



Project Manual Kingston Wetland Restoration

Kingston Township, Minnesota

Prepared for:

CLEARWATER RIVER WATERSHED DISTRICT

75 Elm Street East, Box 481
Annandale, Minnesota 55302

Prepared by:

WENCK ASSOCIATES, INC.

1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, Minnesota 55359-0249
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SPECIFICATIONS FOR
KINGSTON WETLAND RESTORATION
KINGSTON TOWNSHIP, MINNESOTA

for

THE CLEARWATER RIVER-WATERSHED DISTRICT

FOR: CLEARWATER RIVER WATERSHED DISTRICT
75 Elm Street East, Box 481
Annandale, MN 55302

PREPARED BY: WENCK ASSOCIATES, INC.
1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, Minnesota 55359-0249
Telephone: (763) 479-4200
Facsimile: (763) 479-4242
Wenck File #1886-05

DECEMBER 2012

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Minnesota.

Date: December 21, 2012



Rebecca Kluckhohn, P.E.

Registration No: 42013

SECTION 00005

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SECTION 00010

ADVERTISEMENT FOR BIDS

December 2012

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota
Pre-Bid Meeting: January 17, 2013, 1:00 PM at Wenck Associates Maple Plain office, this meeting is mandatory
Bids Close At: January 25, 2013, 1:00 PM

1.1 NOTICE TO CONTRACTORS

Sealed Bid Proposals for the furnishing of all labor, materials and all other items necessary to complete the work described herewith, will be received by Wenck Associates, Inc. at its office located at 1800 Pioneer Creek Center, Maple Plain, MN, until 1:00 PM, January 25, 2013, at which time such bids will be opened and read aloud. The work, in accordance with drawings and specifications prepared by Wenck Associates, Inc. consists of the following major items of work:

- Tree removal, clearing and grubbing
- Removal of channel obstruction (beaver dam) approximately 500 LF downstream of CSAH 15
- Creek channel reconstruction which includes excavation and disposal of materials
- Riffle installation
- Construction of a diversion berm
- Demolition of existing concrete channel diversion
- Construction of a limestone rock filtration berm
- Erosion control and site restoration
- Installation of an owner-furnished fish barrier

Contractors desiring a copy of the bid package, plans, specifications and proposal forms may obtain them from the offices of Wenck Associates, Inc., 1800 Pioneer Creek Center, Maple Plain, MN. There is a required payment of a \$65.00 **non-refundable** fee for each bid package. The bid package is available for examination at the Wenck office, 1800 Pioneer Creek Center, MN and at the Clearwater River Watershed District office at 75 Elm Street, Annandale MN 55302. All communications made prior to bid opening, relative to this project, should be addressed to the ENGINEER Attn: Rebecca Kluckhohn, Project Engineer, rkluckhohn@wenck.com or 763-479-4200.

Bid Proposals shall be submitted on forms furnished for that purpose.

Each bid proposal shall be accompanied by a "Bid Security" in the form of a certified or cashier's check made payable to Clearwater River Watershed District ("OWNER") in an amount not less than five percent (5%) of the total bid, or a surety bond in the same amount, running to the OWNER, with a surety company duly authorized to do business in the state of Minnesota, such Bid Security to be a guarantee that the bidder, if awarded a contract, will enter into a contract with Clearwater River Watershed District; and the amount of the certified check will be retained or the bond enforced by the OWNER in case the bidder fails to do so. The OWNER will retain the deposits for the three lowest bidders until the contract

has been awarded and executed but not longer than sixty (60) days. No bid may be withdrawn for a period of sixty (60) days following the bid opening.

A mandatory PRE-BID meeting will be held at the Wenck Maple Plain office at 1:00 PM January 17, 2013. Potential Bidders and sub-contractors are required to attend this meeting.

The bid of the lowest responsible bidder is intended to be accepted on or before the expiration of sixty (60) days after the date of the opening of bids. The OWNER, however, reserves the right to reject any or all bids and to wave any minor irregularities, informalities or discrepancies, and further reserves the right to award the contract in the best interest of Clearwater River Watershed District.

END OF SECTION

SECTION 00020

INSTRUCTIONS TO BIDDERS

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota
Pre-Bid Meeting: January 17, 2013, 1:00 PM at Wenck Associates Maple Plain office, this meeting is mandatory
Bids Close At: January 25, 2013, 1:00 PM

The attached Specifications, including drawings incorporated by reference and a complete set of forms of Bid Proposal, Bid Bond, Agreement, and other Contract Documents, are furnished for the convenience of bidders and are not to be detached, filled out or executed. Separate copies of Bid Proposal forms will be furnished for the purpose of submission of bids. In submitted Bid Proposals, bidders shall comply with the following instructions that shall control as to the submission of bids.

Bidders are responsible to review insurance requirements and ensure that conforming certificates and endorsements can be provided as required.

1. DEFINED TERMS

- A. The term "Mn/DOT" in reference to a specification shall mean the latest published edition of the Minnesota Department of Transportation's Standard Specifications for Highway Construction, as modified by any Mn/DOT Supplemental Specification edition published prior to the date of the Advertisement.
- B. The term "Bidder" means one that submits a Bid directly to OWNER, as distinct from a sub-contractor.
- C. The term "Successful Bidder" means the lowest, qualified, responsible and responsive Bidder to whom OWNER (on the basis of OWNER'S evaluation as hereinafter provided) makes an award. The Successful Bidder becomes the CONTRACTOR upon execution of the Agreement.
- D. The term "Bidding Documents" includes these Instructions to Bidders, the Bid Proposal, and the other Contract Documents (including all addenda issued prior to receipt of Bids).
- E. The term "Bidding Requirements" means those set forth in this Information Available to Bidders and on the Bid Form and otherwise in the Contract Documents.
- F. The term "Mn/DOT" means Minnesota Department of Transportation.
- G. The term "ENGINEER" means Wenck Associates, Inc.

2. CONTRACT DOCUMENTS

The Contract Documents shall consist of the following:

- Change Orders
- Notice to Proceed
- Addenda
- Notice of Award
- Agreement
- Instruction to Bidders
- Contract Drawings
- Technical Specifications
- Payment Bond
- Performance Bond
- Insurance
- Supplementary Conditions
- General Conditions
- Completed Bid Form
- Advertisement for Bids
- Prevailing Wages

Appendices to the Specifications are part of the Contract Documents.

In the case of a discrepancy between or among any of the technical terms and conditions set forth in any of the Contract Documents, the condition or term discrepancy shall be resolved by applying the Contract Documents in the order of priority listed above.

Technical terms used in a Contract Document shall have the meaning given by a specific definition of the term in that document, or if there is not a specific definition, the term shall be governed by common understanding within engineering practice.

3. COPIES OF PROPOSED CONTRACT DOCUMENTS

- A. Complete sets of the proposed Contract Documents may be obtained from the ENGINEER for the deposit sum stated in the Advertisement for Bids. Plans and specifications shall only be available on a non-refundable, per set basis, with all contractors and vendors being charged the same. Plan holders may obtain more than one set of plans and specifications for the stipulated amount; however, all are non-refundable.
- B. Complete sets of the proposed Contract Documents must be used in preparing Bids. Neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of the Contract Documents.

- C. OWNER and ENGINEER, in making copies of the Contract Documents available on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant permission for any other use.

4. QUALIFICATIONS OF BIDDERS

- A. All Bidders shall submit to OWNER written documentation which demonstrates the Bidder's ability to complete the Work as specified and to demonstrate qualifications to perform the Work. Written documentation, including a copy to the ENGINEER, shall be received by the OWNER along with the Bid. This documentation shall include a description of present commitments; description of the Bidder's project experience on three similar projects in the past five years including nature of project, owner's name, dollar value and name of bonding company; a description of the Bidder's equipment, key personnel and resources which demonstrate the Bidder's ability to successfully complete the Work; a list of subcontractors Bidder proposes to use; and such other information the OWNER believes is necessary to judge Bidder's ability and qualifications.

5. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- A. It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents and become thoroughly familiar with all terms, conditions, and requirements; (b) visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work; (c) consider federal, state and local Laws, Codes, Ordinances, and Regulations that may affect cost, progress, performance or furnishing of the Work; (d) study and carefully correlate Bidder's observations with the Contract Documents; and (e) notify ENGINEER of all conflicts, errors or discrepancies in the Contract Documents.

- B. Reference is made to the General Conditions for identification of:

1. Existing Structures: All existing above-ground and below-ground structures at the site may not be shown on the Drawings and Bidder shall be responsible to take reasonable steps to verify the existence and location of all above and below ground structures. Bidder's Bid shall include the costs necessary for the performance, progress, furnishing, and installing of the Work as it relates to existing above-ground and below-ground structures.

(a) The OWNER and ENGINEER do not imply that the existing above-ground and below-ground structure information represented by the Drawings is necessarily representative, exhaustive, or comprehensive and expressly disclaim any warranties as to their accuracy or reliability for Bidder's purposes or purposes of construction. The Bidder may use this information and the data Bidder judges appropriate, but Bidder is not entitled to rely on any of the information, technical data, non-technical

data, interpretations, or opinions contained therein or the completeness thereof. Bidder's reliance on such for Bidder's purposes is solely at Bidder's own risk.

(b) The OWNER and ENGINEER have no reliable information regarding the existence of subsurface structures other than those indicated in the Drawings, which are at or contiguous to the Work. If the Bidder suspects or verifies the existence of subsurface structures which may affect the cost, performance, progress, furnishing, or installing of the Work in accordance with the Contract Documents prior to the time for the opening of bids, the Bidder shall notify OWNER and ENGINEER promptly, in writing, of the conflict. If such an existing subsurface structure is located at any time thereafter, OWNER and ENGINEER may consider the existing subsurface structure under the provisions for differing conditions as set forth in the General Conditions.

