Nashua, NH

Sealed Bids for the construction of the Proposed Heritage Rail Trail Connection to Mine Falls Park will be received by City of Nashua, at the Central Purchasing Department, Lower Level, 229 Main Street, City Hall, Nashua, NH 03060, until 3:00 PM local time on March 2, 2018, at which time the Bids received will be publicly opened and read. The project includes construction of multi-use trail and pedestrian bridge. The trail will consist of an ADA complaint ramp from the Heritage Trail to an at-grade path along the western side of Everett Street. This path will cross Ledge Street at a new cross walk with new rapid rectangular flashing beacons to access the small existing park between Ledge Street and the Nashua Canal. A short section of proposed concrete sidewalk will transition from the existing brick pavers in the park to the 90-foot single span prefabricated steel truss pedestrian bridge supported on helical piles and a reinforced concrete stub abutment. The engineer’s estimate for the work is between $300,000 and $375,000. The anticipated project schedule is to start construction in spring 2018 and complete construction in summer 2018.

Bids shall be on a unit price basis, with additive alternate bid items as indicated in the Bid Form.

Bidders must be listed on the NHDOT “Prequalified Contractor’s List” with a classification of bridge and/or road construction or provide written documentation from NHDOT as of the date and time of the Bid Opening. Bids submitted from bidders who are not on the specified classifications of the NHDOT “Prequalified Contractor’s List” or who cannot provide written proof of prequalification from NHDOT prior to the time of the bid opening will be deemed unresponsive and returned unopened.

Beginning at noon on Monday, February 5, 2018, plans/bid documents will be available electronically from the City website www.nashuanh.gov – Services – Bid Opportunities. Please note paper copies will not be available.

No bid documents are available at the Central Purchasing Offices

Bidder shall submit a bid using the format provided and obtained from the Issuing Office (See Instructions to Bidders). A mandatory pre-bid conference will be held at 10:00 AM local time on Tuesday, February 20, 2018 at the Nashua City Hall, Room 208, 229 Main St., Nashua, NH 03060. Therefore, all interested bidders are Required to attend in order to prepare acceptable bid submissions.

Bid security shall be furnished in accordance with the Instructions to Bidders.

Owner: City of Nashua
By: Ms. Sarah Marchant, AICP
Title: Community Development Division Director

END OF SECTION
ARTICLE 1 - DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

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

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office as stated in the advertisement for bids.

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. Failure of Bidder to obtain authorized bidding documents from the issuing office may be cause for rejection of a bid.

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.

2.04 Bidder agrees to accept full responsibility for their use of the electronic files and the completeness, correctness, and/or readability of the electronic media file, and shall indemnify, defend and hold harmless, Hoyle, Tanner & Associates, Inc. from any and all claims (including third party) arising from discrepancies between the electronic media file and the sealed drawings or report.

ARTICLE 3 - QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder’s qualifications to perform the Work, after submitting its Bid and within five days of Owner’s request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:

   A. Two Bank References
   B. List of Relevant Completed Projects
   C. Client References
   D. Present Project Commitments, with schedules for completion
   E. List of Proposed Subcontractors and the trades they will provide
   F. Bidders must be listed on the NHDOT “Prequalified Contractor’s List” with a
classification of bridge and/or road construction as of the date and time of the Bid Opening.

3.02 A Bidder’s failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder’s qualifications.

3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder’s representations and certifications.

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

4.01 Site and Other Areas

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 Existing Site Conditions

A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. The Supplementary Conditions identify:
   a. Those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.
   b. Those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
   c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
   d. Technical Data contained in such reports and drawings.

2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

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

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

4.03 Site Visit and Testing by Bidders

A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.

B. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.

C. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.

D. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

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

4.05 Other Work at the Site

A. Reference is made to Article 8 of the Standard General Conditions of the Construction Contract for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 - BIDDER’S REPRESENTATIONS

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

A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;

B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

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

D. carefully study all: (1) reports of explorations and tests of subsurface conditions, if any, at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures, if any, at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;

E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, if any, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder’s safety precautions and programs;

F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the
determination of its Bid for performance of the Work at the price bid and within the
times 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;

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

K. agree that the submission of a Bid will constitute an incontrovertible representation
by Bidder that Bidder has complied with every requirement of this Article, that without
exception the Bid and all prices in the Bid are premised upon performing and
furnishing the Work required by the Bidding Documents.

ARTICLE 6 – PRE-BID CONFERENCE

6.01 A mandatory pre-Bid conference will be held at the time and location stated in the
advertisement for bids. Representatives of Owner and Engineer will be present to discuss
the Project. Bidders are required to attend and participate in the conference. Engineer
will transmit to all prospective Bidders of record such Addenda as Engineer considers
necessary in response to questions arising at the conference. Oral statements may not be
relied upon and will not be binding or legally effective.

6.02 If a mandatory pre-bid conference is held, only bids from those bidders in attendance will
be accepted by the owner.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted
to Engineer in writing. Interpretations or clarifications considered necessary by Engineer
in response to such questions will be issued by Addenda delivered to all parties recorded
as having received the Bidding Documents. Questions received less than seven days prior
to the date for opening of Bids may not be answered. Only questions answered by
Addenda will be binding. Oral and other interpretations or clarifications will be without
legal effect.
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 (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.

8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, 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.

8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven 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, for failure to timely attain Substantial Completion, or Final Completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 - SUBSTITUTE AND “OR-EQUAL” ITEMS

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

11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding
DOCUMENTS, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder’s sole risk.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.

12.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers proposed for portions of the Work for which such identification is required.

If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other 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 an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder’s Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

12.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will 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 subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

ARTICLE 13 – PREPARATION OF BID

13.01 The Bid Form is included with the Bidding Documents. Failure of Bidder to use the forms authorized from the Engineer will be cause for rejection of a bid.

A. All blanks on the Bid Form shall be completed and the Bid Form signed. Erasures or alterations shall be initialed by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words “No Bid” or “Not Applicable.”

13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.

13.03 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

13.04 A Bid by an individual shall show the Bidder’s name and official address.

13.05 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

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

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

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

13.09 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.

ARTICLE 14 – BASIS OF BID

14.01 Unit Price Base Bid with Alternates

A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form for the base bid and each alternative described in the Bidding Documents and as provided for in the Bid Form.

B. The “Bid Price” (sometimes referred to as the extended price) for each unit price Bid item will be the product of the “Estimated Quantity” (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding “Bid Unit Price” offered by the Bidder. The total of all unit price Bid items will be the sum of these “Bid Prices”; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

D. In the comparison of the Bids, Alternates will be applied in the same order of priority as listed in the Bid Form.

ARTICLE 15 – SUBMITTAL OF BID

15.01 The authorized Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.

15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), 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.” A mailed Bid shall be addressed to the party as indicated in the Advertisement for Bids. Bids received by electronic means will not be accepted.

15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

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

16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.

16.03 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 rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts
of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

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 AND AWARD OF CONTRACT

19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.

19.02 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.

19.03 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.

19.04 Evaluation of Bids

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

B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form. To determine the Bid prices for purposes of comparison, Owner shall announce to all bidders a “Base Bid plus alternates” budget after receiving all Bids, but prior to opening them. For comparison purposes alternates will be accepted, following the order of priority established in the Bid Form, until doing so would cause the budget to be exceeded. After determination of the Successful Bidder based on this comparative process and on the responsiveness, responsibility, and other factors set forth in these Instructions, the award may be made to said Successful Bidder on its base Bid and any combination of its additive alternate Bids for which Owner determines funds will be available at the time of award.

19.05 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers.
proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

19.06 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 20 – BONDS AND INSURANCE

20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner’s requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 22 – SALES AND USE TAXES

22.01 NOT USED

ARTICLE 23 – CONTRACTS TO BE ASSIGNED

23.01 NOT USED

END OF SECTION
SECTION 00410

BID FORM
(EJCDC Form C-410, Modified)

PROJECT IDENTIFICATION: Proposed Heritage Rail Trail Connection to Mine Falls Park

CONTRACT IDENTIFICATION AND NUMBER: Proposed Heritage Rail Trail Connection to Mine Falls Park
Hoyle, Tanner Project No. 902603
Client Project No. N/A

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to: City of Nashua
229 Main Street
Nashua, NH 03060

1.02 Bid Delivery & Opening Location: ________________________________

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

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

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<thead>
<tr>
<th>Addendum No.</th>
<th>Addendum Date</th>
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Hoyle, Tanner Project No. 902603 00410-1
B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all 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, if any, at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures, if any, at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder’s safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has correlated 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. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
K. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER’S CERTIFICATION

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing 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.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following prices:
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS</th>
<th>UNIT</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE DOLLARS CTS</th>
<th>TOTAL PRICE DOLLARS CTS</th>
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<td>201.21</td>
<td>Removing Small Trees, for the unit price per each of:</td>
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<td>201.31</td>
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<td>201.881</td>
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<td>203.1</td>
<td>Common Excavation, for the unit price per cubic yard of:</td>
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<td>203.101</td>
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<td>203.6</td>
<td>Embankment-in-Place (F), for the unit price per cubic yard of:</td>
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## BID SCHEDULE

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<th>ITEM NO.</th>
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<td>206.19</td>
<td>Common Structure Excavation Exploratory, for the unit price per cubic yard of:</td>
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<td>207.3</td>
<td>Unclassified Channel Excavation, for the unit price per cubic yard of:</td>
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<td>209.201</td>
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<td>304.3</td>
<td>Crushed Gravel (F), for the unit price per cubic yard of:</td>
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<td>304.31</td>
<td>Crushed Gravel for Shimming, for the unit price per cubic yard of:</td>
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<td>403.11</td>
<td>Hot Bituminous Pavement, Machine Method, for the unit price per ton of:</td>
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Hoyle, Tanner Project No. 902603  00410-5
<table>
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<th>ITEM NO.</th>
<th>ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS</th>
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<td>403.12</td>
<td>Hot Bituminous Pavement, Hand Method, for the unit price per ton of: Dollars (words) and Cents.</td>
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<td>403.6</td>
<td>Pavement Joint Adhesive, for the unit price per linear foot of: Dollars (words) and Cents.</td>
<td>LF</td>
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<td>410.22</td>
<td>Asphalt Emulsion for Tack Coat, for the unit price per gallon of: Dollars (words) and Cents.</td>
<td>GAL</td>
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<td>504.1</td>
<td>Common Bridge Excavation (F), for the unit price per cubic yard of: Dollars (words) and Cents.</td>
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<td>504.2</td>
<td>Rock Bridge Excavation, for the unit price per cubic yard of: Dollars (words) and Cents.</td>
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<td>508.</td>
<td>Structural Fill, for the unit price per cubic yard of: Dollars (words) and Cents.</td>
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<td>ITEM NO.</td>
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<td>510.99</td>
<td>Helical Piles, for the unit price per each of:</td>
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<td>520.12</td>
<td>Concrete Class A, Above Footings (F), for the unit price per cubic yard of:</td>
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<td>Concrete Class B, for the unit price per cubic yard of:</td>
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<td>520.213</td>
<td>Concrete Class B, Footings (On Soil) (F), for the unit price per cubic yard of:</td>
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<td>Water Repellent (Silane/ Siloxane), for the unit price per gallon of:</td>
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<td>538.2</td>
<td>Barrier Membrane, Peel and Stick - Vertical Surfaces (F), for the unit price per square yard of:</td>
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<td>Reinforcing Steel (Contractor Detailed), for the unit price per pound of:</td>
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<td>Steel Bollard (Removable), for the unit price per each of:</td>
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<td>Prefabricated Pedestrian Bridge Superstructure, for the price per unit of:</td>
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<td>Stone Fill, Class C, for the unit price per cubic yard of:</td>
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<td>Straight Granite Curb, for the unit price per linear foot of: _________________________________________ Dollars and _________________________________________ Cents.</td>
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<td>Adjusting Water Gates and Shutoffs Set by Others, for the unit price per each of: _________________________________________ Dollars and _________________________________________ Cents.</td>
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<td>614.511</td>
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<td>614.73118</td>
<td>3&quot; PVC Conduit, Schedule 80, for the unit price per linear foot of: _________________________________________ Dollars and _________________________________________ Cents.</td>
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## BID SCHEDULE

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<td>697.11</td>
<td>Invasive Species Control and Management Plan, for the price per unit of: Dollars (words) and Cents.</td>
<td></td>
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<td></td>
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<tr>
<td>699</td>
<td>Miscellaneous Temporary Erosion and Sediment Control, for the unit price per allowance of: One Thousand Dollars (words) and No Cents.</td>
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<tr>
<td></td>
<td><strong>UNIT</strong></td>
<td><strong>ESTIMATED QUANTITY</strong></td>
<td><strong>UNIT PRICE DOLLARS CTS</strong></td>
<td><strong>TOTAL PRICE DOLLARS CTS</strong></td>
<td></td>
</tr>
<tr>
<td>645.7</td>
<td>U</td>
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<td></td>
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<tr>
<td>645.71</td>
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<td>646.512</td>
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<td>697.11</td>
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<tr>
<td>699</td>
<td>ALLOW</td>
<td>1</td>
<td>$1,000.00</td>
<td>$1,000.00</td>
<td></td>
</tr>
</tbody>
</table>
BID SCHEDULE

TOTAL CONTRACT PRICE BASE BID:

_________________________________________________________ Dollars
(words)

and____________________________________________________ Cents.

($_____________________________________________________
(numbers)
### BID ALTERNATE A SCHEDULE

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS</th>
<th>UNIT</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE DOLLARS CTS</th>
<th>TOTAL PRICE DOLLARS CTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>563.99</td>
<td>Protective Screening, for the unit price per linear foot of:</td>
<td>LF</td>
<td>180</td>
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</tr>
<tr>
<td></td>
<td>____________________________ Dollars (words) and ____________________________ Cents.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CONTRACT PRICE BID ALTERNATE A:

__________________________ Dollars (words)

and ____________________________ Cents.

($ ____________________________ )

(numbers)
TOTAL CONTRACT PRICE BASE BID PLUS BID ALTERNATE A:

Dollars (words)

and Cents. ($ )

(numbers)

The Award of the Bid will be based upon the following order of precedence:

A. Lowest combined total cost of Base Bid plus Bid Alternate A.
B. Lowest total cost of Base Bid.

The contractor must submit responsive bids to Base Bid and Bid Alternate A to be considered responsive to this bid.

Unit Prices have been computed in accordance with paragraph 11.03.B of the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

IMPORTANT NOTE: Awarding of the Base Bid plus Bid Alternate A is contingent upon the City of Nashua appropriating adequate construction funding, otherwise, the award shall be based on the Base Bid.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

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

ARTICLE 7 – ATTACHMENTS TO THIS BID

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

A. Required Bid security;
B. List of Relevant Completed Projects;
C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
D. Contractor’s License No.: __________ or Evidence of Bidder’s ability to obtain a State Contractor’s License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
E. Required Bidder Qualification Statement with supporting data.

ARTICLE 8 - DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 - BID SUBMITTAL

9.01 This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed):______________________________

By:________________________________________(SEAL)

(Individual's signature)

Doing business as:________________________________

A Partnership

Partnership Name:_________________________(SEAL)

By:________________________________________

(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed):______________________________

A Corporation

Corporation Name:_______________________________(SEAL)

State of Incorporation:__________________________

Type (General Business, Professional, Service, Limited Liability):____________

By:________________________________________

(Signature -- attach evidence of authority to sign)

Name (typed or printed):______________________________

Title:__________________________________________

(CORPORATE SEAL)

Attest________________________________________

(Signature of Corporate Secretary)

Date of Qualification to do business in ___________________________ is ___________________________/_____/_____

State of Territory where project is Located.
A Joint Venture

Name of Joint Venturer:_____________________________________________________

First Joint Venturer Name:_________________________________________(SEAL)

By:__________________________________________________________
(Signature of first joint venture partner -- attach evidence of authority to sign)

Name (typed or printed):______________________________________________

Title:__________________________________________________________

Second Joint Venturer Name:__________________________________________(SEAL)

By:__________________________________________________________
(Signature of second joint venturer partner - attach evidence of authority to sign)

Name (typed or printed):______________________________________________

Title:__________________________________________________________

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

Bidders Business address:___________________________________________

Phone No.:____________________ FAX No.:__________________________

SUBMITTED on __________________, 20__.

State Contractor License No. _______________________. (If applicable)
## DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See Reverse for public burden disclosure.)

### 1. Type of Federal Action:
- a. contract
- b. grant
- c. cooperative agreement
- d. loan
- e. loan guarantee
- f. loan insurance

### 2. Status of Federal Action:
- a. bid/offer/application
- b. initial award
- c. post-award

### 3. Report Type:
- a. initial filing
- b. material change

For Material Change Only:
- year
- quarter
- date of last report

### 4. Name and Address of Reporting Entity:
- Prime
- Subawardee

Tier: ______________________, if known:

Congressional District, if known:

### 5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:

Congressional District, if known:

### 6. Federal Department/Agency:

### 7. Federal Program Name/Description:

CFDA Number, if applicable:

### 8. Federal Action Number, if known:

### 9. Award Amount, if known:

$ $

### 10. a. Name and Address of Lobbying Registrant
(If individual, last name, first name, MI):

b. Individuals Performing Services (Including address if different from No. 10a)
(last name, first name, MI):

### 11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: ______________________

Print Name: ______________________

Title: ______________________

Telephone No.: ______________________ Date: ______________________

Federal Use Only: Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)
INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.

2. Identify the status of the covered Federal action.

3. Identify the appropriate classification of this report. If this a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.

4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.

5. If the organization filing the report in item 4 checks “Subawardee,” then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.

6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.

7. Enter the Federal program name or description for the covered Federal action (Item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.

8. Enter the most appropriate Federal identifying number available for the Federal action identified in Item 1 (e.g., Request for Proposal (RFP) number; Invitation for bids (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g. “RFP-DE-90-001.”

9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in Item 4 or 5.

10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in Item 4 to influence the covered Federal action.

   (b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).

11. Certifying official shall sign and date the form, print his/her name, title and telephone number.
TE/CMAQ Program
Construction Proposal

It is proposed:

To execute the Contract and begin work within **10 days** from the date specified in the “Notice to Proceed” and to prosecute said work so as to complete the __________________ and its appurtenances on or before ________________.

To furnish a Contract Bond in the amount of 100 per cent of the Contract award, as security for the construction and completion of the __________________ and its appurtenances in accordance with the Plans, Specifications and Contract. The Contractor’s attention is called to Section 103.05 of the NHDOT Standard Specifications for road and bridge construction which provides the following guidance: unless specifically waived in the Proposal, upon execution of the Contract, the successful Bidder shall furnish the Agency a surety bond or bonds equal to the sum of the Contract amount. The form of the bond(s) shall be acceptable to the Agency and the bonding Company issuing the bond(s) shall be licensed to transact business in the State of New Hampshire, and....

To certified that the Bidder, in accordance with the requirements of 103.06 and 108.01, intends to sublet, assign, sell, transfer or otherwise dispose of one or more portions of the work and (1) has contacted the appropriate listed disadvantaged businesses and afforded such disadvantaged businesses equal consideration with non-disadvantaged business for all work the Bidder currently proposes to sublet, assign, sell, transfer or otherwise dispose of, (2) may contract additional appropriate disadvantage businesses and will afford such businesses equal consideration with non-disadvantaged businesses for all work the Bidder in the future proposes to sublet, assign, sell, transfer or otherwise dispose of, and (3) will complete enclosed “DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT FORM” and Letters of Intent for each disadvantaged business. The name of the person in the Bidder’s organization who has been designated as the liaison officer to administer the disadvantaged business enterprise program is:

______________________________________________________________

(To be completed by the Bidder)

To guarantee all of the work performed under this Contract to be done in accordance with the Specifications and in good and workmanlike manner, and to renew or repair any work which may be rejected, due to defective materials or workmanship, prior to final completion and acceptance of the project.

Enclosed herewith find certified check or bid bond in the amount of ____________________________ dollars ($__________________________), made payable to the Agency as a proposal guarantee which it is understood will be forfeited in the event the Contract is not executed, if awarded by the Agency to the undersigned.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters – Primary Covered Transactions.

(1). The prospective primary participant certifies to the best of its knowledge and belief, that it and all its principals: (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency; (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in Paragraph (1) (b) of this certification and (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or Local) terminated for cause or default. (2). Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
Contract Affidavit

I/We declare under penalty of perjury under the laws of the United States and the State of New Hampshire that, in accordance with the provisions of Title 23 USC, Section 112(c), have not either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this Proposal.

Dated: _____________________________

(If a firm or individual)

Signature of Bidder_________________________________________________

By__________________________________________________

Address of Bidder__________________________________________________

Names and Addresses of Members of the Firm:

__________________________________________________________

__________________________________________________________

(If a Corporation)

Signature of Bidder_________________________________________________

Title________________________________________________________

By_______________________________________________________

Business Address______________________________________________

Incorporated under the laws of the State of ____________________________

Names of Officers:

President_________________________________________________________

Name_________________________________________________________

Address_______________________________________________________

Secretary_______________________________________________________

Name_________________________________________________________

Address_______________________________________________________

Treasurer_______________________________________________________

Name_________________________________________________________

Address_______________________________________________________

END OF SECTION
SECTION 00430
BID BOND
(EJCDC Form C-430)

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—Include Location):

BOND
Bond Number:
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
Bidder’s Name and Corporate Seal
By: ____________________
Signature
Print Name
Title
Attest: ____________________
Signature
Title

SURETY
Surety’s Name and Corporate Seal
By: ____________________
Signature (Attach Power of Attorney)
Print Name
Title
Attest: ____________________
Signature
Title

Note: 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 the 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 the 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.
NOTICE OF AWARD

Date of Issuance:
Owner: City of Nashua
Owner’s Contract No.: N/A
Engineer: Hoyle, Tanner & Associates, Inc.
Engineer’s Project No.: 902603
Project: Proposed Heritage Rail Trail Connection to Mine Falls Park
Contract Name: Proposed Heritage Rail Trail Connection to Mine Falls Park

TO BIDDER:
You are notified that Owner has accepted your Bid dated ____________________________ for the above Contract, and that you are the Successful Bidder and are awarded a Contract for: Proposed Heritage Rail Trail Connection to Mine Falls Park.

The Contract Price of the awarded Contract is: $________ subject to unit prices.

[ ] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

[ ] sets of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner three counterparts of the Agreement, fully executed by Bidder.

2. Deliver with the executed Agreement(s) the Contract security performance and payment bonds and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6 respectively.

3. Other conditions precedent (if any):
Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: 

Authorized Signature

By: 

Title: 

Copy: Hoyle, Tanner & Associates, Inc.

END OF SECTION
THIS AGREEMENT is by and between City of Nashua (“Owner”) and __________________________________________ (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 - WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: The project includes construction of multi-use trail and pedestrian bridge. The trail will consist of an ADA complaint ramp from the Heritage Trail to an at-grade path along the western side of Everett Street. This path will cross Ledge Street at a new cross walk with new rapid rectangular flashing beacons to access the small existing park between Ledge Street and the Nashua Canal. A short section of proposed concrete sidewalk will transition from the existing brick pavers in the park to the 90-foot single span prefabricated steel truss pedestrian bridge supported on helical piles and a reinforced concrete stub abutment.

ARTICLE 2 - THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Proposed Heritage Rail Trail Connection to Mine Falls Park

ARTICLE 3 - ENGINEER

3.01 The Project has been designed by Hoyle, Tanner & Associates, Inc.

3.02 The Owner has retained Hoyle, Tanner & Associates, Inc. (“Engineer”) 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.

ARTICLE 4 - CONTRACT TIMES

4.01 Time of the Essence

A. All time limits for Milestones, if any, Substantial Completion, and Final Completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Contract Times: Days

A. The Work will be substantially completed within 170 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and finally completed and ready for final payment in accordance with
Paragraph 15.06 of the General Conditions within 190 days after the date when the Contract Times commence to run.

B. It is anticipated that Notice to Proceed will be issued on February 12, 2018 in order to complete shop drawing review and anticipated prefabricated steel truss lead time prior to the Contractor taking the site. It is anticipated that the Contractor will be allowed to take the site on May 7, 2018.

4.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner $520.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.

2. Final Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner $520.00 for each day that expires after such time until the Work is completed and ready for final payment.

3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

B. Not Used.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

TOTAL OF ALL UNIT PRICES $\,\,\,\,$__________ (dollars)

(use words)

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the
ARTICLE 6 – PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 Progress Payments

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor’s Applications for Payment on or about the 7th day of each month during performance of the Work provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

6.03 Final Payment

A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

7.01 All amounts not paid when due shall bear interest at the rate of 5 percent per annum.

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

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

A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

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

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions, if any, at or adjacent to the Site and all drawings of physical conditions
E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor’s safety precautions and programs.

F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

J. Contractor’s entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – ACCOUNTING DOCUMENTS

9.01 Contractor shall check all materials, equipment, and labor entering into the Work and shall keep such full and detailed accounts as may be necessary for proper financial management under this Agreement, and the accounting methods shall be satisfactory to Owner. Owner shall be afforded access to all Contractor’s records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor’s fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner.
ARTICLE 10 - CONTRACT DOCUMENTS

10.01 Contents

A. The Contract Documents consist of the following:
   1. This Agreement (pages 1 to 8, inclusive).
   2. Performance bond (pages 1 to 3, inclusive).
   3. Payment bond (pages 1 to 3, inclusive).
   4. General Conditions (pages 1 to 63, inclusive).
   5. Supplementary Conditions (pages 1 to 48, inclusive).
   7. Drawings (not attached but incorporated by reference) consisting of 24 sheets
      with each sheet bearing the following general title: Plans of Proposed Heritage
      Rail Trail Connection to Mine Falls Park.
   8. Addenda (numbers ____ to ____ , inclusive).
   9. Exhibits to this Agreement (enumerated as follows):
      a. Contractor’s Bid (pages ____ to ____ , inclusive)
      b. Documentation submitted by Contractor prior to Notice of Award (pages ____
         to ____ , inclusive)
      c. (List here other documents, if any)
   10. The following which may be delivered or issued on or after the Effective Date of
       the Contract and are not attached hereto:
       a. Notice to Proceed (pages ____ to ____ , inclusive).
       b. Work Change Directives.
       c. Change Orders.
       d. Field Orders.

B. The documents listed in Paragraph 10.01.A are not attached to, but made part of,
   this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 10.
D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 11 - MISCELLANEOUS

11.01 Terms

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

11.02 Assignment of Contract

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

11.03 Successors and Assigns

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

11.04 Severability

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

11.05 Contractor's Certifications

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 11.05:

1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment
of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

11.06 Other Provisions

A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or “track changes” (redline/strikeout), or in the Supplementary Conditions.
IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on __________ (which is the Effective Date of the Contract).

OWNER: ________________________________

By: ________________________________

Title: ________________________________

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

Attest: ________________________________

Title: ________________________________

Address for giving notices:

____________________________________

____________________________________

____________________________________

License No.: _________________________

(where applicable)

(CONTRACTOR: ________________________________

By: ________________________________

Title: ________________________________

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

Attest: ________________________________

Title: ________________________________

Address for giving notices:

____________________________________

____________________________________

____________________________________

END OF SECTION
NOTICE TO PROCEED

Owner: City of Nashua

Contractor:

Engineer: Hoyle, Tanner & Associates, Inc.

Project: Proposed Heritage Rail Trail Connection to Mine Falls Park

Contract Name: Proposed Heritage Rail Trail Connection to Mine Falls Park

Owner's Contract No.:

Contractor’s Project No.:

Engineer's Project No.:

902603

Project Name:

Effective Date of Contract:

TO CONTRACTOR:

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. Work at the Site may begin on or after ____, but not before. In accordance with Article 4 of the Agreement, the date of Substantial Completion is ____, and the date of readiness for final payment is

Before starting any Work at the Site, Contractor must comply with the following:

[Note any access limitations, security procedures, or other restrictions]

Owner:

Authorized Signature

By:

Title:

Date:

Copy: Hoyle, Tanner & Associates, Inc.

END OF SECTION
CONTRACTOR (name and address): SURETY (name and address of principal place of business):

OWNER (name and address):

City of Nashua
229 Main Street
Nashua, NH 03060

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description: Proposed Heritage Rail Trail Connection to Mine Falls Park

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

Contractor’s Name and Corporate Seal

By: ____________________________
Signature
Print Name
Title

Attest: ____________________________
Signature
Title

SURETY

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 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:

END OF SECTION
CONTRACTOR (name and address):  

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

OWNER (name and address):

City of Nashua  
229 Main Street  
Nashua, NH 03060

CONSTRUCTION CONTRACT
Effective Date of the Agreement: Amount: Description: Proposed Heritage Rail Trail Connection to Mine Falls Park

BOND
Bond Number: Date (Not Earlier Than the Effective Date of the Agreement of the Construction Contract): Amount: Modifications to this Bond Form:  

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

Contractor’s Name and Corporate Seal  

By: ________________________________  
Signature

Print Name  
Title  
Attest:  
Signature  
Title

SURETY

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.

Hoyle, Tanner Project No. 902603 00615-1
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:

END OF SECTION
SECTION 00620
APPLICATION FOR PAYMENT
(EJCDC Form C-620, Modified)

Contractor’s Application For Payment No. ____________

<table>
<thead>
<tr>
<th>To (Owner): City of Nashua</th>
<th>From (Contractor):</th>
<th>Application Period:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project: Proposed Heritage Rail Trail Connection to Mine Falls Park</td>
<td>Via (Engineer)</td>
<td>Application Date:</td>
</tr>
<tr>
<td>Owner’s Contract No.: N/A</td>
<td>Contractor’s Project No.:</td>
<td>Engineer’s Project No.: 902603</td>
</tr>
</tbody>
</table>

APPLICATION FOR PAYMENT
Change Order Summary

<table>
<thead>
<tr>
<th>Number</th>
<th>Additions</th>
<th>Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ORIGINAL CONTRACT PRICE</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>2. Net change by Change Orders</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>3. CURRENT CONTRACT PRICE (Line 1 ± 2)</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate)</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>5. RETAINAGE:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. _____ % x $ Work Completed</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>b. _____ % x $ Stored Material</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>c. Total Retainage (Line 5a + Line 5b)</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c)</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>8. AMOUNT DUE THIS APPLICATION</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>9. BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above)</td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>

CONTRACTOR’S CERTIFICATION
The undersigned Contractor certifies, to the best of its knowledge, the following:

(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 the Work covered by prior Applications for Payment;
(2) Title to 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 the 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 other amount)

is recommended by: Hoyle, Tanner & Associates, Inc.
(Engineer) (Date)

Payment of: $______ (Line 8 or other - attach explanation of other amount)

is approved by: __________________________
(Owner) (Date)

Approved by: __________________________
Funding Agency (if applicable) (Date)
### Progress Estimate - Unit Price Work

**For (Contract):** Proposed Heritage Rail Trail Connection to Mine Falls Park  
**Application Period:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Contract Information</th>
<th>Estimated Quantity Installed</th>
<th>Value of Work Installed to Date</th>
<th>Materials Presently Stored (not in C)</th>
<th>Total Completed and Stored to Date (D + E)</th>
<th>% (F / B)</th>
<th>Balance to Finish (B - F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid Item No.</td>
<td>Description</td>
<td>Item Quantity</td>
<td>Units</td>
<td>Unit Price</td>
<td>Total Value of Item ($)</td>
<td>Estimated Quantity Installed</td>
<td>Value of Work Installed to Date</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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**Contractor's Application**
Stored Material Summary

For (Contract): Proposed Heritage Rail Trail Connection to Mine Falls Park

<table>
<thead>
<tr>
<th>Bid Item No.</th>
<th>Supplier Invoice No.</th>
<th>Submittal No. (with Specification Section No.)</th>
<th>Storage Location</th>
<th>Description of Materials or Equipment Stored</th>
<th>Stored Previously</th>
<th>Amount Stored this Month ($)</th>
<th>Subtotal Amount Completed and Stored to Date (D + E)</th>
<th>Incorporated in Work</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Date Placed into Storage (Month/Year)</td>
<td>Amount ($)</td>
<td>Date (Month/Year)</td>
<td>Amount ($)</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

|                |                      |                                               |                  |                                             |                   |                             |                      |             |

Totals

END OF SECTION
STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT

Prepared by

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

Issued and Published Jointly by

ACEC
AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

National Society of Professional Engineers®
These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

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# 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, a term printed with initial capital letters, including the term’s singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

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

2. **Agreement**—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

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

4. **Bid**—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. **Bidder**—An individual or entity that submits a Bid to Owner.

6. **Bidding Documents**—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. **Bidding Requirements**—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

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

9. **Change Proposal**—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. **Claim**—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer’s decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer’s decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.
11. **Constituent of Concern**—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. **Contract**—The entire and integrated written contract between the Owner and Contractor concerning the Work.

13. **Contract Documents**—Those items so designated in the Agreement, and which together comprise the Contract.

14. **Contract Price**—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.

15. **Contract Times**—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. **Contractor**—The individual or entity with which Owner has contracted for performance of the Work.

17. **Cost of the Work**—See Paragraph 13.01 for definition.

18. **Drawings**—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. **Effective Date of the Contract**—The date, indicated in the Agreement, on which the Contract becomes effective.

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

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

22. **Hazardous Environmental Condition**—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.

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

24. **Liens**—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

25. **Milestone**—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. **Notice of Award**—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.

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

28. **Owner**—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

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

30. **Project**—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

31. **Project Manual**—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

32. **Resident Project Representative**—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.

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

34. **Schedule of Submittals**—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.

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

36. **Shop Drawings**—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

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

38. **Specifications**—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

39. **Subcontractor**—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. **Substantial Completion**—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.

41. **Successful Bidder**—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

42. **Supplementary Conditions**—The part of the Contract that amends or supplements these General Conditions.

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

44. **Technical Data**—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

45. **Underground Facilities**—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

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

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

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

1.02 Terminology

A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
B. **Intent of Certain Terms or Adjectives:**

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. **Day:**

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

D. **Defective:**

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
   a. does not conform to the Contract Documents; or
   b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
   c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

E. **Furnish, Install, Perform, Provide:**

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

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

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

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.
ARTICLE 2 – PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

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

B. **Evidence of Contractor’s Insurance:** When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.

C. **Evidence of Owner’s Insurance:** After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 Copies of Documents

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 Before Starting Construction

A. **Preliminary Schedules:** Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

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

2. a preliminary Schedule of Submittals; and

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

2.04 Preconstruction Conference; Designation of Authorized Representatives

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 Initial Acceptance of Schedules

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

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

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

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

2.06 Electronic Transmittals

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient’s use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 Intent

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived
from such electronic or digital versions) and the printed record version shall govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 Reference Standards

A. Standards Specifications, Codes, Laws and Regulations

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

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies:

1. Contractor’s Verification of Figures and Field Measurements: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. Contractor’s Review of Contract Documents: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, 
error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual 
knowledge thereof.

B. Resolving Discrepancies:

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

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

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

3.04 Requirements of the Contract Documents

A. During the performance of the Work and until final payment, Contractor and Owner shall 
submit to the Engineer all matters in question concerning the requirements of the Contract 
Documents (sometimes referred to as requests for information or interpretation—RFIs), or 
relating to the acceptability of the Work under the Contract Documents, as soon as possible 
after such matters arise. Engineer will be the initial interpreter of the requirements of the 
Contract Documents, and judge of the acceptability of the Work thereunder.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or 
decision on the issue submitted, or initiate an amendment or supplement to the Contract 
Documents. Engineer’s written clarification, interpretation, or decision will be final and 
binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, 
unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents 
that do not involve (1) the performance or acceptability of the Work under the Contract 
Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) 
other engineering or technical matters, then Engineer will promptly give written notice to 
Owner and Contractor that Engineer is unable to provide a decision or interpretation. If 
Owner and Contractor are unable to agree on resolution of such a matter in question, either 
party may pursue resolution as provided in Article 12.

3.05 Reuse of Documents

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, 
or other documents (or copies of any thereof) prepared by or bearing the seal of 
Engineer or its consultants, including electronic media editions, or reuse any such 
Drawings, Specifications, other documents, or copies thereof on extensions of the Project 
or any other project without written consent of Owner and Engineer and specific written 
verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse 
any such Contract Documents, reuse 


B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 Commencement of Contract Times; Notice to Proceed

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

4.02 Starting the Work

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

4.03 Reference Points

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

4.04 Progress Schedule

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 Delays in Contractor’s Progress

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor’s entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor’s ability to complete the Work within the Contract Times.
B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor’s performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor’s entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor’s ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor’s sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
2. abnormal weather conditions;
3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
4. acts of war or terrorism.

D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

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

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

5.01 Availability of Lands

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner’s interest therein as necessary for giving notice of or filing a mechanic’s or construction lien against such lands in accordance with applicable Laws and Regulations.
C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas:

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor’s operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor’s performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

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

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

D. Loading of Structures: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.
5.03 Subsurface and Physical Conditions

A. Reports and Drawings: The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
3. Technical Data contained in such reports and drawings.

B. Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 Differing Subsurface or Physical Conditions

A. Notice by Contractor: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
2. is of such a nature as to require a change in the Drawings or Specifications; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. Engineer’s Review: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner’s obtaining additional exploration or tests with respect to the condition;
conclude whether the condition falls within any one or more of the differing site condition
categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from
Contractor; prepare recommendations to Owner regarding the Contractor’s resumption of
Work in connection with the subsurface or physical condition in question and the need for
any change in the Drawings or Specifications; and advise Owner in writing of Engineer’s
findings, conclusions, and recommendations.

C. Owner’s Statement to Contractor Regarding Site Condition: After receipt of Engineer’s
written findings, conclusions, and recommendations, Owner shall issue a written statement to
Contractor (with a copy to Engineer) regarding the subsurface or physical condition in
question, addressing the resumption of Work in connection with such condition, indicating
whether any change in the Drawings or Specifications will be made, and adopting or rejecting
Engineer’s written findings, conclusions, and recommendations, in whole or in part.