2. Underground Facilities and Utilities: Information and data concerning underground facilities and utilities at or contiguous to the site, and known to OWNER and ENGINEER, are available for review by any Bidder at the ENGINEER'S office by appointment but are not a part of the Contract Documents. OWNER and ENGINEER do not imply that this information is necessarily representative, exhaustive, or comprehensive and expressly disclaim responsibility for or any warranties as to its accuracy. Whether underground facilities and utilities are shown or indicated, or not shown or indicated, on the Drawings the CONTRACTOR shall have the full responsibility for locating all underground facilities and utilities prior to the performance of all elements of the Work. The additional responsibilities of Bidder regarding underground facilities and utilities are set forth in the General Conditions.
- C. Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain such reasonable additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, underground facilities and utilities) at or contiguous to the site or otherwise which may affect the cost, progress, performance or furnishing of the Work, and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents. Bidder's failure to conduct or perform such reasonable examinations, investigations, explorations, tests, and studies or obtain additional information, shall represent that Bidder's Bid has included adequate cost contingencies as Bidder deems necessary for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.
- D. This project is located on privately owned land and within an access easement. Access to the site by Bidders shall be arranged solely through the Clearwater River Watershed District. It is the Bidder's responsibility to obtain access to the site to conduct such explorations and testing as Bidder deems necessary for submission of a

Bid. Bidder shall be responsible for restoration of all such lands to a condition equal to or better than the existing condition of such lands.

- E. The approximate boundaries of lands upon which the Work is to be performed, rights-of-way, and easements for access thereto, and the construction limits designated for use by CONTRACTOR in performing the Work are identified in the Contract Drawings.
- F. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this section and that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and by such means, methods, techniques, sequences or procedures of construction as may be specifically indicated in or required by the Contract Documents, if any, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work. Except where means, methods, techniques, sequences or procedures of construction are specifically stated herein, the CONTRACTOR shall choose same in order to achieve the specified results.
- G. Permits and easements not specifically provided for by the OWNER shall be the responsibility of the CONTRACTOR and shall be obtained prior to Notice to Proceed. The CONTRACTOR will be required to obtain the following approvals and pay associated fees:
 - Minnesota Pollution Control Agency General Construction Stormwater Permit
 - Any approvals required by Meeker County, excluding Wetland Conservation Act approvals.
 - Any approvals required for dewatering activities CONTRACTOR expects to be required by CONTRACTORS proposed methods of construction.
 - Approvals from the Meeker County for haul routes, traffic control, operating hours, construction methods and access to the site from CSAH 15.

Information on easements and permits obtained by the OWNER are available from the OWNER and will be discussed at the pre-bid meeting.

- H. Prior to the submittal of Bids, if any potential Bidder is in doubt as to the true meaning of the Contract Documents or requires clarifications, that potential Bidder shall submit to the ENGINEER a written request for an interpretation or clarification thereof. The Bidder submitting the request shall be responsible for prompt delivery. Interpretations and clarifications considered necessary by the ENGINEER in response to such requests will be issued by Addenda mailed or delivered to all parties recorded by the OWNER as having received the Contract Documents. Requests received less than five (5) calendar days prior to the date for opening of Bids may not be answered by Addenda. Only interpretations and clarifications

issued by Addenda will be binding. Oral interpretations and clarifications will be without legal effect.

- I. The estimate of quantities as shown in Section 00030, Bid Form, shall be used as the basis for calculation upon which the award of Contract will be made and for calculation of the initial Contract Price, but these quantities are not guaranteed to be accurate and are furnished without liability on the part of OWNER and ENGINEER. The actual quantities of the various items of work performed can be expected to differ from the estimates indicated on the Bid Form and will affect the final Contract Price. The CONTRACTOR shall cooperate with and assist the ENGINEER as necessary to obtain the actual measurements required for the ENGINEER's determination of the actual quantities. The CONTRACTOR may also be required to furnish to the ENGINEER or OWNER's representative, on a daily basis, daily reports stating information such as quantities of work performed, labor force used, hours worked, equipment used, and the amount of time the equipment was operated.
- J. **It is the intent of the Contract Documents to cover all aspects of the Work. Should there be some item or items shown on the Drawings or described in the Specifications that are required to complete the Work, but not specifically included in any of the unit prices on the bid form or as amended by modifications to the Contract, these items and the furnishing of all necessary labor, materials and equipment shall be considered incidental to the Work and no additional compensation will be provided.**
- K. Any Addenda issued during the time of the bidding or forming a part of the Contract Documents acquired by the Bidder for the preparation of a Bid shall be included in the Bid and shall be made a part of the Contract Documents. Receipt of each Addendum shall be acknowledged in the Bid Form. **In submitting a bid, bidder is bound by all issued addenda, whether or not bidder has received them and whether or not bidder acknowledges receipt of addenda on the bid form.**

6. PRE-BID MEETING

The ENGINEER will conduct a Pre-bid meeting at 1:00 pm on January 17, 2013. Plan holders, those planning to submit a bid and sub-contractors are required to attend the meeting.

7. BID SECURITY

- A. Each Bid must be accompanied by Bid Security made payable to the OWNER in an amount of five (5) percent of the Bidder's total base Bid price and in the form of a certified or bank check or a Bid Bond issued by a surety meeting the requirements outlined in the General Conditions.
- B. The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Performance and Payment Bonds and Certificates of Insurance, and Endorsements whereupon the Bid Security will be

returned to CONTRACTOR. If the Successful Bidder fails to execute and deliver the Agreement, Bonds and Insurance documents within ten (10) calendar days after Notice of Award, OWNER may annul the Notice of Award and the Bid Security will be forfeited.

- C. The Bid Security of the second and third low Bidders may be retained for 60 calendar days after the closure of Bids, or if earlier, until a contract is awarded. Bid Securities will be returned at that time. Bid Security of all other Bidders will be returned within ten (10) days after the closure of Bids.

8. CONTRACT TIME

The CONTRACTOR shall commence the Work within five (5) calendar days of the date of the Notice to Proceed. A Notice to Proceed is anticipated after January 25, 2013. Expected milestones and completion dates for certain components of the project are as follows:

Mobilization	Approx. January 28, 2013
Substantial Completion	Approx. March 15, 2013
Final Restoration & Completion	Approx. June 30, 2013

CONTRACTOR shall comply with all other requirements contained in the General Conditions.

9. LIQUIDATED DAMAGES

All time limits stated in the Contract Documents are of the essence in and to the Agreement. OWNER and CONTRACTOR recognize that time is of the essence with regard to completion of the Work, and that OWNER will suffer financial loss, water management opportunity loss and other loss if the Work is not substantially completed by the time specified, plus any extensions thereof allowed in accordance with the General Conditions. Accordingly, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as penalty), CONTRACTOR shall pay OWNER \$500 per working day for each working day that expires after the designated Substantial or Final completion date to compensate OWNER for additional costs related to engineering and administration and other costs for the extended time period. Working days are defined in the General Conditions. Both parties agree that costs and loss specified hereunder are difficult to accurately quantify and that the specified amount is a reasonable approximation of the damages that would be suffered by the OWNER.

10. SUBSTITUTE OR "OR-EQUAL" ITEMS

The Agreement, if a contract is awarded, will be on the basis of materials and equipment described in the Drawings or stated in the Specifications without consideration of possible substitute or "or-equal" items. The procedure for submission of any application and consideration of application for Substitute or "or-equal" materials is set forth in the Specifications.

11. BID FORM

- A. The Bid Form is included with the Specifications/Bid Package and Contract Documents; additional copies may be obtained from the ENGINEER.
- B. The blanks on the Bid Form must be completed in ink or typed.
- C. Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.
- D. Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- E. All names must be typed or printed below the signature.
- F. The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).
- G. The address, telephone number and fax number for communications regarding the Bid must be shown.

12. SUBMISSION OF BIDS

Bids shall be submitted as set forth in the Agreement as follows:

- A. Oral, FAX or email proposals or modifications will not be accepted.
- B. It is the sole responsibility of the Bidder to see that the submitted Bid is received in proper time. Any Bid received after the scheduled closing time for receipt of the proposals will not be considered and will be returned to Bidder unopened.
- C. If a Bid is received from a Bidder when there was required (mandatory) attendance at a Pre-Bid meeting, and said Bidder was not in attendance at the meeting, receipt of the Bid will not be considered and will be returned to the Bidder unopened. If the Pre-Bid meeting attendance was optional and voluntary on the part of the Bidder, all valid Bids will be considered whether or not the meeting was attended.

D. Errors Made by Bidders on the Bid Form Submitted

If there are discrepancies in the multiplication of units of Work shown on the Bid Form with unit prices Bid by Bidder, they will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures

on the Bid Form and the correct sum thereof will be resolved in favor of the correct sum.

- E. All bid proposals shall be submitted on the unaltered forms included with these Contract Documents in Section 00030. The blank spaces on the proposals shall be filled in correctly in ink or typewritten where indicated for each and every item for which a quantity is given, and the Bidder shall clearly indicate the prices for which he/she proposes to do each item of work contemplated. Additional copies of the Bid Form and other forms may be obtained from the ENGINEER.
- F. The Bid Form including required attachments shall be submitted in a sealed envelope clearly marked: "BID PROPOSAL: Kingston Wetland Restoration Project, Clearwater River Watershed District" and shall also include the name of the Bidder.
- G. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a second sealed envelope with the notification "BID ENCLOSED" on its face.
- H. The Bid Proposal shall be delivered to:

Wenck Associates, Inc.
1800 Pioneer Creek Center
Box 249
Maple Plain, MN 55359

Bids must be stamped received by Wenck Associates, Inc. no later than the date and time stated in the Advertisement for Bids, unless modified by Addendum. All other Bids will be returned, unopened to the Bidder.