D. Possible Price and Times Adjustments:

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract
Times, or both, to the extent that the existence of a differing subsurface or physical
condition, or any related delay, disruption, or interference, causes an increase or
decrease in Contractor’s cost of, or time required for, performance of the Work; subject,
however, to the following:

   a. such condition must fall within any one or more of the categories described in
      Paragraph 5.04.A;

   b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract
      Price will be subject to the provisions of Paragraph 13.03; and,

   c. Contractor’s entitlement to an adjustment of the Contract Times is conditioned on
      such adjustment being essential to Contractor’s ability to complete the Work within
      the Contract Times.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times
with respect to a subsurface or physical condition if:

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

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

   c. Contractor failed to give the written notice as required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor’s entitlement to and the amount or
extent of any adjustment in the Contract Price or Contract Times, or both, then any such
adjustment shall be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or
extent of any adjustment in the Contract Price or Contract Times, or both, no later than
30 days after Owner’s issuance of the Owner’s written statement to Contractor regarding
the subsurface or physical condition in question.
5.05 Underground Facilities

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

1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
   a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
   b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
   c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
   d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. Notice by Contractor: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

C. Engineer’s Review: Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor’s resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer’s findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. Owner’s Statement to Contractor Regarding Underground Facility: After receipt of Engineer’s written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer’s written findings, conclusions, and recommendations in whole or in part.

E. Possible Price and Times Adjustments:

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with
reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:

a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;

b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

c. Contractor’s entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor’s ability to complete the Work within the Contract Times; and

d. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor’s entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner’s issuance of the Owner’s written statement to Contractor regarding the Underground Facility in question.

5.06 Hazardous Environmental Conditions at Site

A. Reports and Drawings: The Supplementary Conditions identify:

1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

2. Technical Data contained in such reports and drawings.

B. Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such
removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner’s written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.

H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner’s own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created.
by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual’s or entity’s own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual’s or entity’s own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 Performance, Payment, and Other Bonds

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor’s obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.

B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.

D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 Insurance—General Provisions

A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

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

F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner’s termination rights under Article 16.

H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party’s interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor’s interests.

J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor’s liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 Contractor’s Insurance

A. **Workers’ Compensation:** Contractor shall purchase and maintain workers’ compensation and employer’s liability insurance for:

1. claims under workers’ compensation, disability benefits, and other similar employee benefit acts.
2. United States Longshoreman and Harbor Workers’ Compensation Act and Jones Act coverage (if applicable).
3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor’s employees (by stop-gap endorsement in monopolist worker’s compensation states).
4. Foreign voluntary worker compensation (if applicable).

B. **Commercial General Liability—Claims Covered:** Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:

1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor’s employees.
2. claims for damages insured by reasonably available personal injury liability coverage.
3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

C. **Commercial General Liability—Form and Content:** Contractor’s commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage:
   a. Such insurance shall be maintained for three years after final payment.
   b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.

2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor’s contractual indemnity obligations in Paragraph 7.18.

3. Broad form property damage coverage.

4. Severability of interest.

5. Underground, explosion, and collapse coverage.

6. Personal injury coverage.

7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20
37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.

8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, “Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured” or its equivalent.

D. **Automobile liability:** Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

E. **Umbrella or excess liability:** Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer’s liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.

F. **Contractor’s pollution liability insurance:** Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor’s operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

G. **Additional insureds:** The Contractor’s commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

H. **Contractor’s professional liability insurance:** If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

I. **General provisions:** The policies of insurance required by this Paragraph 6.03 shall:

1. include at least the specific coverages provided in this Article.

2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.

3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor’s performance of the Work and Contractor’s other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.

J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 Owner’s Liability Insurance

A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner’s option, may purchase and maintain at Owner’s expense Owner’s own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

B. Owner’s liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 Property Insurance

A. **Builder’s Risk:** Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder’s risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as “insureds.”

2. be written on a builder’s risk “all risk” policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

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

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).

6. extend to cover damage or loss to insured property while in transit.

7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder’s risk insurance.

8. allow for the waiver of the insurer’s subrogation rights, as set forth below.

9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.

10. not include a co-insurance clause.

11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.

12. include performance/hot testing and start-up.

13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.

B. Notice of Cancellation or Change: All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

C. Deductibles: The purchaser of any required builder’s risk or property insurance shall pay for costs not covered because of the application of a policy deductible.

D. Partial Occupancy or Use by Owner: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder’s risk policy, or through Contractor) will provide notice of such occupancy or use to the builder’s risk insurer. The builder’s risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come
off the builder’s risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder’s risk insurance.

E. Additional Insurance: If Contractor elects to obtain other special insurance to be included in or supplement the builder’s risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor’s expense.

F. Insurance of Other Property: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 Waiver of Rights

A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder’s risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner’s property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary
Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder’s risk insurance and any other property insurance applicable to the Work.

6.07 Receipt and Application of Property Insurance Proceeds

A. Any insured loss under the builder’s risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder’s risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR’S RESPONSIBILITIES

7.01 Supervision and Superintendence

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

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

7.02 Labor; Working Hours

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

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner’s written consent, which will not be unreasonably withheld.

7.03 Services, Materials, and Equipment

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction...
equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

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

7.04 “Or Equals”

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or equal” item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an “or equal” item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

   a. in the exercise of reasonable judgment Engineer determines that:
      1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
      2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
      3) it has a proven record of performance and availability of responsive service; and
      4) it is not objectionable to Owner.

   b. Contractor certifies that, if approved and incorporated into the Work:
      1) there will be no increase in cost to the Owner or increase in Contract Times; and
      2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. Contractor’s Expense: Contractor shall provide all data in support of any proposed “or equal” item at Contractor’s expense.

C. Engineer’s Evaluation and Determination: Engineer will be allowed a reasonable time to evaluate each “or-equal” request. Engineer may require Contractor to furnish additional data about the proposed “or-equal” item. Engineer will be the sole judge of acceptability. No “or-
equal” item will be ordered, furnished, installed, or utilized until Engineer’s review is complete and Engineer determines that the proposed item is an “or-equal”, which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. **Effect of Engineer’s Determination:** Neither approval nor denial of an “or-equal” request shall result in any change in Contract Price. The Engineer’s denial of an “or-equal” request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.

E. **Treatment as a Substitution Request:** If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 **Substitutes**

A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
   a. shall certify that the proposed substitute item will:
      1) perform adequately the functions and achieve the results called for by the general design,
      2) be similar in substance to that specified, and
      3) be suited to the same use as that specified.
   b. will state:
      1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
      2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
      3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
c. will identify:

1) all variations of the proposed substitute item from that specified, and
2) available engineering, sales, maintenance, repair, and replacement services.

d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. **Engineer's Evaluation and Determination:** Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer’s review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer’s determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

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

D. **Reimbursement of Engineer’s Cost:** Engineer will record Engineer’s costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

E. **Contractor’s Expense:** Contractor shall provide all data in support of any proposed substitute at Contractor’s expense.

F. **Effect of Engineer’s Determination:** If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer’s denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 Concerning Subcontractors, Suppliers, and Others

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.

B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor’s Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or...
otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner
unless Owner raises a substantive, reasonable objection within five days.

E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or
t entity retained by Contractor to perform any part of the Work. Owner also may require
Contractor to retain specific replacements; provided, however, that Owner may not require
a replacement to which Contractor has a reasonable objection. If Contractor has submitted
the identity of certain Subcontractors, Suppliers, or other individuals or entities for
acceptance by Owner, and Owner has accepted it (either in writing or by failing to make
written objection thereto), then Owner may subsequently revoke the acceptance of any such
Subcontractor, Supplier, or other individual or entity so identified solely on the basis of
substantive, reasonable objection after due investigation. Contractor shall submit an
acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.

F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or
entity retained by Contractor to perform any part of the Work, then Contractor shall be
entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the
replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30
days of Owner’s requirement of replacement.

G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity,
whether initially or as a replacement, shall constitute a waiver of the right of Owner to the
completion of the Work in accordance with the Contract Documents.

H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors
and Suppliers having a direct contract with Contractor, and of all other Subcontractors and
Suppliers known to Contractor at the time of submittal.

I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the
Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of
the Work just as Contractor is responsible for Contractor’s own acts and omissions.

J. Contractor shall be solely responsible for scheduling and coordinating the work of
Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any
of the Work.

K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities
performing or furnishing any of the Work from communicating with Engineer or Owner,
except through Contractor or in case of an emergency, or as otherwise expressly allowed
herein.

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

M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an
appropriate contractual agreement that specifically binds the Subcontractor or Supplier to
the applicable terms and conditions of the Contract Documents for the benefit of Owner and
Engineer.

N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information
about amounts paid to Contractor on account of Work performed for Contractor by the
particular Subcontractor or Supplier.
O. Nothing in the Contract Documents:

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

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

7.07 Patent Fees and Royalties

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

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 Permits

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor’s Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.
7.09 Taxes
A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 Laws and Regulations
A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor’s compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor’s responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor’s obligations under Paragraph 3.03.

C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor’s Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

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

7.12 Safety and Protection
A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

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

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

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

C. Contractor shall comply with the applicable requirements of Owner’s safety programs, if any. The Supplementary Conditions identify any Owner’s safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor’s safety program with which Owner’s and Engineer’s employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor’s duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

G. Contractor’s duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 Safety Representative

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

7.14 Hazard Communication Programs

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

7.15 Emergencies

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

7.16 Shop Drawings, Samples, and Other Submittals

A. Shop Drawing and Sample Submittal Requirements:

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
   a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
   b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
   c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
   d. determined and verified all information relative to Contractor’s responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor’s obligations under the Contract Documents with respect to Contractor’s review of that submittal, and that Contractor approves the submittal.

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

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

1. Shop Drawings:
   a. Contractor shall submit the number of copies required in the Specifications.
   b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. Samples:
   a. Contractor shall submit the number of Samples required in the Specifications.
   b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer’s review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

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

D. Engineer’s Review:

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

2. Engineer’s review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.

3. Engineer’s review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer’s review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer’s review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.

6. Engineer’s review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer’s receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

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

E. Resubmittal Procedures:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer’s time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible
for Engineer’s charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer’s charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 Contractor’s General Warranty and Guarantee

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor’s warranty and guarantee.

B. Contractor’s warranty and guarantee hereunder excludes defects or damage caused by:
   1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
   2. normal wear and tear under normal usage.

C. Contractor’s obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor’s obligation to perform the Work in accordance with the Contract Documents:
   1. observations by Engineer;
   2. recommendation by Engineer or payment by Owner of any progress or final payment;
   3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
   4. use or occupancy of the Work or any part thereof by Owner;
   5. any review and approval of a Shop Drawing or Sample submittal;
   6. the issuance of a notice of acceptability by Engineer;
   7. any inspection, test, or approval by others; or
   8. any correction of defective Work by Owner.

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

7.18 Indemnification

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease,
or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers’ compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer’s officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 Delegation of Professional Design Services

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor’s responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.

B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional’s written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this paragraph, Engineer’s review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer’s review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

**ARTICLE 8 - OTHER WORK AT THE SITE**

8.01 Other Work

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner’s employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner’s employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner’s employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others’ work with the written consent of Engineer and the others whose work will be affected.

D. If the proper execution or results of any part of Contractor’s Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor’s Work. Contractor’s failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor’s Work except for latent defects and deficiencies in such other work.

8.02 Coordination

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner’s employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. an itemization of the specific matters to be covered by such authority and responsibility; and

3. the extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.
8.03 Legal Relationships

A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner’s employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor’s rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor’s entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor’s ability to complete the Work within the Contract Times.

B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner’s contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

C. When Owner is performing other work at or adjacent to the Site with Owner’s employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor’s failure to take reasonable and customary measures with respect to Owner’s other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor’s failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor’s actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.
ARTICLE 9 – OWNER’S RESPONSIBILITIES

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

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

9.03 Furnish Data
   A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 Pay When Due
   A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

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

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

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

9.08 Inspections, Tests, and Approvals
   A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 Limitations on Owner’s Responsibilities
   A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor’s failure to perform the Work in accordance with the Contract Documents.

9.10 Undisclosed Hazardous Environmental Condition
   A. Owner’s responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.
9.11 Evidence of Financial Arrangements
   A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial
      arrangements have been made to satisfy Owner’s obligations under the Contract Documents
      (including obligations under proposed changes in the Work).

9.12 Safety Programs
   A. While at the Site, Owner’s employees and representatives shall comply with the specific
      applicable requirements of Contractor’s safety programs of which Owner has been informed.

   B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

10.01 Owner’s Representative
   A. Engineer will be Owner’s representative during the construction period. The duties and
      responsibilities and the limitations of authority of Engineer as Owner’s representative during
      construction are set forth in the Contract.

10.02 Visits to Site
   A. Engineer will make visits to the Site at intervals appropriate to the various stages of
      construction as Engineer deems necessary in order to observe as an experienced and
      qualified design professional the progress that has been made and the quality of the various
      aspects of Contractor’s executed Work. Based on information obtained during such visits and
      observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is
      proceeding in accordance with the Contract Documents. Engineer will not be required to
      make exhaustive or continuous inspections on the Site to check the quality or quantity of the
      Work. Engineer’s efforts will be directed toward providing for Owner a greater degree of
      confidence that the completed Work will conform generally to the Contract Documents. On
      the basis of such visits and observations, Engineer will keep Owner informed of the progress
      of the Work and will endeavor to guard Owner against defective Work.

   B. Engineer’s visits and observations are subject to all the limitations on Engineer’s authority
      and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or
      as a result of Engineer’s visits or observations of Contractor’s Work, Engineer will not
      supervise, direct, control, or have authority over or be responsible for Contractor’s means,
      methods, techniques, sequences, or procedures of construction, or the safety precautions
      and programs incident thereto, or for any failure of Contractor to comply with Laws and
      Regulations applicable to the performance of the Work.

10.03 Project Representative
   A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project
      Representative to represent Engineer at the Site and assist Engineer in observing the
      progress and quality of the Work, then the authority and responsibilities of any such Resident
      Project Representative will be as provided in the Supplementary Conditions, and limitations
      on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates
      another representative or agent to represent Owner at the Site who is not Engineer’s
      consultant, agent, or employee, the responsibilities and authority and limitations thereon of
      such other individual or entity will be as provided in the Supplementary Conditions.

10.04 Rejecting Defective Work
   A. Engineer has the authority to reject Work in accordance with Article 14.
10.05 Shop Drawings, Change Orders and Payments
   A. Engineer’s authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
   B. Engineer’s authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
   C. Engineer’s authority as to Change Orders is set forth in Article 11.
   D. Engineer’s authority as to Applications for Payment is set forth in Article 15.

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

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

10.08 Limitations on Engineer’s Authority and Responsibilities
   A. Neither Engineer’s authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
   B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor’s failure to perform the Work in accordance with the Contract Documents.
   C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
   D. Engineer’s review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
   E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.
10.09 Compliance with Safety Program

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

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

11.01 Amending and Supplementing Contract Documents

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. Change Orders:

a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. Work Change Directives: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive’s effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. Field Orders: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 Owner-Authorized Changes in the Work

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer’s recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor
have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor’s safety obligations under the Contract Documents or Laws and Regulations.

11.03 Unauthorized Changes in the Work

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 Change of Contract Price

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor’s fee for overhead and profit (determined as provided in Paragraph 11.04.C).

C. Contractor’s Fee. When applicable, the Contractor’s fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
   a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor’s fee shall be 15 percent;
   b. for costs incurred under Paragraph 13.01.B.3, the Contractor’s fee shall be five percent;
   c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor’s fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that
actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor’s fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor’s fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 Change of Contract Times

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor’s progress.

11.06 Change Proposals

A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. Procedures: Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.

2. Engineer’s Action: Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor’s supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer’s inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
3. **Binding Decision**: Engineer’s decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

B. **Resolution of Certain Change Proposals**: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

### 11.07 Execution of Change Orders

A. Owner and Contractor shall execute appropriate Change Orders covering:

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

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

### 11.08 Notification to Surety

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor’s responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

### ARTICLE 12 – CLAIMS

#### 12.01 Claims

A. **Claims Process**: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:

1. Appeals by Owner or Contractor of Engineer’s decisions regarding Change Proposals;
2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

B. **Submittal of Claim.** The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. **Review and Resolution:** The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

D. **Mediation:**

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. **Partial Approval:** If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. **Denial of Claim:** If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. **Final and Binding Results:** If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.
ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 Cost of the Work

A. Purposes for Determination of Cost of the Work: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. Costs Included: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers’ compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers’ field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor’s Cost of the Work and fee shall be determined in the same manner as Contractor’s Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
   a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
   b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
   c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
   d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
   e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
   f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
   g. The cost of utilities, fuel, and sanitary facilities at the Site.
   h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
   i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. Costs Excluded: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor’s officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, 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 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor’s fee.
2. Expenses of Contractor’s principal and branch offices other than Contractor’s office at the Site.

3. Any part of Contractor’s capital expenses, including interest on Contractor’s capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. Contractor’s Fee: When the Work as a whole is performed on the basis of cost-plus, Contractor’s fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor’s fee shall be determined as set forth in Paragraph 11.04.C.

E. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances: Contractor agrees that:
   1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
   2. Contractor’s costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.

E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
   1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
   2. there is no corresponding adjustment with respect to any other item of Work; and
   3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

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

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

14.02 Tests, Inspections, and Approvals
   A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
   B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
   C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner’s and Engineer’s acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor’s purchase thereof for incorporation in the Work.

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

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor’s expense unless Contractor had given Engineer timely notice of Contractor’s intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 Defective Work

A. Contractor’s Obligation: It is Contractor’s obligation to assure that the Work is not defective.

B. Engineer’s Authority: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. Notice of Defects: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. Correction, or Removal and Replacement: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. Preservation of Warranties: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner’s special warranty and guarantee, if any, on said Work.

F. Costs and Damages: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.
14.04 Acceptance of Defective Work
A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer’s confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner’s evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 Uncovering Work
A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer’s observation, and then replace the covering, all at Contractor’s expense.
C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer’s request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor’s full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 Owner May Stop the Work
A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.
14.07 Owner May Correct Defective Work

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

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

15.01 Progress Payments

A. Basis for Progress Payments: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. Applications for Payments:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor’s legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer’s reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer’s recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer’s observations of the executed Work as an experienced and qualified design professional, and on Engineer’s review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer’s knowledge, information and belief:
   a. the Work has progressed to the point indicated;
   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
   c. the conditions precedent to Contractor’s being entitled to such payment appear to have been fulfilled in so far as it is Engineer’s responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
   b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer’s review of Contractor’s Work for the purposes of recommending payments nor Engineer’s recommendation of any payment, including final payment, will impose responsibility on Engineer:
   a. to supervise, direct, or control the Work, or
   b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
   c. for Contractor’s failure to comply with Laws and Regulations applicable to Contractor’s performance of the Work, or
d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer’s opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer’s opinion to protect Owner from loss because:

a. the Work is defective, requiring correction or replacement;

b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

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

D. **Payment Becomes Due:**

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

E. **Reductions in Payment by Owner:**

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

a. claims have been made against Owner on account of Contractor’s conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor’s conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

c. Contractor has failed to provide and maintain required bonds or insurance;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

f. the Work is defective, requiring correction or replacement;

g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
h. the Contract Price has been reduced by Change Orders;
i. an event that would constitute a default by Contractor and therefore justify a
termination for cause has occurred;
j. liquidated damages have accrued as a result of Contractor’s failure to achieve
Milestones, Substantial Completion, or final completion of the Work;
k. Liens have been filed in connection with the Work, except where Contractor has
delivered a specific bond satisfactory to Owner to secure the satisfaction and
discharge of such Liens;
l. there are other items entitling Owner to a set off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or
on the written recommendations of Engineer, Owner will give Contractor immediate
written notice (with a copy to Engineer) stating the reasons for such action and the
specific amount of the reduction, and promptly pay Contractor any amount remaining
after deduction of the amount so withheld. Owner shall promptly pay Contractor the
amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if
Contractor remedies the reasons for such action. The reduction imposed shall be binding
on Contractor unless it duly submits a Change Proposal contesting the reduction.

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

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

15.03 Substantial Completion
A. When Contractor considers the entire Work ready for its intended use Contractor shall notify
Owner and Engineer in writing that the entire Work is substantially complete and request
that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time
submit to Owner and Engineer an initial draft of punch list items to be completed or corrected
before final payment.

B. Promptly after Contractor’s notification, Owner, Contractor, and Engineer shall make an
inspection of the Work to determine the status of completion. If Engineer does not consider
the Work substantially complete, Engineer will notify Contractor in writing giving the reasons
therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a
preliminary certificate of Substantial Completion which shall fix the date of Substantial
Completion. Engineer shall attach to the certificate a punch list of items to be completed or
corrected before final payment. Owner shall have seven days after receipt of the preliminary
certificate during which to make written objection to Engineer as to any provisions of the
certificate or attached punch list. If, after considering the objections to the provisions of the
preliminary certificate, Engineer concludes that the Work is not substantially complete,
Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify
Contractor in writing that the Work is not substantially complete, stating the reasons therefor.
If Owner does not object to the provisions of the certificate, or if despite consideration of
Owner’s objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner’s use or occupancy of the Work following Substantial Completion, review the builder’s risk insurance policy with respect to the end of the builder’s risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner’s use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 Partial Use or Occupancy

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor’s performance of the remainder of the Work, subject to the following conditions:

1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.

2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder’s risk or other property insurance.
15.05 Final Inspection

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 Final Payment

A. Application for Payment:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
   a. all documentation called for in the Contract Documents;
   b. consent of the surety, if any, to final payment;
   c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
   d. a list of all disputes that Contractor believes are unsettled; and
   e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer’s observation of the Work during construction and final inspection, and Engineer’s review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor’s other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer’s recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer’s opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the
same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. **Completion of Work:** The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer’s written recommendation of final payment.

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

15.07 Waiver of Claims

A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor’s failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor’s continuing obligations under the Contract Documents.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 Correction Period

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner’s written instructions:

1. correct the defective repairs to the Site or such other adjacent areas;
2. correct such defective Work;
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner’s written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor’s obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 Owner May Suspend Work

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 Owner May Terminate for Cause

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor’s persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor’s disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor’s repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor’s services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 Owner May Terminate For Convenience

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor’s stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 Methods and Procedures

A. Disputes Subject to Final Resolution: The following disputed matters are subject to final resolution under the provisions of this Article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and

2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.

B. Final Resolution of Disputes: For any dispute subject to resolution under this Article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 Giving Notice

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 Computation of Times

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.
18.03 Cumulative Remedies
A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

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

18.05 No Waiver
A. A party’s non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

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

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

18.08 Headings
A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.
These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

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

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

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

SC-1.01 Defined Terms

A. Not Used

ARTICLE 2 - PRELIMINARY MATTERS

SC-2.04.A. Amend the second line of paragraph 2.04.A to read as follows:

"....others as appropriate MAY be held to establish a working......"

SC-2.05 Add the following new paragraph immediately after paragraph 2.05 A.3.

B. If the Contractor’s submitted Progress Schedule, Schedule of Submittals and Schedule of Values are acceptable to the Engineer a Conference may not be required.

ARTICLE 4 - COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.01.A Delete paragraph 4.01A in its entirety and replace with the following

A. The contract times will commence to run on the day indicated in the Notice to Proceed. In no event will the Contract Times commence to run later than the 60th day after the date of the bid opening.

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

SC 5.03 Delete Paragraphs 5.03.A and 5.03.B in their entirety and insert the following:

A. See Special Provision for Item 203.101, Common Excavation (Contaminated Soil) for laboratory test results.
SC 5.06   Delete Paragraphs 5.06.A in its entirety and insert the following:
   A. See Special Provision for Item 203.101, Common Excavation (Contaminated Soil) for laboratory test results.

ARTICLE 6 – BONDS AND INSURANCE

SC-6.02 Add the following new paragraph immediately after Paragraph 6.02 J.

K. Should any of the required insurance policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

SC-6.03 Contractor’s Liability Insurance

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

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

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

   State: ____________________
   Federal, if applicable (e.g., Longshoreman’s): ____________________
   Jones Act coverage, if applicable:
       Bodily injury by accident, each accident $ 100,000
       Bodily injury by disease, aggregate $ 100,000

   Employer’s Liability:
       Bodily injury, each accident $ 100,000
       Bodily injury by disease, each employee $ 100,000
       Bodily injury/disease aggregate $ 100,000

   Foreign voluntary worker compensation ____________________

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

   General Aggregate $ 2,000,000
   Products - Completed Operations Aggregate $ 2,000,000
   Personal and Advertising Injury $ 1,000,000
Each Occurrence (Bodily Injury and Property Damage)  $ 1,000,000

3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:
   Bodily Injury:
   Each person  $ 1,000,000
   Each accident  $ 1,000,000

   Property Damage:
   Combined Single Limit of  $ 1,000,000

4. Excess or Umbrella Liability:
   Per Occurrence  $ 1,000,000
   General Aggregate  $ 1,000,000

5. Environmental Impairment Contractor’s Pollution Liability:
   Each Occurrence  $ N/A
   General Aggregate  $ N/A

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

6. Additional Insureds: In addition to Owner and Engineer, include as additional insureds the following:
   • City of Nashua
   • Hoyle, Tanner & Associates, Inc. and all subcontractors employed for this project.

7. Contractor’s Professional Liability:
   Each Claim  $ N/A
   Annual Aggregate  $ N/A
SC-6.05 Property Insurance

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

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

- City of Nashua

- Hoyle, Tanner & Associates, Inc. and all subcontractors employed for this project.

SC-6.05.A.2 Delete “flood” from the first sentence.

SC-6.05.A. Add the following to the list of items in Paragraph 6.05.A, as numbered items:

14. include for the benefit of Owner loss of profits and soft cost coverage including, without limitation, fixed expenses and debt service for a minimum of 12 months with a maximum deductible of 30 days, plus attorneys fees and engineering or other consultants’ fees, if not otherwise covered, Advertising, Professional Fees, Financing, Lease Administration, Realty Taxes, General Administration, Lease Expenses, Permit Fees and Insurance premiums.

15. shall include “Extra Expenses” which may arise as a result of a “delay” resulting from direct physical loss or damage to the project that is caused by a covered peril.

16. shall include “Rental Income” payment for loss of rental income that arises out of a “delay” resulting from direct physical loss or damage to the project that is caused by a covered peril.

17. provide coverage for not less than the following:

a. Contract Amount: See Agreement.

b. Soft Cost, Extra Expenses and Rental Income Endorsement: $10,000

ARTICLE 7 - CONTRACTOR’S RESPONSIBILITIES

SC-7.02.B. Add the following new subparagraphs immediately after Paragraph 7.02.B:

1. Regular working hours will be Monday through Friday from 7:00 AM to 7:00 PM. Contractor will not perform work on a Saturday, Sunday or any legal holiday without permission of the Owner.

2. Owner’s legal holidays are those listed in Paragraph 101.56 of the NHDOT Standard Specifications for Road and Bridge Construction 2016 Edition.

3. If there is a delay in Contractor’s progress as described in Paragraph 4.05, the Contractor shall not include non-regular working days (i.e. Saturdays, Sundays or holidays) in the contract time equitable adjustment proposal.
SC-7.06  Amend the last sentence of Paragraph 7.06.D to read as follows “...objection within thirty days.”

SC-7.08  Add the following new paragraphs immediately after paragraph 7.08.A

B. The Owner has applied for or has obtained the following permits for this project, which are listed below.

1. City of Nashua Zoning Board of Adjustment Special Exemption.


C. Copies of these permits are included in the Appendix. The Contractor is responsible for complying with the project specific conditions outlined in the permit(s). If the CONTRACTOR intends to proceed with construction means and methods that are outside the General Conditions and Specific Conditions of the permit(s), it is the Contractor's responsibility to obtain new permit(s) for these means and methods and to bear all costs associated with applying for and obtaining new permit(s).

SC 7.09  Add a new paragraph immediately after Paragraph 7.09.A:

B. Owner is exempt from payment of sales and compensating use taxes of the State of New Hampshire and of cities and counties thereof on all materials to be incorporated into the Work.

1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.

2. Owner’s exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

SC-7.16.A  Add the following new paragraph immediately after paragraph 7.16.A:

Contractor shall submit the number of copies which the Contractor requires, plus two copies (which will be retained by the Engineer) of shop drawings and other submittals to Engineer for review. If the submittal is made electronically, no paper copies will be provided to the Contractor.

SC-7.16.E  Delete paragraph immediately after paragraph 7.16.E.2 in its entirety and insert the following in its place:

2. Engineer shall review a maximum of two submittals of shop drawings or samples for a particular submittal item at no cost to the Contractor. The Contractor shall reimburse the Owner for costs by the Engineer relative to the review of subsequent submittals of shop drawings or samples of the same item.
ARTICLE 9 – OWNER’S RESPONSIBILITIES

A. Not Used

ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

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

B. The Resident Project Representative (RPR) will be Engineer’s representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR’s actions. The duties and responsibilities of the RPR are limited to those of Engineer in the Agreement with the Owner and in the Contract Documents, and are further limited and described as follows:

1. General: RPR’s dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.

2. 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.

3. 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 notes thereof.

4. Liaison:
   a. Serve as Engineer’s liaison with Contractor. Working principally through Contractor’s authorized representative or designee, assist in providing information regarding the provisions and 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.

5. 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.

6. Shop Drawings and Samples:
   a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
   b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.

7. Modifications: Consider and evaluate Contractor’s suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR’s recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.

8. 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 is defective, 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.

9. Inspections, Tests, and System Start-ups:
   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.

10. Records:
   a. Prepare a daily report or keep a diary or log book, recording Contractor’s hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
   b. 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.
   c. Maintain records for use in preparing Project documentation.
11. 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, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.

12. 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 Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. 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 Contract Documents 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.

14. Completion:
   a. Participate in Engineer’s visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
   b. Participate in Engineer’s final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch 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, or Suppliers.

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.

5. Advise on, issue directions regarding, or assume control over security or 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.

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

SC 13.03.E Delete Paragraph 13.03.E in its entirety and insert the following in its place:

E. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:

1. if the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 25% percent from the estimated quantity of such item indicated in the Agreement; and

2. if there is no corresponding adjustment with respect to any other item of Work; and

3. if Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may submit a Change Proposal, or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a Claim, seeking an adjustment in the Contract Price.

ARTICLE 14 – TEST AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

SC-14.02 Add the following paragraph immediately after paragraph 14.02.F:

G. Contractor shall pay all costs associated with any re-inspection and/or retesting of materials and equipment required by the Engineer as a result of failure of previous test or rejected work as determined by the Engineer. Contractor shall also pay all costs associated with any additional testing requested by the Contractor.
ARTICLE 15 - PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

SC-15.01 Replace the second sentence of 15.01.B.1 which begins “If payment is requested on the basis ……” with the following:

“Payment requested for materials not yet incorporated into the work shall be in accordance with NHDOT Standard Specification 109.07 or 109.08 as appropriate.”

SC-15.01 Amend the first line of paragraph 15.01.D.1 to read as follows:

Thirty days after presentation of the...

SC 15.03.B Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

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

E. Not Used

END OF SECTION
SECTION 00850
SPECIAL CONDITIONS

The following Special Conditions apply and are hereby made part of the Agreement and Contract Documents.

1.01 PERMITS

A. Permits applied for or obtained by the Owner, if any, are indicated in paragraph SC-7.08 of the Supplementary Conditions.

1.02 CONSTRUCTION SCHEDULE

A. The Owner anticipates issuing a Notice to Proceed on this project by February 12, 2018 subject to the successful bidder satisfying the requirements indicated in the Notice of Award.

1.03 RESIDENT PROJECT REPRESENTATIVE

A. The Owner will provide a nearly full-time Resident Project Representative at no cost to the Contractor. The Resident Project Representative is being provided for the benefit of the Owner, not the Contractor. Duties and responsibilities of the Resident Project Representative are indicated in paragraph SC-10.03 of the Supplementary Conditions.

B. The Contractor shall notify the Engineer a minimum of 24 hours in advance of key construction activities in order to have the Resident Project Representative present and observe the work. The Contractor shall provide this advance notice for the following construction activities:

1. Installation of Best Management Practices.

2. Cofferdam installation and foundation excavation.

3. All backfilling and compaction activities underneath footings and in, around, behind or over structures.

4. Installation of Helical Piles.

5. Completion of constructing concrete formwork and placing reinforcing steel.

6. All cast-in-place concrete placement operations.

7. Delivery and placement of prefabricated truss elements.

8. Placement and compaction of roadway subbase.

9. All asphalt paving operations.
10. Installation of Rectangular Rapid Flashing Beacons.

B. Failure of the Contractor to provide the proper advanced notice of construction activities as indicated in paragraph 1.03-B may be cause for rejection of the work. Any work rejected shall be removed and replaced by the Contractor at no additional cost to the Owner.

1.04 REQUIRED CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACT

A. The following sections describe contract provisions required as a condition of Federal funding for this project. The CONTRACTOR shall review this section and comply with all applicable sections:
WAGE RATES

FEDERAL AID PROJECTS

This proposal contains minimum wage determinations as specified by the U.S. Secretary of Labor. Copies of the attached wage determination(s) shall be posted on the bulletin board at the work site and furnished to employees upon request. Furthermore, the wage determination(s) shall be incorporated into all subcontract agreements.

If the Contractor, any subcontractor or lower-tier contractor intends to employ a classification of labor not listed in the attached determination(s), it shall submit a Request for Additional Work Classification(s) to the New Hampshire Department of Transportation, Labor Compliance Office at (603) 271-2467. The Contractor is responsible for ensuring that a Request is submitted for any additional classification of work to be employed by itself, any subcontractor or lower-tier contractor 3-4 weeks before the classification is utilized.

This contract is subject to the Work Hours Act of 1962, P.L. 87-581 and implementing regulations.
General Decision Number: NH180032 01/05/2018 NH32

Superseded General Decision Number: NH20170032

State: New Hampshire

Construction Type: Highway

County: Hillsborough County in New Hampshire.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number      Publication Date
0              01/05/2018

* SUNH2011-028 08/15/2011

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<th></th>
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<tr>
<td>CARPENTER (Excluding Form Work)</td>
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<td>1.06</td>
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<td>CARPENTER (Form Work Only)</td>
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<tr>
<td>IRONWORKER, STRUCTURAL</td>
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<td>TRUCK DRIVER: Low Bed Truck</td>
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</table>

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

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO.
The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

Union Average Rate Identifiers

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

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

----------------------------------------------------------------

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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

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

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

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

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

================================================================

END OF GENERAL DECISION
NOTICE TO ALL BIDDERS

In accordance with the section “NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)”, the New Hampshire Department of Transportation has the authority and responsibility to notify the Office of Federal Contract Compliance Programs of the United States Department of Labor if they become aware of any possible violations of Executive Order 11246 and 41 Code of Federal Regulation Chapter 60.

The Office of Federal Contract Compliance Programs is the sole authority for determining compliance with Executive Order 11246 and 41 Code of Federal Regulation Chapter 60 and the Contractor should contact them regarding related compliance issues.
Source 41 CFR 60-4 Affirmative Action Requirements

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(EXECUTIVE ORDER 11246)

The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Goals for minority participation for each trade</th>
<th>Goals for female participation in each trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDARD METROPOLITAN STATISTICAL AREAS (SMSA)</td>
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<tr>
<td>SALEM-PLAISTOW:</td>
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<td>NON-SMSA COUNTIES</td>
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<tr>
<td>COOS, GRAFTON, SULLIVAN:</td>
<td>0.8</td>
<td>6.9</td>
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<tr>
<td>BELKNAP, MERRIMACK, CARROLL, STRAFFORD:</td>
<td>3.6</td>
<td>6.9</td>
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<td>CHESHIRE:</td>
<td>5.9</td>
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<tr>
<td>ROCKINGHAM:</td>
<td>4.0</td>
<td>6.9</td>
</tr>
<tr>
<td>HILLSBOROUGH:</td>
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<td>6.9</td>
</tr>
</tbody>
</table>

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation addressed as follows:

Director
Federal Contract Compliance Program
US Department of Labor
JFK Building, Room 1612-C
Boston, MA 02203

The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed as noted within the Contract Special Provisions for Affirmative Action to ensure Equal Employment Opportunity.
Source 41 CFR 60-4 Affirmative Action Requirements

Source 41 CFR 60-4.3 Equal Opportunity Clauses

Standard Federal Equal Employment Opportunity
Construction Contract Specifications (Executive Order 11246)

[1]. As used in these specifications:
   a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
   d. "Minority" includes:
      (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
      (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
      (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
      (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

[2]. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitation from which this contract resulted.

[3]. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Homeplan Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Homeplan Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

[4]. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

[5]. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

[6]. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

[7]. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

   a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

   b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have
Source 41 CFR 60-4 Affirmative Action Requirements

employment opportunities available, and maintain a record of the organizations' responses.

e. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

Disseminate the Contractor's EEO policy, by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's

recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

Validate all tests and other selection requirements where there

Conduct, at least annually, an inventory and evaluation of at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take
Source 41 CFR 60-4 Affirmative Action Requirements

affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General

II. Nondiscrimination

III. Nonsegregated Facilities

IV. Davis-Bacon and Related Act Provisions

V. Contract Work Hours and Safety Standards Act Provisions

VI. Subleasing or Assigning the Contract

VII. Safety: Accident Prevention

VIII. False Statements Concerning Highway Projects

IX. Implementation of Clean Air Act and Federal Water Pollution Control Act

X. Compliance with Governmentwide Suspension and Debarment Requirements

XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor’s own organization and with the assistance of workers under the contractor’s immediate supervision and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27, and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27, and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 26 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 48 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor’s project activities under
this contract. The provisions of the Americans with Disabilities Act of 1990 (28 U.S.C. 12101 et seq.), set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in the review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay, or other benefits, and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment, and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment, information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are
applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualified minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessees of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If off-the-job training is being required by special provision, the contractor
will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may not require such segregated use by written or oral policies or tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their work under the contractor, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants, and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate restrooms for single-user or necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

   a. 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 (28 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 1(d) 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 29 CFR 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 conforming to paragraph 1(b) 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.

   b. (1) 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:

   (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
   (ii) The classification is utilized in the area by the construction industry; and
   (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

   (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, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove any additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer of 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 Wage and Hour Administrator for determination. The Wage and Hour 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 paragraphs 1.b.(2) or 1.b.(3) 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.

c. 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.

d. 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 contracting agency 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, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, 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

a. 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. 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 rates and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting 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)(ii), 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 VH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esd/a/dform/vh347instr.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 contracting agency for transmission to the State DOT, the FHWA 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 contracting agency.

(2) 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 payments of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, the appropriate information being maintained under §5.5(a)(3)(ii) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) 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;

(iii) 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.
(3) 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 3.b.(2) of this section.

(4) 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.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, 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 FHWA may, after written notice to the contractor, the contracting agency, or the State DOT, 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 28 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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 applicable) 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 the program is registered, the ratios and wage rates (expressed in percentages of the journeymen'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, fringe 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.

b. Trainees (programs of the USDOL).

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 that 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 journeymen 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 journeymen 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.

c. 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.
d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

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 Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 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. a. 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).

b. 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).


V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction 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 29 CFR 5.5(a) or 29 CFR 4.5. 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 contract 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 (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 (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 (1) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own motion 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 (2) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (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 (1) through (4) of this section.
VI. SUBLetterING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Special equipment may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 835.116).

   a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assigns. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

      (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
      (2) the prime contractor remains responsible for the quality of the work of the leased employees;
      (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
      (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

   b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned, or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY, ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 835). The contractor shall provide all safeguards, safety devices and protective equipment and take any other necessary actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the health and safety of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.7, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 835) in one or more places where it is readily available to all persons concerned with the project.

18 U.S.C. 1020 reads as follows:

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Hoyle, Tanner Project No. 902603

00850-21
"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented:

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 505 of the Clean Water Act or Section 305 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

   a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

   b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

   c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

   d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

   e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

   f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

   g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

   h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.eprs.gov), which is compiled by the General Services Administration.
i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of these regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transactions" without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epsl.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the
department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

   a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

   b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting this bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts which exceed $100,000 and that all such recipients shall certify and disclose accordingly.
6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.
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<thead>
<tr>
<th>DISCLOSURE OF LOBBYING ACTIVITIES</th>
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<tr>
<td>Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352</td>
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<td>(See Reverse for public burden disclosure.)</td>
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<th>1. Type of Federal Action:</th>
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<td>a. contract</td>
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<td>c. cooperative agreement</td>
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<th>2. Status of Federal Action:</th>
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<td>a. bid/offer/application</td>
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<td>c. post-award</td>
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<th>3. Report Type:</th>
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<td>a. initial filing</td>
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<th>4. Name and Address of Reporting Entity:</th>
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<td>Prime</td>
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<th>5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:</th>
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<th>Congressional District, if known:</th>
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<th>6. Federal Department/Agency:</th>
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<th>7. Federal Program Name/Description:</th>
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<th>8. Federal Action Number, if known:</th>
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<th>9. Award Amount, if known:</th>
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<tr>
<th>10. a. Name and Address of Lobbying Registrant (If individual, last name, first name, MI):</th>
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| 11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure. |

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| Authorized for Local Reproduction Standard Form LLL (Rev. 7-97) |

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<th>Telephone No.: Date:</th>
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INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient; at the initiation or receipt of a covered Federal action, or a material change to a previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.

2. Identify the status of the covered Federal action.

3. Identify the appropriate classification of this report. If this a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.

4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be a prime or subawardee receipt. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.

5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.

6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.

7. Enter the Federal program name or description for the covered Federal action (Item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.

8. Enter the most appropriate Federal identifying number available for the Federal action identified in Item 1 (e.g., Request for Proposal (RFP) number; Invitation for bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001 ."

9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in Item 4 or 5.

10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in Item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).

11. Certifying official shall sign and date the form, print his/her name, title and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.
SPECIAL ATTENTION

DISADVANTAGED BUSINESS ENTERPRISE (DBE) DIRECTORY

The current New Hampshire Unified Disadvantaged Business Enterprise (DBE) Directory is available on the NHDOT website at http://www.nh.gov/dot/business/contractors.htm. If you have questions or do not have access to the Internet, the directory may be obtained from DBE Coordinator, located at 7 Hazen Drive, Concord, NH 03302, Tel: (603) 271-6612.
SPECIAL ATTENTION

Disadvantaged Business Enterprise (DBE)

Disadvantaged Business Enterprise (DBE) Policy. It shall be the policy of the New Hampshire Department of Transportation (NHDOT) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBE’s) to participate in the performance of all contracts and subcontracts financed with Federal funds as specified by the regulations of the United States Department of Transportation (USDOT), Federal Highway Administration and as set forth below.

1. Policy. It is the policy of the United States Department of Transportation to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 Code of Federal Regulation (CFR) Part 26, to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 applies to this contract.

2. Disadvantaged Business Enterprise (DBE) Obligation. The State and its Contractor agree to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 CFR Part 26, to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. Prime Contractors and subcontractors who further sublet must include this assurance in every subcontract: The Contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by any contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this Contract or such other remedy, as the NHDOT deems appropriate.

3. Sanctions of Non-Compliance. The Contractor is hereby advised that failure of the Contractor, or any Subcontractor performing work under this Contract, to carry out the requirements set forth in paragraphs 1 and 2 above shall constitute a breach of contract and, after notification of the United States Department of Transportation, may result in termination of this Contract or such remedy as the State deems appropriate.

Overall Statewide DBE Goals. The NHDOT currently employs a race/gender neutral DBE policy to attain its overall statewide DBE goals. This means that unless otherwise stated in the Contract, the NHDOT relies on the voluntary cooperation of all contractors to utilize DBE’s on every project, sufficient to meet or exceed the current statewide DBE goal. Although the majority of statewide DBE goals are currently voluntary, failure of the NHDOT to meet or exceed the overall statewide DBE goal as required by the Federal Highway Administration (FHWA), could necessitate placement of mandatory DBE participation requirements on all future statewide projects.

Disadvantaged Business Enterprise (DBE) Program Goals. The New Hampshire Department of Transportation is required to set an overall DBE goal for participation in all transportation related Federal-aid projects. The goal is determined following guidelines set forth in 49 CFR 26.45, and based on the availability of ready, willing and able DBE’s who submitted bids for transportation related projects, compared as a percentage of all available contractors who submitted bids for transportation related projects during the same time period. The DBE goal may be adjusted to take into account other factors impacting DBE utilization, in an effort to narrowly tailor the overall DBE goal. The detailed goal setting methodology and current overall DBE goal may be viewed on the NHDOT website at www.nh.gov/dot.
Disadvantaged Business Enterprise (DBE) Definition. A DBE is defined as a business that is owned and controlled by one or more socially and economically disadvantaged person(s). For the purpose of this definition:

A. "Socially and economically disadvantaged person" means an individual who is a citizen or lawful permanent resident of the United States and who is a Woman, Black, Hispanic, Portuguese, Native American, Asian American, or a member of another group, or an individual found to be disadvantaged by an individual determination of social disadvantage as described in 49 CFR 26 appendix E, determinations of social and economic disadvantage.

B. "Owned and controlled" means a business which is:
   (1) A sole proprietorship legitimately owned and controlled by an individual who is a disadvantaged person.
   (2) A partnership, joint venture or limited liability Company in which at least 51% of the beneficial ownership interests is legitimately held by a disadvantaged person(s).
   (3) A corporation or other entity in which at least 51% of the voting interest and 51% of the beneficial ownership interests are legitimately held by a disadvantaged person(s).

The disadvantaged group owner(s) or stockholder(s) must possess control over management, interest in capital, and interest in earnings commensurate with the percentage of ownership. Disadvantaged participation in a joint venture must also be based on the sharing of real economic interest and must include proportionate control over management, capital, and earnings, as above. If the disadvantaged group ownership interests are real, substantial and continuing and not created solely to meet the requirements of this program, a firm is considered a bona fide DBE.

Certified DBE Directory. The current New Hampshire Unified Disadvantaged Business Enterprise (DBE) Directory is available online at www.nh.gov/dot. This directory contains all currently certified DBE's available for work in New Hampshire, and is updated monthly. Only firm's listed in this directory are eligible for DBE credit on NH Federal-aid projects. If you have questions about DBE certification, or do not have access to the Internet, please call the DBE Coordinator at (603) 271-6612 for assistance.

Counting DBE Participation For Project Goals. In order for payments made to DBE contractors to be counted toward DBE goals, the DBE contractors must perform a commercially useful function (CUF). The DBE must be responsible for execution of the work of the contract and must carry out its responsibilities by actually performing, managing, and supervising the work involved, consistent with standard industry practices. This means that:

A. The DBE must also be responsible for ordering its own materials and supplies, determining quantity and quality, negotiating price, installing (where applicable) and paying for the material itself;
B. The DBE must perform work commensurate with the amount of its contract;
C. The DBE's contribution cannot be that of an extra participant or a conduit through which funds are passed in order to obtain the appearance of DBE participation;
D. The DBE must exercise responsibility for at least fifty percent of the total cost of its contract with its own work force;
E. None of the DBE's work can be subcontracted back to the Prime Contractor, nor can the DBE employ the prime's, or other subcontractor's supervisors currently working on the project;
F. The DBE's labor force must be separate and apart from that of the Prime Contractor or other subcontractors on the project. Transferring crews between primes, subcontractors, and DBE contractors is not acceptable;
G. The DBE owner must hold a Public Works license and any other professional or craft licenses required for the type of work he/she performs on the project;

H. The DBE may rent or lease, at competitive rates, equipment needed on the project from customary leasing sources or from other subcontractors on the project.

**Allowable credit for payments made to DBEs for work performed.** A contractor may take credit for payments made to a certified DBE that satisfies (CUF) requirements at the following rate.

A. A DBE Prime Contractor; count 100% of the value of work performed by own forces, equipment and materials count towards DBE goals.

B. An approved DBE subcontractor; count 100% of the value of work performed by the DBE’s own forces, equipment and materials, excluding the following:
   - The cost of materials/supplies purchased from a non-DBE Prime Contractor.
   - The value of work provided by non-DBE lower tier subcontractors, including non-DBE trucking to deliver asphalt to a DBE contractor.

C. A DBE owner-operator of construction equipment; count 100% of expenditures committed.

D. A DBE manufacturer; count 100% of expenditures committed. The manufacturer must be a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Prime Contractor.

E. A regular DBE dealer/supplier; count 60% of expenditures committed.
   A regular dealer/supplier is defined as a firm that owns, operates, or maintains a store, warehouse or other establishment, in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. A person may be a dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business, if the person both owns and operates distribution equipment for the products, by the means of a long term agreement, and not by a contract by contract basis.

F. A DBE Broker; count for DBE credit only the fees or commissions charged for assistance in the procurement, and, fees and transportation charges for the delivery of materials or supplies required at the job site, but not the cost of materials procured. A broker is defined as any person(s) or firm who arranges or expedites transactions for materials or supplies, and does not take physical possession of the materials or supplies at their place of business for resale.

G. A DBE renter of construction equipment to a contractor; count 20% of expenditures committed, with or without operator.

H. A bona fide DBE service provider; count 100% of reasonable fees or commissions.
   Eligible services include professional, technical, consultant, or managerial, services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of the contract. Eligible services also include agencies providing bonding and insurance specifically required for the performance of the contract.

I. A trucking, hauling or delivery operation, count 100% of payments when trucks are owned, operated, licensed and insured by the DBE and used on the contract and, if applicable, includes the cost of the materials and supplies. 100% of payments when the DBE leases trucks from another DBE firm including an owner-operator. 100% of reasonable fees, or commissions, the DBE receives as a result of a lease arrangement for trucks from a non-DBE, including an owner-operator.

J. Any combination of the above.

**Reporting Requirements for Payments Made To DBE’s:** On all Federal-aid projects, the Prime Contractor is required to report payments made to DBE’s during the life of the contract, on a quarterly basis, for the periods covering January 1st–March 31st, April 1st-June 30th, July 1st-September 30th and October 1st-December 31st. The NHDOT will provide the Prime Contractor with a quarterly DBE
payments report, detailing all DBE's subcontracted by the Prime Contractor, per project. The Prime Contractor shall report any payments made to DBE's during the requested reporting period. This documentation shall be submitted to the Office of Federal Compliance within the time period stated on the NHDOT quarterly request. Failure of the Prime Contractor to submit this information may result in the Department withholding progress payments.

Removal of Approved DBE From Transportation Related Project: Contractors may not terminate for convenience, any approved DBE subcontractor and perform the work with their own forces, without prior written consent from the NHDOT.

**MUNICIPAL PROJECTS ONLY:** Timely submission of invoices to Municipalities: Prime Contractors must submit all invoices received for satisfactorily completed work, from any subcontractor/lower-tier subcontractor/material supplier, to Municipalities for payment within 30 days of receipt.
ALL FA PROJECTS (STEEL & IRON PRODUCTS)

SPECIAL ATTENTION
BUY AMERICA

In accordance with the BUY AMERICA requirements of the Federal regulations, all manufacturing processes for steel and iron materials furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

Products of steel include, but are not limited to, such products as structural steel, piles, reinforcing steel, structural plate, steel culverts, guardrail and steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not subject to this clause, only the application process.

A Certificate of Compliance, conforming to the requirements of Section 106.04, shall be furnished for steel and iron materials. Records to be maintained by the contractor for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Special Attention. The lack of these certifications will be justification for rejection of the steel or iron product.

The requirements of said law and regulations do not prevent a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or $2,500.00, whichever is greater.

Upon completion of the project, the Contractor shall certify in writing as to compliance with this Special Attention and also provide the total project delivered cost of all foreign steel and/or iron permanently incorporated into the project. The form for this certification is entitled "Buy America Certificate of Compliance" and can be found at www.NHDOT.com.
December 24, 1998

FHWA Projects

SPECIAL ATTENTION

CONTRACT AFFIDAVIT - CERTIFICATION REGARDING DEBARMENT SUSPENSION

The separate form entitled, CONTRACT AFFIDAVIT (As Required by Section 112(c) of Title 23 USC) has been deleted from this proposal.

Bidders are advised that the last page of the bidding proposal has been revised to include the same reference, IN BOLD PRINT, relative to the non-collusion statement included on the discontinued form.

XXX XXX XXX XXX XXX XXX XXX

The Contractor is advised that 49 CFR 29.510, Appendix A, requires that the Contractor, including all principals, certify that they are not currently under debarment or suspension or have not been under debarment or suspension within the past three years. (For certification instructions see next page).

The certification has been added, IN BOLD PRINT, onto the next to the last page of the bidding proposal.

The Contractor is further advised that Appendix B of 49 CFR 29.510 regarding certification of lower tier transactions has been added to Form FHWA-1273.
Appendix A - Certification regarding Debarment, Suspension, and other Responsibility Matters - Primary Covered Transactions.

Instruction for Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms “covered transaction,” “debarred,” “suspended,” “ineligible,” “lower tier covered transaction,” “participant,” “person,” “primary covered transaction,” “principal,” “proposal,” and “voluntarily excluded,” as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of these regulations.

6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled “Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction,” provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
SPECIAL ATTENTION

LOBBYING

UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SUBJECT: LIMITATION ON USE OF GRANT OR CONTRACT FUNDS FOR LOBBYING

The lobbying restrictions were established by Section 319 of Public Law 101-121 (Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1990).

The law prohibits Federal funds from being expended by the recipient or any lower tier subrecipients of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence a Federal agency or Congress in connection with the awarding of any Federal contract, the making of any Federal grant or loan, or the entering into of any cooperative agreement. The extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement is also covered.

Federal-aid contractors, and consultants, as well as lower tier subcontractors and subconsultants are also subject to the lobbying prohibition. To assure compliance, a certification provision is included in all Federal-aid construction solicitations and contracts, and consultant agreements exceeding $100,000 in Federal funds.

The Contractor shall be aware that by signing and submitting this proposal, he or she is attesting to the requirements of the certification provisions.

During the period of performance of a grant or contract, recipients and subrecipients must file disclosure form (Standard Form LLL) at the end of each calendar year quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any previously filed disclosure form.

Lower tier certifications should be maintained by the next tier above (i.e., prime contractors will keep the subcontractors' certification on file, etc.). Copies of Standard Form LLL will be included in the subcontract package for distribution to successful bidders.
SPECIAL ATTENTION

SUMMARY OF REQUIREMENTS FOR FEDERAL-AID PROJECTS

1. Subletting on Federal-aid Contracts:
   a. On Federal-Aid projects, the following documents are required to be incorporated in, and made a part of, every subcontract agreement; including lower-tier subcontract agreements:
      - NHDO\DOT Subcontracting Procedures
      - Required Contract Provisions (FHWA 1273)
      - Disadvantaged Business Enterprise (DBE) Program Requirements (Standard Specification 103.06)
      - Prompt Payment to Subcontractors (Standard Specification 109.09)
      - 41 CFR 60-4 Affirmative Action Requirements
         - Applicable only to contracts or subcontracts in excess of $10,000
      - U.S. Department of Labor (USDOL) wage rates entitled "GENERAL WAGE DECISION" (as contained in the contract)
         - Does not apply to companies performing Davis-Bacon exempt work (such as testing, monitoring, and inspection services).

   b. Subcontractor Approvals for Companies Who Perform Testing, Monitoring, Inspection Services:
      1) Companies and/or independent contractors performing testing, monitoring, or inspection, such as ground penetrating radar, erosion control monitoring, video inspection, SWPPP, environmental testing/monitoring or vibration monitoring, require subcontractor approval.
      2) The following subcontractor approval documentation is required:
         - OFC Form 15 - Transmittal Request
         - 15a for State managed projects, or
         - 15b for Local Public Agency (LPA) municipal projects
         - OFC Form 14 - Contractor Acknowledgment Certification
         - OFC Form 26 - Work Certificate
         - Certificate of Insurance showing Workers' Compensation coverage
         - Office of Federal Compliance (OFC) staff will verify coverage with the NH Department of Labor (NHDOL).

   c. Contractors will not be approved or authorized to work until all OFC's Annual Assurance requirements have been fulfilled.

   d. Per NH RSA 228:4-b, Workers' Compensation Insurance must cover all individuals performing work on site and shall remain in effect for the duration of the contractor's work on the project. No excluded individual, owner, or officer may perform work on site without exception. All persons working on site must have Workers' Compensation coverage on file with the NHDOL.
e. Prime Contractors shall submit consent to sublet packages to the NHDOT at least 5 working days prior to said subcontractor (or lower-tier subcontractor) performing work on site. On LPA projects, the Prime Contractor shall also provide a courtesy copy to the town or the town’s consultant, if applicable.

f. LPA Projects Only: OFC is the sole approval authority for all LPA construction projects. Consents to sublet shall be submitted directly to the OFC.

2. FHWA Form 1273, Required Contract Provisions:

a. The Prime Contractor shall insert in each subcontract all the stipulations contained in the Required Contract Provisions. Primers shall further require their inclusion in any lower-tier subcontract or purchase order that may in-turn be made. The Required Contract Provisions shall not be incorporated by reference in any case.

b. In accordance with Section I, Paragraph 1, the Prime Contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. This shall include any unpaid wages found to be owed that is not paid by a subcontractor or lower-tier subcontractor.

c. In accordance with Section I, Paragraph 3, “A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension/debarment or any other action determined to be appropriate by the contracting agency and FHWA.”

3. Certified Payrolls and Time Sheets:

a. Submission Format: Payrolls, as required by FHWA Form 1273, shall be submitted electronically (email) as a pdf document to the NHDOT Contract Administrator, consistently named in the following format: Contractor’s name (abbreviated is acceptable) followed by the “week ending” date (yyyy/mm/dd). The Contractor’s and each Subcontractor’s payroll shall be submitted as separate, individual files.

   Example: Plow Brothers Inc 2017-12-09

b. Multiple Counties/States or Categories (Highway/Building/Heavy): Whenever contracts have multiple wage determinations, contractors shall indicate, on each payroll submission, which wage determination is applicable to the work.

c. Project Specific: Except for weekly gross pay, deductions, and weekly net pay, all information shown on certified payrolls shall be project specific. Please reference FHWA Form 1273 for additional payroll requirements and limitations.

d. Time Sheets: Every contractor shall create and maintain time sheets for every worker performing work on the project. This includes salaried employees who perform work in a classification, either intermittently or full time. Time sheets shall record all work performed during the work week, both Federal and non-Federal, shop time, travel time considered work time, including any time considered “hours worked” as described under the Fair Labor Standards Act, Part 785. When requested, Contractors shall provide copies of time sheets to the OFC in support of certified payroll report information being provided. Time sheets, payroll records, and other basic records relating thereto shall be maintained by the Contractor during the course of the work.
and preserved for a period of three years from final invoice for all laborers and mechanics working at the site of work.

4. Sign-In Sheets:
   a. State Managed Projects: The use of daily sign-in sheets is required for subcontractors performing asbestos abatement. The OFC may also direct the use of daily sign-in sheets on other State managed projects for any contractor who does not accurately report all workers performing work on site on their payrolls. The sign-in sheets shall be administered as described below.

   b. LPA Projects: The use of daily sign-in sheets is mandatory on all LPA projects. Every worker must sign in, on a daily basis, prior to performing work on site. The OFC Form 20- Daily Sign-In Record shall be used for this purpose. The Prime Contractor is responsible to ensure all sign-in sheet requirements are met and that sign-in sheets are turned in to the Contract Administrator on a daily basis. Contract Administrators shall review and initial sign-in sheets daily; cross matching what employees have indicated for their work classification and what employers are indicating on certified payroll reports, and also verifying employers of workers signing in have been approved to work by the NHDOT. Sign-in sheets shall be co-located with certified payrolls and filed in a 3-ring binder; newest sign-in sheets on top. Sign-in sheets are an inspection item.

5. Requesting Work Classifications, Classifying Workers, and/or Payment of Wages.
   a. The Prime Contractor is required to submit an additional request to the NHDOT for any classification of labor/equipment that they or their subcontractors shall be utilizing under the contract that is not contained in the Proposal’s Federal General Decision.


   c. Unless otherwise instructed by the OFC, a SF 1444 shall be used for this purpose.

   d. Requests must be submitted to the NHDOT prior to any work being performed in the classification(s).

   e. Contractors who do not receive a USDOL conformance decision from the OFC within 45 days of submission should follow-up with the OFC.

   f. Once a decision is received from the USDOL, the OFC will notify the Prime Contractor. In cases when the USDOL stipulates a higher rate of pay than the one proposed by the Contractor, and the Contractor elects not to submit an appeal, restitution, if due, shall be paid to employees within 10 calendar days of being notified by the OFC. Restitution requirements of the NHDOT shall apply.

   g. Appeals shall be filed with the USDOL within 30 calendar days and a courtesy copy forwarded to the OFC at the same time. Restitution, if applicable, does not need to be paid during the time the appeal is under review by the USDOL.

   h. Contractors shall immediately inform the OFC whenever appeal decisions (including reconsideration requests) are received from the USDOL.
i. In cases when a contractor indicates to the OFC he/she plans to appeal the USDOL decision but fails to provide the OFC proof of submission within 30 calendar days, the contractor shall comply with the original USDOL decision. The OFC will subsequently notify the Contractor that proof of an appeal was not received within 30 days and restitution, if applicable, must be paid to workers within 10 calendar days. Contractors who fail to provide restitution will be deemed “in non-compliance.”

j. OFC payment release authorization letters (Okay to Pay letters) cannot be accomplished until all wage conformance have been deemed closed (USDOL responses have been received), any pending contractor wage appeals have been finalized, with restitution paid if applicable, and all Prompt Pay requirements have been met.

k. **Job Classifications Descriptions (Laboring Category):** While most of skilled and unskilled crafts appearing in Wage Determinations are self-explanatory, the below classifications (not all inclusive) have been described by the NHDOT and are consistent with USDOL requirements. Questions involving correct classification of workers should be addressed prior to performing work on the project. Workers performing in these classifications, according to the description, will be classified by contractors accordingly:

1) **Asbestos Abatement:** All work associated with asbestos abatement shall be classified as “Laborer,” unless said work involves piping that will be reinsulated. In these cases, “Asbestos Abatement Worker” shall be used.

2) **Blaster:** Supervises and assists in locating, loading, and firing blast holes with explosives to break up hard materials. This work includes any of the following duties on-site: determining the spacing and depth of drilled holes; determining the amount of explosives, timing and placement of detonators; handling blasting materials in the work area; loading holes with detonators, primers and explosives; tamping and stemming holes; directing the placement of blasting mats or other flyrock controls; and detonating the charges.

3) **Brick Mason** (also called Brick Layers): Builds and repairs walls, floors, paths/sidewalks, partitions, fireplaces, chimneys, and other structures with brick, pavers, precast masonry panels, concrete block, and other masonry materials, with or without mortar.

4) **Carpenter (Form Work Only):** Formwork carpenters build the molds that retain wet concrete in the construction of bridges, foundations and other concrete structures. This also includes pre-manufactured forms made of steel, wood or heavy plastic. Work under this class also includes bracing required to hold the forms in place.

5) **Carpenter (Excluding Form Work):** Involves all carpentry work not directly related to the pouring of concrete. This includes, without limitation, scaffolding, safety rail, platforms, walkways, stairs, demo containment, buildings, and bracing that is not in direct contact with concrete.

Note 1: Any work to dismantle where workers can simply “tear it apart” and where no safety concerns are present can be performed by Common or General Laborers.
Note 2: Questions involving these classes should be addressed prior to performing work on the project.

6) **Drill Operator**: Unless a hand-held tool, which can then be classified and performed as a Common/General Laborer, all drill work shall be performed in the “Drill Operator” classification. Conformances, if needed, shall be consistent with this requirement.

7) **Guardrail Installer**: Except for the “pounder,” each person performing guardrail installation work shall be classified as “Guardrail Installer.”

8) **Ironworker (Reinforcing)**: Positions and secures steel bars to placement of reinforced concrete; determines number, size, shape, and location of reinforcing rods from plans, specifications, sketches and/or oral instructions; places and ties reinforcing steel using wire and pliers, sets rods in place, spaces and secures reinforcing rods. May bend steel rods with hand tools or operate a rod-bending machine; may reinforce concrete with wire mesh; may perform other related duties.

9) **Ironworker (Structural)**: Performs any combination of the following duties to set beams, hang diaphragms, install bolts, torque bolts, test bolts, raise, place and unite girders, columns and other structural steel members to form completed structures or structure frameworks, working as a member of a crew; sets up hoisting equipment for raising and placing structural steel members; fastens steel members to cable of hoist using chain, cable or rope; signals worker operating hoisting equipment to lift and place steel members. Guides member using guy line (rope) or rides on member to guide it into position. Reads plans; rigs, assembles and erects structural members requiring riveting or welding. May perform other related duties.

10) **Lead Abatement Worker**: All work associated with lead abatement shall be classified as “Lead Abatement Worker”.

11) **Stone Mason**: Builds stone walls, as well as set stone exteriors and floors, lays/sets all cut stone, marble, slate, or stone, with or without mortar. They work with natural cut stone, such as marble, granite, limestone and artificial stone made of concrete, marble chips, or other masonry materials.

12) **Sweeper/Broom Operators**: Whenever Sweeper or Broom does not appear in the Wage Determination, contractors may use the Truck Driver classification for this service if the equipment used is of the over the road type (only). However, anytime the contract has an established classification/rate for “Sweeper or “Broom,” this classification must be used and the minimum rate, as it appears in the contract, shall apply.

13) **Traffic Coordinator**: Performs sign placement and maintenance, including proper set up and relocation of construction sign packages and message boards; designs lane closures in accordance with local, state, and Federal requirements. Please do not confuse this classification with Flagger.

6. **Prompt Pay**: Prompt pay requirements are outlined in the NHDOT Standard Specifications Section 109.09. Submissions are due no later than the 10th calendar day of each month.
a. State managed projects: Contractors may use the OFC Form 18 or utilize their own
document that contains the same required information unless otherwise instructed by
the OFC.
  * If no payments were made during the reporting period, contractors shall
submit a certification indicating "no payments made to subcontractors."

b. LPA projects: Contractors shall use the OFC Form 12.

7. Mandatory Training: Prime Contractors who fail to obtain an annual average (based on the
calendar year) of at least 60% “Satisfactory” ratings on all OFC Compliance Field Audit
Reports may be required to attend a mandatory 4-hour Contractor Compliance Training Class
each spring (as scheduled by the OFC). A principal owner or executive officer of the
company, and his/her payroll accountant shall attend.

a. Compliance ratings will be averaged over all projects if a Prime Contractor has
multiple projects.

b. The OFC has at least two Contractor Compliance Training Seminars each year.
   Every contractor participating on Federal-aid construction projects is encouraged to
   attend.

8. Restitution: If required, restitution shall be performed in accordance with the OFC
guidelines. The OFC Form 8 - Restitution Worksheet and Affidavit shall be used.

9. Temporary Suspensions:

a. Any Contractor, Subcontractor, or Lower-tier Subcontractor found to be in violation
of FHWA Form 1273, Required Contract Provisions, made part of its contract, or has
failed to comply with OFC Field Audit requirements, will be required to take
corrective action before participating in future projects funded by the Department.
Corrective action will include, but not limited to, the submission of certified payrolls
or other records and reports necessary to verify compliance with the Provisions.

b. Any Contractor, Subcontractor or Lower-tier Subcontractor found to have repeatedly
violated the FHWA Form 1273, Required Contract Provisions, may be required to
complete 4-hours of Federal Contract Compliance Training conducted by the OFC.
When mandated, a principal owner and/or company executive and his/her payroll
accountant shall attend. Federal Contract Compliance Training must be completed
before participation on future projects is authorized. This requirement does not
relieve the Contractor of its obligations under the prime contract, nor does it prevent
the Department from seeking other remedies or enforcement action, as provided by
the governing Rules, Laws, and Federal Regulations.

c. Companies will be notified of suspensions in writing. Actions the company must take
to have participation privileges restored will be clearly indicated. Companies will
also be advised that if a satisfactory response is not received within 30 days of receipt
of the suspension notice, the company will be considered “non-responsive.” In cases
where companies are non-responsive, and unpaid wages on the part of the
subcontractor or lower-tier subcontractor are involved, the matter will then be
defers to the Prime Contractor for payment of wages as provided in Form FHWA
1273, Required Contract Provisions, Section I, Paragraph 3.
10. **Right to Withhold Payment**: The Department may withhold payments claimed by the Contractor on account of:

   a. Failure of the Contractor to make payments to Subcontractors for materials or labor.
   b. Regulatory non-compliance or enforcement.
   c. Failure to comply with OFC Field Audit Report requirements.
   d. Failure to comply with monthly reporting requirements, as applicable.
   e. For projects with an On-The-Job Training (OJT) requirement, failure to submit OJT Form 1 - On-The-Job Training Acknowledgement and Statement of Intent within 30 days of the project start date.
   f. Failure to submit closeout documentation.
   g. All other causes that the Department reasonably determines negatively affect the State’s interest.

11. **Final Payment Release**: Once final project records are transferred to the OFC, a final review shall be performed to determine compliance with the Federal provisions. Release of any final payment shall not be made to the Contractor until the OFC issues a payment release letter (Okay to Pay) certifying:

   a. All required payrolls, labor, and Equal Employment Opportunity (EEO) documentation have been received and deemed complete and correct.
   b. DBE requirements stipulated in the Contract and/or the Required Contract Provisions have been fulfilled.

12. **Deposits in Escrow**: Every attempt is made to complete compliance actions and resolve any disputes before the project is completed and final payments are made. Sometimes, however, corrective actions or disputes continue after completion and provisions must be made to ensure that funds are available to pay any wage restitution that is ultimately found due. In these cases, the project can proceed to final closing provided the Prime Contractor, from payments already provided him/her, provides written evidence a deposit of an amount equal to the potential liability for wage restitution and liquidated damages, if applicable, has been deposited in an escrow account. When a final decision is rendered, the Prime Contractor makes disbursements from the account in accordance with the decision. Deposit/escrow accounts are established for one or more of the following reasons:

   a. Where the parties have agreed to amounts of wage restitution that are due but the employer has not yet furnished evidence that all the underpaid workers have received their back wages. The deposit is equal to the amount of restitution due to workers lacking payment evidence. As proper documentation is received, an amount corresponding to the documentation is returned to the depositor. Amounts for any workers who cannot be located are held in the escrow account for three (3) years. Amounts remaining in the account not disbursed by the end of this three-year period shall be returned to the Prime Contractor.

   b. Where underpayments are suspected or alleged and an investigation has not yet been completed. The deposit is equal to the amount of wage restitution and liquidated
damages, if applicable, that is estimated to be due. If the final determination of wages due is less than the amount estimated and placed in the escrow account, the escrow will be reduced to the final amount and the difference will be returned to the depositor. If the parties agree to the investigative findings, the amounts due to workers will be disbursed from the escrow account in accordance with the schedule of wages due. Amounts for unfound workers will be retained for a period of three (3) years and subsequently disbursed to the depositor as described above in Paragraph 12a.

c. Where the parties are waiting for the outcome of an administrative hearing that has been or will be filed contesting a final determination of wages due. The deposit shall be equal to the amount of wage restitution and liquidated dates, if applicable, that have been determined to be due. Once the final decision is rendered, disbursements from the escrow account are made in accordance with the decision.

Please direct questions relating to any information in this document to the OFC. See the OFC website for forms, documents, training schedules, contact information, and other helpful material: www.nh.gov/dot/org/administration/ofc/index.htm.
TE/CMAQ Program
Construction Proposal

It is proposed:

To execute the Contract and begin work within 10 days from the date specified in the "Notice to Proceed" and to prosecute said work so as to complete the ___________ and its appurtenances on or before ___________.

To furnish a Contract Bond in the amount of 100 per cent of the Contract award, as security for the construction and completion of the ___________ and its appurtenances in accordance with the Plans, Specifications and Contract. The Contractor's attention is called to Section 103.05 of the NHDOT Standard Specifications for road and bridge construction which provides the following guidance: unless specifically waived in the Proposal, upon execution of the Contract, the successful Bidder shall furnish the Agency a surety bond or bonds equal to the sum of the Contract amount. The form of the bond(s) shall be acceptable to the Agency and the bonding Company issuing the bond(s) shall be licensed to transact business in the State of New Hampshire, and...

To certify that the Bidder, in accordance with the requirements of 103.06 and 108.01, intends to sublet, assign, sell, transfer or otherwise dispose of one or more portions of the work and (1) has contacted the appropriate listed disadvantaged businesses and afforded such disadvantaged businesses equal consideration with non-disadvantaged business for all work the Bidder currently proposes to sublet, assign, sell, transfer or otherwise dispose of, (2) may contact additional appropriate disadvantage businesses and will afford such businesses equal consideration with non-disadvantaged businesses for all work the Bidder in the future proposes to sublet, assign, sell, transfer or otherwise dispose of, and (3) will complete enclosed "DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT FORM" and Letters of Intent for each disadvantaged business. The name of the person in the Bidder's organization who has been designated as the liaison officer to administer the disadvantaged business enterprise program is:

(To be completed by the Bidder)

To guarantee all of the work performed under this Contract to be done in accordance with the Specifications and in good and workmanlike manner, and to renew or repair any work which may be rejected, due to defective materials or workmanship, prior to final completion and acceptance of the project.

Enclosed herewith find certified check or bid bond in the amount of ___________ dollars ($__________), made payable to the Agency as a proposal guarantee which it is understood will be forfeited in the event the Contract is not executed, if awarded by the Agency to the undersigned.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters – Primary Covered Transactions

(1). The prospective primary participant certifies to the best of its knowledge and belief, that it and all its principals: (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency; (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in Paragraph (1) (b) of this certification and (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or Local) terminated for cause or default. (2). Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
Contract Affidavit

I/we declare under penalty of perjury under the laws of the United States and the State of New Hampshire that, in accordance with the provisions of Title 23 USC, Section 112(c), have not either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this Proposal.

Dated: __________________________

(If a firm or individual)

Signature of Bidder: __________________________

By: __________________________

Address of Bidder: __________________________

Names and Addresses of Members of the Firm:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

(If a Corporation)

Signature of Bidder: __________________________

Title: __________________________

By: __________________________

Business Address: __________________________

Incorporated under the laws of the State of __________________________

Names of Officers:

President: Name: __________________________

Address: __________________________

Secretary: Name: __________________________

Address: __________________________

Treasurer: Name: __________________________

Address: __________________________
SPECIAL PROVISION

SECTION 107 -- LEGAL RELATIONS AND RESPONSIBILITIES TO PUBLIC

SUBSECTION 107.01 – LAWS TO BE OBSERVED

The intent of this Special Provision is to clarify Bulletin Board requirements.