13. WITHDRAWAL OF BIDS

No Bid Proposal shall be withdrawn except with the consent of the OWNER for a period of sixty (60) days after the date set for the opening of bids, or until the Bid Proposal is returned by OWNER, or the Agreement is executed by the Successful Bidder.

14. OPENING OF BIDS

Bids will be opened publicly and read aloud in such place as designated at the time and the date set in the Advertisement for Bids. Bidders or their authorized agents are invited to be present.

15. BIDS TO REMAIN SUBJECT TO ACCEPTANCE

All bids will remain subject to acceptance for sixty (60) calendar days after the Bid opening, but OWNER may, in its sole discretion, release any Bid and return the Bid Security prior to that date.

16. REJECTION OF BIDS AND AWARD OF CONTRACT

- A. OWNER reserves the right to reject any and all Bids, to waive any and all irregularities, informalities, or discrepancies not involving price, time, or changes in the Work or that do not confer competitive advantage on Bidder and to negotiate contract terms with the Successful Bidder, and the right to disregard all non-conforming, non-responsive, unbalanced or conditional Bids. Also, OWNER reserves the right to reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by OWNER.
- B. If the Contract is to be awarded, it will be awarded to the lowest responsible and responsive Bidder whose evaluation by OWNER indicates to OWNER that the Award will be in the best interest of the Project.
- C. If the contract is to be awarded, OWNER will give the Successful Bidder a Notice of Award within thirty (30) calendar days after the day of the Bid opening.

17. CONTRACT SECURITY

Performance and Payment Bonds in the amount of 100 percent of the Bid will be submitted and maintained by CONTRACTOR in accordance with Sections 00070 and 00080 and the remaining Contract Documents. When the Successful Bidder delivers the executed Agreement to OWNER, the required Performance and Payment Bonds must accompany it.

18. SIGNING OF AGREEMENT

When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within two (2) calendar days thereafter Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER along with the required Bonds, evidence of insurance, and any other required submittals. OWNER or ENGINEER will review required submittals and may require Successful Bidder to make revisions. Successful Bidder shall make required revisions and resubmit to OWNER within two (2) calendar days of OWNER'S request for such revision. Within thirty (30) days upon final receipt of all acceptable materials, OWNER will deliver one (1) fully signed counterpart of the Contract Documents to CONTRACTOR. Each counterpart is to be accompanied by a complete set of the Contract Documents with appropriate identification. Failure to deliver a complete set of Contract Documents does not have the effect of modifying the definition of the Contract Documents.

19. PAYMENT AND RETAINAGE

- A. Provisions concerning progress payments and final payment are set forth in the General Conditions and the other Contract Documents.

B. No payment amounts on account of materials and equipment delivered to the site prior to installation will be made. Progress payments will only be made when materials are completely installed in accordance with the Contract Documents.

C. Retainage shall be 5 percent (5%) of the value of the Work completed to date.

20. PRE-CONSTRUCTION MEETING

Prior to the beginning of construction operations, a pre-construction meeting will be held at which time the CONTRACTOR will supply for the ENGINEER's approval a copy of the CONTRACTOR proposed project schedule as provided for in the General Conditions.

END OF SECTION

SECTION 00025

ADDENDA FORM

Addendum No. _____
to the Specifications/Bid Package for
Kingston Wetland Restoration Project

For: **Clearwater River Watershed District**
75 Elm Street East, Box 481
Annandale, MN 55302
Office: (320) 274-3935
Fax: (320) 274-3975

Prepared By: Wenck Associates, Inc.
1800 Pioneer Creek Center
Box 249
Maple Plain, Minnesota 55359
763-479-4200

Any revisions to any of the Contract Documents made by this Addendum shall be considered as the same revision to any and all related areas of the Contract Documents not specifically called out in the Addendum.

The Bidder shall acknowledge receipt of this Addendum by signing behind the addendum number in the space provided on the BID FORM.

Date: _____

The following clarifications and are hereby made to the Specifications/Bid Package for Kingston Wetland Restoration Project, Meeker County, Minnesota.

Rebecca Kluckhohn, PE

MN Registration No. 42013

Addendum No. ____
To the Contract Documents for
Kingston Wetland Restoration Project
Wenck File #0002-174

Date:
Bids Close: January 26, 2013 at 1:00 P.M. CST

TO ALL BIDDERS BIDDING ON THE ABOVE PROJECT:

All bidders submitting a bid on the above Contract shall carefully read this Addendum and give it consideration in the preparation of their bid. The following are clarifying statements and modifications to the Contract Documents:

END OF SECTION

SECTION 00030

BID FORM

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota
Pre-Bid Meeting: January 17, 2013, 1:00 PM at Wenck Associates Maple Plain office, this meeting is mandatory
Bids Close At: January 25, 2013, 1:00 PM

To: Wenck Associates, Inc.
1800 Pioneer Creek Center
Maple Plain, MN 55359

Date _____, 20__

Proposal of _____
Bidder

Address

Pursuant to the Advertisement for Bids for the Kingston Wetland Restoration to furnish all necessary machinery, equipment, tools, labor, materials and all necessary means of construction and deliver materials and to do and perform all work set forth below (the "Work") at rates and at a total price or prices as hereinafter set forth, in accordance with the Contract Documents, the Drawings and Specifications, and addenda thereto on file in the office of the OWNER and ENGINEER.

First: In submitting this Bid Proposal, the undersigned bidder understands and agrees that the Instructions to Bidders and other Contract Documents referred to therein control and, without limiting the foregoing, that this Bid Proposal is based upon the following undertakings:

- That Bidder to the extent it deems necessary, has inspected the site of the work, existing construction in the areas of the proposed work, and is informed as to the condition thereof as the same bears on the work to be performed.
- That Bidder has received and examined the Drawings and Specifications, and is informed of all addenda thereto, and of the forms of the Contract Documents, including but not limited to the Agreement, Insurance and Performance and Payment Bonds to be furnished in the event a contract is awarded.

- Certain types of equipment and kinds of material are described in the specifications by means of trade names and catalog numbers and/or manufacturer's names. The Agreement, if awarded, will be on the basis of materials and equipment described in the Drawings or stated in the Specifications without consideration of possible substitute or "or-equal" items. In some cases, it is indicated in the Drawings or stated in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by CONTRACTOR. If approved, application for such approval will not be considered by ENGINEER until after the Effective Date of the Agreement. The procedure for submission of any such application and consideration of application is set forth in the General Conditions. Bidder acknowledges that this proposal is submitted in strict accord with specified requirements, and other requirements of these documents.
- That Bid Proposals will be opened and read aloud at the aforesaid Wenck Associates office at 1:00 PM, January 25, 2013 and only Bid Proposals received at or prior to 1:00 PM, January 25, 2013 will be accepted.
- The OWNER intends to award a contract to the lowest responsive responsible bidder. The OWNER, however, reserves the right to reject any or all bids and to waive any minor irregularities, informalities or discrepancies.
- That the Bid Proposal and the Bid Security submitted herewith may not, except with the consent of the aforesaid OWNER, be withdrawn for a period of sixty (60) days after the day set for the Opening of Bids.

Second: The undersigned Bidder agrees, if it is the successful Bidder, to execute the Agreement in the form as set forth in the Specifications/Bid Package, and to furnish the required Performance and/or Payment Bond in form as set forth in the Instructions to Bidders and other Contract Documents and furnish insurance certificates and endorsements, all within three (3) days of receiving the Notice of Award of contract from the OWNER.

Third: The undersigned Bidder further agrees to begin work within two (2) days of receipt of the Notice to Proceed and to prosecute said work so as to complete the same as specified in the Instructions to Bidders, subject to Liquidated Damages and other remedies.

Fourth: The undersigned Bidder further agrees to guarantee performance of all work in accordance with Drawings and Specifications and in a good and workmanlike manner, and to renew or repair any work that may be rejected due to defective materials or workmanship prior to final completion and acceptance of the material and installation by the OWNER.

Fifth: The undersigned Bidder further agrees prior to letting of the contract and signing of the Agreement, to provide the following upon OWNER'S request:

1. Such catalogs, photographs, drawings, specifications, descriptive information and other details as to special equipment or materials bidder proposes to furnish for the work, to permit a valuation of the merits thereof and determination whether such special equipment or materials comply with the specifications.

2. A properly executed affidavit of non-collusion.
3. A statement of Bidder's qualifications.
4. A statement setting forth all items of work that the Bidder proposes to sublet, and names of the subcontractors to whom such items shall be sublet.

Sixth: Following is a tabulation of the undersigned Bidder's Bid for all work to be performed to carry out the aforementioned construction, including, where required, alternate bids, it being understood that this bid contemplates all machinery, equipment, tools, labor, materials and other means of construction and all materials and times specified in accordance with the Contract Documents, drawings and specifications and all Addenda thereto. At the opening of Bids, the total bid price will be publicly read out loud. The undersigned Bidder proposes to do all unclassified work required to complete the contemplated Work, at a unit price contract as provided by the specifications and other Contract Documents.

Seventh: This Bid is genuine and not made in the interest or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or a corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

Bidder agrees to complete the Work for the unit prices and/or lump sums as listed and set forth on the Bid Form that follows.