Add to 107.01’s third paragraph titled Bulletin Board Requirements the following:

New Hampshire Department of Transportation Bulletin Board Diagram
(Revision 1.15.16)

NHDOT PROJECT: (NAME) (NUMBER)

<table>
<thead>
<tr>
<th>Federal Posters</th>
<th>State Posters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Equal Employment Opportunity (EEO) is The Law (OFCP-1421) Rev. 11/11</td>
<td></td>
</tr>
<tr>
<td>2 &quot;EEO is the Law&quot; Poster Supplement</td>
<td></td>
</tr>
<tr>
<td>3 NOTICE Federal-Aid Project (FHWA-1022) Rev. 11/11</td>
<td></td>
</tr>
<tr>
<td>4 Employee Rights Under the Davis-Bacon Act (WH-1221) Substitute for FHWA-1405 Rev. 4/09</td>
<td></td>
</tr>
<tr>
<td>5 Employee Rights and Responsibilities Under the Family &amp; Medical Leave Act (WH-1402) Rev. 2/13</td>
<td></td>
</tr>
<tr>
<td>6 Employee Polygraph Protection Act (WH-1402) Rev. 1/12</td>
<td></td>
</tr>
<tr>
<td>7 Your Rights Under Uniformed Services Employment &amp; Reemployment Rights Act (OSERRA) Rev. 10/93</td>
<td></td>
</tr>
<tr>
<td>8 Job Safety &amp; Health It's The Law (OSHA-3165) Rev. 12/05</td>
<td></td>
</tr>
<tr>
<td>9 Whistleblower Protection Act (RSA 275-E Requirement)</td>
<td></td>
</tr>
<tr>
<td>10 The Workers’ Right to Know (Toxic Substances) Rev. 4/14</td>
<td></td>
</tr>
<tr>
<td>11 The Workers’ Compensation from Insurance Providers</td>
<td></td>
</tr>
<tr>
<td>12 Unemployment Notice (NHDOT Employment Security Office)</td>
<td></td>
</tr>
<tr>
<td>13 Equal Pay RSA 275-A47</td>
<td></td>
</tr>
<tr>
<td>16 24-Hour Emergency Contact Information</td>
<td></td>
</tr>
<tr>
<td>17 Contractor’s EEO Officer Appointment Letter (must have all contact Information)</td>
<td></td>
</tr>
<tr>
<td>18 Contractor’s EEO &amp; Harassment Policy Statement</td>
<td></td>
</tr>
<tr>
<td>19 NHDOT Federal Compliance Officer Contact Information (OFC Poster 1)</td>
<td></td>
</tr>
<tr>
<td>20 Davis Bacon Wage Rates</td>
<td></td>
</tr>
<tr>
<td>21 Additionally Approved Wage Rates</td>
<td></td>
</tr>
</tbody>
</table>
SPECIAL ATTENTION

CONVICT PRODUCED MATERIAL

In accordance with the requirements of the Federal regulations (23 U.S.C. 114(b)(2), 23 CFR 635.417), essentially all convict produced material is prohibited from Federal-aid highway construction projects. More specifically, materials produced after July 1, 1991, by convict labor, may only be incorporated in a Federal-aid construction projects if: 1) such materials have been produced by convicts who are on parole, supervised release, or probation from a prison; or 2) such material has been produced in a qualified prison facility, e.g., prison industry, with the amount produced during any 12-month period, for use in Federal-aid projects, not exceeding the amount produced, for such use, during the 12-month period ending July 1, 1987*.

* Because the Department, Federal Highway Administration, nor New Hampshire Correctional Industries can produce documents to meet condition 2 above, this condition cannot be met for New Hampshire convict produced material.
## WORK CHANGE DIRECTIVE
(EJCDC Form C-940)

<table>
<thead>
<tr>
<th>Work Change Directive No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Issuance:</td>
</tr>
<tr>
<td>Effective Date:</td>
</tr>
<tr>
<td>Owner: City of Nashua</td>
</tr>
<tr>
<td>Owner’s Contract No.: N/A</td>
</tr>
<tr>
<td>Contractor:</td>
</tr>
<tr>
<td>Contractor’s Project No.:</td>
</tr>
<tr>
<td>Engineer: Hoyle, Tanner &amp; Associates, Inc.</td>
</tr>
<tr>
<td>Engineer’s Project No.: 902603</td>
</tr>
<tr>
<td>Project: Proposed Heritage Rail Trail Connection to Contract Name: Proposed Heritage Rail Trail Connection to Mine Falls Park</td>
</tr>
</tbody>
</table>

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

Description:

Attachments: [List documents supporting change]

### Purpose for Work Change Directive:
Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to: [check one or both of the following]

- Non-agreement on pricing of proposed change.
- Necessity to proceed for schedule or other Project reasons.

### Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

<table>
<thead>
<tr>
<th>Contract Price $</th>
<th>[increase] [decrease].</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Time</td>
<td>[increase] [decrease].</td>
</tr>
</tbody>
</table>

#### Basis of estimated change in Contract Price:

- Lump Sum
- Unit Price
- Cost of the Work
- Other

RECOMMENDED: By: Engineer (Authorized Signature)

AUTHORIZED BY: Owner (Authorized Signature)

RECEIVED: By: Contractor (Authorized Signature)

Title: By: Title:

Date: Title:

Approved by Funding Agency (if applicable)

By: Date:

Title:

END OF SECTION

Hoyle, Tanner Project No. 902603 00940-1
**SECTION 00941**

**CHANGE ORDER**

*(EJCDC Form C-941)*

Proposed Heritage Rail Trail Connection to Mine Falls Park

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<table>
<thead>
<tr>
<th><strong>Date of Issuance:</strong></th>
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<thead>
<tr>
<th><strong>Owner:</strong></th>
<th><strong>Contractor:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Nashua</td>
<td>Hoyle, Tanner &amp; Associates, Inc.</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Owner's Contract No.:</strong></th>
<th><strong>Contractor's Project No.:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
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</tbody>
</table>

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<tr>
<th><strong>Engineer:</strong></th>
<th><strong>Project:</strong></th>
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<tr>
<th><strong>Engineer's Project No.:</strong></th>
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</thead>
<tbody>
<tr>
<td>902603</td>
<td>Proposed Heritage Rail Trail Connection to Mine Falls Park</td>
</tr>
</tbody>
</table>

The Contract is modified as follows upon execution of this Change Order:

**Description:**

- [List documents supporting change]

---

### CHANGE IN CONTRACT PRICE

<table>
<thead>
<tr>
<th><strong>Original Contract Price:</strong></th>
<th><strong>$</strong> ________________________________</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Change in Contract Price:</strong></th>
<th><strong>$</strong> ________________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Contract Price prior to this Change Order:</strong></th>
<th><strong>$</strong> ________________________________</th>
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<tr>
<th><strong>Increase</strong></th>
<th><strong>Decrease</strong></th>
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<tbody>
<tr>
<td>[Increase] [Decrease] of this Change Order:</td>
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<tr>
<th><strong>Contract Price incorporating this Change Order:</strong></th>
<th><strong>$</strong> ________________________________</th>
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</table>

### CHANGE IN CONTRACT TIMES

<table>
<thead>
<tr>
<th><strong>Original Contract Times:</strong></th>
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<tbody>
<tr>
<td>Substantial Completion: __________________________</td>
</tr>
<tr>
<td>Ready for Final Payment: __________________________</td>
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<table>
<thead>
<tr>
<th><strong>Change in Contract Times:</strong></th>
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</thead>
<tbody>
<tr>
<td>[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Contract Times prior to this Change Order:</strong></th>
</tr>
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<tbody>
<tr>
<td>Substantial Completion: __________________________</td>
</tr>
<tr>
<td>Ready for Final Payment: __________________________</td>
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<tr>
<th><strong>Increase</strong></th>
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<tr>
<td>[Increase] [Decrease] of this Change Order:</td>
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<table>
<thead>
<tr>
<th><strong>Contract Times with all approved Change Orders:</strong></th>
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<tbody>
<tr>
<td>Substantial Completion: __________________________</td>
</tr>
<tr>
<td>Ready for Final Payment: __________________________</td>
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</tbody>
</table>

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**RECOMMENDED:**

By: ____________________________  Title: ____________________________  Date: ____________________________

**ACCEPTED:**

By: ____________________________  Title: ____________________________  Date: ____________________________

Approved by Funding Agency (if applicable)

By: ____________________________  Title: ____________________________  Date: ____________________________
**SECTION 00942**
**FIELD ORDER**
(EJCDC Form C-942)

<table>
<thead>
<tr>
<th>Field Order No.</th>
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<tr>
<td>_____________</td>
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</table>

**Date of Issuance:**

**Effective Date:**

**Owner:** City of Nashua

**Owner’s Contract No.:** N/A

**Contractor:** Hoyle, Tanner & Associates, Inc.

**Contractor’s Project No.:** 902603

**Engineer:** Hoyle, Tanner & Associates, Inc.

**Engineer’s Project No.:** 902603

**Project:** Proposed Heritage Rail Trail Connection to Mine Falls Park

**Contract Name:** Proposed Heritage Rail Trail Connection to Mine Falls Park

Contractor is hereby directed to promptly execute this Field Order, issued in accordance with General Conditions Paragraph 11.01, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

**Reference:**

<table>
<thead>
<tr>
<th>Specification(s)</th>
<th>Drawing(s) / Detail(s)</th>
</tr>
</thead>
</table>

**Description:**

Attachments:

---

**ISSUED:**

<table>
<thead>
<tr>
<th>By:</th>
<th>By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineer (Authorized Signature)</td>
<td>Contractor (Authorized Signature)</td>
</tr>
</tbody>
</table>

**RECEIVED:**

<table>
<thead>
<tr>
<th>Title:</th>
<th>Title:</th>
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<table>
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<tr>
<th>Date:</th>
<th>Date:</th>
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</table>

Copy to: Owner

END OF SECTION
SECTION 00943
CERTIFICATE OF SUBSTANTIAL COMPLETION
(EJCD Form C-625, Modified)

CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner: City of Nashua  
Contractor:  
Owner's Contract No.: N/A  
Contractor's Project No.:  
Engineer: Hoyle, Tanner & Associates, Inc.  
Engineer’s Project No.: 902603  
Project: Proposed Heritage Rail Trail Connection to Mine Falls Park  
Contract Name: Proposed Heritage Rail Trail Connection to Mine Falls Park

This [preliminary] [final] Certificate of Substantial Completion applies to:

☐ All Work  ☐ 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 Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. 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.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows:

Amendments to Owner's responsibilities:  ☐ None  
☐ As follows:

Amendments to Contractor's responsibilities:  ☐ None  
☐ As follows:

The following documents are attached to and made a 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.

EXECUTED BY ENGINEER:  RECEIVED:  RECEIVED:
By: (Authorized signature)  By: Owner (Authorized Signature)  By: Contractor (Authorized Signature)
Title:  Title:  Title:
Date:  Date:  Date:

END OF SECTION
SECTION 00950
CONSENT OF SURETY COMPANY TO FINAL PAYMENT

OWNER’S CONTRACT NO.: N/A

ENGINEER’ PROJECT NO.: 902603

AGREEMENT DATE: 

BOND NUMBER: 

CONTRACT TITLE: Proposed Heritage Rail Trail Connection to Mine Falls Park

To: City of Nashua (Owner)
229 Main Street
Nashua, NH 03060

From: (Contractor)

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the (Surety) on the bond of (Contractor) hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to the City of Nashua (Owner) as set forth in the said Surety Company’s Bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this ______ day of ____________, 20__.  

________________________________________
Surety Company

________________________________________
Signature of Authorized Representative

Attest: (Seal)  Name & Title

Note: Power of Attorney should be attached in instances where same applies.

END OF SECTION
OWNER'S CONTRACT NO.:  N/A

ENGINEER' PROJECT NO.:  902603

AGREEMENT DATE:  

CONTRACT TITLE:  Proposed Heritage Rail Trail Connection to Mine Falls Park

To:  City of Nashua (Owner)

229 Main Street

Nashua, NH 03060

APPLICATION FOR FINAL PAYMENT

The undersigned hereby certifies that the amount owed set forth below constitutes the entire value of all work performed and services rendered by, through or under the undersigned with respect to the project not heretofore paid for up to and including the period covered by the above Application for Final Payment; that all work covered by such Application has been incorporated into the project and title thereto has passed to the Owner free and clear of all liens, claims, security, interests or encumbrances; and that no work covered by such Application has been acquired subject to an agreement under which any interest therein or an encumbrance thereon is retained by the seller or any other person. In consideration of payment of the requisition, the undersigned hereby releases the Owner from all claims of lien which the undersigned has regarding the Project.

The undersigned, in order to induce the Owner to pay the requisition, hereby represents that it has paid or will pay from the proceeds of the requisition all sums due to those parties who have performed work or provided materials to the undersigned in connection with the Project, and that it will on request of the Owner provide written evidence of the discharge by the undersigned of its obligations to such parties.

Executed under seal as of this ________________ day of _________________, 20___.

Amount Owed to Contractor by Owner as Final Payment:

$__________________________ (total value of project including change orders)

Amount Unpaid From Previous Application for Payment:

$__________________________
CONTRACTOR'S FINAL LIEN WAIVER
(Page 2 of 2)

From: ________________________________ (Contractor)

____________________________________

____________________________________

____________________________________

Authorized Representative Signature

____________________________________

Name and Title (printed)

NOTARY:

Then personally appeared the above named ________________________________ and acknowledged the foregoing to be the free act and deed of the above-named Contractor, before me.

Subscribed and sworn to on the ___________________ day of __________________, 20___.

Notary Public: ________________________________

My Commission Expires: ________________________________

END OF SECTION
OWNER’S CONTRACT NO.: N/A

ENGINEER’ PROJECT NO.: 902603

AGREEMENT DATE: ____________________________

CONTRACT TITLE: Proposed Heritage Rail Trail Connection to Mine Falls Park

FINAL COMPLETION DATE PER AGREEMENT AND CHANGE ORDERS: ____________________________

ACTUAL DATE OF FINAL COMPLETION: ____________________________

FINAL CERTIFICATION OF CONTRACTOR

I hereby certify that the Work as identified in the Final Payment Request dated ____________________________ for the above-noted construction Contract represents full compensation for the actual value of work completed. Additionally, all work completed conforms to the terms of the Agreement and authorized changes.

__________________________________________  Date

Authorized Representative’s Signature

__________________________________________

Name & Title

FINAL CERTIFICATION OF ENGINEER

I have reviewed the Contractor’s Final Payment Request dated ____________________________ and hereby certify that to the best of my knowledge, the cost of the work identified on the Final Payment Request represents full compensation for the actual value of work completed and that the work has been completed in accordance with the terms of the Agreement and authorized changes.

__________________________________________  Date

Hoyle, Tanner and Associate, Inc.

__________________________________________

Authorized Representative’s Signature

__________________________________________

Name & Title
CERTIFICATE OF FINAL COMPLETION OF WORK
(Page 2 of 2)

FINAL ACCEPTANCE OF OWNER

I, as representative of the Owner, accept the above Final Certifications and authorize Final Payment in the amount of $__________ and direct the Contractor's attention to the General Conditions. The guaranty for all Work completed subsequent to the date of Substantial Completion, expires _________year from the date of this Final Acceptance.

At a meeting of the____________________(Town Council/Selectmen/Alderman), the Owner, ________________(Name of the community) has accepted the constructed project.

City of Nashua ____________________________ Date

OWNER ____________________________

Authorized Representative’s Signature

_______________________________
Name & Title

END OF SECTION
SECTION 01010
SUMMARY OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Contract description.
B. Work by Owner.
C. Owner supplied Products.
D. Contractor use of site.
E. Future work.
F. Work sequence.
G. Owner occupancy.
H. Construction Permits and Easements

1.2 RELATED SECTIONS

A. Drawings and General Provisions of the Contract, including General Supplementary Conditions and other Division 1 Specifications apply to this section.

1.3 CONTRACT DESCRIPTION

A. Contract Type: Unit Price as stated in the Agreement.

1.4 WORK BY OWNER

Not Used.

1.5 OWNER SUPPLIED PRODUCTS

Not Used.

1.6 CONTRACTOR USE OF SITE

A. Limit use of site to allow:

1. Owner access.
2. Allow access to local property owners.
3. Engineer access.
4. Permitting agency access.

B. Construction Operations: Limited to right-of-way and easement areas as shown on
the drawings.

C. Time Restrictions for Performing Work: The Contractor will be limited to accessing the site and performing the required work between the hours of 7:00am to 7:00pm, Monday through Friday.

1.7 FUTURE WORK

Not Used.

1.8 WORK SEQUENCE

A. Construct Work as shown on the drawings, coordinate construction schedule and operations with Engineer.

1.9 OWNER OCCUPANCY

Not Used.

1.10 CONSTRUCTION PERMITS AND EASEMENTS

A. The Owner shall be responsible for identifying and obtaining federal, state, and local permits as may be required due to the nature and location of construction as depicted in the drawings except those required to be obtained by the Contractor such as trench permits, building permits, waste disposal permits, etc. Should the Contractor’s preferred means and methods benefit from additional impact areas for which the Owner has not obtained permits, it shall be the Contractor’s responsibility to coordinate and pay for additional permitting at no cost to the Owner. Failure of the Contractor to obtain additional permits shall not relieve the Contractor from constructing the project per the Contract Documents. To the extent possible, Owner procured permits shall be obtained prior to the Advertisement for Bids for construction, and copies of all permits so obtained shall be included in the Appendix. The status of the application on each permit, including the conditions thereof, not obtained prior to the Advertisement for Bids shall also be indicated in the Supplementary Conditions.

B. When construction permits are accompanied by regulations or requirements issued by a particular authority or agency, it shall be the Contractor's responsibility to familiarize himself and comply with such regulations or requirements as they apply to his operations on this project.

C. The Owner shall be responsible for identifying and obtaining all easements for this contract prior to construction which are necessary for construction as depicted in the drawings. Should the Contractor’s means and methods benefit from access to other property for which easements have not been obtained, it shall be the Contractor’s responsibility to obtain additional easements. Failure of the Contractor to obtain the additional easements shall not relieve the Contractor from constructing the project per the Contract Documents.
D. The Owner has applied for or obtained the following permits:

1. City of Nashua Zoning Board of Adjustment Special Exemption.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION
PART 1 GENERAL

1.1 SECTION INCLUDES

A. Cash allowances.
B. Contingency allowance.
C. Inspecting and testing allowances.
D. Schedule of Values.
E. Applications for Payment.
F. Change procedures.
G. Defect Assessment.
H. Measurement and payment - unit prices.
I. Alternatives.

1.2 RELATED SECTIONS

A. Drawings and General Provisions of the Contract, including General Supplementary Conditions and other Division 1 Specifications apply to this section.

1.3 CASH ALLOWANCES

B. Contract items which may be paid for as an allowance will be identified in the Bid Form. Payment under these items will be identified in the appropriate specification section related to this item.

1.4 CONTINGENCY ALLOWANCE

Not Used.

1.5 INSPECTING AND TESTING ALLOWANCES

Not Used.

1.6 SCHEDULE OF VALUES

A. Submit a printed schedule of values in accordance with Section 00700, paragraph 2.05-A. for all lump sum bid items of the work. Contractor's standard form or electronic media printout will be considered.
B. Submit Schedule of Values in duplicate within 10 days after date of Owner-Contractor Agreement established in Notice to Proceed.

C. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the major specification Section.

D. Include in each line item, the amount of Allowances specified in this section.

E. Include within each line item, a direct proportional amount of Contractor's overhead and profit.

F. Revise schedule to list approved Change Orders, with each Application For Payment.

1.7 APPLICATIONS FOR PAYMENT

A. Submit three copies of each application on Contractor's electronic media driven form or EJCDC C-620 (Section 00620).

B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.

C. Payment Period: 30 days

D. Include any forms required by Owner.

E. Include an updated construction progress schedule.

1.8 CHANGE PROCEDURES

A. The Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time as authorized by the General Conditions.

B. The Owner may issue a Change Order which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor will prepare and submit an estimate within 7 days.

C. The Contractor may propose changes by submitting a request for change to the Engineer, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, and the effect on the Contract Sum/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 Section 01600.

D. Field Order: Engineer may issue a directive, on EJCDC Form C-942 Field Order signed by the Engineer and Contractor for minor changes in the Work without changes in Contract Price or Contract Times. Promptly execute the Field Order.
E. Work Change Directive: Engineer may issue a directive, on EJCDC Form C-940 Work Change Directive signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.

F. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under a Work Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.

G. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Engineer will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.

H. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.

I. Change Order Forms:
   - Work Change Directive Forms EJCDC C-940 (Section 00940)
   - Change Order Form EJCDC C-941 (Section 00941)
   - Field Order Form: EJCDC C-942 (Section 00942)

J. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

1.9 DEFECT ASSESSMENT

A. Replace the Work, or portions of the Work, not conforming to specified requirements.

B. If, in the opinion of the Engineer, it is not practical to remove and replace the Work, the Engineer will direct an appropriate remedy or adjust payment.

1.10 MEASUREMENT AND PAYMENT - UNIT PRICES

A. Authority: Measurement methods are delineated in the individual specification sections.

B. Take measurements and compute quantities. The Engineer will verify measurements and quantities proposed by the Contractor, or the Engineer will take measurements and compute quantities accordingly. Provide and assist in the taking of measurements.

C. Unit Quantities: Quantities and measurements indicated in the Bid Form are for
bidding purposes only. Actual quantities provided shall determine payment.

D. Payment Includes: Full compensation for required labor (including sales tax), products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

1.11 ALTERNATIVES

Not Used.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION
SECTION 01039
COORDINATION AND MEETINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Coordination and project conditions.
B. Field engineering.
C. Preconstruction meeting.
D. Site mobilization meeting.
E. Progress meetings.
F. Preinstallation meetings.

1.2 RELATED SECTIONS

A. Drawings and General Provisions of the Contract, including General Supplementary Conditions and other Division 1 Specifications apply to this section.

1.3 COORDINATION AND PROJECT CONDITIONS

B. Coordinate scheduling, submittals, and Work of the various sections of the Specifications to ensure efficient and orderly sequence of construction elements.

C. Verify all existing utility locations.
C. Verify dimensions of existing structures to be maintained or rehabilitated.

1.4 FIELD ENGINEERING

A. Employ a Land Surveyor or Professional Engineer licensed in the State of New Hampshire and acceptable to Engineer to perform all layout work. Submit Land Surveyor or Professional Engineer credentials to Engineer for review.

B. Contractor shall locate and protect all survey control and reference points, and shall accurately replace and have verified by the Engineer any such point, which is damaged or moved, at his own expense.

C. Control datum for survey is that shown on Drawings. The Licensed Land Surveyor shall establish certain reference points and benchmarks in the immediate vicinity of the work areas. The Contractor may lay out all additional lines and grades and otherwise do all layout and measurement necessary for the proper completion of the work.
D. The Contractor shall verify setbacks and easements; confirm drawing dimensions and elevations.

E. The Contractor shall provide field engineering services including establishing elevations, lines, and levels, utilizing recognized construction survey practices.

F. The Licensed Land Surveyor shall provide periodic services to verify horizontal and vertical control of the work, as outlined below. Letters shall be provided to the Engineer from the Licensed Land Surveyor stating that the following at a minimum are in accordance with the Contract Documents:

- Tops of helical pile elevation and location.
- Corners of footings, including working points, and top of footing elevations prior to placing footing concrete.
- Beam seat elevations prior to placing abutment stem concrete.
- Wingwall and abutment working points.

Letters shall be submitted on the Licensed Land Surveyor’s letterhead and signed by the Licensed Land Surveyor prior to the Contractor proceeding with the work which was verified. If the work is found to not be in accordance with the Contract Documents, or within acceptable tolerances (+/- 1/8” for concrete elevations or as specified in the Special Provision for Item 510.99 Helical Piles), it shall be brought to the Engineer’s and Contractor’s attention immediately.

G. The Contractor shall furnish assistance to the Engineer as requested to check the layout or otherwise control the work. Such assistance shall be understood to include the provision of suitable manpower to assist the Engineer in taping measurements, holding a survey rod for checking grades and the like.

H. The Engineer reserves the right to inspect or check any of this work, and the Contractor shall not claim added compensation for any delay occasioned by the Engineer exercising this right, nor for any corrective work which is required as a result of the Engineer’s inspections.

1.5 PRECONSTRUCTION MEETING

A. Engineer will schedule a meeting after Notice of Award.

B. Attendance Required: Owner, Engineer and Contractor.

C. Sample Agenda:

1. Execution of Owner-Contractor Agreement.
2. Submission of executed bonds and insurance certificates.
4. Submission of list of Subcontractors, schedule of values, and progress schedule.
5. Submission of list of surveyor or person responsible for layout, testing agency and other parties providing services on the project.
7. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
8. Procedures for layout of the project, establishing controls, limits of right-of-way and easements.
9. Scheduling.

D. Engineer will record notes and distribute copies to participants and those affected by decisions made.

1.6 SITE MOBILIZATION MEETING

A. Engineer may schedule a meeting at the Project site prior to Construction start-up.

B. Attendance Required: Engineer, Contractor's Superintendent, and major Subcontractors.

C. Sample Agenda:
   1. Use of site by Owner and Contractor.
   2. Owner's requirements.
   3. Construction facilities provided by Contractor.
   4. Temporary utilities provided by Contractor.
   5. Survey layout.
   7. Schedules.
   8. Application for payment procedures.
   9. Procedures for testing.

D. Engineer will record notes and distribute copies to participants and those affected by decisions made.

1.7 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at weekly intervals or intervals agreed to by Owner/Engineer/Contractor.

B. Engineer will make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.

C. Attendance Required: Contractor's superintendent, major Subcontractors and suppliers, Engineer, as appropriate to agenda topics for each meeting.

D. Sample Agenda:
   1. Review notes of previous meetings.
   2. Review of Work progress.
   3. Field observations, problems, and decisions.
4. Identification of problems which impede planned progress.
5. Review of submittals schedule and status of submittals.
6. Review of off-site fabrication and delivery schedules.
7. Maintenance of progress schedule.
8. Corrective measures to regain projected schedules.
9. Planned progress during succeeding work period.
10. Coordination of projected progress.
11. Maintenance of quality and work standards.
12. Effect of proposed changes on progress schedule and coordination.
13. Other business relating to Work.

E. Engineer will record notes and distribute copies to participants and those affected by decisions made.

1.8 PREINSTALLATION MEETINGS

A. Preinstallation meetings may be required for the following construction items:
   • Helical Piles
   • Prefabricated Pedestrian Bridge Superstructure

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION
SECTION 01300
SUBMITTALS

PART 1   GENERAL

1.1 SECTION INCLUDES

A. Submittal procedures.
B. Construction progress schedules.
C. Proposed Products list.
D. Product Data.
E. Shop Drawings.
F. Samples.
G. Design data.
H. Test reports.
I. Certificates.
J. Manufacturer's instructions.
K. Manufacturer's field reports.
L. Erection drawings.
M. Construction photographs.

1.2 RELATED SECTIONS

A. Section 01400 - Quality Control: Manufacturers' field services and reports.
B. Section 01700 - Contract Closeout: Contract warranties, bonds, manufacturers' certificates, and closeout submittals.

1.3 SUBMITTAL PROCEDURES

A. Transmit each submittal with Engineer-accepted form.
B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
C. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail
number, and specification section number, as appropriate.

D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.

E. Schedule submittals to expedite the Project, and deliver to Engineer at Hoyle, Tanner & Associates, Inc. (Hoyle, Tanner), Inc. 150 Dow Street, Manchester, NH 03101. Coordinate submission of related items.

F. For each submittal for review, allow 21 days excluding delivery time to and from the Contractor.

G. Identify variations from Contract Documents which may be detrimental to successful performance of the completed Work.

H. Provide space for Contractor and Engineer review stamps.

I. When revised for resubmission, identify all changes made since previous submission.

J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.

K. Submittals not requested will not be recognized or processed.

L. The cost of furnishing drawings and details, calculations, product data, samples, test reports and certificates shall be included in the Contract unit price for the item involved.

1.4 CONSTRUCTION PROGRESS SCHEDULES

A. Submit initial schedule in duplicate within ten days after date of Owner-Contractor Agreement established in Notice to Proceed.

B. Revise and resubmit as required.

C. Submit revised schedules with each Application for Payment, identifying changes since previous version.

D. Submit a computer generated horizontal bar chart with separate line for each major portion of Work or operation, identifying first workday of each week.

E. 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.

F. Indicate estimated percentage of completion for each item of Work at each submission.
G. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by Owner.

1.5 PROPOSED PRODUCTS LIST

A. Within fifteen days after date of Owner-Contractor Agreement, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.6 PRODUCT DATA

A. Product Data For Review:

1. Submitted to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.

2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.

B. Submit the number of copies as indicated in the General Conditions.

C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.

D. After review distribute in accordance with the Submittal Procedures article above and provide copies for record documents described in Section 01700 - CONTRACT CLOSEOUT.

1.7 SHOP DRAWINGS

A. Shop Drawings For Review and Approval:

1. Submitted to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.

2. The Contractor or fabricator shall not begin work on the activity or fabrication involved without approval of the details and procedures. Engineer’s approval of drawings and procedures does not relieve the Contractor or fabricator of compliance with all specifications and code requirements. The Engineer assumes no responsibility for error(s) and/or omission(s) of details.

3. Drawings and procedures identified as “approved as noted” indicate that specific clarification or conditional changes have been identified and take precedence over submitted information. Withholding of approval by the
Engineer for selected details, calculations or procedures shall not constitute a basis for delay.

4. After approval or approval as noted of the drawings, details and procedures, no changes shall be made without written approval of the Engineer. The Contractor or fabricator shall assume risk for materials ordered or work performed prior to the approval of the Engineer.

5. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.

B. Shop drawings to be submitted are classified in two categories:

1. Fabrication Drawings: Drawings required for work performed by or in conjunction with materials furnished by a fabricator or supplier. Drawings provided to the Engineer for review and approval shall consist of complete details developed from information in the Plans and these Specifications to define dimensions, sizes, procedures, and materials necessary to complete fabrication and installation or erection of the work specified.

2. Working Drawings: Drawings submitted for review and approval shall include, but not be limited to; the following: temporary bridge plans, removal of existing bridge structure plans, cofferdam plans, water diversion structure plans, plans of precast elements to be designed by the Contractor, erection plans, temporary support systems, falsework plans, scaffolding plans and bridge analysis, detour plans, sign structure plans, traffic signal poles and mast arm plans, or any other working drawings for review and approval required by the Contract. If not specifically noted in the applicable Technical Specifications, all items listed above must be designed and sealed by a Professional Engineer licensed in the State of New Hampshire.

Shop drawings that must be submitted for review and approval are listed in Section 01300, Paragraph 3.1.C.

C. Submit the number and type as indicated in the General Conditions.

1.8 SAMPLES

A. Samples For Review:

1. Submitted to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.

2. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.

B. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
C. Include identification on each sample, with full Project information.

D. Submit the number of samples as indicated in the General Conditions.

E. Reviewed samples which may be used in the Work are indicated in individual specification sections.

F. Samples will not be used for testing purposes unless specifically stated in the specification section.

1.9 DESIGN DATA

A. Submit for the Engineer's review and approval.

B. Submit information for the purpose of assessing conformance with information given and the design concept expressed in the contract documents.

C. For an item or element of work which includes optional design data and calculations that affect structural capacity, safety, and/or the results of work, the Contractor shall prepare for the Engineer's review and approval detailed design data and calculations of how the work is proposed to be performed and adequately controlled.

1.10 TEST REPORTS

A. Submit test reports for information for the purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.11 CERTIFICATES

A. When specified in individual specification sections, submit certification by the manufacturer, installation/application subcontractor, or the Contractor using the Certificate of Compliance form at the end of this section or an approved equal, to Engineer, in quantities specified for Product Data.

B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

1.12 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, to Engineer for delivery to the site in quantities specified for Product Data.

B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
C. Refer to Section 01400 - Quality Control, Manufacturers' Field Services article.

1.13 MANUFACTURER’S FIELD REPORTS

Not Used.

1.14 ERECTION DRAWINGS

See 01300 Part 3

1.15 CONSTRUCTION PHOTOGRAPHHS

Not Used.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 SUBMITTALS

A. The Contractor shall provide to the Engineer product data, shop drawings, samples, Certificates of Compliance and other submittals to the Engineer as indicated in the submittal summary provided in this section. The summary provided is not all inclusive and does not relieve the Contractor from providing all submittals identified or call for in the Contract Documents (plans and individual section specifications).

B. Product Data

Submit the following product data:

<table>
<thead>
<tr>
<th>Specification Section</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>01300, 1.6 A,B</td>
<td>Products List</td>
</tr>
<tr>
<td>01700, 1.6 B</td>
<td>Warranties</td>
</tr>
<tr>
<td>403</td>
<td>Pavement Mix Design</td>
</tr>
<tr>
<td>510.99</td>
<td>Helical Piles</td>
</tr>
<tr>
<td>520</td>
<td>Concrete Mix Design</td>
</tr>
<tr>
<td>534.1</td>
<td>Water Repellent</td>
</tr>
<tr>
<td>538.2</td>
<td>Barrier Membrane</td>
</tr>
<tr>
<td>550.3</td>
<td>Steel Bollard (Removable) (Paint)</td>
</tr>
<tr>
<td>563.99</td>
<td>Protective Screening</td>
</tr>
<tr>
<td>592.3</td>
<td>Concrete Faced Retaining Wall System</td>
</tr>
<tr>
<td>593.411</td>
<td>Formliner Pattern</td>
</tr>
<tr>
<td>608.54</td>
<td>Geotextile</td>
</tr>
<tr>
<td></td>
<td>Detectable Warning Devices, Cast Iron</td>
</tr>
</tbody>
</table>
C. Shop Drawings

Submit fabrication drawings for review and approval for the following:

<table>
<thead>
<tr>
<th>Specification Section</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>510.99</td>
<td>Helical Piles</td>
</tr>
<tr>
<td>550.3</td>
<td>Steel Bollard (Removable)</td>
</tr>
<tr>
<td>544</td>
<td>Reinforcing Steel</td>
</tr>
<tr>
<td>569.5</td>
<td>Prefabricated Pedestrian Bridge Superstructure</td>
</tr>
<tr>
<td>592.3</td>
<td>Concrete Faced Retaining Wall System</td>
</tr>
<tr>
<td>606.6201</td>
<td>Ramp Handrail, Steel</td>
</tr>
<tr>
<td>607.74</td>
<td>Wood Fence</td>
</tr>
</tbody>
</table>

Submit working drawings for review and approval for the following:

<table>
<thead>
<tr>
<th>Specification Section</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>603.0002</td>
<td>Video Inspection</td>
</tr>
<tr>
<td>619</td>
<td>Traffic Control Plan</td>
</tr>
<tr>
<td>645.7</td>
<td>Storm Water Pollution Prevention Plan</td>
</tr>
<tr>
<td>697.11</td>
<td>Invasive Species Management Plan</td>
</tr>
<tr>
<td>569.5</td>
<td>Prefabricated Pedestrian Bridge Superstructure (Erection Plan)</td>
</tr>
</tbody>
</table>

D. Samples

Not Used.

E. Design Data

<table>
<thead>
<tr>
<th></th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>403</td>
<td>Pavement Mix Design</td>
</tr>
<tr>
<td>510.99</td>
<td>Helical Piles</td>
</tr>
<tr>
<td>520</td>
<td>Concrete Mix Design</td>
</tr>
<tr>
<td>569.5</td>
<td>Prefabricated Pedestrian Bridge Superstructure</td>
</tr>
<tr>
<td>592.3</td>
<td>Concrete Faced Retaining Wall System</td>
</tr>
</tbody>
</table>

F. Test Reports

Not Used.
G. Certificates

Submit Certificates of Compliance using the Certificate of Compliance form at the end of this section or an approved equal for the following:

<table>
<thead>
<tr>
<th>Specification Section</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>304</td>
<td>Aggregate Base Course</td>
</tr>
<tr>
<td>403</td>
<td>Asphalt Materials</td>
</tr>
<tr>
<td>520</td>
<td>Concrete</td>
</tr>
<tr>
<td>534</td>
<td>Water Repellent</td>
</tr>
<tr>
<td>538</td>
<td>Barrier Membrane</td>
</tr>
<tr>
<td>544</td>
<td>Reinforcing Steel</td>
</tr>
<tr>
<td>568</td>
<td>Timber Species</td>
</tr>
<tr>
<td>568</td>
<td>Wood Preservative</td>
</tr>
<tr>
<td>593</td>
<td>Geotextiles</td>
</tr>
<tr>
<td>608</td>
<td>Sidewalks</td>
</tr>
<tr>
<td>614</td>
<td>Electrical Conduit</td>
</tr>
<tr>
<td>615</td>
<td>Traffic Signs</td>
</tr>
<tr>
<td>632</td>
<td>Retroreflective Paint Markings</td>
</tr>
</tbody>
</table>

H. Manufacturer’s Instructions

<table>
<thead>
<tr>
<th>Specification Section</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>013000, 1.12 - A&amp;B</td>
<td>Manufacturer’s Instructions.</td>
</tr>
</tbody>
</table>

I. Submissions Requiring Professional Engineer or Other Certifications

Professional Engineer

<table>
<thead>
<tr>
<th>Specification Section</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>510.99</td>
<td>Helical Piles</td>
</tr>
<tr>
<td>569.5</td>
<td>Prefabricated Pedestrian Bridge Superstructure</td>
</tr>
<tr>
<td>569.5</td>
<td>Prefabricated Pedestrian Bridge Superstructure (Erection Plan)</td>
</tr>
<tr>
<td>592.3</td>
<td>Concrete Faced Retaining Wall System</td>
</tr>
</tbody>
</table>

Other Certifications

<table>
<thead>
<tr>
<th>Specification Section</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>645.7</td>
<td>Storm Water Pollution Prevention Plan</td>
</tr>
<tr>
<td>645.71</td>
<td>Monitoring SWPPP and Erosion and Sediment Controls</td>
</tr>
<tr>
<td>697.11</td>
<td>Invasive Species Control and</td>
</tr>
</tbody>
</table>
Management Plan

Please note that the above list if provide for the Contractor's convenience and may not be all-inclusive. The Contractor remains responsible for compliance with all applicable Technical Specifications.

J. Other Submittals

<table>
<thead>
<tr>
<th>Specification Section</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>00700, 2.03 – A: 01300, 1.4 A-G</td>
<td>Progress Schedule</td>
</tr>
<tr>
<td>00700, 2.03 A</td>
<td>Schedule of Value</td>
</tr>
<tr>
<td>00700, 2.03 A</td>
<td>List of Submittals</td>
</tr>
<tr>
<td>00700, 7.13</td>
<td>Safety Representative</td>
</tr>
<tr>
<td>00700, 13.01.B-1</td>
<td>Contractor’s Payroll Costs</td>
</tr>
<tr>
<td>01039, 1.4 –A</td>
<td>Land Surveyor Credentials</td>
</tr>
<tr>
<td>01039, 1.4 – F</td>
<td>Plan Set by Land Surveyor</td>
</tr>
<tr>
<td>01039, 1.5 – C. 4</td>
<td>List of Subcontractors</td>
</tr>
<tr>
<td>01400, 1.9 – B</td>
<td>Manufacturers Field Services</td>
</tr>
<tr>
<td>01700, 1.3 A-C</td>
<td>Closeout Procedures</td>
</tr>
<tr>
<td>01700, 1.6 A-G</td>
<td>Record Documents</td>
</tr>
</tbody>
</table>

3.2 ENGINEER’S REVIEW

A. Reference Section 00800-SC-7.16 E. 2 for information regarding the Engineer’s review of Contractor submittals.
CERTIFICATE OF COMPLIANCE

Date _______________ 20____

WE, ________________________________

(Manufacturer, Supplier, or Contractor)

Address: _____________________________________________________________

HEREBY CERTIFY THAT

______________________________________________________________

(Type of Product)

______________________________________________________________

(Product Trade Name)

Manufactured by ___________________________________________________

Supplied by: _________________________________________________________

Furnished to ________________________________

Contractor (Prime or Sub.)

Delivered and Used on:

______________________________________________________________

Project Name ____________________________ Federal No. ______________ State No. ______________

Used for Item No. ____________________________ Name of Item ____________________________

MEETS THE REQUIREMENTS OF THE PERTINENT PROJECT PLANS, SPECIAL PROVISIONS AND SPECIFICATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) IN ALL RESPECTS. PROCESSING, PRODUCT TESTING, AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMANCE WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND STANDARDS OF ALL ARTICLES FURNISHED.

All records and documents pertinent to this certificate and not submitted herewith will be maintained available by the undersigned for a period of not less than three years from the date the Project has been completed and accepted.

Signed by ________________________________ Title ________________________________

(Officer of Organization)

Subscribed and sworn to before me this _______ day of ____________, ____________.

_________________________ ____________________

Notary Public/Justice of the Peace

My Commission Expires: ____________

TO BE COMPLETED BY CONTRACTOR. Location information the QPL

Bridge Items                              Roadway Items

Bridge No.: ____________________________ Station: ____________________________

END OF SECTION
PART 1   GENERAL

1.1 SECTION INCLUDES

A. Quality assurance - control of installation.

B. Tolerances.

C. References and standards.

D. Mock-up.

E. Material testing and laboratory services.

F. Observation Services.

G. Manufacturers' field services.

1.2 RELATED SECTIONS

A. Section 01300 - Submittals: Submission of manufacturers' instructions and certificates.

B. Section 01600 - Material and Equipment: Requirements for material and product quality.

1.3 QUALITY ASSURANCE - CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Perform Work by persons qualified to produce required and specified quality.

F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.4 TOLERANCES

A. Monitor fabrication and installation tolerance control of Products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust Products to appropriate dimensions; position before securing Products in place.

1.5 REFERENCES AND STANDARDS

A. For Products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Conform to reference standard by date of issue current on date of Contract Documents, except where a specific date is established by code.

C. Obtain copies of standards where required by product specification sections.

D. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the Engineer shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.6 MOCK-UP

Not Used.

1.7 MATERIAL TESTING AND LABORATORY SERVICES

A. Owner or Engineer may appoint, employ, and pay for specified services of an independent firm to perform construction material testing services.

B. The independent firm will perform testing and other services specified in individual sections and as required by the Owner or Engineer.

C. Testing reports will be submitted by the independent firm to the Owner or Engineer indicating services and indicating compliance or non-compliance with the contract documents.

D. Cooperate with independent firm; furnish safe access and assistance by incidental labor as requested.
1. Notify Engineer and/or independent firm 48 hours prior to expected time for operations requiring services. These operations include, but are not necessarily limited to:

- Cast-in-place concrete placement
- Compaction of backfill for structures and roadway

E. All additional testing or re-testing necessitated by the failure of initial tests as determined by the Engineer shall be conducted and paid for by the Contractor as directed by the Engineer.

1. The Contractor shall take immediate corrective measures as suggested by the testing laboratory and/or directed by the Engineer to make the materials meet or exceed the specifications.

2. Payment for additional testing or re-testing will be charged to the Contractor by deducting charges from the total contract sum/price.

1.8 OBSERVATION SERVICES

A. Owner may appoint, employ, and pay for specified services of an independent firm to perform construction observation.

B. The independent firm will perform observations and other services specified in individual specification sections and as required by the Owner.

C. Reports will be submitted by the independent firm to the Owner, in duplicate, indicating observations and indicating compliance or non-compliance with Contract Documents.

D. Contractor shall cooperate with independent firm; furnish safe access and assistance by incidental labor as requested.

1. Notify Engineer and/or independent firm 48 hours prior to expected time for operations requiring services.

E. Observations do not relieve Contractor to perform Work to contract requirements.

1.9 MANUFACTURERS' FIELD SERVICES

A. When specified in individual specification sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, as applicable, and to initiate instructions when necessary.

B. Submit qualifications of observer to Engineer 30 days in advance of required observations. Observer subject to approval of Engineer.

C. Report observations and site decisions or instructions given to applicators or installers
that are supplemental or contrary to manufacturers' written instructions.

D. Refer to Section 01300 - SUBMITTALS, MANUFACTURERS' FIELD REPORTS article.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.

C. Examine and verify specific conditions described in individual specification sections.

D. Verify that utility services are available, of the correct characteristics, and in the correct locations.

3.2 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

END OF SECTION
SECTION 01500
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1   GENERAL

1.1 SECTION INCLUDES

A. Temporary Utilities: telephone/fax service, water, and sanitary facilities.

B. Temporary Controls: Barriers, enclosures and fencing, protection of the Work, water control and erosion controls.

C. Construction Facilities: Access roads, parking, progress cleaning and project signage.

1.2 RELATED SECTIONS

A. Section 01700 - Contract Closeout: Final cleaning.

1.3 TEMPORARY ELECTRICITY

A. Contractor shall coordinate with the local electrical supplier to arrange for temporary electrical service as required for the project. Costs included in Item 692., Mobilization.

1.4 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

Not Used.

1.5 TEMPORARY HEATING

Not Used.

1.6 TEMPORARY COOLING

Not Used.

1.7 TEMPORARY VENTILATION

Not Used.

1.8 TELEPHONE SERVICE

A. Provide, maintain, and pay for telephone service to field office at time of project mobilization. At the Contractor’s option, telephone service to a field office can be substituted with a cell phone with voicemail assigned to the Contractor’s foreman provided the cell phone reception is adequate at the project site.

1.9 FACSIMILE SERVICE

Not Used.
1.10 TEMPORARY WATER SERVICE

A. Provide, maintain and pay for suitable quality water service required for construction operations at time of project mobilization.

B. Contractor will pay cost of water used. Exercise measures to conserve water. Provide separate metering if obtaining from local water utility and reimburse Owner for cost of water used.

C. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.

1.11 TEMPORARY SANITARY FACILITIES

A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.

1.12 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

1.13 WATER CONTROL

B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.

C. Protect site from puddling or running water. Provide erosion control barriers as required to protect site from soil erosion.

1.14 PROTECTION OF INSTALLED WORK

D. Protect installed Work and provide special protection where specified in individual specification sections.

E. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.

F. 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.

G. Prohibit traffic from landscaped areas.
1.15 SECURITY

A. Provide security and facilities to protect Work, and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.16 ACCESS ROADS

A. Construct and maintain temporary roads accessing public thoroughfares to serve construction area.

B. Provide and maintain access to fire hydrants, free of obstructions.

C. Provide means of removing mud from vehicle wheels before entering streets.

D. Designated existing on-site roads may be used for construction traffic at the discretion of the Engineer.

1.17 PARKING

A. Construction personnel shall park within the project limits so as not to obstruct local traffic and construction activities.

1.18 PROGRESS CLEANING AND WASTE REMOVAL

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Collect and remove waste materials, debris, and rubbish from site daily and dispose off-site.

1.19 FIELD OFFICES AND SHEDS

Not Used.

1.20 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities and materials, prior to Final Application for Payment.

B. Clean and repair damage caused by installation or use of temporary work.

C. Restore existing and permanent land and facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

1.21 DUST CONTROL

A. GENERAL
1. The Contractor shall furnish all labor, materials, tools and equipment necessary to apply water on roads or traveled surfaces within the construction site when directed by the Engineer and/or as necessary to control dust. Calcium chloride will not be allowed to be used on this project due to the potential for contaminating nearby surface water or groundwater.

2. When dust control is not included as a separate item in the Contract, the work shall be considered incidental to the appropriate items of the Contract.

B. PRODUCTS

1. Water for sprinkling shall be clean, free of salt, oil and other injurious materials.

C. EXECUTION

1. Water shall be applied by equipment approved by the Engineer. As a minimum it shall consist of a tank, a spray bar and a gauge equipped pump. Water shall be dispersed through nozzles at a minimum pressure of 20 psi.

1.22 ADVERSE CONDITIONS

A. NIGHT WORK

1. Work after dark will not be permitted except under extreme emergency, or only under special directions, and only if permitted by the Engineer.

2. Whenever the Contractor finds it necessary or expedient to do work at night, such night work shall be performed by the Contractor without additional or extra cost to the Owner, and only with the Owner's approval. The Contractor shall provide all lights required for the proper and expeditious carrying on of any work.

3. The placing of concrete shall be started early enough in the daylight hours to insure completion of the section under construction before dark.

B. WEATHER CONDITIONS

1. No work shall be done when the weather is unsuitable. The Contractor shall take necessary precautions (in the event of impending storms) to protect all work, materials or equipment from damage or deterioration due to floods, driving rain, or wind and snowstorms. The Owner reserves the right, through the opinion of the Engineer, to order that additional protective measures over and beyond those proposed by the Contractor, be taken to safeguard all components of the project. The Contractor shall not claim any compensation for such precautionary measures so ordered, nor claim any compensation from the Owner for damage to the work from weather elements.

2. The mixing and placing of concrete or pavement courses, the laying of masonry, and installation of sewers and water mains shall be stopped during rain storms;
all freshly placed work shall be protected by canvas or other suitable covering in such manner as to prevent running water from coming in contact with it. Sufficient coverings shall be provided and kept ready at hand for this purpose. The limitations and requirements for mixing and placing concrete, or laying of masonry, in cold weather shall be as described elsewhere in these specifications.

1.23 POLICING

A. GENERAL

1. When, in the opinion of the Owner, or the Engineer, public safety or convenience requires the services of police, the Engineer may direct the Contractor to request the local police department to assign uniformed officers to direct traffic within the location of work under the Contract.

2. When so directed, the Contractor shall make all arrangements in obtaining police assistance and shall pay all police officers. The police shall, at all times, be subject to the direction and control of the Contractor.

3. The intent is to ensure public safety by police direction of traffic. Police are not to serve as watchmen to protect the Contractor's equipment and materials, or to warn pedestrians of such hazards as open trenches.

4. Nothing contained herein shall be construed as relieving the Contractor of any of his responsibilities for protection of persons and property under the terms of the Contract, or for providing necessary traffic control including signs, barricades, or flagmen as required in Section 01500 of these specifications.

1.24 FENCING

A. GENERAL

1. Due to the presence of pedestrian traffic adjacent to construction, project demarcation fencing is required at the connection to the Heritage Rail Trail and at bridge abutment work areas as detailed on the plans.

1.25 EXTERIOR ENCLOSURES

Not Used.

1.26 INTERIOR ENCLOSURES

Not Used.
SECTION 01600
MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Products.
B. Transportation and handling.
C. Storage and protection.
D. Product options.
E. Substitutions.

1.2 RELATED SECTIONS

A. Document 00200 - Instructions to Bidders: Substitute and "or equal" items procedures.
B. Section 01400 - Quality Control: Quality Assurance - Control of Installation.

1.3 PRODUCTS

A. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
B. Provide interchangeable components of the same manufacture for components being replaced.

1.4 TRANSPORTATION AND HANDLING

A. Transport and handle Products in accordance with manufacturer's instructions.
B. Promptly inspect shipments to ensure that Products comply with requirements, quantities are correct, and Products are undamaged.
C. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

1.5 STORAGE AND PROTECTION

A. Store and protect Products in accordance with manufacturers' instructions.
B. Store with seals and labels intact and legible.
C. Store sensitive Products in weather tight, climate controlled, enclosures in an
environment favorable to Product.

D. For exterior storage of fabricated Products, place on sloped supports above ground.

E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.

F. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of Products.

G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

H. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.

I. Arrange storage of Products to permit access for inspection. Periodically inspect to verify Products are undamaged and are maintained in acceptable condition.

1.6 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

1.7 SUBSTITUTIONS

A. Engineer will consider requests for Substitutions only within thirty (30) days after date of Owner-Contractor Agreement.

B. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.

C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.

D. A request constitutes a representation that the Contractor:

1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
2. Will provide the same warranty for the Substitution as for the specified Product.
3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
4. Waives claims for additional costs or time extension which may subsequently become apparent.
5. Will reimburse Owner and Engineer for review or redesign services associated with re-approval by authorities.

E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

F. Substitution Submittal Procedure:

1. Submit three (3) copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
2. Submit shop drawings, product data, and certified test results attesting to the proposed Product equivalence. Burden of proof is on proposer.
3. The Engineer will notify Contractor in writing of decision to accept or reject request.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION
PART 1 GENERAL

1.1 SECTION INCLUDES

A. Closeout procedures.
B. Final cleaning.
C. Adjusting.
D. Project record documents.
E. Operation and maintenance data.
F. Spare parts and maintenance Products.
G. Warranties and bonds.
H. Maintenance service.

1.2 RELATED SECTIONS

A. Section 01500 - Construction Facilities and Temporary Controls: Progress cleaning.

1.3 CLOSEOUT PROCEDURES

A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's review.
B. Provide submittals to Engineer that are required by governing or other authorities.
C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.4 FINAL CLEANING

A. Execute final clean up and restoration of all disturbed areas prior to final project assessment.
B. Clean site; sweep paved areas, rake clean landscaped surfaces.
C. Remove waste and surplus materials, rubbish, and construction facilities from the site.
1.5 ADJUSTING

Not Used.

1.6 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:

1. Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other modifications to the Contract.
5. Reviewed Shop Drawings, Product Data, and Samples.
6. Manufacturer's instruction for assembly, installation, and adjusting.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

C. Store record documents separate from documents used for construction.

D. Record information concurrent with construction progress.

E. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:

1. Manufacturer's name and product model and number.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and modifications.

F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:

1. Measured depths of footing in relation to finish ground or brook elevation.
2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
3. Field changes of dimension and detail.
4. Details not on original Contract drawings.

G. Submit documents to Engineer with claim for final Application for Payment.

1.7 OPERATION AND MAINTENANCE DATA

Not Used.

1.8 SPARE PARTS AND MAINTENANCE PRODUCTS

A. Provide one extra weather resistant locking mechanism to the City of Nashua per removal bollard installed. See Special Provisions for additional information.
1.9 WARRANTIES AND BONDS

A. Provide duplicate notarized copies.

B. Execute and assemble transferable warranty documents from Subcontractors, suppliers, and manufacturers.

C. Provide Table of Contents and assemble in three D side ring binder with durable plastic cover.

D. Submit prior to final Application for Payment.

E. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within ten (10) days after acceptance, listing date of acceptance as start of warranty period.

1.10 MAINTENANCE SERVICE

A. Furnish service and maintenance of all work items indicated in the Contract Documents for one year from date of Substantial Completion.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION
TECHNICAL SPECIFICATIONS

All work shall be in accordance with State of New Hampshire, Department of Transportation NHDOT Standard Specifications for Road and Bridge Construction, approved and adopted in March 2016 (Standard Specifications).

The NHDOT specifications are hereby amended as follows:

1. Delete Division 100-General Provisions in its entirety, with the exception of the following changes:
   - **Section 101-Definitions and Terms**
   - **Section 103-Award and Execution of Contract**
     - Retain subsections 103.05 and 103.06 only.
   - **Section 104-Scope of Work**
     - Retain subsection 104.03 only and:
       - Replace the reference to “105.02” with Standard General Condition Article 7.16 in the fourth sentence of the first paragraph.
       - Delete the third to last sentence and last sentence of the first paragraph.
       - Delete subsections B, C, and D.
       - Replace “Department” with “Owner” in subsection A.
   - **Section 105-Control of the Work**
     - Retain subsections 105.03 through 105.07 and 105.10 through 105.15 only.
     - Delete the second sentence in the second paragraph of 105.04 which references Section 104.02 in its entirety.
     - Delete “…104.03…” from the last sentence in 105.14.
     - Replace “…as provided for in 109.04.” at the end of the second sentence of the second paragraph of 105.10 with “…in accordance with Article 13 of the Standard General Conditions of the of the Construction Contract.”
     - Replace 105.02 with Section 01300 Submittals.
   - **Section 106-Control of Material**
     - Retain subsections 106.01, 106.02, 106.04 through 106.07, 106.09 through 106.10.
     - Delete the second sentence in 106.06.
   - **Section 107-Legal Relations and Responsibility to Public**
     - Retain subsections 107.01 through 107.10 and 107.15 through 107.17.
   - **Section 108-Prosecution and Progress**
     - Retain subsection 108.01 only.
     - Replace 108.07 with Standard General Conditions Articles 4.05 and 11.05.
   - **Section 109 Measurement and Payment**
     - Retain subsections 109.01, 109.07, 109.08, 109.09 and 109.11 only.
     - Delete the 25th paragraph referencing “rental of equipment….” of 109.01.
     - Replace 109.04 with Standard General Conditions Article 11.

All applicable portions of Sections 201 through 699 from the NHDOT Standard Specifications (English Units) apply to this Project, unless modified by Supplemental Specifications or Special Provisions in this document.

The NHDOT Specifications are periodically supplemented with updates posted on the NHDOT website at www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/supplementals/index.htm. All applicable supplemental specifications for sections 201 through 699 available at the time that the bid is due will be considered part of this contract specification.

The following plans from NHDOT Standard Plans for Road and Bridge Construction are also considered a part of this contract:

<table>
<thead>
<tr>
<th>Plan Code</th>
<th>Description</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR-1</td>
<td>Granite Curb Details</td>
<td>6/16/2010</td>
</tr>
<tr>
<td>DR-1</td>
<td>Grate and Frame Details</td>
<td>6/16/2010</td>
</tr>
<tr>
<td>DR-2</td>
<td>Grate and Frame M.H. Cover and Pavement Depression Details</td>
<td>6/16/2010</td>
</tr>
<tr>
<td>DR-4</td>
<td>DI-DB. Underdrain Flushing Basin and Polyethylene Liner Details</td>
<td>6/16/2010</td>
</tr>
<tr>
<td>SL-1</td>
<td>Pull Boxes and Conduit Trench Details</td>
<td>6/16/2010</td>
</tr>
<tr>
<td>SL-2</td>
<td>Concrete Foundations and Light Pole Base, Type B</td>
<td>6/16/2010</td>
</tr>
<tr>
<td>PM-3</td>
<td>Words and Symbols</td>
<td>2/26/2010</td>
</tr>
<tr>
<td>PS-3</td>
<td>Aluminum Sheet Details</td>
<td>2/26/2010</td>
</tr>
<tr>
<td>PS-4</td>
<td>Tubular/U-Channel Post Detail</td>
<td>2/26/2010</td>
</tr>
</tbody>
</table>

These lists are not all inclusive and do not relieve the Contractor from complying with any or all NHDOT specifications or plans referred to by the contract documents or referred to by sections of the NHDOT specifications that apply. It is the contractor’s responsibility to obtain copies of these specifications and plans. These plans may also be downloaded, free of charge, from the NHDOT website at http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/standardplans/index.htm

NHDOT Standard Specifications for Road and Bridge Construction and NHDOT Standard Plans for Road and Bridge Construction may be purchased from NHDOT, Records Section, 1 Hazen Drive, P.O. Box 483, Concord, NH 03302-0483, Phone No. 603-271-3514. These specifications may also be downloaded, free of charge, from the NHDOT website at http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/index.htm
**SPECIAL ATTENTIONS**

The following Supplemental Specifications are to be used in conjunction with the NHDOT Standard Specifications and are herein made a part of the Contract Documents and apply to this project:

**Special Attention**

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Errata Sheet</td>
<td>SA-2</td>
</tr>
<tr>
<td>Environmental Commitments</td>
<td>SA-5</td>
</tr>
</tbody>
</table>
### SPECIAL ATTENTION

ERRATA SHEET

The following table is a list of corrections to the 2016 *Standard Specifications for Road and Bridge Construction*, as of the date of this Proposal.

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Correction</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIVISION 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>104.03</td>
<td>Maintenance of Traffic</td>
<td>Amend ‘winter work suspensions’ in 104.03 to read ‘Winter Suspension’.</td>
<td>06/07/07</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>DIVISION 200</td>
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<tr>
<td>DIVISION 300</td>
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<tr>
<td>DIVISION 400</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>DIVISION 500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>520</td>
<td>Classes of Concrete</td>
<td>Insert the following footnotes under Table 520-1A:</td>
<td>06/11/16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. See 3.1.6 TESTING</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. For mixes containing fly-ash, silica fume, slag, or any other pozzolanic or cementitious material, the water/cement ratio of the concrete mix shall be based on the water cementitious (cement + pozzolanic or cementitious material) ratio of the mix. This water to cementitious ratio shall not exceed those listed in Table 1A. The maximum water/cement ratios listed for Concrete Class B and T are for design purposes only.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Deck Overlays.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Maximum 84 day Compressive Strength for Flowable Fill, Excavatable shall not exceed 200 psi.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. These are recommended values that may be used as a starting point for a mix design that has shown ability to meet the requirements. The amount of cement shall be adjusted and fly-ash or ground granulated blast furnace slag shall be used provided the mix design meets the minimum and does not exceed the maximum compressive strength in accordance with 2.11.1.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Target values shown are for mix design approval only and are not intended for use as quality control or quality assurance requirements.</td>
<td></td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
<td>Correction</td>
<td>Date</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>------------</td>
<td>--------</td>
</tr>
<tr>
<td>520</td>
<td>Classes of Concrete – Performance Requirements (QC/QA)</td>
<td>Amend the title of Table 420-1B - Class of Concrete – Performance Requirements (QC/QA) to Table 520-1B - Class of Concrete – Performance Requirements (QC/QA)</td>
<td>11/28/16</td>
</tr>
<tr>
<td>528</td>
<td>Shear Key Grout for Butted Beams</td>
<td>Amend 528.2.9.1 to read: Grout for shear keys shall be an approved grout as listed in Section 528A of the Qualified Products List. Amend 528.2.9.2 to read: For testing, 3 neat 2” cubes shall be molded and cured in accordance with AASHTO T 106 (ASTM C 109). The average compressive strength of the 3 cubes at 7 days shall be a minimum of 6000 psi.</td>
<td>06/10/16</td>
</tr>
<tr>
<td>528</td>
<td>Installation of Deck Panels</td>
<td>Replace last sentence of 528.3.22.6.4 to read: If leveling screws are used, they shall be completely removed and the holes filled with grout listed in Section 528A of the Qualified Products List prior to placement of deck concrete.</td>
<td>06/10/16</td>
</tr>
<tr>
<td>550</td>
<td>PTFE Surfaces for Bearings</td>
<td>Amend the first sentence of 550.2.10 to read: PTFE for use in expansion bearing assemblies shall be 100 percent virgin (unfilled) polytetrafluoroethylene polymer...</td>
<td>08/03/16</td>
</tr>
<tr>
<td>550</td>
<td>Anchor Rods</td>
<td>Amend 550.3.15.4.1 to read: Anchor rods shall be set in one of the following materials: (a) Non-shrinking, non-ferrous, cement-base grout listed in Section 550A of the Qualified Products List. This grout shall be used only when both the temperature of the masonry and the ambient temperature are kept at 40 °F or above until the grout has cured. (b) Sulfur. Amend the first sentence of 550.3.15.4.2 to read: Non-shrinking, non-ferrous, cement base grout shall be a product as included in Section 550A of the Qualified Products List.</td>
<td>06/10/16</td>
</tr>
<tr>
<td>563</td>
<td>Bridge Rail</td>
<td>Amend 4.1 to read: Bridge rail, of the type specified, will be measured by the linear foot to the nearest tenth of a foot.</td>
<td>06/27/16</td>
</tr>
<tr>
<td>DIVISION 600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>606</td>
<td>Handrail</td>
<td>Amend 606.2.8.2 to read: Grout for anchoring the pipe posts shall be High Strength, Impact Resistant, Non-shrink Grout as included in Section 528A of the Qualified Products List.</td>
<td>06/10/16</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
<td>Correction</td>
<td>Date</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>606</td>
<td>Temporary Impact Attenuators</td>
<td>Amend in 606.2.10.2 the reference to 2.12.4 to 2.10.4.</td>
<td>11/28/16</td>
</tr>
<tr>
<td>609</td>
<td>Curbing</td>
<td>Amend the 2nd sentence of 609.2.5 to read:</td>
<td>06/10/16</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>The non-shrink, non-metallic grout shall be a product as included in Section 550A of the Qualified Products List.</em></td>
<td></td>
</tr>
<tr>
<td>609</td>
<td>Curb anchors</td>
<td>Amend 609.3.1.5.1 to read:</td>
<td>06/10/16</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Curb anchors shall be set and grouted using non-shrink, non-metallic grout as shown on the plans.</em></td>
<td></td>
</tr>
<tr>
<td>621</td>
<td>Delineators</td>
<td>Add the following to the end of 621.3.1.3:</td>
<td>06/10/16</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Grout shall be as listed in Section 550A of the Qualified Products List or as directed by the Engineer.</em></td>
<td></td>
</tr>
</tbody>
</table>

**DIVISION 700**

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Correction</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>707</td>
<td>Cement Mortar</td>
<td>Amend 2.3 to read:</td>
<td>10/31/16</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Testing for impurities shall comply with AASHTO T 21.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Results that are darker than the standard shall be cause for rejection, except as provided in 2.3.1.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amend 2.3.1 to read:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Sand for mortar not conforming to 2.3 shall be tested in accordance with AASHTO T 71 and shall meet the requirements of 5.2.3 of AASHTO M 45.</em></td>
<td></td>
</tr>
</tbody>
</table>
SPECIAL ATTENTION

ENVIRONMENTAL COMMITMENTS

Contractors are advised that environmental commitments as outlined in Appendix C apply to this project.

Contractors are advised to review the Special Provision for Item 203.101, Common Excavation (Contaminated Soil) which satisfies the requirements of Commitment 3.
**SUPPLEMENTAL SPECIFICATIONS**

The following Supplemental Specifications are to be used in conjunction with the NHDOT Standard Specifications and are herein made a part of the Contract Documents and apply to this project:

Supplemental Specifications

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Definitions</td>
<td>SS-2</td>
</tr>
<tr>
<td>106</td>
<td>Control of Material</td>
<td>SS-3</td>
</tr>
<tr>
<td>401</td>
<td>Plant Mix Pavements – General</td>
<td>SS-4</td>
</tr>
<tr>
<td>410</td>
<td>Bituminous Surface Treatment</td>
<td>SS-7</td>
</tr>
<tr>
<td>411</td>
<td>Plant Mix Surface Treatment</td>
<td>SS-9</td>
</tr>
<tr>
<td>645</td>
<td>Erosion Control</td>
<td>SS-10</td>
</tr>
<tr>
<td>702</td>
<td>Bituminous Materials</td>
<td>SS-12</td>
</tr>
</tbody>
</table>
SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 101 – DEFINITIONS

The purpose of this Supplemental Specification is to revise frequency of updates

Amend 101.79 to read:

101.79 Qualified Products List (QPL). A list of products prequalified by the Engineer as meeting the Contract requirements for specified materials to be incorporated into the Work. The list is maintained and updated by the Bureau of Materials and Research.
SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 106 – CONTROL OF MATERIAL

The purpose of this Supplemental Specification
is to revise frequency of updates.

Amend the last paragraph of 106.04 to read:

Products that have been prequalified by Materials and Research and are included on the Qualified Products List (QPL) may be used on projects without further testing, unless otherwise noted on the QPL, but a Certificate of Compliance for the qualified products will be required. The QPL is updated as warranted, and is available online at the Department’s Website. A product that is not listed will not be used until qualified through a written request to Materials and Research. Such request should be made with sufficient lead-time to allow necessary testing or research.
SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 401 – PLANT MIX PAVEMENTS - GENERAL

The purpose of this Supplemental Specification is to:

- Add “winter binder” to the design control points (2.5.1, 04/05/17)
- Revise material requirements of allowed recycled materials to no greater than 1% TRB (2.10, 06/06/17)
- Remove the penalty for failing tack from Section 401 (3.10.10.1, 06/06/17)
- Allow a reduction in the use of pneumatic-tired rollers (3.12, 06/06/17)
- Revise HMA gradation specification limits, complete the addition of “winter binder”, and remove the allowance for Aim change after two sub-lots (3.17.3.1.1, 06/06/17)
- Remove all references to Night Items (4.1.1, 06/06/17)

Amend the Minimum Binder Content table under Section 2.5.1 as follows:

<table>
<thead>
<tr>
<th>Minimum Binder Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Gyration</td>
</tr>
<tr>
<td>3/8”</td>
</tr>
<tr>
<td>5.8%</td>
</tr>
<tr>
<td>5.5% Winter Binder 3/4”</td>
</tr>
<tr>
<td>4.9%</td>
</tr>
<tr>
<td>4.6%</td>
</tr>
</tbody>
</table>

Amend Table 401-1 – Design Control Points under Section 2.5.1 as follows:

Table 401-1 – Design Control Points*

<table>
<thead>
<tr>
<th>Standard</th>
<th>Nominal Maximum Aggregate Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1”</td>
</tr>
<tr>
<td>Inch</td>
<td>Percentage by Weight Passing Criteria (Control Points)</td>
</tr>
<tr>
<td>2</td>
<td>100.0</td>
</tr>
<tr>
<td>1</td>
<td>100.0</td>
</tr>
<tr>
<td>3/4</td>
<td>90.0</td>
</tr>
<tr>
<td>1/2</td>
<td>90.0</td>
</tr>
<tr>
<td>3/8</td>
<td>90.0</td>
</tr>
<tr>
<td>No. 4</td>
<td>90.0</td>
</tr>
<tr>
<td>No. 8</td>
<td>45.0</td>
</tr>
<tr>
<td>No. 16</td>
<td>55.0</td>
</tr>
<tr>
<td>No. 30</td>
<td>36.0</td>
</tr>
<tr>
<td>No. 50</td>
<td>30.0</td>
</tr>
<tr>
<td>No. 100</td>
<td>13.0</td>
</tr>
<tr>
<td>No. 200</td>
<td>7.0</td>
</tr>
</tbody>
</table>

s:/global/specifications/supplementals/401-ss-plant mix pavements-general.docx

Hoyle, Tanner Project No. 902603 SS-4
**Amend** Section 2.10.1 to read:

### 2.10  Allowed Recycled Materials – General.

#### 2.10.1  Reclaimed asphalt pavement (RAP) may be used in the production of hot mix asphalt. The allowed dust to asphalt ratio shall be as identified in AASHTO M 323. The maximum allowable total reused “asphalt” binder (TRB) in HMA mixes shall be 1.0%. Any changes in the combination of recycled materials shall require a new mix design unless otherwise approved by the Bureau of Materials & Research.

**Remove** Section 2.10.3.

**Remove** Section 3.10.10.1.

**Amend** 3.12.2.1 to read:

#### 3.12.2.1  Immediately after the hot asphalt mix has been spread, struck off, and surface irregularities adjusted, it shall be thoroughly and uniformly compacted by rolling. The initial rolling shall be done with a static or vibratory steel-drum roller. Intermediate rolling shall be done by a pneumatic-tired roller and/or a vibratory/oscillatory roller. Pneumatic-tired rollers shall be used on all pavement leveling courses. Final rolling shall be done with a static steel-drum roller or a roller of the steel-drum three-axle type, locked. The completed course shall be free from ridges, ruts, humps, depressions, objectionable marks, visible segregation, or irregularities and in conformance with the line, grade, and cross-section shown in the Plans or as established by the Engineer. Rollers must be in good mechanical condition, free from excessive backlash, faulty steering mechanism, or worn parts. The empty weight and the ballasted weight shall be properly marked on each roller. The minimum weight of static steel-drum rollers shall be 8 tons. When a vibratory roller is being used, the vibration shall stop automatically when the roller is stopped or reversing direction of travel. A minimum of three rollers shall be used.

**Amend** 3.12.2.8 to read:

#### 3.12.2.8  Unless the Engineer determines that for the weight and placement conditions a lesser number will be satisfactory to obtain the desired pavement densities, the following is the list of required compaction equipment. The output of each paver placing wearing course (Table 1) materials shall be compacted by the use of one each of the following complement of rollers as a minimum: a static or vibratory steel-wheel roller, a pneumatic-tired or vibratory/oscillatory roller and a three-axle roller or a static steel-wheeled roller. If the required density is not being obtained with the rollers supplied, the use of additional rollers of the specified type may be ordered. Paving widths in excess of 16 ft (5 m) will require additional rollers as ordered.

**Amend** 3.12.3.3 to read:

#### 3.12.3.3  The type of rollers to be used and their relative position in the compaction sequence shall be the Contractor's option, provided specification densities are attained and with the following stipulations:

a) Pneumatic-tired rollers shall be used on all pavement leveling courses.

b) Vibratory rollers shall not be operated in the vibratory mode under the following conditions: When checking or cracking of the mat occurs, when fracturing of aggregate occurs, and on bridge decks.

c) A minimum of three rollers shall be used.

**Amend** 3.17.3.1.1 to read:

#### 3.17.3.1.1  Testing.  Target values shall be as specified in the job mix formula. All sieve sizes specified in the job mix formula will be evaluated for gradation. The specification limits in Table 401-5 will be used for calculating pay factors for gradation and asphalt binder content.
### Table 401-5 - Gradation and Asphalt Binder Specification Limits

<table>
<thead>
<tr>
<th>Property</th>
<th>Maximum Aggregate Size</th>
<th>1&quot;</th>
<th>3/4&quot;</th>
<th>½&quot; Winter</th>
<th>1/2&quot;</th>
<th>3/8&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>USL and LSL (Target +/- %)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1 1/2&quot;</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1-1/4&quot;</td>
<td>8.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1&quot;</td>
<td>8.0</td>
<td>6.0</td>
<td>6.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>7.0</td>
<td>6.0</td>
<td>6.0</td>
<td>5.0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>7.0</td>
<td>6.0</td>
<td>6.0</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>No. 4</td>
<td>4.5</td>
<td>4.5</td>
<td>4.5</td>
<td>4.0</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>No. 8</td>
<td>4.5</td>
<td>4.5</td>
<td>4.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>No. 16</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>No. 30</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>No. 50</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>No. 100</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>No. 200</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Asphalt Binder</td>
<td>% of Mix</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Any sublot with a gradation or asphalt binder content falling outside the ranges of the reject limits in Table 401-6 will be either removed and replaced at the expense of the Contractor or require corrective action to the satisfaction of the Engineer. After replacement or correction, new samples will be taken and the old test results from that sublot will be discarded.

### Table 401-6 - Gradation and Asphalt Binder Content Reject Limits (Deviation from Target)

<table>
<thead>
<tr>
<th>SIEVE SIZE</th>
<th>1&quot;</th>
<th>3/4&quot;</th>
<th>½&quot; Winter</th>
<th>1/2&quot;</th>
<th>3/8&quot;</th>
<th>Percent Passing By Weight – Combined Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/4&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>±12</td>
<td>(1)</td>
<td>(1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>(1)</td>
<td>±10</td>
<td>±10</td>
<td>±10</td>
<td>±10</td>
<td></td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>±10</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>No. 4</td>
<td>±9</td>
<td>±9</td>
<td>±9</td>
<td>±9</td>
<td>±9</td>
<td></td>
</tr>
<tr>
<td>No. 8</td>
<td>±7</td>
<td>±7</td>
<td>±7</td>
<td>±7</td>
<td>±7</td>
<td></td>
</tr>
<tr>
<td>No. 16</td>
<td>±6</td>
<td>±6</td>
<td>±6</td>
<td>±6</td>
<td>±6</td>
<td></td>
</tr>
<tr>
<td>No. 30</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>No. 50</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>No. 100</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>No. 200</td>
<td>±3</td>
<td>±3</td>
<td>±3</td>
<td>±3</td>
<td>±3</td>
<td></td>
</tr>
<tr>
<td>Asphalt Binder</td>
<td>% of Mix</td>
<td>±1.0</td>
<td>±1.0</td>
<td>±1.0</td>
<td>±0.8</td>
<td>±0.8</td>
</tr>
</tbody>
</table>

(1) Reject limits will be waived for these sieves.

**Amend** Section 4.1.1 to read:

4.1.1 No separate measurement will be made for lighting necessary or overtime required due to night operations at the plant or at the site.
SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 410 – BITUMINOUS SURFACE TREATMENT

The purpose of this Supplemental Specification is to:

- Adopt new AASHTO specifications for emulsions (2.1 – 04/13/16)
- Revise the pavement conditions and application rates for tack (3.4.1.1 – 01/04/17)
- Identify tack sampling and penalties for non-conformance (2.1.1, 2.1.2, 3.2, 3.3, 3.4, 06/06/17)

Amend 2.1 to read:

2.1 Bituminous material shall be the type and grade specified or ordered and shall conform to the requirements of AASHTO M 140 or M 208, except as amended in Section 702.