Bid Form

Note: Fill in your unit price and bid extension for each item, and the total base bid price for this proposal.

Item	Description	Qty	Unit	Unit Price	Item Total
1	Mobilization and Demobilization	1	L.S.		
2	Field Engineering	1	L.S.		
3	Site Preparation (Haul road installation and maintenance)	1	L.S.		
4	Temporary Erosion and Sediment Control (erosion control blanket, floating silt curtain. Mulch, silt fence, etc.)	1	L.S.		
5	Temporary Sedimentation Basin (Includes cleaning/restoration following project completion)	1	L.S.		
6	Remove channel obstruction east of CSAH 15 (Beaver Dam)	1	EA		
7	Culvert Removal and Disposal Offsite	1	L.S.		
8	Concrete Weir Removal and Disposal Offsite	1	L.S.		
9	Tree Removal DBH > 12"	5	EA		
10	Tree Removal DBH 6" < DBH < 12"	10	EA		
11	Clearing and Grubbing	3	AC		
12	Channel Excavation and Disposal	10,000	C.Y.		
13	MNDOT Coarse Filter Aggregate	40	C.Y.		
14	MNDOT Fine Filter Aggregate	40	C.Y.		
15	Geotextile	27,454	S.F.		
16	Limestone Filter Berm - 6-inch limestone riprap	24	C.Y.		
17	Class IV Riprap	137	C.Y.		
18	2 Foot Boulders- Riffle	5	EA		
19	Installation of owner-supplied fish barrier	1	L.S.		
20	Site Restoration	1	L.S.		
				Total	

ACKNOWLEDGMENT OF RECEIPT OF ADDENDA

Addendum No. 1 _____

Addendum No. 2 _____

Addendum No. 3 _____

Addendum No. 4 _____

Print Name: _____

Signature: _____

Title: _____

Date: _____

CERTIFICATE OF EXECUTION

Enclosed herewith is a proposal guarantee in the form of a certified or bank check or Bid Bond in the amount of \$_____ payable to Clearwater River Watershed District.

The amount of the proposal guarantee is at least 5% of the total bid as required by the Advertisement for Bids and by the Instructions to Bidders.

Witness this _____ day of _____, 20__

Name: _____

Title: _____

Company: _____

Signature: _____

LIST OF SUBCONTRACTORS

The Bidder shall list below the name and the location of the place of business of each Subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a Subcontractor who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater. The Bidder shall also list below the portion of the WORK, which will be performed by each Subcontractor under its contract. The prime contractor shall list only one Subcontractor for each portion as is defined by the prime contractor in its bid. The Bidder's attention is directed to the General Conditions. Failure to comply with this requirement will render the Bid non-responsive and may cause its rejection. Use of a subcontractor not listed below or previously approved, is subject to approval by the OWNER in its absolute discretion.

Work to be Performed	Subcontract. License No.	Percent of Total Bid	Subcontract. Name & Address
1.			
2.			
3.			
4.			
5.			

Note: Attach additional sheets if required.

INFORMATION REQUIRED OF BIDDER

The Bidder shall furnish the following information. Additional sheets shall be attached as required. Failure to complete Item Nos. 1, and 3, will cause the Bid to be non-responsive and may cause its rejection. In any event, no award will be made until all of the Bidder's General Information is delivered to the OWNER.

- (1) CONTRACTOR's name and address:

- (2) CONTRACTOR's telephone number: _____

CONTRACTOR's fax number: _____

- (3) CONTRACTOR's license: Primary classification _____

State License No. and Expiration Date: _____

Specialty classifications held, if any: _____

Name of Licensee, if different from (1) above: _____

- (4) Qualifications of Bidder:
a. Present Commitments:

b. Project Examples (3 within past 5 years, See Section 00020-3):

c. Equipment, Key Personnel and Resources.

d. Subcontractors.

e. Other information necessary to demonstrate Bidders ability and qualifications.

**NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND
SUBMITTED WITH BID**

STATE OF _____

COUNTY OF _____

_____, being first duly sworn, deposes and says that he or she is _____
of _____ the party making the foregoing bid that the bid is not made
in the interest of, or on behalf of, any undisclosed person, partnership, company, association,
organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has
not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and
has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone
else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any
manner, directly or indirectly, sought by agreement, communication, or conference with anyone
to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost
element of the bid price, or of that of any other bidder, or to secure any advantage against the
public body awarding the contract of anyone interested in the proposed contract; that all
statements contained in the bid are true; and further, that the bidder has not, directly or indirectly,
submitted his or her bid price or breakdown thereof, or the contents thereof, or divulged
information or data relative thereto, or any breakdown thereof, or the contents thereof, or
divulged information or data relative thereto, or paid, and will not pay, any fee to any
corporation, partnership, company association, organization, bid depository, or to any member or
agent thereof to effectuate a collusive or sham bid.

Signed: _____

Subscribed and sworn to before me

This _____ day of _____, 20____

Notary Public in and for the

County of _____

State of _____

(SEAL)

BID BOND

KNOW ALL MEN BY THESE PRESENT,

That _____ as Principal, and
_____ as Surety, are
held and firmly bound unto **Clearwater River Watershed District**, hereinafter called
"OWNER," in the sum of _____
dollars,
for the payment of which sum, well and truly to be made, we jointly and severally bind
ourselves, our heirs, executors, administrators, successors, and assigns firmly by these presents.

WHEREAS, said Principal has submitted a Bid to said OWNER to perform the WORK required
under the bidding schedule(s) of the OWNER's Contract Documents entitled
Kingston Wetland Restoration Project.

NOW THEREFORE, if said Principal is awarded a contract by said OWNER and, within the
time and in the manner required in the "Notice Inviting Bids" and the "Instructions to Bidders"
enters into a written Agreement on the form of agreement bound with said Contract Documents,
furnishes the required certificates of insurance and endorsements, and furnishes the required
Performance Bond and Payment Bond, and performs in all other respects the agreement created
by this bid, then this obligation shall be null and void, otherwise it shall remain in full force and
effect. The Surety stipulates and agrees that the obligation of said Surety shall in no way be
impaired or affected by an extension of the time within which the OWNER may accept such bid
and Surety further waives notice of any such extension. In the event suit is brought upon this
bond by said OWNER and OWNER prevails, said Principal and Surety shall pay all costs
incurred by said OWNER in such suit, including reasonable attorney's fees and costs to be fixed
by the court.

SIGNED AND SEALED, this _____ day of _____, 20__

(Principal) (SEAL) _____ (SEAL)
(Surety)

By: _____ By: _____
(Signature) (Signature)

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

END OF SECTION

SECTION 00040

CONSTRUCTION AGREEMENT

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota

THIS AGREEMENT (the "Agreement") made this day of _____, 20__, by and between Clearwater River Watershed District, a body politic and corporate under and pursuant to the laws of the State of Minnesota, herein called "OWNER" and _____, a _____ under the laws of the State of _____, herein called "CONTRACTOR".

WITNESSETH:

That the CONTRACTOR in consideration of the payment of the contract price as set forth in the CONTRACTOR'S bid proposal agrees to furnish all materials (except such as are specified to be furnished by the OWNER, if any), all necessary machinery, equipment, tools, labor and other means of construction, and do and perform all other and necessary work and labor for or in connection with the full completion of the work.

Under Contract for the Kingston Wetland Restoration Project, Kingston Township, Meeker County, Minnesota (the "Project"), under the operation, direction, and control of the OWNER and/or its ENGINEER, the work to be performed in accordance with the terms and conditions of the Contract Documents, the approved Drawings and Specifications and for the price and compensation set forth above and as specified in the Contract Documents and the Bid Proposal of the CONTRACTOR which is attached hereto, all of which are incorporated herein and hereby made a part of this Agreement. All of said work and payments therefore will be pursuant to and in accordance with the Contract Documents.

If the CONTRACTOR, during the performance of the work, observes any error in the design or unanticipated circumstance materially affecting the feasibility of the design or the cost or time to complete the work, it immediately shall notify the ENGINEER in writing.

The Contract Documents shall consist of the following:

- Change Orders
- Notice to Proceed
- Addenda
- Notice of Award
- Agreement
- Instruction to Bidders
- Contract Drawings
- Technical Specifications
- Payment Bond
- Performance Bond
- Insurance
- Supplementary Conditions
- General Conditions
- Completed Bid Form
- Advertisement for Bids
- Prevailing Wages

CONTRACTOR agrees that the work shall be done and performed in a good quality manner, that all materials and labor shall be in strict conformity in every respect with the Drawings and Specifications for the improvement and shall be subject to inspection and approval of the OWNER through its duly authorized ENGINEER, and, in case of any material or labor supplied shall be rejected by the OWNER as defective or unusable, then such rejected material shall be done anew to the satisfaction and approval of the OWNER through its ENGINEER, at no additional cost or expense to the OWNER.

CONTRACTOR further agrees that the work will commence hereunder within five (5) days of receipt of Notice to Proceed and the work will be completed to the satisfaction and approval of the OWNER, and as specified in the Contract Documents. CONTRACTOR agrees that all work will be done in compliance with the standards of OWNER'S erosion control and other applicable rules, local ordinances, and state and federal laws.

It is further agreed that unforeseeable delay caused by the elements and other causes over which CONTRACTOR has no control or by strikes or other combined action of workers employed in no part caused or resulting from default or collusion on the part of the CONTRACTOR, shall be excused and the time for completion extended to the extent that the OWNER may find and determine such condition to have delayed completion within the time limit through no fault of the CONTRACTOR, but the judgment of the OWNER in respect thereto shall be final and conclusive upon the parties. It shall be understood by the CONTRACTOR that some of the work takes place in a small creek setting and the CONTRACTOR will have to work in such conditions as are inherent in this environment, which may include wet soils and water flow in the creek channel. Regarding unforeseeable delay, in no event shall a CONTRACTOR have an action against the OWNER for damages or any other relief not specifically stipulated in this paragraph.