2.1.1 Tack shall be sampled as directed by the Engineer using sample containers provided by the Engineer. Samples shall be taken by the operator in the presence of the Engineer. At least 1 qt. of material shall be drained off through the sampling valve and discarded before the sample is taken. Containers shall be sealed with a tight fitting cover immediately after being filled and provided to the Engineer for testing. Any tack that is found to be out of specification will result in non-payment for all tack applied on the date the tack is sampled.

2.1.2 Non-conforming tack will be evaluated by the Engineer to determine if overlying pavement should remain in place. Any pavement left in place shall not relieve the Contractor of the responsibility for latent defects and/or gross mistakes in the pavement layer above it as outlined in section 107.14.

Amend 3.2, 3.3, and 3.4 to read:

3.2 Equipment.

Equipment required for this work shall be as follows:

(a) A distributor shall be so designed, equipped, maintained, and operated such that bituminous material at even heat may be applied uniformly on variable widths of surface up to 12’, at readily determined and controlled rates from 0.02 to 2.0 gal/yd², with uniform pressure, and with an allowable variation from any specified rate not to exceed 0.02 gal. Distributor equipment shall include a tachometer, pressure gauges, accurate volume measuring devices or a calibrated tank, and a thermometer for measuring temperatures of tank contents. Distributors shall be equipped with a power unit for the pump and with full circulation spray bars adjustable laterally and vertically. The spray bar shall contain spray nozzles providing a fan-shaped spray pattern adjusted so the vertical axis is perpendicular to the pavement surface. The spray pattern and spray bar height shall be adjusted to provide a uniform application of the tack coat without double coverage. The distributor shall be equipped with a mechanical device to adjust the spray.
height as material is discharged to keep a uniform height above the pavement for full coverage without overlapping. The distributor shall also be equipped with a hand-held spray attachment for applying the material to areas inaccessible to spray bars and to fill in irregular areas to provide full coverage. Approved sampling valves shall be installed in distributors and transport tank trucks to permit taking representative samples of the contents. The recommended location of the sampling valve is in the rear bulkhead of the tank roughly one-third of the height above the bottom. The inlet pipe shall project into the contained liquid as shown in ASTM D 140.

(b) A rotary power broom for sweeping treated surface.
(c) A steel-wheeled roller.
(d) A self-propelled pneumatic-tired roller.
(e) A sand spreader capable of spreading blotter material in sufficient quantity to prevent traffic pickup of the applied bituminous material.
(f) A steel-brush drag of an approved type.

3.3 Surface Preparation for Tack Coat. The existing surface shall be patched and shall be free of irregularities to provide a reasonably smooth and uniform surface to receive the treatment. Unstable corrugated areas shall be removed and replaced with suitable patching materials. The edges of existing pavements that are to be adjacent to new pavement shall be cleaned to permit the adhesion of bituminous materials.

3.4 Application of Tack Coat.

3.4.1 Bituminous material shall be uniformly applied with an approved applicator. When ordered, a pressure distributor shall be used. The tack coat shall be applied in such a manner as to offer the least inconvenience to traffic and to permit one-way traffic without pickup or tracking of the bituminous material.

3.4.1.1 A tack coat shall be applied immediately prior to placement of pavement. The rate of application of emulsified asphalt shall be between 0.02 and 0.06 gal/yd$^2$, based on the application table below. The Engineer may further modify the rate depending on the relative absorbance and texture of the pavement surface.

<table>
<thead>
<tr>
<th>Existing Pavement Condition</th>
<th>Application Rate in Gal/yd$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smooth HMA</td>
<td>0.02 – 0.04</td>
</tr>
<tr>
<td>Milled HMA</td>
<td>0.04 – 0.06</td>
</tr>
</tbody>
</table>

Amend 5.1 to read:

5.1 The accepted quantities of bituminous surface treatment will be paid for at the Item Bid Price per ton for bituminous material, complete in place.

Add Section 5.2.2

5.2.2 The quantity of tack coat used on the day represented by a non-conforming test sample will not be paid.
SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 411 – PLANT MIX SURFACE TREATMENT

The purpose of this Supplemental Specification is to require the use of pneumatic tired rollers on all paving done under Section 411.

Add to Section 411.3.5.5:

3.5.5 Intermediate rolling shall be done by a pneumatic-tired roller.
SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 645 – EROSION CONTROL

The purpose of this Supplemental Specification is to update erosion control requirements.

Replace 1.1 with the following:

1.1 Erosion Control Products. This work shall consist of furnishing and placing hay mulch, bark mulch, “Rolled Erosion Control Products” (RECP), or other material to provide soil stabilization and/or erosion control on slopes or in channels at locations shown on the plans or where ordered.

1.1.1 Temporary Slope Matting Type A (Not Currently Used)

1.1.2 Temporary Slope Matting Type B (Wildlife Friendly) shall be a temporary, biodegradable RECP specified for protection of slopes of 3:1 or flatter. This material may also be specified for temporary protection of channels expected to experience flow-induced shear of 1.5 lbs/ft² or less. These products shall maintain their functional integrity for a minimum of 3 months and then biodegrade.

1.1.3 Temporary Slope Matting Type C (Not Currently Used)

1.1.4 Temporary Slope Matting Type D (Wildlife Friendly) shall be shall be a temporary, biodegradable RECP specified for protection of slopes of 2:1 or flatter. This material may also be specified for temporary protection of channels expected to experience flow-induced shear of 1.75 lbs/ft² or less. These products shall maintain their functional integrity for a minimum of 12 months and then biodegrade.

1.1.5 Permanent Channel Matting Type A shall be a permanent RECP specified for protection of channels or ditches that are expected to experience flow-induced shear of 2.5 lbs/ft² or less. These products are considered to be permanent and shall be non-degradable.

1.1.6 Permanent Channel Matting Type B (Not Currently Used)

1.1.7 Temporary Channel Matting Type A shall be a long term RECP specified for protection of channels or ditches that are expected to experience flow-induced shear of 2.0 lbs/ft² or less. These products are considered temporary and shall biodegrade between 24 and 36 months.

1.1.8 Temporary Channel Matting Type B (Wildlife Friendly) shall be an extended term RECP, specified for protection of channels or ditches that are expected to experience flow-induced shear of 2.0 lbs/ft² or less. These products are considered temporary and shall biodegrade between 12 and 36 months.
Amend the Pay Items to read:

**Pay items and units:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>645.111</td>
<td>Mulch</td>
<td>Square Yard</td>
</tr>
<tr>
<td>645.11</td>
<td>Mulch</td>
<td>Acre</td>
</tr>
<tr>
<td>645.12</td>
<td>Temporary Mulch</td>
<td>Acre</td>
</tr>
<tr>
<td>645.15</td>
<td>Bark Mulch ___ in. Deep</td>
<td>Square Yard</td>
</tr>
<tr>
<td>645.3</td>
<td>Erosion Stone</td>
<td>Ton</td>
</tr>
<tr>
<td>645.42</td>
<td>Temporary Slope Matting Type B (Wildlife Friendly)</td>
<td>Square Yard</td>
</tr>
<tr>
<td>645.44</td>
<td>Temporary Slope Matting Type D (Wildlife Friendly)</td>
<td>Square Yard</td>
</tr>
<tr>
<td>645.45</td>
<td>Permanent Channel Matting Type A</td>
<td>Square Yard</td>
</tr>
<tr>
<td>645.471</td>
<td>Temporary Channel Matting Type A</td>
<td>Square Yard</td>
</tr>
<tr>
<td>645.472</td>
<td>Temporary Channel Matting Type B (Wildlife Friendly)</td>
<td>Square Yard</td>
</tr>
<tr>
<td>645.48</td>
<td>Erosion Control Mix</td>
<td>Cubic Yard</td>
</tr>
<tr>
<td>645.51</td>
<td>Hay Bales for Temporary Erosion Control</td>
<td>Each</td>
</tr>
<tr>
<td>645.52</td>
<td>Ryegrass for Temporary Erosion Control</td>
<td>Pound</td>
</tr>
<tr>
<td>645.531</td>
<td>Silt Fence</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>645.532</td>
<td>Silt Fence with Support Fence</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>645.7</td>
<td>Storm Water Pollution Prevention Plan</td>
<td>Unit</td>
</tr>
<tr>
<td>645.71</td>
<td>Monitoring SWPPP and Erosion and Sediment Controls</td>
<td>Hour</td>
</tr>
</tbody>
</table>
AMENDMENT TO SECTION 702– BITUMINOUS MATERIALS

The purpose of this Supplemental Specification is to adopt new AASHTO specifications for emulsions.

**Amend** Section 702 to read:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Tests on emulsified asphalt:</th>
<th></th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Viscosity, Saybolt Furol at 25°C (77°F), s</td>
<td></td>
<td>T59</td>
</tr>
<tr>
<td></td>
<td>Viscosity, Saybolt Furol at 50°C (122°F), s</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storage stability test, 24 h, %</td>
<td></td>
<td>see (d)</td>
</tr>
<tr>
<td></td>
<td>Demulsibility, 35 mL, 0.02 N CaCl₂, %</td>
<td></td>
<td>see (e) (f) (g)</td>
</tr>
<tr>
<td></td>
<td>Coating ability and water resistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coating, dry aggregate</td>
<td></td>
<td>good</td>
</tr>
<tr>
<td></td>
<td>Coating, wet aggregate</td>
<td></td>
<td>fair</td>
</tr>
<tr>
<td></td>
<td>Sieve test, %</td>
<td></td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>Distillation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oil distillate, %</td>
<td></td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Residue, %</td>
<td></td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Tests on residue from distillation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Penetration, 25°C (77°F), 100 &amp; S, 0.1 mm</td>
<td></td>
<td>T49</td>
</tr>
<tr>
<td></td>
<td>Ductility, 25°C (77°F), 5 cm/min, cm</td>
<td></td>
<td>T51</td>
</tr>
<tr>
<td></td>
<td>Ash content, %</td>
<td></td>
<td>T111</td>
</tr>
<tr>
<td></td>
<td>Float test, 60°C (140°F), s</td>
<td></td>
<td>T50</td>
</tr>
</tbody>
</table>

### Table 702-1: Anionic Asphalt Emulsion

<table>
<thead>
<tr>
<th>Grade</th>
<th>Rapid-Setting</th>
<th>MS-2</th>
<th>Medium Setting</th>
<th>MS-4</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>min</td>
<td>max</td>
<td>min</td>
<td>max</td>
<td>min</td>
</tr>
<tr>
<td>RS-1</td>
<td>20</td>
<td>100</td>
<td>75</td>
<td>100</td>
<td>1.0</td>
</tr>
<tr>
<td>RS-2</td>
<td>20</td>
<td>100</td>
<td>75</td>
<td>100</td>
<td>1.0</td>
</tr>
<tr>
<td>RS-3</td>
<td>20</td>
<td>100</td>
<td>75</td>
<td>100</td>
<td>1.0</td>
</tr>
<tr>
<td>RS-4</td>
<td>20</td>
<td>100</td>
<td>75</td>
<td>100</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Note:**
- (a): see (e) (f) (g)
- (b): see (d)
- (c): see (e) (f) (g)
- (d): see (e) (f) (g)
- (e): see (e) (f) (g)
- (f): see (e) (f) (g)
- (g): see (e) (f) (g)
### Table 702-2 -- Cationic Asphalt Emulsion

<table>
<thead>
<tr>
<th>Tests on emulsified asphalt:</th>
<th>Type Grade</th>
<th>Rapid-Setting</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, Saybolt Furol at 50°C (122°F), s&lt;sup&gt;a&lt;/sup&gt;</td>
<td>CRS-1h</td>
<td>min</td>
<td>max</td>
</tr>
<tr>
<td>Storage stability test, 24-h, %&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sodium dioctyl sulfosuccinate, %&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Particle charge test</td>
<td></td>
<td>Positive</td>
<td>Positive</td>
</tr>
<tr>
<td>Distillation:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil Distillate by volume of emulsified asphalt, %</td>
<td></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Residue, %&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
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<td>Ash content, %</td>
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**Footnotes:**

- a. This test requirement and associated specification limits are waived for emulsified asphalt products following dilution.
- b. This test requirement on representative samples may be waived if successful application of the material has been achieved in the field.
- c. For emulsions that are diluted, the percent residue requirements must be adjusted accordingly.
- d. 50 + when material is used for sealing.
- e. **Wet Coating:** Weigh 100 ± 0.5 g of aggregate, 20 to 30 mesh (0.85 to 0.60 mm) standard Ottawa sand, into a 600 mL glass beaker and add soft tap water, approximately twice the volume of that of sand. Weigh into the beaker containing the sand and water 8 ± 0.2 g of the emulsion at room temperature and mix for two minutes with a stiff spatula. Cover the mixture with approximately twice its own volume of tap water and pour the water off without further mixing. Repeat this process. After the second rinse, at least 75 percent of the sand shall remain coated.
- f. **Stripping:** After evaluating the wet coating, place the mixture into a clear 600 mL glass beaker, cover the mixture with tap water, let stand for 1 to 16 hours, and examine. At least 75 percent of the sand shall remain coated.
- g. The coating and stripping tests may be waived when MS-5 is used for sand sealing.
SPECIAL PROVISIONS

The following Special Provisions are to be used in conjunction with the NHDOT Standard Specifications and are herein made a part of the Contract Documents and apply to this project:

Special Provisions

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Description</th>
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<tbody>
<tr>
<td>201.31</td>
<td>Tree Pruning, Small Trees</td>
<td>SP-2</td>
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<tr>
<td>201.881 &amp; 201.882</td>
<td>Invasive Species Control Type I &amp; Type II</td>
<td>SP-3</td>
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<tr>
<td>203.101</td>
<td>Common Excavation (Contaminated Soil)</td>
<td>SP-6</td>
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<td>304.31</td>
<td>Crushed Gravel for Shimming</td>
<td>SP-7</td>
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<td>401</td>
<td>Plant Mix Pavements</td>
<td>SP-8</td>
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<td>Helical Piles</td>
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<td>Reinforcing Steel</td>
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<td>563.99</td>
<td>Protective Screening</td>
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<td>Prefabricated Pedestrian Bridge Superstructure</td>
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<td>Concrete Faced Retaining Wall System</td>
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<td>645.512</td>
<td>Compost Sock for Perimeter Berm</td>
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<td>645</td>
<td>Erosion Control</td>
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<tr>
<td>697.11</td>
<td>Invasive Species Control and Management Plan</td>
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</table>
SPECIAL PROVISION
AMENDMENT TO SECTION 201 - CLEARING AND GRUBBING
ITEM 201.31 - TREE PRUNING, SMALL TREES

Delete 3.3.1

Add 3.3.1 Trim branches as directed by Resident Engineer to eliminate obstruction of proposed luminaire, pole and Cobra arm.

END OF SECTION
Add to Description:

1.5  Invasive species control shall consist of furnishing all labor (including, but not limited to, handling, cutting, stockpiling and spraying), materials, services, equipment and supplies required for removal and proper disposal of the vegetation listed in the Prosecution of Work. The intent of this item is to compensate the Contractor for all additional costs incurred due to the handling of invasive species during construction excavations. This item will be paid in addition to the appropriate pay items for the class excavation and/or embankment work being performed. Work shall be done in accordance with the NHDOT’s Best Management Practices for Roadside Invasive Plants handbook and the specific Invasive Species Control and Management Plan developed for this project. This work shall be coordinated with the NHDOT Bureau of Environment.

1.5.1  Invasive species control type shall be as specified in the item description. The plant species of concern within the project limits will be specified in the Prosecution of Work.

Add: Materials section:

2.1  Backfill to replace contaminated soil that is excavated shall conform to the material requirements of the appropriate section of the Standard Specifications for the material to be placed at that location.

Add to Construction Requirements:

3.4  Invasive Species Control

3.4.1  Type I / Type II

3.4.1.1  Invasive species control for Types I and II shall consist of:

• Cleaning equipment upon leaving the area of the infestation.

3.4.2  Type I

3.4.2.1  Invasive species control Type I methods shall consist of:

• July 1st through February 1st, when mature fruit are most likely present, chip plants and dispose of in a manner that precludes the spreading of mature seeds and/or fruit. Outside of this time period, usual clearing and grubbing methods shall be used.

3.4.3  Type II

3.4.3.1  Invasive species control Type II methods shall consist of one or more of the following treatment measures:

• Bagging cut plant material for later disposal.
• Removing cut plant material from the site to bury, burn, or stockpile on an impervious surface.
• Removing excavated material from an infested site to bury, or stockpile on an impervious surface.
• Applying herbicides to invasive plants.
3.4.3.2 Herbicides shall be registered with and approved for use by the New Hampshire Department of Agriculture, Division of Pesticide Control and applied by a licensed applicator.

3.4.3.2.1 If herbicide use is proposed, the Contractor, or his licensed herbicide applicator, shall submit a site-specific plan and application to the NH Department of Agriculture, Division of Pesticide Control (contact the Division at (603) 271-3550 for information on their permitting process). Issuance of an herbicide application permit(s) may take up to three months for approval.

3.4.3.3 Burning invasive species shall be done in accordance with State and local regulations and Env A-1000 - Prevention, Abatement, and Control of Open Source Air Pollution issued by the New Hampshire Air Resources Division of Environmental Services, a copy of which is included in this Proposal.

3.4.3.3 Excavation, when required, shall be in accordance with the appropriate sections of the Standard Specifications.

3.4.3.4 Backfill in all excavated areas shall be placed and compacted in accordance with the plans and the appropriate sections of the Standard Specifications.

3.4.3.5 When required, disposal of invasive species materials and their contaminated soils by burying shall be in accordance with the appropriate sections of the Standard Specifications for Embankment-in-Place.

3.4.3.6 Monitor the project site for re-growth of invasive species in treated areas. If re-growth occurs secondary treatment shall be preformed. The Engineer may also order areas to receive secondary treatment.

Add to Method of Measurement:

4.6 Invasive species control of the type specified will be measured by the square yard (square meter) to nearest square yard (square meter) from measurements taken on the ground surface covered.

Add to Basis of Payment:

5.7 The accepted quantities of invasive species control of the type specified will be paid for at the contract unit price per square yard (square meter) complete in place.

5.8 Invasive Species Control and Management Plan, including monitoring invasive species regrowth, shall be paid under Item 697.11.

5.9 Excavation of invasive species material shall be paid under the appropriate contract items for the class of excavation being performed.

5.10 Materials required to replace material for excavated areas will be paid for as Item 203.6 - Embankment-In-Place or other appropriate items of the contract.

5.11 Disposal of invasive species material and their associated soils by burying within the road section shall be paid under Item 203.6 – Embankment-in-Place.
5.12 Disposal of invasive species material outside of the road section but with in the job limits, when allowed, will be paid as Item 203.1 – Common Excavation or Item 203.6 – Embankment-In-Place. Disposal of any surplus material from this excavation will be subsidiary to the work.

4.12.1 If disposal off-site is approved disposal fees shall be paid as provided for in 104.02 and 109.04.

5.13 If standard clearing and grubbing methods are used per 3.4.2.1, no additional payment will be made under Item 201.88X.

Add to Pay Items and Units:

<table>
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<th>Item</th>
<th>Description</th>
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<td>Square Yard (Square Meter)</td>
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END OF SECTION
SPECIAL PROVISION
AMENDMENT TO SECTION 203 -- EXCAVATION AND EMBANKMENT
ITEM 203.101 - COMMON EXCAVATION (CONTAMINATED SOIL)

Add to Description:

1.3 Common Excavation (Contaminated Soil). This work shall consist of removal, handling and proper disposal of contaminated soil.

Add to Classification of Material:

2.9 The existing railroad bed material at the proposed pedestrian ramp is contaminated. Laboratory testing results have been included in this special provision.

Add to Construction Requirements:

3.14 Disposal of Contaminated Soil. The Contractor shall be responsible for proper off site disposal of contaminated soil excavated from the existing railroad bed. Off site disposal shall be at Four Hills Landfill located at 840 West Hollis Street, Nashua, NH 03062. Contractor shall complete the attached “Generator Profile” prior to transportation of the contaminated soil to the landfill. See Appendix E.

Add to Method of Measurement:

4.13. Common Excavation (Contaminated Soil) will be measured by the cubic yard

Add to Basis of Payment:

5.14. Common Excavation (Contaminated Soil) will be full payment for excavating, transporting and stockpiling contaminated soil at approved locations.

Pay items and units:

203.101 Common Excavation (Contaminated Soil) Cubic Yard

END OF SECTION
SPECIAL PROVISION
AMENDMENT TO SECTION 304 - AGGREGATE BASE COURSE
ITEM 304.31 - CRUSHED GRAVEL FOR SHIMMING

**Add** to Materials:

2.12 **Crushed gravel for shimming.** The material shall meet the gradation requirements of either crushed gravel or crushed stone (fine) as shown in Table 1.

**Add** to 3.4:

3.4.11 Crushed gravel for shimming shall be placed on travel way, immediately underlying base course or reclaimed stabilized base, where an adequate exists, as shown on the plans and as determined by the Engineer.

**Add** to Method of Measurement:

4.5 Crushed gravel for shimming will be measured by the cubic yard determined by using 80 percent of the loose volume of material measured in vehicles in accordance with 109.01.

**Add** to Basis of Payment:

5.4 The accepted quantity of crushed gravel for shimming will be paid for at the contract unit price per cubic yard complete in place.

**Add** to Pay Items and Units:

| 304.31 | Crushed Gravel for Shimming | Cubic Yard |

END OF SECTION
SPECIAL PROVISION
AMENDMENT TO SECTION 401 - PLANT MIX PAVEMENTS - GENERAL

Amend the second sentence of 2.2.1 to read:

On this project the grade of bituminous material to be used shall be PG 64-28

END OF SECTION
DESCRIPTION

1.1 This work shall consist of the design, furnishing and installation of helical piles including installation equipment, labor, pile appurtenances and test loading.

1.2 The Contractor shall install helical piles that will develop the load capacities as detailed on the drawings.

1.3 Requirements for Supplier Prepared Plans. The Contractor shall submit plans and calculations for the helical piles in conformance with the requirements listed below for review and approval.

1.3.1 The contractor shall submit an electronic copy and two 22" x 34" paper copies on 20LB bond paper of the approved shop drawings with Project Name, Number and Proprietary Firm Name.

MATERIALS

2.1 All steel members including but not limited to helical pile shafts, helix plates, pipe sleeve, lead sections, pile cap connection and bolts shall be hot dipped galvanized in accordance with ASTM A153 or ASTM A123 as applicable.

2.2 The Contractor shall submit certified mill test reports for the central steel shaft, helix plates and steel casing as the material is delivered, to the Engineer. The ultimate strength, yield strength, percent elongation, and chemistry composition shall be provided.

2.2 Grout for lateral resistance capacity (as required) shall be High Strength, Impact Resistant, Non-shrink Grout as included in Section 528 on the Qualified Products List.

CONSTRUCTION REQUIREMENTS

3.1 The shop drawings and design calculations shall be prepared, signed, and sealed by a Professional Engineer licensed in the State of New Hampshire.

3.1.1 The helical piles shall be designed in accordance with pile manufacturer’s recommendations.

3.1.2 The design calculations shall include but not be limited to the following:

   A. Combined compressive and lateral loading.
   B. All bolted connections between adjacent pile sections.
   C. Pile to footing connection.

Moments and displacements from lateral loads shall be calculated using soil structure interaction
software. Pile head displacement at the service limit state shall be limited to 1”.

3.1.3 Approved Shop Drawings contain the following information:

A. Helical Pile number, location and pattern by assigned identification number.
B. Type and size of central steel shaft
C. Helix configuration (number and diameter of helix plates)
D. Minimum effective installation torque or other termination criteria.
E. Minimum overall length
F. Steel casing diameter and length (as applicable)
G. Product and installation method for grout column
H. Helical Pile attachment to structure relative to abutment footing.
I. Any general notes required for design and construction.
J. A summary listing of quantities provided on the elevation sheet for all items including subsidiary items.

3.2 Location and Alignment Tolerance. Centerline of Helical Piles shall not be more than 3 inches from indicated plan location. Helical Pile plumbness shall be within 2 degrees of design alignment. Top elevation of Helical Pile shall be within 2 inches of the design vertical elevation. Any pile installed beyond these tolerances will be removed and replaced at no expense to the Owner.

3.3 The helical pile designer shall maintain the pile layout as shown on the Contract drawings.

3.6 The pile installer shall submit to the Engineer copies of calibration reports for each torque indicator or torque motor, and all load test equipment to be used on the project. The calibration tests shall have been performed within one year of the date submitted. Helical Pile installation and testing shall not proceed until the Engineer has received the calibration reports. These calibration reports shall include, but are not limited to, the following information:

A. Name of testing agency
B. Identification (serial number) of device calibrated
C. Description of calibrated testing equipment
D. Date of calibration
E. Calibration data
METHOD OF MEASUREMENT

4.1 Helical piles will be measured per each and will include all labor, materials and equipment to complete the design and construction of the proposed helical piles including all required hardware and all other items incidental to the helical piles.

BASIS OF PAYMENT

5.1 The accepted helical piles will be paid for at the contract unit price per each complete in place.

Pay Item and Unit

510.99 Helical Piles EA

END OF SECTION
This Supplemental Specification requires that the Contractor prepare the shop plans for the fabrication and field layout of the reinforcing steel. The plans shall include quantities and bending schedule. The cost of preparing reinforcing steel shop plans and bar schedules shall be included.

Amend 3.1 Bar list to read:

3.1 Shop Plans and Bar Schedule

3.1.1 The Contractor shall prepare the reinforcing steel shop plans from the typical design details shown on the Contract Plans. For the fabrication and field layout of the reinforcing steel, the shop plans shall be complete in detail including bar marks, bar location and spacing, splice length and splice locations. The shop plans shall have a bar list, bending diagrams, bar weight by size and bar quantity grand total.

3.1.2 The shop plans shall be prepared on standard full-size sheets (22 inches by 34 inches). The sheets may be vellum or archival-quality mylar material. The shop plans shall be properly titled as to project location and bridge components (as Abutment A, Pier, Deck, etc.) similar to the Contract Drawing title box.

3.1.3 The shop plans and bar schedule shall be submitted to the Engineer for review and approval. The Contractor shall allow sufficient time for review. No payment shall be made for any delay caused by the shop plan review process due to ordering, preparation, review, revisions or shop plan errors.

3.1.4 The Contractor shall attempt to maximize reinforcing bar lengths by minimizing the number of splices.

3.1.5 Original tracings of corrected shop drawings shall be delivered to the Engineer before final payment will be made.

3.1.6 The reinforcing steel quantities as shown in the Contract Plans may vary approximately 10% plus or minus from the required quantity.

Add to Method of Measurement

4.1.1 Reinforcing Steel (Contractor Detailed); Reinforcing Steel, Epoxy Coated (Contractor Detailed); and Reinforcing Steel, Epoxy Coated Mechanical Connectors (Contractor Detailed) will be measured by the pound of reinforcing steel placed as shown on the plans or as ordered.

Add to Basis of Payment:

5.1.2 The accepted quantity of Reinforcing Steel (Contractor Detailed); Reinforcing Steel, Epoxy Coated (Contractor Detailed); and Reinforcing Steel, Epoxy Coated Mechanical Connectors (Contractor Detailed) will be paid for at the Contract unit price per pound complete in place.
**Add** to Pay Items and Units

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<td>Reinforcing Steel, Epoxy Coated (Contractor Detailed)</td>
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<td>Pound</td>
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<td>(Contractor Detailed)</td>
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</table>

END OF SECTION
SPECIAL PROVISION
SECTION 550.3 – STEEL BOLLARD (REMOVABLE)

This Special Provision neither amends nor modifies other provisions of 550 except as referenced below.

Add to Description

1.2 This work shall also consist of furnishing and installing commercially available removable steel bollard systems at the locations shown on the plans.

Add to Materials

2.11 Bollards shall conform to ASTM A53/A53M-04a Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated and Welded and Seamless, ASTM A500 Standard Specification for Cold-Formed Welded and Seamless Carbon Tubing in Rounds and Shapes, Grade B (Fy=42 Ksi)

2.12 Embedment sleeve shall conform to ASTM A536 and shall be galvanized in accordance with Specification Section 550.2.9.

2.13 Hinging lid shall be stainless steel conforming to ASTM A240 grade 316.

2.14 Concrete shall conform to Concrete Class A.

2.15 The pipe bollards shall be powder coated. The coating systems supplied shall be a three coat system conforming to the ‘Extra Protection’ category of Section 708, Appendix B, Table 1.3. The powder coating color shall be Black, Federal Color #27038 or approved equal.

Add to Construction Requirements

3.21 Bollards

3.21.1 Removable bollards shall be installed with a galvanized steel embedment sleeve with a stainless steel hinging lid, weather resistant locking mechanism and a powder coated pipe bollard.

3.21.2 Install bollards at locations shown on the drawings.

3.21.3 Removable bollards shall be hollow with an integrated steel cap.

3.21.4 Locking mechanisms shall be weather resistant pad locks. Contractor shall furnish to the City one additional lock per each bollard installed.

Add to Method of Measurement

4.2 Bollards will be measured by each.

Add to Basis of Payment

5.1 The accepted quantity for bollards will be paid at the contract unit price per each complete in place. The unit price shall include all necessary work for complete installation including
excavation, galvanized steel pipe and stainless steel embedment sleeve with hinging lid, paint, concrete, locking mechanisms and reflective tape.

**Add** to Pay Items and Units

550.3  Steel Bollard (Removable)    Each

END OF SECTION
Add to Materials:

2.9 All aluminum and steel components shall be shop painted or coated as detailed on the plans. Color shall be Black, Federal Color #27038 or approved equal.

Add to Construction Requirements:

3.3 The prefabricated bridge designer shall include all details relative to the geometry and materials of the protective screening as well as details of the connection between the protective screening and the prefabricated pedestrian bridge on the prefabricated pedestrian bridge shop drawings. See Special Provision for Item 569.5 for more information relative to the Prefabricated Pedestrian Bridge shop drawing submittal requirements.

Add to Method of Measurement:

3.3 The accepted quantities for Protective Screening will be paid for at the contract unit price per linear foot complete and in place.

Add to Basis of Payment:

563.99 Protective Screening Linear Foot (LF)

END OF SECTION
1.1 This work shall consist of the design, fabrication, and erection of a prefabricated pedestrian bridge superstructure as shown on the plans or as ordered. These specifications shall be considered minimum requirements for design, construction and erection.

1.1.1 The prefabricated pedestrian bridge superstructure shall include, in addition to the structure shown on the contract plans, bearings, anchor bolts, pedestrian rails and deck end joint.

1.2 Fabrication qualification. Structural steel for bridges furnished under 569 shall be fabricated in a plant and/or shop that has established proof of its competency and responsibility by being registered and certified in accordance with the American Institute of Steel Construction, Inc. (AISC) Quality Certification Program for the Major Steel Bridges (CBR) Category.

1.2.1 AISC Category - Major Steel Bridges (CBR). AISC Category CBR Certification is required for the fabrication of bridge structures incorporating long spans and trusses.

1.2.2 Bridge fabricators considered to produce bridge structures in relative conformance with the specifications include:

<table>
<thead>
<tr>
<th>Fabricator</th>
<th>Address</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson Bridges</td>
<td>111 Willow Street</td>
<td>1 (887) 934-2800</td>
</tr>
<tr>
<td>Colfax, WI 54730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cameron Bridge Works</td>
<td>1051 South Main Street</td>
<td>1 (607) 734-9456</td>
</tr>
<tr>
<td>Elmira, NY 14904</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contech Engineered Solutions, LLC</td>
<td>8301 State Highway 29 North</td>
<td>1 (800) 328-2047</td>
</tr>
<tr>
<td>Alexandria, MN 56308</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big R Bridge Corporation</td>
<td>P.O. Box 1290</td>
<td>1 (800) 234-0734</td>
</tr>
<tr>
<td>Greeley, CO 80632</td>
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Fabricators of pre-engineered and prefabricated pedestrian steel truss bridges who have known capabilities to meet the requirements of the Contract Documents have been listed above. Other fabricators may exist which can meet the project requirements, however, per Section 1.2.1, bid prices shall not rely on anticipated approval of any alternate fabricators by the Owner or Engineer.

Alternate fabricators from those listed above will only be considered if their utilization produces a cost savings to the Owner.

1.2.3 Bridge fabricators other than those listed under 1.2 may be proposed by the Contractor. Other suppliers may only be proposed by the Contractor after the bidding period has concluded and a low-bid Contractor has been selected. The Contractor shall submit the following information to the Engineer for review and approval:
• Product Literature

• All documentation to insure the proposed substitution will be in compliance with these specifications. This shall include:
  - Representative design calculations
  - Representative drawings
  - Splicing and erection procedures
  - Inspection and Maintenance procedures
  - AISC Shop Certification
  - Welder Qualifications and Certifications for proposed welds.
  - Procedure Qualification Record (PQR) for proposed welds.

• Proposed suppliers must have at least five (5) years experience designing and fabricating these type structures and a minimum of five (5) successful bridge projects, of similar construction, each of which has been in service at least three (3) years. List the location, bridge size, owner, and a contact for reference for each project.

• Cost savings to be realized by the Owner as a result of allowing an alternate fabricator. If an alternate fabricator proposed by the Contractor is approved by the Owner, the changes and changes to payment will be incorporated into a Change Order. More specifically, fifty percent (50%) of the documented cost savings will be paid to the Contractor as part of the revised contract prices for Item 569.6. No other contract prices shall be revised due to approved use of an alternate fabricator.

1.3 The bridge shall be designed as a through truss of general configuration as shown in the contract drawings.

1.4 The bridge shall be designed for the following live load cases:

• Live Load Case 1: Pedestrian live load per Section 3.1 of the LRFD Guide Specifications for Design of Pedestrian Bridges.

• Live Load Case 2: AASHTO H5 Truck, in accordance with Section 3.2 of the LRFD Guide Specifications of Design of Pedestrian Bridges, and 60 psf snow load.

MATERIALS

2.1 Elastomeric Bearing Pads shall conform to 548.2

2.1.1 Stainless steel plates used in bearing assemblies shall conform to ASTM A240/A 240 M Type 304 with a #8 mirror finish on the side in contact with the Teflon surface.

2.2 Weathering steel members shall conform to ASTM A847 (Fy = 50 ksi) or ASTM A588W or, ASTM A242, ASTM A606 plate and structural steel shapes (Fy = 50 ksi).

2.3 Notch toughness requirements shall be as indicated on the plans.
2.3 High Strength Bolts, nuts and washers shall conform to 550.2.4.

2.4 Anchor bolts shall conform to 550.2.5. The Contractor shall be responsible for designing and detailing anchor bolts.

2.5 Timber decking shall be as indicated on the plans.

2.6 Paint shall conform to section 550 of the Standard Specifications. Paint color shall be Federal Color No. 20062 – Dark Brown, or approved equal.

**CONSTRUCTION REQUIREMENTS**

3.1 The Prefabricated Pedestrian Bridge Superstructure shall be designed by a Professional Engineer licensed in the State of New Hampshire and fabricated by a manufacturer with proven experience. Shop plans shall be submitted to the Engineer for review and approval prior to fabrication. Shop drawings and design calculations shall be sealed and signed by a Professional Engineer licensed in the State of New Hampshire.

3.1.1 See the plans for design and construction options and requirements.

3.1.2 All elevations shown on the drawings are based on a 2'-9” maximum superstructure depth, from top of deck to the beam seat. The Contractor shall maintain this dimension.

3.1.3 Bridge width (measured from the inside face of structural elements at deck level) and span shall be as detailed on the Contract Documents. Minimum requirements for bridge camber shall be as indicated on the plans.

3.1.4 The bridge shall be designed in accordance with the AASHTO LRFD Bridge Design Specifications, 7th Edition, with 2015 and 2016 Interim Revisions except as amended by the AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges, 2nd Edition, with 2015 Interim Revisions. Refer to 1.4 for live load cases.

3.1.5 Structural calculations for the bridge superstructure shall be submitted by the bridge fabricator for review by the Engineer. All calculations shall be signed and sealed by a Professional Engineer who is licensed in the State of New Hampshire. The calculations shall include all design information necessary to determine the structural adequacy of the bridge. The calculations shall include but not be limited to the following:

- All LRFD checks for axial, bending and shear forces in the critical member of each truss member type (i.e. top chord, bottom chord, floor beam, vertical, etc.).

- Checks for critical connection failure modes for each truss member type (i.e. stringer, vertical, diagonal, floor beam, etc.). Special attention shall be given to all welded tube on tube connections.

- All bolted splice connections.

- Main truss deflection checks.
• U-frame stiffness checks (used to determine K factors for out-of-plane buckling of the top chord) for all through or “pony” truss bridges.

• Timber deck design.

3.1.5 The Fabricator shall take special care to provide design calculations for all critical members for any and all construction conditions that the bridge may be subject to. No additional payment shall be made to alter or upgrade the bridge during construction due to unanticipated construction means and methods to erect the bridge.

3.2 Detailed Shop Drawings shall be submitted by the Contractor for approval in accordance with the procedures outlined in the applicable sections of the Standard Specifications. Drawings shall be approved prior to beginning work covered by the drawings.

3.2.1 Shop drawings for the prefabricated bridge shall be prepared on standard full-size sheets (22 inches by 34 inches) and shall be stamped by a Professional Engineer licensed in the State of New Hampshire. The shop drawings shall be properly titled as to project location and bridge components similar to the Contract Plans title box. The shop drawings shall include but not necessarily be limited to the following:

A. Fully and accurately dimensioned views showing the geometry of the sections including all member sizes and lengths.

B. Details of all member to member connections including bolted splices.

C. Quantities for each section (concrete deck volume total section weight).

D. Other information necessary for the complete fabrication and erection of the work.

E. Indicate the welding procedure corresponding to each weld shown.

Upon approval of the shop drawings, two 22” x 34” paper copies shall be submitted to the Engineer.