It is further understood and agreed that no claim for extra work done or materials furnished by the CONTRACTOR will be allowed except as provided by the Contract Documents nor shall the CONTRACTOR do any work or furnish any materials not covered by the Drawings and Specifications and by this Agreement unless such work is first ordered in writing as provided in the Contract Documents. Any extra work or materials done or furnished by the CONTRACTOR without written order first being given therefore as in the Contract Documents provided shall be at the CONTRACTOR'S risk, cost and expense, and CONTRACTOR agrees in such event that no claim for compensation for such extra work or materials will be made.

It is further agreed that in no event shall the contracting officer or any Manager, officer or employee of the OWNER be personally liable or responsible in any manner to the CONTRACTOR or any other person for any claim, costs, demand, damages or causes of action of any kind arising by reason of the execution of the agreement or the performance and completion of the work provided herein.

THEREFORE, intending to be legally bound, the OWNER and CONTRACTOR have executed this Agreement as of the date first written above.

CONTRACTOR

Firm _____

Address _____

by _____

Title _____

STATE OF MINNESOTA)
)SS
COUNTY OF)

This instrument was acknowledged before me on _____ by
_____ as _____ of
_____.

_____(Stamp)
Notary Signature

by _____
Representative

This instrument was acknowledged before me on _____ by _____ as _____ of _____.

END OF SECTION

SECTION 00050

NOTICE OF AWARD

To: _____

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota

The OWNER has considered the Bid submitted by you for the above-described work in response to its Advertisement of Bids and the Information to Bidders.

You are hereby notified that your Bid has been accepted in the Amount of \$_____. You are required to execute the Agreement and furnish the required CONTRACTOR's Performance Bond, Payment Bond, and Certificate(s) of Insurance and endorsement(s) within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said bonds, certificate(s) and endorsement(s) within five (5) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your bid as abandoned and as a forfeiture of your Bid Bond. The OWNER will be entitled to such other rights and remedies as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the OWNER.

Dated this ____ day of _____, 20__

(OWNER)

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by _____ this
the ____ day of _____, 20__.

By: _____

Title: _____

END OF SECTION

SECTION 00060

NOTICE TO PROCEED

Date: _____

To: _____

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 20__, on or before _____, 20__, and you are to complete the WORK by no later than the scheduled completion dates as set forth in the Contract Documents.

(OWNER)

By _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of this above Notice to Proceed is hereby acknowledged by _____ this the ____ day of _____, 20__.

By: _____

Title: _____

END OF SECTION

SECTION 00070

CONSTRUCTION PERFORMANCE BOND

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota

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

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

OWNER (*Name and Address*):
Clearwater River Watershed District
75 Elm Street East, Box 481
Annandale, MN 55302

CONTRACT
Effective Date of
Agreement:
Amount:
Description (*Name and
Location*):

BOND
Bond Number:
Date (*Not earlier than Effective Date of
Agreement*):
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 Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest : _____
Signature

Attest: _____
Signature

Title

Title

Note: Provide execution by additional parties, such as joint venturers, if necessary.

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

1. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 2.1.
2. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - 2.1 Owner has notified Contractor and Surety, at the addresses described in Paragraph 9 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor, and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
 - 2.2 Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 2.1; and
 - 2.3 Owner has agreed to pay the Balance of the Contract Price to:
 1. Surety in accordance with the terms of the Contract; or
 2. Another contractor selected pursuant to Paragraph 3.3 to perform the Contract.

3. When Owner has satisfied the conditions of Paragraph 2, Surety shall promptly, and at Surety's expense, take one of the following actions:
- 3.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
 - 3.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 3.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 5 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
 - 3.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
 1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
4. If Surety does not proceed as provided in Paragraph 3 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 3.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
5. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 3.1, 3.2, or 3.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To the limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:
- 5.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;
 - 5.2 Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions of or failure to act of Surety under Paragraph 3; and
 - 5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.
6. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the 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 Owner or its heirs, executors, administrators, or successors.
7. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.
8. 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 Contractor Default or within two years after Contractor ceased working or within two years after 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 period of limitation available to

sureties as a defense in the jurisdiction of the suit shall be applicable.

9. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

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

11. Definitions.

- 11.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
- 11.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 11.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 11.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or otherwise comply with the other terms thereof.

END OF SECTION

SECTION 00080

CONSTRUCTION PAYMENT BOND

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota

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

CONTRACTOR (*Name and Address*):

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

OWNER (*Name and Address*):

Clearwater River Watershed District
75 Elm Street East, Box 481
Annandale, MN 55302

CONTRACT

Effective Date of Agreement:
Amount:
Description (*Name and Location*):

BOND

Bond Number:
Date (*Not earlier than Effective Date of Agreement*):
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

SURETY

_____(Seal)
Contractor's Name and Corporate Seal

_____(Seal)
Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Provide execution by additional parties, such as joint venturers, if necessary.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2 Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2 Claimants who do not have a direct contract with Contractor:
 1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
 2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above 30 days, have sent a written notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
6. Reserved.
7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, 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 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.
12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
15. Definitions
 - 15.1 Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and 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.
 - 15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract, or to perform and complete or otherwise comply with the other terms thereof.

END OF SECTION

SECTION 00090

PAYMENT REQUEST FORM

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota

PAY ESTIMATE NO. _____

Original Contract Amount..... \$ _____
Contract Changes approved to Date (List Change Order Numbers)..... \$ _____
Revised Contract Price \$ _____
Work Completed to Date (see attached) * \$ _____
Retainage to Date, 5%..... \$ _____
Work Completed to Date Less Retainage to Date \$ _____
Total Amount Previously Certified \$ _____
Payment Request This Estimate \$ _____

*** All payment requests must include an attached summarization of work completed to-date that separates the work and associated costs.**

CERTIFICATE OF CONTRACTOR

I hereby certify that the work and the materials supplied to date, as shown on the attached Request for Payment, represents the actual value of accomplishment under the terms of the contract dated _____, 20__ between _____ (OWNER) and _____ (CONTRACTOR) and all authorized changes thereto.

By _____

Title _____

Approval:

CONTRACTOR

_____ Date _____

WENCK ASSOCIATES, INC.

_____ Date _____

CLEARWATER RIVER WATERSHED DISTRICT

_____ Date _____

END OF SECTION

SECTION 00100

CONTRACTORS' AND SUBCONTRACTORS' INSURANCE

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota

GENERAL

The CONTRACTOR shall not commence work under the Agreement or otherwise under the Contract Documents, nor shall it allow any subcontractor to commence work until all insurance hereinafter required has been procured, a Certificate and endorsement evidencing its existence and compliance with the terms hereof and as otherwise set forth in the Contract Documents has been provided to the OWNER, and such insurance has been approved by the OWNER.

The CONTRACTOR shall furnish four copies of an insurance certificate(s) to the OWNER using the standard Acord form (current Date), modified as set forth herein, as evidence of the required insurance. **The certificate(s) shall indicate unconditionally that the insurance company will provide to OWNER, in the same manner and to the same degree as to CONTRACTOR, notice in the event of cancellation, non-renewal or any material modification or change in the policies and/or coverages thereunder.** The certificate shall state, and CONTRACTOR shall furnish endorsements demonstrating that OWNER and ENGINEER are additional insureds under the General and Automobile Liability policies. The insurance certificate must be signed and dated by an authorized representative of the insurance company.

WORKERS' COMPENSATION INSURANCE

The CONTRACTOR shall procure and shall maintain during the life of this contract workers' compensation insurance for all its employees engaged in work on this project as required by statute and shall also require that all subcontractors and sub-subcontractors similarly provide workers' compensation insurance for their employees. Workers' compensation insurance policies shall also provide employer's liability insurance with a limit of at least \$100,000/500,000/100,000.

CONTRACTORS' COMMERCIAL GENERAL LIABILITY INSURANCE

The CONTRACTOR shall procure and maintain throughout the term of the Agreement commercial general liability insurance covering personal injury including bodily injury and property damages liability with a combined single limit of \$2,000,000 for each occurrence and aggregate. **The commercial general liability insurance shall name the CONTRACTOR as insured and shall also name the ENGINEER and the OWNER as additional insured's with primary coverage thereunder, and shall provide a guarantee of coverage for the operations of subcontractors and sub-subcontractors.** The insurance shall cover completed operations and products liability as well as broad form contractual liability including but not limited to liability pursuant to contractual defense and indemnification. The property damage liability portion of the policy shall not contain any exclusion with reference to damage due to blasting, collapse, or underground facilities and the certificate shall so state.

In lieu of the OWNER and the ENGINEER being named as an additional insured by the CONTRACTOR's commercial general liability insurance, the contractor may provide liability coverage for the benefit of OWNER and ENGINEER by means of any OWNER's protective liability endorsement or policy provided same is documented on the Certificate of Insurance.

COMPREHENSIVE AUTOMOBILE LIABILITY INSURANCE

The CONTRACTOR shall provide and maintain for the term of the contract comprehensive automobile liability insurance covering bodily injury and property damage with a combined single limit of \$2,000,000 for each occurrence. Comprehensive automobile liability insurance shall provide coverage for all automobiles owned by the CONTRACTOR and all hired and non-owned vehicles. The CONTRACTOR shall also require that all subcontractors and sub-subcontractors maintain the same form of insurance.

MODIFICATION OF GENERAL CONDITIONS

The following parts of Section 00110, General Conditions, do not apply: 5.04.A; paragraphs 1, 2 and 5 of 5.04.B; 5.06. The first sentence of 5.04.B is revised to read: "The policy of general liability insurance to be purchased and maintained shall:." Neither OWNER nor CONTRACTOR is responsible to provide work-in-progress insurance. The absence of insurance shall not alter the responsibilities of the parties for damage to work-in-progress as otherwise established by the Contract Documents.

*****END OF SECTION*****

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

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

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Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

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

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

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

C. *Day:*

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

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

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

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

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

2.03 *Commencement of Contract Times; Notice to Proceed*

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

2.04 *Starting the Work*

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

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on

Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;
2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier shall not:

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

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

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

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

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

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

1. is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

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

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and

contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

- c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

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

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

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

consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

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

4.05 *Reference Points*

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

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also

meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

- a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
 3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
 4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
 5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
 6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

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

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 - 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 - 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 - 5. allow for partial utilization of the Work by Owner;
 - 6. include testing and startup; and
 - 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors,

members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.

- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.
- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

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

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's

interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

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

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

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

- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
- b. Contractor certifies that, if approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

- c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
 - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

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

required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner,

Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

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

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

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

6.11 *Use of Site and Other Areas*

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

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
- 2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
- 3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought

by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

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

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and

shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

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

6.15 *Hazard Communication Programs*

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

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is

required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

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

1. *Shop Drawings:*

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

2. *Samples:*

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

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

C. *Submittal Procedures:*

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

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

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures:

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

6.18 *Continuing the Work*

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

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 - 1. observations by Engineer;
 - 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. use or occupancy of the Work or any part thereof by Owner;
 - 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 - 6. any inspection, test, or approval by others; or
 - 7. any correction of defective Work by Owner.

6.20 *Indemnification*

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

- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
1. written notice thereof will be given to Contractor prior to starting any such other work; and
 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 3. the extent of such authority and responsibilities will be provided.

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

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

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

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

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

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

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

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

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

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

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

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or

continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

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

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not

exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

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

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data

shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
 2. approve the Claim; or
 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of

said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

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

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not

limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
 1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance:*
 1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to

the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee*: The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or
2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or

neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

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

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

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

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or
 2. correct such defective Work; or
 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. Applications for Payments:

- 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an

Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or

- involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
- b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 Substantial Completion

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before

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

- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

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

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying

documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 Final Completion Delayed

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

- A. The making and acceptance of final payment will constitute:
 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 - 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 - 3. Contractor's repeated disregard of the authority of Engineer; or
 - 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
 - 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 - 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 - 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when

so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 - 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days

to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
 - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agrees with the other party to submit the Claim to another dispute resolution process; or
 - 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

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

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

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

17.05 *Controlling Law*

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

17.06 *Headings*

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

SECTION 00111

SUPPLEMENTARY GENERAL CONDITIONS

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota

These Supplementary General Conditions make additions, deletions or revisions to the General Conditions as indicated herein. All provisions that are not so added, deleted or revised remain in full force and effect. Terms used in these Supplementary General Conditions that are defined in the General Conditions have the meanings assigned to them in the General Conditions.

1. COPIES OF CONTRACT DOCUMENTS

The OWNER shall furnish to the CONTRACTOR 3 copies of the Contract Documents. Additional copies beyond the 3 furnished sets will be provided at reproduction cost.

2. PERMITS

<u>Permit/Approval</u>	<u>Responsibility to Acquire</u>
1. MDNR	OWNER (pending)
2. WCA – Meeker County	OWNER (done)
3. Haul Road Access- if needed	CONTRACTOR
4. USACE Permit	OWNER (done)
5. MPCA NPDES Construction Permit	CONTRACTOR
6. Ditch Authority- Meeker County	OWNER (pending)

3. Prompt Payment:

OWNER will pay CONTRACTOR obligations within 35 days of the date of receipt of invoice from CONTRACTOR, unless OWNER in good faith disputes the obligation. The rate of interest calculated and paid by OWNER on the outstanding balance of the obligation not paid according to the terms of the contract or during the standard payment period shall be 1-1/2 percent per month or part of a month. No interest penalties will accrue against OWNER if payment is delayed due to a good faith dispute regarding the fitness of the product or service, contract compliance, or any defect, error or omission related thereto. The minimum monthly interest penalty payment that OWNER shall calculate and pay CONTRACTOR for the unpaid balance for any one overdue bill of \$100 or more is \$10. For unpaid balances of less

than \$100, OWNER shall calculate and pay the actual interest penalty due CONTRACTOR.

CONTRACTOR must pay any subcontractor within ten days of CONTRACTOR's receipt of payment from OWNER for undisputed services provided by the subcontractor. CONTRACTOR must pay interest of 1-1/2 percent per month or any part of a month to the subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of \$100 or more is \$10. For an unpaid balance of less than \$100, CONTRACTOR shall pay the actual penalty due to the subcontractor. A subcontractor who prevails in a civil action to collect interest penalties from CONTRACTOR must be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action.

4. Civil Rights:

In performing the work, CONTRACTOR will ensure that no person is excluded from full employment rights or participation in or the benefits of any program, service or activity on the ground of race, color, creed, religion, age, sex, disability, marital status, sexual orientation, public assistance status or national origin; and no person who is protected by applicable federal or state laws, rules or regulations against discrimination otherwise will be subjected to discrimination.

5. Final Documentation

Contractor must submit record drawings, warranties, lien waivers and all other documents specified in the Contract Documents before final payment.

END OF SECTION

SECTION 00120
CHANGE ORDER FORM

Change Order No. ____

Date

Agreement Date

Project: Kingston Wetland Restoration Project
Owner: Clearwater River Watershed District
Class of Work: Excavation, channel reconstruction, stabilization
Project Location: Kingston Township, Meeker County, Minnesota

Contractor:

The following changes are hereby made to the Contract Documents:

Justification:

Change to Contract Price: \$ _____
Original Contract Price: \$ _____
Current Contract Price adjusted to previous Change Order: \$ _____
The Contract Price due to this Change Order will be
(increased) (decreased) by: \$ _____
The new Contract Price including this Change Order will be: \$ _____
Change to Contract Time: _____
The Contract Time will be (increased) (decreased) by _____ calendar days.
The date for completion of all work will be: _____.

Approvals Required:

To be effective, this Change Order must be approved by the Owner and the Contractor if it changes the scope of objective of the Project, or as may otherwise be required by the Contract Documents.

Requested by: _____
(Wenck Associates, Inc.) (date)

Ordered by: _____
(Clearwater River Watershed District) (date)

Accepted by: _____
(Contractor) (date)

END OF SECTION

SECTION 00130

PREVAILING WAGE

MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY PREVAILING WAGES FOR STATE FUNDED CONSTRUCTION PROJECTS



THIS NOTICE MUST BE POSTED ON THE JOBSITE IN A CONSPICUOUS PLACE

Construction Type: Highway and Heavy

Region Number: 08

Counties within region:

- CHIPPEWA-12
- KANDIYOHI-34
- LAC QUI PARLE-37
- LINCOLN-41
- LYON-42
- MCLEOD-46
- MEEKER-47
- MURRAY-51
- PIPESTONE-59
- REDWOOD-64
- RENVILLE-65
- YELLOW MEDICINE-87

Effective: 2012-10-29

This project is covered by Minnesota prevailing wage statutes. Wage rates listed below are the minimum hourly rates to be paid on this project.

All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at a rate of one and one half (1 1/2) times the basic hourly rate.

Violations should be reported to:

Department of Transportation
Office of Construction
Transportation Building MS650
John Ireland Blvd
St. Paul, MN 55155
(651) 366-4209

Refer questions concerning the prevailing wage rates to:

Department of Labor and Industry
 Prevailing Wage Section
 443 Lafayette Road N
 St Paul, MN 55155
 (651) 284-5091
DLI.PrevWage@state.mn.us

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
LABORERS (101 - 112) (SPECIAL CRAFTS 701 - 730)				
101 LABORER, COMMON (GENERAL LABOR WORK)	2012-10-29	19.31	13.18	32.49
	2013-05-01	19.31	13.43	32.74
102 LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN)	2012-10-29	19.31	13.18	32.49
	2013-05-01	19.31	13.43	32.74
103 LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR)	2012-10-29	16.50	0.00	16.50
104 FLAG PERSON	2012-10-29	17.50	5.85	23.35
105 WATCH PERSON	2012-10-29	17.31	13.13	30.44
	2013-05-01	17.31	13.38	30.69
106 BLASTER	2012-10-29	22.31	13.18	35.49
	2013-05-01	22.31	13.43	35.74
107 PIPELAYER (WATER, SEWER AND GAS)	2012-10-29	21.31	13.18	34.49
	2013-05-01	21.31	13.43	34.74
108 TUNNEL MINER	2012-10-29	16.69	6.91	23.60
109 UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL)	2012-10-29	20.01	13.18	33.19
	2013-05-01	20.01	13.43	33.44
110 SURVEY FIELD TECHNICIAN (OPERATE TOTAL STATION, GPS RECEIVER, LEVEL, ROD OR RANGE POLES, STEEL TAPE MEASUREMENT; MARK AND DRIVE STAKES; HAND OR POWER DIGGING FOR AND IDENTIFICATION OF MARKERS OR MONUMENTS; PERFORM AND CHECK CALCULATIONS; REVIEW AND UNDERSTAND CONSTRUCTION PLANS AND LAND SURVEY MATERIALS). THIS CLASSIFICATION DOES NOT APPLY TO THE WORK PERFORMED ON A PREVAILING WAGE PROJECT BY A LAND SURVEYOR WHO IS LICENSED PURSUANT TO MINNESOTA STATUTES, SECTIONS 326.02 TO 326.15.	2012-10-29	23.00	10.17	33.17