3.3 Inspection. The Engineer shall have free entry at all reasonable times to the manufacturing site for the purpose of inspecting the fabrication operations. At least one (1) month prior to the start of fabrication, the Fabricator shall submit a schedule to Engineer, showing the dates on which the fabrication will take place.

3.4 All work of erection shall be subject to the approval of the Engineer. Material and workmanship not previously inspected will be field-inspected upon delivery to the site.

3.4.1 The Contractor shall submit the method of bridge erection for review and approval to the Engineer. Fabrication, transportation and erection of the bridge shall conform to the AASHTO LRFD Bridge Construction Specifications, 3rd Edition, with 2010 Interim Revisions, unless otherwise specified herein. Fabrication shall not begin until written approval of the submitted shop fabrication drawings has been received from the Engineer.
3.5 Bearing assemblies shall be designed, fabrication, supplied and installed by the Contractor in accordance with the plans and specifications. Bearings shall be in accordance with 550 and 548.

3.6 **Detailing.** The minimum nominal metal thickness of closed structural tubular members shall be 0.25 in. Corrosion mitigation shall be considered.

3.7 Steel member fabrication and erection shall be in accordance with 550.3

3.7.1 All members of the vertical trusses (top and bottom chords, verticals, and diagonal) shall be fabricated from square and/or rectangular structural steel tubing. Other structural members and bracing shall be fabricated from structural steel shapes or square and rectangular steel tubing. Steel stringers shall be open (channel or I shaped) members.

3.7.2 Welding and weld procedure qualifications tests shall conform to the provisions of ANSI/AWS D1.5 “Structural Welding Code” 2010 Edition. Filler metal shall be in accordance with the applicable AWS Filler Metal Specification (i.e. AWS A 5.28 for the GMAW Process). For exposed, bare, unpainted applications of corrosion resistant steels (i.e. ASTM A588 and A847), the filler metal shall be in accordance with AWS D1.1 Section 3.7.3.

3.7.3 Welders shall be properly accredited operators, each of whom shall submit certification of satisfactory passing AWS standard qualification tests for all positions with unlimited thickness of base metal, have a minimum of six (6) months experience in welding tubular structures and have demonstrated the ability to make uniform sound welds of the type required.

3.7.4 When the collection of water inside a structural tube is a possibility, either during construction or during services, the tube shall be provided with a ⅝” minimum diameter drain hole at its lowest point to let water out.

3.7.5 Special attention shall be given to developing sufficient weld throats on tubular members. Fillet weld details shall be in accordance with AWS D1.1, Section 3.9 (See AWS Figure 3.2). Unless determined otherwise by testing, the loss factor “Z” for heel welds shall be in accordance with AWS D1 Table 2.8. Fillet welds which run onto the radius of a tube shall be built up to obtain the full throat thickness. The maximum root openings of fillet welds shall not exceed 3/16” in conformance with AWS D1.1, Section 5.22. Weld size or effective throat dimensions shall be increased in accordance with this same section when applicable (i.e. fit-up gaps> 1/16”).

3.8 At the time of installation, the timber planks shall be placed tightly together with no gaps between planks.

3.8.1 Each timber plank shall be attached to the superstructure with at least two (2) fasteners at each end and two (2) fasteners per stringer.

3.8.2 Timber planks shall be drilled prior to fastening with hardware.

**METHOD OF MEASUREMENT**

4.1 Prefabricated Pedestrian Bridge Superstructure will be measured by the unit. A unit will include all labor, materials and equipment to complete the design and construction of the proposed Prefabricated Pedestrian Bridge Superstructure including bearings, anchor bolts,
structural steel, timber deck, safety rail, rub rail, toe plates, paint, rubber matting, all required hardware and all other items incidental to the bridge superstructure.

**BASIS OF PAYMENT**

**5.1** The accepted Prefabricated Pedestrian Bridge Superstructure will be paid for at the contract unit price complete in place.

Pay Item and Unit

| 569.5 | Prefabricated Pedestrian Bridge Superstructure | Unit |

END OF SECTION
The Contractor shall supply a precast concrete modular retaining wall system to construct the concrete faced retaining wall system shown on the plans. The wall systems to be considered and requirements are specified below.

**DESCRIPTION**

1.1 This work shall consist of designing, furnishing and constructing a precast concrete modular (PCM) retaining wall system in accordance with these specifications and in close conformance with the lines, grades, design and dimensions shown on the plans or established by the Engineer. The PCM wall consists of a structural fill / cast-in-place concrete sub footing and precast concrete modules.

1.2 **PCM Wall Systems.** The following proprietary wall systems are considered to produce a product which is in general conformance with the contract documents for this project, however, it is still the responsibility of the Contractor to ensure that the fabrication techniques and limitations of the wall system will allow for the construction illustrated in the contract documents.

1.2.1 Potential PCM wall systems to be considered for this project include the following:

A. T-Wall™ by The Neel Company  
   6520 Deepford Street  
   Springfield, VA 22150  
   (703) 922-6778

B. Conspan Bridge Systems  
   Contech Construction Products, Inc.  
   9025 Centre Pointe Drive, Suite 400  
   West Chester, OH 45069  
   (800) 338-1122

1.2.2 Additional PCM systems may be used upon evaluation and approval by the Engineer. Additional PCM block systems will only be evaluated by the Engineer after the project has been awarded.

1.2.3 Alternative wall system types may be considered in accordance with the General Conditions of the Specifications if they meet the Owners criteria, and are in accordance with the Contract Documents. Additional or alternative Specifications may be provided by the Engineer for alternative retaining wall systems. Mechanically Stabilized Earth (MSE) wingwall systems will not be permitted for use on this project. The Contractor shall be backcharged for the engineering charges associated with the development of additional or alternate retaining wall system details and specifications.

1.3 **Requirements for Supplier Prepared Design and Plans.** The Contractor shall submit plans and calculations for the wall system selected in conformance with Section 105.02, the design criteria in sections 1.4 through 1.5 of this specification and the requirements listed.
1.3.1 The fully detailed plans shall be prepared with Project Name, Number and Proprietary Firm Name. Two 22” x 34” paper copies of the approved shop drawings shall be submitted to the Engineer.

1.3.2 The plans and calculations shall be prepared, sealed and signed by a Professional Engineer licensed in the State of New Hampshire and shall be submitted a minimum of 45 days prior to beginning any wall related construction.

1.3.3 The design calculations shall include a complete and thorough set of hand calculations to support any computer generated calculations. A detailed explanation of any symbols and computer programs used in the design shall be provided. The design calculations shall be provided for external stability (sliding, overturning, and maximum bearing pressure) of the final wall configuration, and internal stability (sliding and overturning) for each module layer for both seismic and non-seismic loading. The design calculations for the PCM system shall also include pullout for both seismic and non-seismic loading.

1.3.4 Plan and elevation sheets shall be provided and shall contain the following information:

A. An elevation view of the wall which shall indicate the elevation at the top of the wall at all horizontal and vertical break points and at least every 50 feet along the wall, elevations at the top of leveling pads, the designation as to the type and size of all modules and the location of the original and final ground line.

B. A plan view of the wall which shall indicate the offset from the construction centerline to the face of the wall at all changes in horizontal alignment, the limit of the widest unit and the centerline of any drainage structure or drainage pipe which is behind or passes under or through the wall.

C. Any general notes required for design and construction of the wall.

D. All horizontal and vertical curve data affecting wall construction.

E. A summary listing of quantities provided on the elevation sheet of each wall for all items including subsidiary items.

F. Cross section showing limits of construction and in fill sections, limits and extent of select granular backfill material placed above original ground.

1.3.5 Detail sheets shall be provided and shall contain the following information:

A. All details for foundations and leveling pads, including the maximum calculated bearing pressures.

B. All details for the concrete module including all dimensions to construct the unit and all reinforcement steel in the unit.

C. All reinforcing bar bending details.
D. All details for construction of the wall around drainage facilities and utilities.

E. All details for connection to traffic barriers, coping, parapets, attached lighting and other structures.

1.4 General Design Criteria. The PCM wall design shall meet all applicable requirements from the AASHTO LRFD Bridge Design Specifications, 6th Edition, including the latest revisions for both seismic and non-seismic loading conditions. General design criteria which is applicable to both wall systems shall include the following:

A. The design shall include a live load surcharge per section 3.11.6.4.

B. All seismic design calculations shall be based on a design acceleration per the NHDOT Bridge Design Manual.

C. The retained soil shall have an assumed maximum soil friction angle of 30 degrees and a soil unit weight of 120 pounds per cubic foot. These values represent soils that are in a relatively dry to moist state and shall be adjusted according to sound geotechnical principles if the water table or other source of water is present within the reinforced or retained soil zones.

D. The nominal bearing resistance of the foundation soil shall be assumed to be 4 tons per square foot with a resistance factor of 0.45.

E. Passive earth pressures shall be ignored.

1.5 T-Wall Design Criteria. Design criteria and soil parameters shall be as noted below. The soil within and vertically above the modules shall be assumed to have the following design values:

A. $f_s$ (soil on soil friction) equal to 0.62

B. $f_c$ (soil on concrete friction) equal to 0.44

C. $K_o$ (at-rest earth pressure coefficient) equal to 0.47

MATERIALS

2.1 The Contractor shall make all arrangements to purchase the materials covered by this section of the specifications, including concrete modules, lifting devices, joint materials and all necessary incidentals from one of the approved wall system suppliers. The Contractor, or the supplier as his agent, shall furnish the Engineer a Certificate of Compliance meeting the requirements of Section 106.04, certifying that the applicable materials comply with this section of the specifications. Materials not conforming to this section of the specifications shall not be used without the written consent of the Engineer.

2.2 Concrete Units. Precast concrete modular units shall have a minimum concrete cover on reinforcing steel of 1-1/2 inches. Cement shall be Type II and shall conform to the requirements of AASHTO M 85. Concrete shall have a minimum compressive strength of 5000 psi at 28 days and meet all other requirements of Concrete Class AA as specified in Section 520. Lifting devices shall
be set in place to the dimensions and tolerances shown on the approved shop drawings prior to casting. All concrete components shall meet or exceed specifications listed in Section 520.

2.2.1 Testing and Inspection. Acceptability of the units shall be determined on the basis of compressive strength tests and visual inspection. The Contractor shall furnish facilities and perform all necessary sampling and testing in an expeditious and satisfactory manner.

2.2.2 Casting. The concrete in each unit shall be placed without interruption and shall be consolidated by the use of an approved vibrator, supplemented by such hand tamping as may be necessary to force the concrete into the corners of the forms and to prevent the formation of stone pockets or cleavage planes. Clear form oil or release agent shall be used throughout the casting operation.

2.2.3 Curing. The units shall be cured as specified in Section 520. Any production lot which does not conform to the strength requirements shall be rejected.

2.2.4 Removal of Forms. The forms shall remain in place until they can be removed without damage to the unit.

2.2.5 Concrete Finish. Unless otherwise indicated on the plans or elsewhere in the specifications, the concrete surface for the front face shall have an Class I ordinary finish as per Section 520.3.12.1. The rear face of the unit shall be free of open pockets of aggregate and surface distortions in excess of 1/4 inch.

2.2.6 Tolerances. All units shall be manufactured within the following tolerances with respect to the dimensions shown on the approved shop drawings:

A. Unit Dimensions. All unit dimensions shall be within 1/4 inch.

B. Unit Squareness. Squareness, as determined by the difference between the two diagonals, shall not exceed 1/2 inch for modules up to 10 feet in width and 3/4 inch for modules wider than 10 feet.

C. Unit Face Surface Finish. Surface defects on smooth-formed surfaces, measured on a length of 5 feet, shall not exceed 1/4 inch. Surface defects on textured-finished surfaces, measured on a length of 5 feet, shall not exceed 5/16 inch.

2.2.7 Compressive Strength. Acceptance of the units, with respect to compressive strength, shall be determined on the basis of production lots. A production lot is defined as a group of units that shall be represented by a single set of compressive strength samples and shall consist of not more than 20 units or a single day’s production, whichever is less.

During the production of the units, the manufacturer shall randomly sample the concrete in accordance with AASHTO T 141. A single set of compressive strength samples, consisting of a minimum of four cylinders, shall be made for every production lot.

For every compressive strength sample, a minimum of two cylinders shall be cured in the same manner as the units and tested at seven days or less. The average compressive strength of these cylinders, when tested in accordance with AASHTO T 22, will determine the initial strength of the concrete. In addition, a minimum of two cylinders shall be cured in accordance with AASHTO T 23
and tested at 28 days. The average compressive strength of these cylinders, when tested in accordance with AASHTO T 22, will determine the compressive strength of the production lot.

If the initial strength test result indicates a compressive strength greater than or equal to the required 28 day strength, then this test result will be utilized as the compressive strength test results for that production lot, and the requirement for testing at 28 days will be waived for that particular production lot.

Acceptance of a production lot will be made if the compressive strength test result is greater than or equal to the required 28 day strength. If the compressive strength test results is less than the required 28 day strength, the acceptance of the production lot will be based on its meeting the following acceptance criteria in its entirety:

A. Ninety percent of the compressive strength test results for the overall production shall exceed 1.0375 times the required 28 day strength.

B. The average of any six consecutive compressive strength test results, including the one in question, shall exceed 1.0625 times the required 28 day strength.

C. No individual compressive strength test result shall fall below 0.9 times the required 28 day strength.

In the event that a production lot fails to meet the specified compressive strength requirements, the production lot shall be rejected. Such rejection shall prevail unless the Contractor, at no cost to the Department, obtains and submits evidence of a type acceptable to the Engineer that the strength and quality of the concrete placed in the units within a production lot is acceptable. If such evidence consists of tests made on cores taken from the units within the production lot, the cores shall be obtained and tested in accordance with AASHTO T 24.

2.2.8 Rejection. Units shall be subject to rejection because of failure to meet any of the requirements specified above. In addition, any or all of the following defects may be sufficient cause for rejection:

A. Defects that indicate imperfect molding.

B. Defects indicating honeycombed or open-texture concrete.

C. Defects in the physical characteristics of the concrete, such as broken or chipped concrete.

2.2.9 The Engineer shall determine whether spalled, honeycombed, chipped or otherwise defective concrete shall be repaired or be cause for rejection. Repair of concrete, if allowed, shall be done in a manner satisfactory to the Engineer. Repair to concrete surfaces which will be exposed to view after completion of construction must be approved by the Engineer.

2.2.10 Marking. The date of manufacture, the production lot number, and the piece-mark shall be clearly marked on the back side of each unit.

2.2.11 Handling, Storage and Shipping. All units shall be handled, stored and shipped in such a manner as to minimize the danger of shipping, cracks, fractures and excessive bending stresses.
2.3 Reinforcing Steel. Reinforcing steel shall conform to Section 544.

2.4 Joint Materials. Joint materials shall be as specified by the wall supplier, subject to the following requirements:

2.4.1 Bearing Pads. Bearing pads shall be preformed rubber pads having a durometer hardness of 80±5.

2.4.2 Joint Cover. Horizontal and vertical joints between units shall be covered by a geotextile. The geotextile may be either a non-woven needle punched polyester geotextile or a woven monofilament polypropylene geotextile as approved by the wall supplier. Adhesive used to hold the geotextile filter fabric material to the rear of the units prior to backfill shall be approved by the wall supplier.

2.5 Concrete Leveling Pad. Concrete for cast-in-place leveling pads shall conform to the requirements of Item 520.211, Concrete Class B, Footings (on rock) or Item 520.213 Concrete Class B, Footing (on soil) (F).

2.6 Unit Backfill. Material used to backfill units within the limits indicated on the plans shall conform to Granular Backfill (Bridge), Item 209.201.

2.7 Form liners for providing an “Ashlar Stone” architectural treatment shall be pattern 16986 by Fitzgerald™ Form Liners, 1341 East Pomona Street, Santa Anna, CA 92705 (Tel: 1 (800) 547-7760) or No. 330 Multi-cast by Greenstreak, 3400 Tree Court Industrial Boulevard, St. Louis, MO 63122 (Tel: 1 (800) 325-9504), or approved equal.

CONSTRUCTION REQUIREMENTS

3.1 Wall Supplier’s Representative. The Contractor shall make the necessary arrangements with the wall supplier to have a technical representative on the project to supervise the initial construction of the wall. The technical representative shall also be required to be on-site at any time during wall construction as requested by the Engineer. When a technical representative has been requested, no wall construction shall be allowed until the technical representative has arrived at the project site.

3.2 Foundation Preparation. The foundation for the structure shall be graded level for a width as shown on the plans. Prior to wall construction, the foundation, if not in rock, shall be compacted as directed by the Engineer. Any foundation soils found to be unsuitable shall be removed and replaced as directed by the Engineer.

At each unit foundation level, an unreinforced concrete leveling pad shall be provided as shown on the plans. The leveling pad shall have minimum nominal dimensions of 6 inches by 12 inches. The leveling pad shall be cast to the design elevations as shown on the plans. Allowable elevation tolerances are plus 0.01 foot (1/8 inch), and minus 0.02 foot (1/4 inch), from the design elevation. The leveling pad shall be cured a minimum of 24 hours before placement of the concrete units.

3.3 Wall Erection. Precast concrete modular units may be placed in the wall when the initial strength of the units equals or exceeds 85 percent of the 28 day requirement. The units shall be erected in accordance with the wall supplier’s recommendations. Special care shall be taken in
setting the bottom course of units to true line and grade. Assembly of the various components shall be performed in such a manner that no undue strain or stress is placed on structure. Shims shall not be permitted without prior approval of the Engineer.

The vertical joint opening on the front face of the wall shall not exceed 3/4 inch. Vertical and horizontal alignment tolerances measured from the face line shown on the plans shall not exceed 3/4 inch when measured along an 8-foot straightedge. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed 1/2 inch per 8 feet of wall height or 1 inch total, whichever is less, measured from the face line shown of the plans.

Joint materials and bearing pads shall be installed in accordance with the wall supplier’s requirements and the details shown on the approved shop plans.

3.3.2 The Contractor shall submit an erection plan for documentation. The erection plan shall describe the method of erection and proposed sequence of installation, and the amount and character of equipment proposed.

3.4 Backfill Placement. Backfill materials placed within the limits of the module and behind the wall shall be as detailed on the plans. Backfill placement shall closely follow erection of each course of wall units. Backfill shall be placed in such a manner as to avoid any damage to the wall materials or misalignment of the units. Any wall components which become damaged or disturbed shall be either removed and replaced at the Contractor’s expense or corrected, as directed by the Engineer. Any backfill material placed within the soil mass which does not meet the requirements of this specification shall be corrected or removed and replaced at the Contractor’s expense, as directed by the Engineer.

3.4.1 Testing Requirements. Backfill dry density and moisture content shall be determined in accordance with AASHTO T 99, Method C or D (with oversize correction, as outlined in Note 7 of AASHTO T 99).

The frequency of sampling of select granular backfill material, necessary to assure gradation control throughout construction, shall be as directed by the Engineer. If 30 percent or more of the select granular backfill material is greater than 3/4 inch in size, AASHTO T 99 is not applicable. For such a material, the acceptance criteria for control of compaction shall be either a minimum of 70 percent of the relative density of the material as determined by ASTM D 4253 and D 4254, or a method specification, based on a test compaction section, which defines the type of equipment, lift thickness, number of passes of the specified equipment, and placement moisture content.

3.4.2 Moisture Requirements. The moisture content of the backfill material prior to and during compaction shall be uniform throughout each layer. Backfill material shall have a placement moisture content less than or equal to one percent above the optimum moisture content. Backfill material with a placement moisture content in excess of this requirement shall be removed and reworked until the moisture content is uniform and acceptable throughout the entire lift.

3.4.3 T-Wall Lift Thickness and Density Requirements. Material placed within the T-Wall units and behind the T-Wall structure shall be placed in maximum 12 inch thick lifts measured before compaction, and shall be compacted to 95 percent of the maximum dry density.

3.4.4 Compaction within 3 feet of the back face of the units shall be achieved by at least three passes of a lightweight mechanical tamper, roller or vibratory system. The specified lift thickness
shall be adjusted as warranted by the type of compaction equipment actually used, but no soil density tests need be taken within this area. Care shall be exercised in the compaction process to avoid misalignment of or damage to the wall units. Heavy compaction equipment shall not be used to compact backfill within 3 feet of the wall face.

3.4.5 At the end of each day’s operation, the Contractor shall slope the last level of backfill to direct runoff of rainwater away from the wall face. In addition, the Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

METHOD OF MEASUREMENT

4.1PCM retaining wall system will be measured by the square foot of wall surface area. The wall surface area shall be taken as the surface area of the precast concrete facing panels, including the surface area of nominal panel joint openings and wall penetrations such as pipes and other utilities. The surface area of the leveling pad shall be included.

4.1.1 Precast concrete modular retaining wall system will include precast concrete units, bearing pads, joint materials, structural fill / cast-in-place concrete sub footing, excavation, backfill and wall supplier site visits and incidentals.

BASIS OF PAYMENT

5.1 The accepted quantity of concrete faced retaining wall system will be paid for at the contract price per square foot complete and in place.

5.1.1 Payment for PCM system shall be considered full compensation for all labor, materials, and equipment for excavation, backfill and to install precast concrete units, bearing pads, joint materials, structural fill / cast-in-place concrete sub footing, clean up and for all site visits by the wall supplier's technical representative.

Pay Item and Unit

592.3 Concrete Faced Retaining Wall System (Precast Concrete Modular) Square Foot

END OF SECTION
Add to Description:

1.2 This work shall consist of furnishing a pre-construction and post-construction internal video inspection of the 54” reinforced concrete combined sewer overflow (CSO) pipe within the limits of the proposed project as indicated on the plans.

Add to Construction Requirements:

3.7.3 CSO Video Inspection

One hundred (100) percent of each class and type of pipe specified, up to and including 36” diameter shall be subjected to internal video inspection not less than thirty (30) days after the backfill has been placed to subgrade level unless otherwise approved by the Engineer. The pipe runs shall be cleaned and inspected for cracks, joint gaps, deformation, and other visual defects using a video camera meeting the requirements of 3.7.1.1. Flexible pipes observed to have deflection greater than five (5) percent shall be verified per 3.7.2. Any pipe found to be damaged will need to be repaired or replaced at the Contractor’s expense. Any repairs will be done at the approval of the Engineer. The Engineer shall be notified as soon as practicable of any visual defects that are found and all video recordings of these areas of concern shall be made available within 24 hours. Final report shall be submitted to the Engineer within 10 days of inspection.

3.7.3.1 The video camera shall be able to verify the quality of the pipe and not be limited by poor lighting, waterflow, or pipe length. The camera should have the following qualities:

- Provide its own light source or have a separate light source capable of producing images acceptable to the Engineer.
- Be able to move remotely inside the entire pipe length.
- Be able to pan and tilt to enable full view of joints.
- Have a remote monitor and a recording apparatus to view and record the condition of the pipe.
- The video should include identification before each section of pipe filmed. The identification should include project number, structure numbers corresponding to the structure numbers on the plans, size of pipe, date and time. The video should also be marked with distances down the pipe length with an accuracy of one foot per 100 feet.
- A copy of the video shall be provided to the Engineer on CD/DVD media in .WMV or .MPEG format. A written report accompanying the video shall also be provided to the Engineer.

Add to Method of Measurement:

4.4 CSO Video Inspection shall be measured as a unit and includes furnishing all equipment, labor and deliverables for pre-construction and post-construction internal video inspections and reports of the 54” reinforced concrete CSO pipe within the limits of the proposed project as indicated on the plans.
**Add** to Basis of Payment

**5.9** The accepted quantities of CSO Video Inspection will be paid for at the Contract unit price and will include all required labor, equipment and materials.

**Add** to pay items and unit:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
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<tbody>
<tr>
<td>603.0002</td>
<td>CSO Video Inspection</td>
<td>Unit</td>
</tr>
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</table>

END OF SECTION
Add to Description:

1.1.4 The Contractor shall furnish and install timber guardrail as detailed on the plans or herein, at the locations shown on the plans, details or ordered.

Add to 2.1:

2.1.3 All timber for Timber guardrail shall be pressure treated Southern Yellow Pine Number 1 or better. See contract drawings for additional material information.

Add to 4.1:

4.7 Timber guardrail will be measured by the linear foot from end of rail to end of rail. Timber guardrail shall include excavation, backfill, timber rails, timber balusters, timber posts and all connection devices.

Add to 5.1:

5.1.2 The accepted quantities for timber guardrail will be paid for at the contract unit price per linear foot complete and in place. Payment for the timber guardrail shall be considered full compensation for all labor, materials and equipment for excavation, backfill timber rails, timber balusters, timber posts and all connection devices.

Add to pay items and units:

606.001 Timber Guardrail Linear Foot

END OF SECTION
SUPPLEMENTAL SPECIFICATION
AMENDMENT TO SECTION 607 - FENCES
ITEM 607.74 - SPLIT RAIL FENCE

This Special Provision provides for a split rail fence and neither amends nor modifies this section except as specifically noted below.

**Add** to Materials:

2.7 Post and Rail Fence

2.7.1 Wood rails and posts shall be Southern Pine #2 or better. All timber shall be ACQ pressure treated with a 0.25 retention level in accordance with American Wood Preservative Association (AWPA) standards.

2.7.2 All fasteners shall be galvanized.

**Add** to Construction Requirements:

3.1.4.3 Posts for posts and rail fence are to be embedded 36 inches into the ground. Concrete is not required.

**Add** to Method of Measurement:

4.1.3 Post and rail fence will be measured from center to center of end posts.

**Add** to Basis of Payment:

5.3 The accepted quantities of post and rail will be paid for at the contract unit price per linear foot complete in place. Thus unit price shall include the cost of furnishing all labor, tools, and equipment to satisfactorily complete the work and shall include excavation, posts, rails, and all accessories and appurtenances.

**Add** to Pay Items and Units:

607.74 Split Rail Fence Linear Foot

END OF SECTION
SPECIAL PROVISION
SECTION 611 - WATER SYSTEMS

DESCRIPTION

1.1 This work shall consist of adjusting water gates and shutoffs set by others to the required location and/or grade as shown on the plans or as directed.

MATERIALS

2.1 All materials shall meet the requirements of the Town of Hopkinton and be approved by the Town of Hopkinton prior to installation.

CONSTRUCTION REQUIREMENTS

3.1 The Contractor shall furnish and install all components as shown on the plans and details or as directed, and as required by the Town of Hopkinton.

METHOD OF MEASUREMENT

4.1 Adjusting water gates and shutoffs set by others shall be measured by the number of units adjusted and include any incidental work including excavation and backfill.

BASIS OF PAYMENT

5.1 The accepted quantity of adjusting water gates and shutoffs set by others will be paid for at the contract unit price each complete in place as shown on the plans and specified herein, and shall include excavation, bedding, blanket, backfill, appurtenances, and all other work required for or incidental to the completion of this item.

Pay Item and Unit:

611.90001 Adjusting Water Gates and Shutoffs Set By Others Each (EA)

END OF SECTION
SPECIAL PROVISION
AMENDMENT TO SECTION 615 - TRAFFIC SIGNS

This special provision, in addition to other issues, removes demountable copy, updates reference documents, updates the concrete class for bases and removes the final pay designation for signs. For further information with respect to overhead sign structures, see the additional special provision to Section 615.

Amend 1.2.1 to read:

1.2.1 Traffic Signs Type A and Type AA shall be extruded aluminum plank traffic signs with retroreflective sheeting background and retroreflectorized copy. Type A shall include W- beam mounts and hardware as shown on the plans.

Amend 2.5.1.1 to read:

2.5.1.1 Blank.

Add 2.5.3.1 to read:

2.5.3.1 U-channel breakaway systems may be used. See Section 2.8.1.

Amend 2.8.1 (including the addition of 2.8.1.1) to read:

2.8.1 All sign supports and breakaway support systems shall conform to the AASHTO "Standard Specifications for Structural Supports for Highway Traffic Signs, Luminaires and Traffic Signals" and shall conform to the testing and evaluation criteria of NCIIRP Report 350. Devices not conforming to the criteria shall be replaced with conforming devices at no expense to the Department.

The Contractor shall provide a Certificate of Compliance for each sign support and breakaway support system being supplied, stating it meets the testing and evaluation criteria of NCHRP Report 350 and has been approved by FHWA for use in weak and strong soils. A copy of the FHWA Eligibility Letter for breakaway sign supports shall be submitted with the sign shop drawings.

Amend 2.8.2 to read:

2.8.2 Concrete for bases shall be Class A and shall conform to Section 520. Reinforcing steel shall conform to Section 544.

Amend 2.9.1.1, 2.9.1.2, and 2.9.1.3 to read:

2.9.1.1 The design, arrangement, color, and spacing of copy shall be in accordance with, the NHDOT Standard Plans for Road Construction, or the MUTCD and the FHWA "Standard Highway Signs".
2.9.1.2 All sign sheeting and copy materials shall be fabricated from components of compatible systems warrantied by the same manufacturer in accordance with the NHDOT Qualified Products List Product Qualification Criteria/Acceptance Criteria.

2.9.1.3 Blank.

Amend 2.9.2.1 and 2.9.2.2 to read:

2.9.2.1 The letters, numerals, symbols, shields, and borders shall be retroreflective sheeting conforming to 718 Retroreflective Sheeting. Interstate route shields (red, white, and blue) and Turnpike shields shall not be silk screened.

2.9.2.2 Blank.

Amend 2.9.3.1 to read:

2.9.3.1 The letters, numerals, symbols, shields, and borders shall be retroreflective sheeting conforming to 718 Retroreflective Sheeting. Interstate route shields (red, white, and blue) and Turnpike shields shall not be silk screened.

Amend 2.9.4.1 to read:

2.9.4.1 The letters, numerals, symbols, shields, and borders of retroreflective or nonreflective sheeting shall be shall be cut-out, overlay film or silk screened retroreflective or nonreflective sheeting conforming to 718 Retroreflective Sheeting. Interstate route shields (red, white, and blue) and Turnpike shields shall not be silk screened.

Amend 2.10.1.1 to read:

2.10.1.1 All background sheeting shall be retroreflective sheeting conforming to 718 Retroreflective Sheeting. Overlay film shall be from the NHDOT Qualified Products List.

Amend 3.2.4 to read:

3.2.4 The Contractor shall submit shop drawings for all signs for approval showing arrangements, spacing, arrow sizes, radii, border widths, indent spacing and colors of copy, and manufacturer and types of retroreflective sheeting, overlay or nonreflective materials for the background and letters, numerals, symbols, shields, and borders in accordance with 105.02.

Amend 3.2.5 to read:

3.2.5 Application of Retroreflective Sheeting to Aluminum Plank. The sheeting shall be applied to the face of the extruded aluminum planks by a squeeze roller applicator in accordance with the recommendations of the sheeting manufacturer. The face of the planks shall be completely covered by the retroreflective sheeting. All signs shall contain the date of manufacture and size, located in the lower left corner of the front face of the sign (e.g., 3-15 10'x15'). Letters and numbers shall be 2 in. white adhesive pressure copy.

Amend 3.2.6 to read:
3.2.6 **Application of Retroreflective Sheeting to Aluminum Sheets.** The sheets shall conform to the provisions of 3.2.5 except that the sheeting shall be applied to the aluminum either by the heat vacuum applicator method or by mechanical roller application in accordance with the recommendations of the sheeting manufacturer. All Type B and C aluminum sheet signs larger than 48” x 48” shall contain the date of manufacture and size, located in the lower left corner of the front face of the sign (e.g., 3-90 4’x6’). Letters and numbers shall be 1 in. white adhesive pressure copy. All aluminum sheet signs 48” x 48” and smaller shall contain a legible size and date of manufacture, located in the lower right corner on the back of the sign, applied with permanent marker or paint (e.g., 9-14, 3’x3’).

**Delete** entire 3.2.7 section.

**Add** 3.2.7 to read:

3.2.7 **Application of Sign Copy.** Sign copy shall be applied in accordance with manufacturer’s recommendations.

**Delete** entire 3.4 section. (See additional Special Provision for Section 615, if necessary.)

**Add** 3.5.9 to read:

3.5.9 Overhead mounted signs shall be attached to the overhead structure with all new mounting hardware unless otherwise noted on the plans.

**Amend** 4.2 and 4.3 to read:

4.2 Traffic sign Type A, B, C will be measured by the square foot (square meter) for traffic, including all necessary posts, footings, bases, and mounting hardware.

4.3 Traffic sign Type AA, BB or CC will be measured by the square foot (square meter), including all necessary mounting hardware.

**Amend** 4.5 to read:

4.5 Removing traffic signs Type B or C shall be measured by the unit. Removing traffic signs Type BB or CC shall be subsidiary unless otherwise noted. Removal will include all footings (to a minimum of one foot below finished grade, posts, mounting hardware and all signs on each post.

**Amend** 5.2 and 5.2.1 to read:

5.2 Traffic signs type A, B, C, AA, BB or CC will be paid for at the Contract unit price per square foot (square meter) complete in place.

5.2.1 The accepted quantities of removing traffic sign Type A, AA, B or C or relocating traffic sign Type A, B, C, AA, BB or CC will be paid for at the Contract unit price per each unit.

**Delete** all **final pay items** from the Pay Item and Units section.
**Add** to Pay Items and Units:

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>615.0101</td>
<td>Traffic Signs Type A</td>
<td>Square Feet</td>
</tr>
<tr>
<td>615.01201</td>
<td>Traffic Signs Type A, Breakaway Mounts</td>
<td>Square Feet</td>
</tr>
<tr>
<td>615.0201</td>
<td>Traffic Signs Type B</td>
<td>Square Feet</td>
</tr>
<tr>
<td>615.02201</td>
<td>Traffic Signs Type B, Breakaway Mounts</td>
<td>Square Feet</td>
</tr>
<tr>
<td>615.0301</td>
<td>Traffic Signs Type C</td>
<td>Square Feet</td>
</tr>
<tr>
<td>615.03201</td>
<td>Traffic Signs Type C, Breakaway Mounts</td>
<td>Square Feet</td>
</tr>
<tr>
<td>615.0401</td>
<td>Traffic Signs Type AA</td>
<td>Square Feet</td>
</tr>
<tr>
<td>615.0501</td>
<td>Traffic Signs Type BB</td>
<td>Square Feet</td>
</tr>
<tr>
<td>615.0601</td>
<td>Traffic Signs Type CC</td>
<td>Square Feet</td>
</tr>
</tbody>
</table>

END OF SECTION
SPECIAL PROVISION
SECTION 616 - TRAFFIC SIGNALS
Item 616.261 - Flashing Beacon

DESCRIPTION

1.1 This special provision provides for furnishing and installing push-button activated, Rectangular Rapid Flashing Beacons (RRFB) on Main Street (NH Routes 10 and 109). The work includes installing two RRFB’s, solar power systems, pedestrian push-buttons, and posts and foundations at Sta 17+25, 4’ LT. and Sta 17+41, 4’ RT.

1.2 This work will conform to the relevant provisions of the Standard Specifications and the Manual on Uniform Traffic Control Devices.

MATERIALS

2.1 RRFB housings shall be made from powder coated aluminum (black).

2.2 There shall be 8 7” x 3” amber LED arrays.

2.3.1 The 2 RRFB indications shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of approximately seven inches (7”), measured from inside edge of one indication to inside edge of the other indication.

2.3.2 The outside edges of the RRFB indications, including any housings, shall not project beyond the outside edges of the W11-2 sign.

2.3.3 The RRFB shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque, rather than 12” above or below the sign assembly.

2.3.4 When activated, the two yellow indications in each RRFB shall flash in a rapidly alternating "wig-wag" flashing sequence (left light on, then right light on).

2.3.5 RRFBs shall use a much faster flash rate. Each of the two yellow indications of an RRFB shall have 70 to 80 periods of flashing per minute and shall have alternating but approximately equal periods of rapid pulsing light emissions and dark operation. During each of its 70 to 80 flashing periods per minute, one of the yellow indications shall emit two rapid pulses of light and the other yellow indication shall emit three rapid pulses of light.

2.3.6 The flash rate of each individual yellow indication, as applied over the full on-off sequence of a flashing period of the indication, shall not be between 5 and 30 flashes per second, to avoid frequencies that might cause seizures.

2.3.7 The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005.

2.3.8 The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation at a predetermined time after the pedestrian actuation.
2.3.9 All RRFBs associated with a given crosswalk shall, when activated, simultaneously commence operation of their alternating rapid flashing indications and shall cease operation simultaneously.

2.3.10 Pedestrian pushbuttons shall be used to actuate the RRFBs, and a pedestrian instruction sign with the legend R10-25 PUSH BUTTON TO TURN ON WARNING LIGHTS shall be mounted above sign Pelco SE-2158: SE 6123 or equal.

2.3.11 The duration of a predetermined period of operation of the RRFBs following each actuation shall be based on the MUTCD procedures for timing of pedestrian clearance times for pedestrian signals (3.5 ft/sec minimum).

2.4.1 Radio communication shall be used to connect the RRFB’s on either side of the street.

2.4.2 The radio shall operate at 900 MHz, and shall utilize frequency hopping spread spectrum network with an operating range of 3.6 vdc to 15 vdc.

2.5.1 The solar power system (1 required per assembly, 2 total) shall be housed in a NEMA 4 rated fiberglass cabinet with lockable straps.

2.5.2 The solar panel shall be approximately 25 ¼” H x 25 ¾” W x 1 ½” D and have a articulating mount that pivots.

2.5.3 The solar panel shall produce at least 55 watts, conform to IP-67, and be adjustable to an angle of between 40 degrees and 60 degrees from the ground.

2.5.4 The solar battery shall be a 12 V, 40 AH sealed gel unit that does not require periodic watering. The battery shall be capable of operation without sun for 30 days and have a life span of 2 years.

2.5.5 The solar power system control circuitry shall be in a NEMA IP-67 rated enclosure dustproof and waterproof in up to 3’ for 30 minutes.