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
111 TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE)	2012-10-29	16.59	9.91	26.50
112 QUALITY CONTROL TESTER (FIELD AND COVERED OFF-SITE FACILITIES; TESTING OF AGGREGATE, ASPHALT, AND CONCRETE MATERIALS); LIMITED TO MN DOT HIGHWAY AND HEAVY CONSTRUCTION PROJECTS WHERE THE MN DOT HAS RETAINED QUALITY ASSURANCE PROFESSIONALS TO REVIEW AND INTERPRET THE RESULTS OF QUALITY CONTROL TESTERS. SERVICES PROVIDED BY THE CONTRACTOR.	2012-10-29	16.04	0.00	16.04

SPECIAL EQUIPMENT (201 - 204)

201 ARTICULATED HAULER	2012-10-29	23.26	16.70	39.96
	2013-05-01	23.41	16.70	40.11
202 BOOM TRUCK	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
203 LANDSCAPING EQUIPMENT, INCLUDES HYDRO SEEDER OR MULCHER, SOD ROLLER, FARM TRACTOR WITH ATTACHMENT SPECIFICALLY SEEDING, SODDING, OR PLANT, AND TWO-FRAMED FORKLIFT (EXCLUDING FRONT, POSIT-TRACK, AND SKID STEER LOADERS), NO EARTHWORK OR GRADING FOR ELEVATIONS	2012-10-29	20.00	0.00	20.00
204 OFF-ROAD TRUCK	2012-10-29	28.66	16.70	45.36
	2013-05-01	28.81	16.70	45.51
205 PAVEMENT MARKING OR MARKING REMOVAL EQUIPMENT (ONE OR TWO PERSON OPERATORS); SELF-PROPELLED TRUCK OR TRAILER MOUNTED UNITS.	2012-10-29	20.00	0.00	20.00

HIGHWAY/HEAVY POWER EQUIPMENT OPERATOR

GROUP 2	2012-10-29	24.50	16.70	41.20
	2013-05-01	24.65	16.70	41.35
302 HELICOPTER PILOT (HIGHWAY AND HEAVY ONLY)				
303 CONCRETE PUMP (HIGHWAY AND HEAVY ONLY)				
304 ALL CRANES WITH OVER 135-FOOT BOOM, EXCLUDING JIB (HIGHWAY AND HEAVY ONLY)				
305 DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR OTHER SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS THREE CUBIC YARDS AND OVER MANUFACTURER'S RATED CAPACITY INCLUDING ALL ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)				
306 GRADER OR MOTOR PATROL				
307 PILE DRIVING (HIGHWAY AND HEAVY ONLY)				
308 TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED (HIGHWAY AND HEAVY ONLY)				

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
GROUP 3	2012-10-29	23.57	16.70	40.27
	2013-05-01	23.72	16.70	40.42
309 ASPHALT BITUMINOUS STABILIZER PLANT				
310 CABLEWAY				
311 CONCRETE MIXER, STATIONARY PLANT (HIGHWAY AND HEAVY ONLY)				
312 DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY) (HIGHWAY AND HEAVY ONLY)				
313 DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS, UP TO THREE CUBIC YARDS MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS (HIGHWAY AND HEAVY ONLY)				
314 DREDGE OR ENGINEERS, DREDGE (POWER) AND ENGINEER				
315 FRONT END LOADER, FIVE CUBIC YARDS AND OVER INCLUDING ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)				
316 LOCOMOTIVE CRANE OPERATOR				
317 MIXER (PAVING) CONCRETE PAVING, ROAD MOLE, INCLUDING MUCKING OPERATIONS, CONWAY OR SIMILAR TYPE				
318 MECHANIC . WELDER ON POWER EQUIPMENT (HIGHWAY AND HEAVY ONLY)				
319 TRACTOR . BOOM TYPE (HIGHWAY AND HEAVY ONLY)				
320 TANDEM SCRAPER				
321 TRUCK CRANE . CRAWLER CRANE (HIGHWAY AND HEAVY ONLY)				
322 TUGBOAT 100 H.P AND OVER (HIGHWAY AND HEAVY ONLY)				
GROUP 4	2012-10-29	23.26	16.70	39.96
	2013-05-01	23.41	16.70	40.11
323 AIR TRACK ROCK DRILL				
324 AUTOMATIC ROAD MACHINE (CMI OR SIMILAR) (HIGHWAY AND HEAVY ONLY)				
325 BACKFILLER OPERATOR				
326 CONCRETE BATCH PLANT OPERATOR (HIGHWAY AND HEAVY ONLY)				
327 BITUMINOUS ROLLERS, RUBBER TIRED OR STEEL DRUMMED (EIGHT TONS AND OVER)				
328 BITUMINOUS SPREADER AND FINISHING MACHINES (POWER), INCLUDING PAVERS, MACRO SURFACING AND MICRO SURFACING, OR SIMILAR TYPES (OPERATOR AND SCREED PERSON)				
329 BROKK OR R.T.C. REMOTE CONTROL OR SIMILAR TYPE WITH ALL ATTACHMENTS				
330 CAT CHALLENGER TRACTORS OR SIMILAR TYPES PULLING ROCK WAGONS, BULLDOZERS AND SCRAPERS				
331 CHIP HARVESTER AND TREE CUTTER				
332 CONCRETE DISTRIBUTOR AND SPREADER FINISHING MACHINE, LONGITUDINAL FLOAT, JOINT MACHINE, AND SPRAY MACHINE				
333 CONCRETE MIXER ON JOBSITE (HIGHWAY AND HEAVY ONLY)				
334 CONCRETE MOBIL (HIGHWAY AND HEAVY ONLY)				
335 CRUSHING PLANT (GRAVEL AND STONE) OR GRAVEL WASHING, CRUSHING AND SCREENING PLANT				
336 CURB MACHINE				
337 DIRECTIONAL BORING MACHINE				
338 DOPE MACHINE (PIPELINE)				
339 DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL (HIGHWAY AND HEAVY ONLY)				
340 DUAL TRACTOR				
341 ELEVATING GRADER				
342 FORK LIFT OR STRADDLE CARRIER (HIGHWAY AND HEAVY ONLY)				

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
343 FORK LIFT OR LUMBER STACKER (HIGHWAY AND HEAVY ONLY)				
344 FRONT END, SKID STEER OVER 1 TO 5 C YD				
345 GPS REMOTE OPERATING OF EQUIPMENT				
346 HOIST ENGINEER (POWER) (HIGHWAY AND HEAVY ONLY)				
347 HYDRAULIC TREE PLANTER				
348 LAUNCHER PERSON (TANKER PERSON OR PILOT LICENSE)				
349 LOCOMOTIVE (HIGHWAY AND HEAVY ONLY)				
350 MILLING, GRINDING, PLANNING, FINE GRADE, OR TRIMMER MACHINE				
351 MULTIPLE MACHINES, SUCH AS AIR COMPRESSORS, WELDING MACHINES, GENERATORS, PUMPS (HIGHWAY AND HEAVY ONLY)				
352 PAVEMENT BREAKER OR TAMPING MACHINE (POWER DRIVEN) MIGHTY MITE OR SIMILAR TYPE				
353 PICKUP SWEEPER, ONE CUBIC YARD AND OVER HOPPER CAPACITY(HIGHWAY AND HEAVY ONLY)				
354 PIPELINE WRAPPING, CLEANING OR BENDING MACHINE				
355 POWER PLANT ENGINEER, 100 KWH AND OVER (HIGHWAY AND HEAVY ONLY)				
356 POWER ACTUATED HORIZONTAL BORING MACHINE, OVER SIX INCHES				
357 PUGMILL				
358 PUMPCRETE (HIGHWAY AND HEAVY ONLY)				
359 RUBBER-TIRED FARM TRACTOR WITH BACKHOE INCLUDING ATTACHMENTS (HIGHWAY AND HEAVY ONLY)				
360 SCRAPER				
361 SELF-PROPELLED SOIL STABILIZER				
362 SLIP FORM (POWER DRIVEN) (PAVING)				
363 TIE TAMPER AND BALLAST MACHINE				
364 TRACTOR, BULLDOZER (HIGHWAY AND HEAVY ONLY)				
365 TRACTOR, WHEEL TYPE, OVER 50 H.P. WITH PTO UNRELATED TO LANDSCAPING (HIGHWAY AND HEAVY ONLY)				
366 TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER (HIGHWAY AND HEAVY ONLY)				
367 TUB GRINDER, MORBARK, OR SIMILAR TYPE				
368 WELL POINT DISMANTLING OR INSTALLATION (HIGHWAY AND HEAVY ONLY)				
GROUP 5	2012-10-29	13.97	0.00	13.97
369 AIR COMPRESSOR, 600 CFM OR OVER (HIGHWAY AND HEAVY ONLY)				
370 BITUMINOUS ROLLER (UNDER EIGHT TONS)				
371 CONCRETE SAW (MULTIPLE BLADE) (POWER OPERATED)				
372 FORM TRENCH DIGGER (POWER)				
373 FRONT END, SKID STEER UP TO 1C YD				
374 GUNITE GUNALL (HIGHWAY AND HEAVY ONLY)				
375 HYDRAULIC LOG SPLITTER				
376 LOADER (BARBER GREENE OR SIMILAR TYPE)				
377 POST HOLE DRIVING MACHINE/POST HOLE AUGER				
378 POWER ACTUATED AUGER AND BORING MACHINE				
379 POWER ACTUATED JACK				
380 PUMP (HIGHWAY AND HEAVY ONLY)				
381 SELF-PROPELLED CHIP SPREADER (FLAHERTY OR SIMILAR)				
382 SHEEP FOOT COMPACTOR WITH BLADE . 200 H.P. AND OVER				