2.5.6 The pedestrian push buttons, Piezo style, shall conform to the applicable provisions of the ADA and be powered by a replaceable battery. The battery shall have a lifespan of approximately 2 years.

2.6.1 The pedestrian crossing signs and arrow plaques shall be Type CC signs, as defined in Section 615 of the Standard Specifications.

2.7.1 Each RRFB assembly shall be mounted on a tapered tubular aluminum pole (2 total) with a breakaway assembly. The poles, breakaway assemblies, and foundations shall conform to Section 616 of the Standard Specifications.

**CONSTRUCTION REQUIREMENTS**

3.1 All RRFB and electrical installations shall comply with the requirements specified herein, local and utility codes, MUTCD, and the National Electrical Code (NEC).
METHOD OF MEASUREMENT

4.1 Flashing beacons shall be measured as a unit and include all appurtenances described above for two pedestrian crossing signs.

BASIS OF PAYMENT

5.1 The accepted quantity of flashing beacons will be paid for at the Contract lump sum price complete in place.

Pay items and units:

| 616.261 | Rectangular Rapid Flashing Beacons | Unit |

END OF SECTION
SPECIAL PROVISION
SECTION 625 - LIGHT POLES
ITEM 625.52- LIGHT POLE

DESCRIPTION

1.1 This work shall consist of overhead midblock crosswalk light poles, fixtures, and bases constructed at the corner of Ledge Street and Everett Street. It shall also include design and construction of conduit, wiring and incidentals required to connect and energize the lights in compliance with NEC.

MATERIALS

2.1 Luminaires shall be 60 W King LED Bostonian 5282-P4SH-III-60(SSL) with a KA120 Arm and approved by the Engineer and the City prior to ordering any materials.

2.2 Posts shall be Spun Concrete Manufactured by Stresscrete. Finish and height shall match posts previously installed on Heritage Rail Trail and shall be confirmed by Contractor and submitted for review by Engineer and City prior to ordering new posts.

2.3 Materials for pole bases shall match manufactures recommendations.

2.4 Conduit runs between poles shall be a minimum of 3” in diameter.

CONSTRUCTION REQUIREMENTS

3.1 The routing shown on the construction drawings are approximate. The Contractor shall submit a lighting plan for review and approval by the City of Nashua defining final conduit routing and service connection

3.2 Light Poles, fixtures, and bases shall be installed in accordance with manufactures recommendations.

3.3 Conduit construction shall conform to Section 614 of the NHDOT specifications.

3.4 The Contractor shall coordinate service connections with the utility company.

METHOD OF MEASUREMENT

4.1 Light poles will be measured by the number of units installed.

BASIS OF PAYMENT

5.1 The accepted quantity of light poles will be paid for at the contract unit price per unit complete in place. This shall include all luminaires, poles, bases, wiring, meter pedestal, photocells, excavation, backfill, and incidentals required to complete the installation. It shall also include the design of the conduit runs and coordination with the utility company for service connection.
Pay Items and Units:

625.52     Light Pole     Unit (U)

END OF SECTION
SPECIAL PROVISION
SECTION 632 – RETROREFLECTIVE PAVEMENT MARKINGS
ITEM 632.03 - RETROREFLECTIVE PAINT PAVEMENT MARKING AREA

DESCRIPTION

1.1 This work shall consist of furnishing and placing painted bike lane pavement markings at the locations indicated in the Plans and as directed by the Engineer.

1.2 The work under this Section shall be performed in accordance with these provisions, the Plans, and Section 632 of the Standard Specifications.

MATERIALS

2.1 The Ride-A-Way™ marking system is approved for this project. This system is proprietary to Flint Trading, Inc. and is a coating designed for colorization of preferential lanes on streets and highways.

2.2 All materials shall be as required by Flint Trading, Inc. The final color of painted bike lanes for this project shall be green.

2.3 Requests for substitutions for the above shall be submitted to the Engineer a minimum of 10 days in advance of the bid opening and shall be approved prior to use.

CONSTRUCTION REQUIREMENTS

3.1 The Contractor shall make the necessary arrangements with the manufacturer to have a technical representative on the project to supervise the initial placement of the marking system. The technical representative may be required to be on-site for the complete installation if requested by the Engineer.

3.2 Traffic shall only be allowed on the newly constructed markings as recommended by the manufacturer and as directed by the Engineer.

METHOD OF MEASUREMENT

4.1 The quantity to be measured for payment will be the number of square feet complete in place in the accepted work.

BASIS OF PAYMENT

5.1 The accepted quantity will be paid for at the Contract unit price per square foot. Payment will be in full compensation for furnishing and placing the material specified and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

5.2 Payment for edge line pavement markings will be made under the appropriate Section 632 pay item(s) in the Contract.
Pay Items and Units:

632.03 Retroreflective Paint Pavement Marking Area Square Foot (SF)

END OF SECTION
SPECIAL PROVISION
SECTION 645 -- EROSION CONTROL
ITEM 645.0002 – SEDIMENTATION BASIN

DESCRIPTION

1.3 This work shall consist of designing, furnishing, constructing, maintaining, and removing a temporary sedimentation basin and concrete washout.

MATERIALS

2.1 Material requirements shall be as specified in 645.2 or as directed.

CONSTRUCTION REQUIREMENTS

3.1 Construction requirements shall be as specified in 645.3 or as directed.

METHOD OF MEASUREMENT

4.1 This item will be measured as a unit.

4.2 No separate payment will be made for multiple sedimentation basins or concrete washouts.

BASIS OF PAYMENT

5.1 Partial payments for this item we be made as follows:

(a) When the sedimentation basin and concrete washout has been installed in place, the accumulated total to be paid will be 50 percent of the amount bid.

(b) When the sedimentation basin and concrete washout has been completely removed and any disturbed areas have been stabilized, the accumulated total to be paid will be 100 percent of the amount bid.

Pay item and unit:

645.0002 Sedimentation Basin Unit

END OF SECTION
SPECIAL PROVISION
AMENDMENT TO SECTION 645 – EROSION CONTROL
ITEM 645.512 – COMPOST SOCK FOR PERIMETER BERM

This special provision provides for compost sock for perimeter berm and neither amends nor modifies the provision of this section except as noted below. The intent of this item is to work in conjunction with or in-lieu of silt fence where entrenched silt fence is not feasible.

DESCRIPTION

1.1 The Contractor shall furnish and install degradable compost socks for perimeter berm at locations shown on the SWPPP plans or as ordered. Removal, if necessary, will be subsidiary to the item, and will be conducted as directed by the Engineer. The compost sock for perimeter berm shall be used as such and is not intended for areas which may receive concentrated flows such as channels or restricted outlets.

MATERIALS

2.1 Compost Sock for Perimeter Berm. Sock must be:

2.1.1 A mesh tube, oval to round in cross section, 12 inches in diameter. Sock must have a minimum durability of one year after installation.

2.1.2 Composed of a knitted biodegradable or photodegradable material with 1/8 to 3/8 inch openings. Fabric must be clean; evenly woven; free of encrusted concrete or other contaminated materials; and free from cuts, tears, broken or missing yarns and thin, open, or weak places.

2.2 Compost Media.

2.2.1 Compost may be derived from green material consisting of chipped, shredded, or ground vegetation; or clean recycled wood products.

2.2.2 Compost must not be derived from mixed municipal solid waste and be reasonably free of visible contaminates. Compost must not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth. Compost must not possess objectionable odors.

2.3 Chemical, Physical and Biological Parameters.

2.3.1 Compost products specified for use in this application must meet the criteria specified in Table 1, below.

2.3.2 Only compost products that meet all applicable state and federal regulations pertaining to its production and distribution may be used in this application. Approved compost products must meet related state and federal chemical contaminant (e.g., heavy metals, pesticides, etc.) and pathogen limits pertaining to the feedstocks (source materials) in which it is derived.
Table 1 - Compost Media Parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Reported as (units of measure)</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH2</td>
<td>pH units</td>
<td>5.0-8.5</td>
</tr>
<tr>
<td>Soluble Salt Concentration (electrical conductivity)</td>
<td>dS/m (mmhos/cm)</td>
<td>Maximum 5</td>
</tr>
<tr>
<td>Moisture Content</td>
<td>%, wet weight basis</td>
<td>30-60</td>
</tr>
<tr>
<td>Organic Matter Content</td>
<td>%, dry weight basis</td>
<td>25-65</td>
</tr>
<tr>
<td>Particle Size</td>
<td>% passing a selected mesh size, dry weight basis</td>
<td>3” (75 mm), 100% passing 1” (25mm), 90% to 100% passing 3/4” (19mm), 70% to 100% passing 1/4” (6.4mm), 30% to 75% passing Maximum: particle size length of 6” (152mm) (no more than 60% passing 1/4” (6.4 mm) in high rainfall/flow rate situations)</td>
</tr>
<tr>
<td>Stability3 Carbon Dioxide Evolution Rate</td>
<td>mg C02-C per g OM per day</td>
<td>&lt;8</td>
</tr>
<tr>
<td>Physical Contaminants (man-made inerts)</td>
<td>%, dry weight basis</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

Note: The composition of this media is similar to the vegetated filter berm media from AASHTO R 51. Very coarse (woody) composts that contain less than 30% of fine particles (1mm in size) shall be avoided, as optimum reductions in total suspended solids (TSS) is desired and berms may be seeded.

CONSTRUCTION REQUIREMENTS

3.1 Site Preparation. To ensure optimum performance, cut down or remove heavy vegetation, and level uneven surfaces to ensure that the filter sock uniformly contacts the ground surface.

3.2 Installation.

3.2.1 Prior to installation, clear the area of obstructions including rocks, clods, and debris greater than one inch.

3.2.2 Fill socks uniformly with compost to the desired length such that the logs do not deform. Secure ends.

3.2.3 When more than one compost sock is required to achieve desired length, join socks longitudinally with a 1 foot 6 inch overlap.

3.2.4 Compost sock may be installed using installation method Type 1, Type 2, or a combination.

  o Installation method Type 1:
    - Place directly on the ground with good contact with the finish grade.
    - Secure with wood stakes every 4 feet along the length of the compost sock.
- Secure the ends of the compost sock by placing a stake 6 inches from the end of the compost sock.
- Drive the stakes into the soil so that the top of the stake is less than 2 inches above the top of the compost sock.

  o Installation method Type 2:
    - Place directly on the ground with good contact with the finish grade.
    - Secure with rope and notched wood stakes.
    - Drive stakes into the soil until the notch is even with the top of the compost sock.
    - Lace the rope between stakes and over the compost sock. Knot the rope at each stake.
    - Tighten the compost sock to the surface of the slope by driving the stakes further into the soil.

3.2.5 Install compost sock approximately parallel to the slope contour or as otherwise specified in the SWPPP or ordered by the Engineer.

3.3 Maintenance.

3.3.1 Inspect compost socks regularly, and after each rainfall event, to ensure that they are intact and functioning correctly. Remove sediment that builds up behind the sock before it interferes with the functionality of the sock. Deposit the removed sediment within the project limits so that the sediment is not subject to erosion by wind or by water.

3.3.2 Repair or replace split, torn, or unraveling socks. Replace broken or split stakes. Sagging or slumping compost socks must be repaired with additional stakes or replaced. Correct locations where rills and other evidence of concentrated runoff have occurred beneath the socks. Compost socks must be repaired or replaced within 24 hours of identifying the deficiency.

3.3.3 Remove sock mesh tubes when directed by the Engineer. Cut mesh and empty sock contents in place and rake to distribute evenly.

METHOD OF MEASUREMENT

4.1 Compost sock for perimeter berm will be paid for by the linear foot to the nearest 1 foot. Measurement will be along the top of each continuous run complete in place.

BASIS OF PAYMENT

5.1 The accepted quantity of compost sock for perimeter berm will be paid for at the Contract unit price per linear foot installed. No additional payment will be made for overlaps, splices or the anchoring of the system.

Add to Pay items and units:

| 645.512 | Compost Sock for Perimeter Berm | Linear Foot |

END OF SECTION
SPECIAL PROVISION
SECTION 645 -- EROSION CONTROL

This special provision amends section 645 as follows:

**Delete** 1.2.1 in its entirety

**Amend** 3.1.1 to read:

3.1.1 Prior to the start of any land disturbance activities, the Contractor shall submit four sets of the Storm Water Pollution Prevention Plan (SWPPP) described in 3.2 for approval for clearing, grubbing, grading, drainage and bridge structures, especially in or adjacent to existing waters, water courses and wetlands. The Engineer’s review time will be proportional to the complexity of the SWPPP and will be within 15 working days. No work requiring erosion/sediment control shall commence until the SWPPP has been approved. Names of designated personnel to perform field monitoring shall be included in the submittal. The SWPPP may be submitted in phases or for specific construction areas addressing the maximum open area allowed in section 3.1.4. Only work within areas covered by an approved SWPPP will be allowed to be performed.

**Amend** 3.2.1.1 to read:

3.2.1.1 Qualifications for the SWPPP Preparer include a minimum of 5 years experience or knowledge of highway and bridge construction operations, with knowledge of methods of construction, demonstrated knowledge of erosion and sediment control and stormwater management measures.

**Amend** 3.2.4 to read:

3.2.4 Project work may be suspended, wholly or in part, with no extension of time or additional compensation for failure to implement and maintain the approved SWPPP, including modifications.

**Replace** 4.7 in its entirety with the following:

4.7 Monitoring SWPPP and Erosion and Sediment Control will be measured by each site visit required in 3.2.3.1 or as requested by the Engineer. Each site visit will include all travel time, time spent monitoring the construction site(s) and off-site areas specified in 3.2.2.2 and monitoring report preparation. For a site visit to be measured for payment in accordance with 5.6.2., time on site shall not be less than one half (½) hour. Site visits of less than (½) hour will not be measured or paid for. Monitoring Erosion and Sediment control will not be measured when there is no item for this work.

**Replace** 5.7 in its entirety with the following:

5.7 The accepted quantities of Monitoring Erosion and Sediment Control will be paid for at the contract unit price per each visit.

**Replace** 5.7.1 in its entirety with the following:
5.7.1 Travel time and other time not spent at the construction site(s) or off-site areas and support services (i.e. report preparation, travel expenses, clerical staff, copying, miscellaneous expenses, overhead) will be included in the contract unit price per each visit.

_Delete_ the following Pay items and units:

645.71 Monitoring SWPPP and Erosion and Sediment Controls Hour

_Add_ the following Pay items and units:

645.71 Monitoring SWPPP and Erosion and Sediment Controls Each

END OF SECTION
SPECIAL PROVISION
ITEM 697.11 - INVASIVE SPECIES CONTROL AND MANAGEMENT PLAN

This section is intended to provide and pay for certain Plans associated with project construction.

DESCRIPTION

1.1 This work shall consist of providing an Invasive Species Control and Management Plan, which includes detailing the specific method(s) of controlling the spread of the identified invasive species, and the continued monitoring and management of invasive plant species found on the site for the duration of the contract.

CONSTRUCTION REQUIREMENTS

3.1 Develop an Invasive Species Control and Management Plan detailing specific measures to control identified invasive plant species within the project area.

3.1.1 The Invasive Species Control and Management Plan shall include updating, modifying, and revising the Plan as appropriate and/or as directed by the Resident Engineer; monitoring existing invasive plant species for the duration of the project; and taking measures to not encourage the establishment of invasive plant species within the project limits.

3.1.2 The Invasive Species Control Plan shall also consist of but not be limited to the following:

- List of plants that were identified within project limits as shown on the plans.
- Appropriate Best Management Practices that will be utilized to prevent the spread of these plants during construction.
- A proposed schedule that describes the sequence of BMPs relative to construction activities.
- If Type II plants are to be excavated, the extent of excavation needs to be noted.
- A preliminary plan showing approximate locations of any proposed disposal area within the project limits, including areas where plants will be buried or stockpiled.
- If invasive plant material or soil that contains invasive plant material will be transported, the method of transport needs to be described.
- If invasive species are to be transported off-site, when allowed, the method of transport needs to be described as well as the terminus of plant material.
- A general overview should be given of how invasive plants will be managed throughout construction, including but not limited to:
  - monitoring of newly established slopes;
  - proposed methods of eradication of any plants that appear in new areas as a result of construction activities and re-growth;
  - general BMPs such as cleaning of equipment, location of staging areas, and importation of weed-free materials, see Invasive Species Special Attention.
3.2 Invasive Species Control and Management Plan shall be submitted for approval to the Resident Engineer and be compliant with NHDOT’s “Best Management Practices for Roadside Invasive Plants” Manual available on-line at www.nh.gov.dot/bureau/environment/documents.htm and include the continued management of invasive plants during the duration of the project.

3.3 The Contractor shall perform the work necessary to control, remove and dispose of the invasive plant species found on the site as directed and in accordance with Special Provision, Amendment to Section 201 – Clearing and Grubbing, Item 201.881 – Invasive Species Control Type I and/or Item 201.882 – Invasive Species Control Type II.

**METHOD OF MEASUREMENT**

4.1 Invasive Species Control and Management Plan will be measured as a unit.

**BASIS OF PAYMENT**

5.1 Invasive Species Control and Management Plan will be paid for at the Contract unit price.

Pay item and unit:

697.11 Invasive Species Control and Management Plan Unit

END OF SECTION
Appendix A

Nashua Conservation Commission Favorable Recommendation Letter
June 20, 2017

Ms. Kimberly Peace, Senior Environmental Coordinator
Hoyle, Tanner & Associates, Inc.
150 Dow Street
Manchester, NH 03101

Re: Construct a Pedestrian bridge to connect the Nashua Heritage Rail Trail to Mines Falls Park crossing the canal in the vicinity of Everett Street (State Project # 40429).

Dear Ms. Peace,

Your application for the above referenced project received a favorable recommendation from the Nashua Conservation Commission (NCC) at their special meeting held on June 19, 2017 with the following stipulations:

1. Request the proper removal of all Invasive species within the impacted area of the project.

2. The addition of bollards at the bridges entrances to discourage ATV traffic from entering Mines Falls Park.

The next step you will need to take is to apply for a special exception from the Zoning Board of Adjustment, per NRO Section 190-114 Wetland application (E). Please contact Carter Falk, Deputy Planning Manager at (603) 589-3116 regarding that application process. It is also the owner's responsibility to submit any required applications to state agencies as may be needed for your particular project. Adherence to the dates and requirements identified in this letter and any included on the plans is important. If you have any questions about this letter or your responsibilities, please contact Scott McPhie at (603) 589-3111.

Respectfully,

Scott McPhie, Staff
Nashua Conservation Commission

cc: Sarah Marchant, Community Development Director
Carter Falk, Deputy Zoning Administrator
Madeline Mineau, PhD, Waterways Manager
Conservation File
Appendix B

Nashua Zoning Board Special Exception
July 12, 2017

Ms. Kimberly Peace, Senior Environmental Engineer  
Hoyle, Tanner & Associates, Inc.  
150 Dow Street  
Manchester, NH 03101  

RE: City of Nashua (Owner) 10 Whipple Street, specifically at the vicinity of the Ledge Street/Everett Street intersection, (Sheet E Lot 1487) requesting special exception to work in the 75-foot prime wetland buffer of the Nashua Canal to construct a pedestrian bridge to cross the Nashua Canal to connect to the Mine Falls Park Trail System. GI/MU Zone, Ward 4.

Dear Ms. Peace;

Your recent application for the above referenced special exception was GRANTED by the Zoning Board of Adjustment at their meeting on July 11, 2017, with the following stipulations and/or reasons for granting:

1) Use listed in the Table of Uses, Section 190-112.

2) The use will not create undue traffic congestion or unduly impair pedestrian safety.

3) No overload to public utilities or other municipal systems, per testimony.

4) Special regulations are fulfilled per testimony.

5) The Board determined that the use will not impair the integrity or be out of character with the neighborhood, or be detrimental to the health, morals or welfare of the residents.

Special Conditions:

1. Per the Conservation Commission approval dated 6-19-17 with two stipulations.
IMPORTANT INFORMATION:

Per RSA 677:2, any party to the action or proceedings, or any person directly affected by any order or decision of the Zoning Board of Adjustment may apply for a rehearing within 30 calendar days following the date of decision. Building permits issued during this appeal period are at the sole risk of the owner/applicant.

A variance or special exception shall be null and void two (2) years from the date of its approval if, within this period a building permit or sign permit has not been secured or, in the case of a variance or special exception relating to lot area, preliminary or final subdivision/site plan approval, is not obtained. Proper permits are required before the erection of any sign, construction, or subdivision/site plans are commenced.

Granting of the variance or special exception does not relieve the owner/applicant of the requirement to obtain Planning Board approval for site plan, preliminary or final subdivision of land. Please contact the Planning Department to determine whether Planning Board approval will be necessary.

The Zoning Board of Adjustment appreciates your cooperation in this matter. Should you have any questions regarding this notice, please contact Carter Falk at 589-3090.

Respectfully,

[Signature]

ZONING BOARD OF ADJUSTMENT
City of Nashua, New Hampshire

CF/cf

Cc:  Sarah Marchant, Community Development Director
     Roger L. Houston, Planning Director
     Madeline Mineau, PhD, Waterways Manager
     Scott McPhie, Planner 1
     Bill McKinney, Building Manager
     Mark Collins, Plans Examiner
Appendix C

NHDOT Environmental Commitments Memo
STATE OF NEW HAMPSHIRE
INTRA-DEPARTMENT COMMUNICATION

DATE August 3, 2017

FROM Kevin T. Nyhan
Administrator

AT (OFFICE) Department of
Transportation

SUBJECT Environmental Commitments Memo

NASHUA
X-A004(400)
40429
Heritage Rail Trail Connection to Mine Falls Park

Bureau of
Environment

TO Tom Jameson
Project Manager
Bureau of Planning & Community Assistance

An environmental document has been prepared for the subject project. A fully executed copy of this memorandum and the environmental document are available on the v:\drive at:
V:\TownsqNashua\40429\Environment Commits.pdf and Envdoc.pdf respectively. In addition, this memorandum has been uploaded to the project "Document Center" in ProMIS.

In accordance with Stipulation IV.A.1.a. of the Programmatic Agreement executed by the Department and the Federal Highway Administration on 05/04/2016, the subject project has been determined to qualify for processing programatically as a Categorical Exclusion (CE) (effective 08/03/2017). In documenting this CE, the Department has identified the applicable CE action number (#3), ensured that any constraints or conditions are met, verified that unusual circumstances do not apply, and has addressed any and all other environmental approvals. As such, this concludes the NEPA process.

The NEPA process for this project began on or about 10/01/2016, and was completed on 08/03/2017.

Environmental commitments have been made as noted on page 6 of the environmental document, and as detailed below:

1. The Contractor shall prepare an Invasive Species Control and Management Plan relevant to the species identified in the site survey and in adherence to NHDOT’s “Best Management Practices for Roadside Invasive Plants”.
2. Strict erosion and siltation control measures shall be utilized during construction to protect the integrity of the Nashua Canal. The project contractor shall be required to submit a professionally prepared Stormwater Pollution Prevention Plan (SWPPP) prior to the commencement of construction. Standard pollution prevention measures shall be employed to assure that all negative impacts are avoided and/or minimized to the maximum extent practicable. The project contractor shall be required to adhere to all conditions posted in the SWPPP. Stormwater treatment measures shall be evaluated during final design.
3. Soil testing shall occur in any areas of soil disturbance to ensure contamination is identified and sufficiently addressed per NHDES regulations.
4. Construction vehicles shall not be stored, serviced, washed or flushed in a location where leaks, spills, waste materials or cleaners shall be introduced into wetlands or watercourses.
5. Maintenance or refueling of equipment and vehicles shall occur at least 150 feet from wetlands or watercourses at a location where drainage is directed away from the river.
6. Absorbent material shall be placed on the ground prior to refueling to catch spills that may occur, and shall be removed after construction is completed.

7. Heavy equipment operation will cause temporary increases in noise and dust levels during construction. All standard measures shall be used to ensure that these increases are minimized to the extent practicable and limited to the construction phase.

8. Access to all properties shall be maintained throughout construction.

9. All required state and federal and local environmental permits shall be received prior to construction.

10. All sighting of dead or sick bats shall be immediately reported to the Bureau of Environment, 271-3226.

11. The Northern Long-Eared Bat Flyer shall be shared with all operators, employees, and contractors working on the project and operators, employees, and contractors shall be made aware of all applicable environmental commitments.

Project classification is contingent upon successful implementation of these environmental commitments.

Please be advised, if project changes occur this bureau should be consulted to determine if a follow-up review of environmental impacts is required.

KTN:ktn

Encl.

c.c. T. Jameson, via E-mail
    R. Radwanski, via E-mail
    R. Crickard, via E-mail
    C. Schmidt, via E-mail
    T. Morrison, via E-mail
    J. Sikora, via E-mail
Appendix D

Invasive Species Letter Report
Dear Mr. James:

TES Environmental Consultants, L.L.C. (TES) has prepared this report to document the physical and biological characteristics of the wetlands and surrounding lands in the vicinity a proposed City of Nashua trail and pedestrian bridge project off Ledge Street in Nashua, and to evaluate the functions and values associated with those wetlands. These observations are provided in support of the Survey Scope of Services related to the proposed project.

An on-site investigation was performed by TES on August 8, 2016 to delineate the boundaries of wetlands in the vicinity of the bridge and to observe the characteristics of the wetlands and the upland portion of the surroundings. The wetland delineation was performed according to the standards of the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0, January 2012, US Army Corps of Engineers. The observations made during this field effort, along the following published information, form the basis for this wetland functional assessment:

- USGS Nashua North, NH Quadrangle, 7.5 minute series topographic map
- Aerial photographs from Google Earth and other sources
- USDA-NRCS Soil Survey of Hillsborough County (Eastern Part), New Hampshire (via Web Soil Survey)
- National Wetlands Inventory map
- NH Natural Heritage Program Datacheck Program
- US Army Corps of Engineers The Highway Methodology Workbook – Supplement

Site Characterization

Uplands. Most of the upland areas in the vicinity of this survey area are developed residential and industrial properties, including a berm along the western side of an old canal (identified as the “Nashua Power Canal” on a sign at the entrance to Mine Falls Park – Figure 1) that now serves as a recreational trail. To the west of the berm, a sloping forest extends towards an oxbow pond and marsh complex known as “The Cove” that is associated with the Nashua River, further to the west and north. This forest is dominated by deciduous trees including cottonwood (Populus deltoides), boxelder (Acer negundo), and black oak (Quercus velutina) on moderate to steep slopes. A small landscaped park
exists on the east side of the canal (Figure 2). Upland soils in the vicinity of the survey area are shown in the Soil Survey of Hillsborough County (Eastern Part) as being Windsor loamy sand (WdD) and Windsor-Urban Land complex (WnC). These soils developed in deep sandy glacial outwash parent material.

**Wetlands.** The sole jurisdictional wetland features within the survey area consist of the Nashua Power Canal and its banks (Figure 3). On August 8, 2016, a TES wetlands scientist delineated and flagged the boundaries of wetlands with numbered pink and black striped flags, as well as the locations of jurisdictional bank which were marked with numbered blue and white striped flags. The wetlands limits and bank along the eastern side of the canal were not flagged due to inaccessibility related to the presence of a stone retaining wall topped by a chain link fence. The limit of wetlands jurisdiction in this area consists of the base of the stone retaining wall which was located by field survey, as were the wetland and bank flags along the western side of the canal.

The canal is identified as open water (W) in the Soil Survey of Hillsborough County (Eastern Part), and extends westward approximately one mile to Mill Pond. The classification of the canal in accordance with the U.S. Fish and Wildlife Service’s *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979) would be Riverine, Lower Perennial, Aquatic Bed, Rooted Vascular, Permanently Flooded, Impounded (R2AB3Hh). Vegetation along the canal banks includes grape (*Vitis* spp.) and bittersweet (*Celastrus orbiculatus*) vines, silky dogwood (*Cornus amomum*), elderberry (*Sambucus canadensis*), spotted jewelweed (*Impatiens capensis*), and deer tongue (*Dichanthelium clandestinum*). Aquatic vegetation in the canal (Figure 4) includes white water lily (*Nymphaea odorata*) and variable milfoil (*Myriophyllum heterophyllum*).

The canal was observed to have a warmwater fish population including bluegill sunfish (*Lepomis macrochirus*), which was observed as juveniles (1”- 3” length) and adults (up to 6” length). Other warmwater fish species are also likely present but were not observed. One belted kingfisher (*Megaceryle alcyon*), a bird species that feeds primarily on fish, was observed at the canal.

**Vernal Pools.** No vernal pools were observed within or adjacent to the survey area, using the New Hampshire Department of Environmental Service definition of vernal pool at Env-Wt 101.106, delineation methods at Env-Wt 301.01(f), and guidelines for identifying and describing vernal pools given in “Identification and Documentation of Vernal Pools in New Hampshire” published by the New Hampshire Fish and Game Department.

**Invasive Plant Species.** The lands within the survey area for this project were investigated for the presence of invasive plants identified in the New Hampshire Department of Transportation (NHDOT) Best Management Practices for Roadside Invasive Plants. Bittersweet (*Celastrus orbiculatus*) vines were observed along the sides of the trail and in the forest to the west, along the east bank of the canal in the chain link fence, and near utility poles along Everett Street. Purple loosestrife (*Lythrum salicaria*), European buckthorn (*Rhamnus frangula*) and Japanese barberry (*Berberis thunbergii*) were noted as being present in moderate numbers below the stone retaining wall along the east bank of the canal. Above this retaining wall, several Norway maple (*Acer platanoides*) trees were observed in the small park between the canal and Ledge Street. Also, variable milfoil (*Myriophyllum heterophyllum*) was noted to occupy much of the canal bottom, which was observed to be composed of soft mud beyond a narrow fringe of sand along the canal banks.
Each of these species is non-native and considered to be invasive, often supplanting native plants that tend to have higher habitat value for wildlife. However, control of these invasive plants is usually difficult if not impossible to achieve, and even if effective, control measures are often temporary in nature. Existing populations of these plants outside of the control area tend to re-colonize quickly. Also, use of herbicides to control aquatic or terrestrial vegetation has the potential to cause unintended harm to native vegetation or other elements of the environment. Therefore, attempts at control of the invasive plants noted within this survey area are not recommended, especially given the modest scope of the project. One possible exception would be the removal of the Norway maple trees in the Ledge Street Park, which could be replaced by other planted tree species. However, the costs associated with this effort and the time required to grow trees to an effective height to provide shade for park patrons probably outweigh the benefits of removal of an invasive species that exists throughout the urban and suburban vicinity.

**Wetland Functional Assessment Methodology**

Wetland functions and values, and their significance were evaluated using the US Army Corps Highway Methodology guidelines. The following is a list of the 14 wetland functions and values with a brief description of each.

1. **Groundwater Recharge** should relate to the potential for the wetland to contribute water to an aquifer (often combined with the following).
2. **Groundwater Discharge** should relate to the potential for the wetland to serve as an area where ground water can be discharged to the surface.
3. **Floodflow Alteration**: This function considers the effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.
4. **Fish and Shellfish Habitat**: This function considers the effectiveness of seasonal or permanent water bodies associated with the wetland in question for fish and shellfish habitat.
5. **Sediment/Toxicant/Pathogen Retention**: This function relates to the effectiveness of the wetland as a trap for sediments, toxicants or pathogens.
6. **Nutrient Removal/Retention/Transformation**: This function relates to the effectiveness of the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers or estuaries.
7. **Production Export**: This function relates to the effectiveness of the wetland to produce food or usable products for humans or other living organisms.
8. **Sediment/Shoreline Stabilization**: This function relates to the effectiveness of a wetland to stabilize stream banks and shorelines against erosion.
9. **Wildlife Habitat**: This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and or migrating species must be considered.
10. **Recreation**: This value considers the effectiveness of the wetland and associated watercourses to provide recreational opportunities such as canoeing, boating, fishing, hunting and other active or passive recreational activities. Consumptive opportunities consume or diminish the plants, animals or other resources that are intrinsic to the wetland, whereas non-consumptive opportunities do not.
11. **Educational/Scientific Value**: This value considers the effectiveness of the wetland as a site for an “outdoor classroom” or as a location for scientific study or research.
12. Uniqueness/Heritage: This value relates to the effectiveness of the wetland or its associated water bodies to produce certain special values. Special values may include such things as archeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geological features.

13. Visual Quality/Aesthetics: This value relates to the visual and aesthetic qualities of the wetland.

14. Threatened or Endangered Species Habitat: This value relates to the effectiveness of the wetland or associated water bodies to support threatened or endangered species.

Wetland Functions and Values in the Survey Area

The functions and values of sole wetland in the survey area, the Nashua Power Canal, correlate to the presence of permanent surface water, significant existing recreational usage, the historic industrial origins of the canal, and the developed residential and industrial setting. The canal, though an artificial, impounded waterway, provides a warmwater aquatic environment with a low gradient and very slow flow, and a general lack of shading tree cover along its banks. The canal is capable of supporting warmwater species of freshwater fish such as sunfish (bluegill sunfish observed), chain pickerel (Esox niger), brown bullhead (Ameiurus nebulosus), and others. The small surface area of the canal (approximately 40 feet wide) and its limited depth (approximately 5-6 feet), however, limit the numbers, species and size of fish present.

Of the 14 recognized potential functions and values of wetlands, all but two are considered to be present at some level, and five rise to principal or significant levels within this wetland resource:

- sediment/toxicant retention,
- nutrient removal,
- recreation,
- educational/scientific value, and
- uniqueness/heritage.

Sediment/toxicant retention and nutrient removal are present at significant levels due to the sources or potential sources of sediment, nutrients and other pollutants from the developed surroundings that the canal is able to retain and attenuate due to the slow flow of water, fairly dense aquatic vegetation that helps to filter contaminants in the water column and perhaps transform them into plant matter, and organic sediments that may bind with contaminants. These processes minimize or prevent these pollutants from migrating downgradient into other wetland and surface water resources.

Existing recreational use of the canal and adjacent trail (Figure 4) include activities such as walking, bicycling, fishing, canoeing/kayaking, and opportunities for passive recreation such as wildlife observation are present as well, resulting in a high level of value to the community. In addition to the pedestrian/bicycle path, a small seasonal dock is present (Figure 3), and a series of wooden steps/sediment retention timbers lead downslope to the west of the trail near the dock and towards “The Cove,” facilitating access to other trails and surface waters that offer additional recreational opportunities. Public access is available through a municipal property abutting the northern end of the trail, as well as from the trail which extends to the west and connects to athletic fields off Whipple Street near the Everett Turnpike, as well as a trail along the Nashua River.
This ample public access also contributes to two additional wetland values: educational/scientific value and uniqueness/heritage. The potential for parking of school buses on the municipal property to the north provides a controlled, safe access for holding “outdoor classrooms” for nearby schools for environmental and historical education, as well as potential scientific research opportunities. This access, as well as the origins of the canal as a means of diverting water from the Nashua River for water power for early industrial uses, provide insights into the industrial development of the city.

Two potential functions or values of wetlands that are considered to be essentially absent in this setting include sediment/shoreline stabilization and endangered species habitat. Stabilization of the canal sediment and its banks results from the slow nature of the flow in the canal and lack of large waves, as well as the lack of vegetated wetlands along the banks that are capable of buffering the banks from erosive forces. Also, in the vicinity of Ledge Street, the eastern canal bank is formed by a grouted stone retaining wall rather than a vegetated wetland. A New Hampshire Natural Heritage Bureau preliminary computer datacheck was performed to assess the potential for the presence of threatened or endangered species in the vicinity. Although this datacheck resulted in a finding of such species potentially existing within one mile of the eastern end of the canal, it is highly doubtful that these species utilize the canal as critical habitat due to its artificial origins and common nature.

In general, potential projects to increase the recreational opportunities currently provided by the Mine Falls Park trail, such as the proposed pedestrian footbridge, would only enhance the canal’s recreation and educational/scientific values, and would not adversely affect any of the other functions or values provided by the canal.

Please feel free to call with any questions or comments regarding this report.

Sincerely,

Thomas E. Sokoloski
New Hampshire Certified Wetland Scientist #127
Wetland Function-Value Evaluation Form

<table>
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<tr>
<th>Function/Value</th>
<th>Occurrence</th>
<th>Rationale (Reference #)*</th>
<th>Principal Function(s)/Value(s)</th>
<th>Comments</th>
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<td>Nutrient Removal</td>
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<td>Opportunity (source) and capability both present.</td>
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<td>Production Export</td>
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<td>Sediment/Shoreline Stabilization</td>
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<td>Educational Scientific Value</td>
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Notes:
* Refer to back up list of numbered considerations.
APPENDIX E

City of Nashua
Generator Profile Form
Generator Profile

1. Generator Information

Name: __________________________ Address: __________________________

Contact: __________________________

Phone: __________________________ E-mail: __________________________

2. Site Information

Name: __________________________ Address: __________________________

Type of Facility: __________________________

3. Type of Material

________ Petroleum contaminated soil ________ Catch basin grit ________ Clean soil

________ Street sweepings ________ Other contaminated soil

4. Quantity

______ Tons

5. Please provide a brief description of the material including source and type of contamination (leaking tanks, spill, vehicle accident, etc.); the type of soil; and any debris or other potential contaminants. i.e. clay, asbestos, trash, metal, etc.
6. Attach other Generator Documentation and/or Laboratory Analyses

7. Generator’s Certification

To the best of my knowledge the waste represented by this waste profile is not considered a hazardous waste by USEPA standards and does not contain asbestos, radioactive material or polychlorinated biphenyls (PCB’s). I certify that the information provided in this profile and any supporting analytical data accurately represents the material to be shipped to the Four Hills Landfill, 840 West Hollis Street, Nashua, NH. All analytical was performed by a State of NH certified lab. Further, I am authorized to sign on behalf of the Generator.

Generator Signature: ________________________  Title: __________________________

Name (Type or Print): ________________________  Company Name: __________________

CITY USE ONLY

Approver: ____________________  Approval Date: ________________

Waste Type: ____________________  Final Disposition: ________________