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
383 SHOULDERING MACHINE (POWER) APSCO OR SIMILAR TYPE INCLUDING SELF-PROPELLED SAND AND CHIP SPREADER				
384 STUMP CHIPPER AND TREE CHIPPER				
385 TREE FARMER (MACHINE)				
GROUP 6	2012-10-29	20.95	16.70	37.65
	2013-05-01	21.10	16.70	37.80
387 CAT, CHALLENGER, OR SIMILAR TYPE OF TRACTORS, WHEN PULLING DISK OR ROLLER				
388 CONVEYOR (HIGHWAY AND HEAVY ONLY)				
389 DREDGE DECK HAND				
390 FIRE PERSON OR TANK CAR HEATER (HIGHWAY AND HEAVY ONLY)				
391 GRAVEL SCREENING PLANT (PORTABLE NOT CRUSHING OR WASHING)				
392 GREASER (TRACTOR) (HIGHWAY AND HEAVY ONLY)				
393 LEVER PERSON				
394 OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS, AND MILLING MACHINES, OR OTHER SIMILAR HEAVY EQUIPMENT) (HIGHWAY AND HEAVY ONLY)				
395 POWER SWEEPER				
396 SHEEP FOOT ROLLER AND ROLLERS ON GRAVEL COMPACTION, INCLUDING VIBRATING ROLLERS				
397 TRACTOR, WHEEL TYPE, OVER 50 H.P., UNRELATED TO LANDSCAPING				
TRUCK DRIVERS				
GROUP 1	2012-10-29	21.17	13.25	34.42
	2013-05-01	21.32	13.60	34.92
601 MECHANIC . WELDER				
602 TRACTOR TRAILER DRIVER				
603 TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)				
GROUP 2	2012-10-29	14.47	0.00	14.47
604 FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK				
GROUP 3	2012-10-29	20.51	13.25	33.76
	2013-05-01	20.66	13.60	34.26
605 BITUMINOUS DISTRIBUTOR DRIVER				
606 BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION)				
607 THREE AXLE UNITS				
GROUP 4	2012-10-29	20.51	13.25	33.76
	2013-05-01	20.66	13.60	34.26
608 BITUMINOUS DISTRIBUTOR SPRAY OPERATOR (REAR AND OILER)				
609 DUMP PERSON				
610 GREASER				
611 PILOT CAR DRIVER				
612 RUBBER-TIRED, SELF-PROPELLED PACKER UNDER 8 TONS				

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
613 TWO AXLE UNIT				
614 SLURRY OPERATOR				
615 TANK TRUCK HELPER (GAS, OIL, ROAD OIL, AND WATER)				
616 TRACTOR OPERATOR, UNDER 50 H.P.				
SPECIAL CRAFTS				
701 HEATING AND FROST INSULATORS	2012-10-29	20.50	4.46	24.96
702 BOILERMAKERS	2012-10-29	31.87	24.40	56.27
	2013-01-01	33.52	24.40	57.92
703 BRICKLAYERS	FOR RATE CALL 651-284-5091 OR EMAIL DLIPREWWAGE@STATE.MN.US			
704 CARPENTERS	2012-10-29	23.31	16.08	39.39
	2013-05-01	23.81	16.08	39.89
705 CARPET LAYERS (LINOLEUM)	FOR RATE CALL 651-284-5091 OR EMAIL DLIPREWWAGE@STATE.MN.US			
706 CEMENT MASONS	2012-10-29	32.80	17.00	49.80
	2013-05-01	33.05	17.00	50.05
707 ELECTRICIANS	2012-10-29	28.42	13.88	42.30
708 ELEVATOR CONSTRUCTORS	FOR RATE CALL 651-284-5091 OR EMAIL DLIPREWWAGE@STATE.MN.US			
709 GLAZIERS	FOR RATE CALL 651-284-5091 OR EMAIL DLIPREWWAGE@STATE.MN.US			
710 LATHERS	FOR RATE CALL 651-284-5091 OR EMAIL DLIPREWWAGE@STATE.MN.US			
711 GROUND PERSON	2012-10-29	16.63	6.38	23.01
712 IRONWORKERS	2012-10-29	34.15	21.20	55.35
713 LINEMAN	2012-10-29	24.82	8.50	33.32
714 MILLWRIGHT	2012-10-29	30.18	20.24	50.42
715 PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT MARKINGS)	2012-10-29	30.45	13.84	44.29
716 PILEDRIVER (INCLUDING VIBRATORY DRIVER OR	2012-10-29	23.31	16.08	39.39

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
EXTRACTOR FOR PILING AND SHEETING OPERATIONS)	2013-05-01	23.81	16.08	39.89
717 PIPEFITTERS . STEAMFITTERS	2012-10-29	30.62	24.97	55.59
	2012-10-29	33.18	22.36	55.54
718 PLASTERERS	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			
719 PLUMBERS	2012-10-29	29.90	25.57	55.47
720 ROOFER	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			
721 SHEET METAL WORKERS	2012-10-29	25.41	9.69	35.10
722 SPRINKLER FITTERS	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			
723 TERRAZZO WORKERS	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			
724 TILE SETTERS	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			
725 TILE FINISHERS	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			
726 DRYWALL TAPER	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			
727 WIRING SYSTEM TECHNICIAN	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			
728 WIRING SYSTEMS INSTALLER	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			
729 ASBESTOS ABATEMENT WORKER	2012-10-29	27.33	14.94	42.27
	2013-01-01	27.53	15.34	42.87
730 SIGN ERECTOR	FOR RATE CALL 651-284-5091 OR EMAIL DL.PREVWAGE@STATE.MN.US			

END OF SECTION

SECTION 1

General Specifications

SECTION 01000

SUMMARY OF WORK

PART 1 - GENERAL

1.01 CONTRACT DOCUMENTS

- A. The Contract Documents are as defined in Section 00020 Instructions to Bidders. The terms of the contract documents apply to these Specifications as fully as though repeated herein.
- B. The format of these Specifications is based upon the CSI MASTERFORMAT. However differences in format and subject matter location do exist. It is the CONTRACTOR'S sole responsibility to thoroughly read and understand these Specifications and request written clarification of those portions which are unclear.
- C. Division of the Work as made in these Contract Documents is for the purpose of specifying and describing work which is to be completed. There has been no attempt to make a classification according to trade or agreements which may exist between CONTRACTOR, SUBCONTRACTORS, or trade unions or other organizations. Such division and classification of the Work shall be the CONTRACTOR'S sole responsibility.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of this Contract comprises reconstruction and meandering of the Clearwater River through the Kingston Wetland in Kingston Township west of CSAH 15 in Meeker County, Minnesota.
- B. Work specifically included in this contract includes:
 - Tree removal, clearing and grubbing
 - Removal of channel obstruction (beaver dam) approximately 500 LF downstream of CSAH 15
 - Creek channel reconstruction which includes excavation and disposal of materials
 - Riffle installation
 - Construction of a diversion berm
 - Demolition of existing concrete channel diversion
 - Construction of a limestone rock filtration berm
 - Erosion control and site restoration
 - Installation of an owner furnished fish barrier
- C. It is the intent of the Contract Documents to cover all aspects of the Project. It is the intent of the proposal form to cover all elements of the work and provide full compensation to the CONTRACTOR. Should there be some item or items not shown on the Drawings or not described in these Specifications which are required for the Work, and there is no

corresponding bid item providing for payment of said item or items, the furnishing of all labor, materials, and equipment shall be considered incidental to the Work and no additional compensation will be provided. CONTRACTOR shall include the costs of said item or item in the unit price(s) of listed bid items.

- D. The Work includes the furnishing of all labor, equipment, tools, machinery, materials, and other items required for the construction of a complete Project as specified. Equipment furnished shall be in safe operating condition and of adequate size, capacity, and condition for the performance of the Work. CONTRACTOR shall obtain all measurements necessary for the Work and shall be responsible for establishing all dimensions, levels, and layout of the Work.
- E. CONTRACTOR shall be solely responsible for the coordination of its activities with regard to the Project and the activities of Subcontractors and OWNER.

1.03 FORM OF SPECIFICATIONS

- A. Term "provide" or "provided" shall mean "furnish and install in-place."

1.04 CONTRACTS

- A. Perform Work based on estimated quantities and unit prices with OWNER. Actual quantities multiplied by unit prices and shall be full compensation for labor, equipment, materials, and other items (not specifically mentioned) required to complete all the Work in accordance with the Plans and Specifications.

1.05 PERMITS

- A. The OWNER will acquire any approvals required by the Minnesota Wetlands Conservation Act, Army Corps of Engineers and by Minnesota Department of Natural Resources.
- B. CONTRACTOR shall obtain a Minnesota Pollution Control Agency General Construction Stormwater Permit. CONTRACTOR shall obtain permits or approval from Meeker County to perform the Work, including approval of work hours, access to the site from CSAH 15, parking of vehicles and equipment, haul routes, etc. that may be required outside of the existing access easements held by the CRWD. Contractor shall obtain any other permits, as necessary.

1.06 WORK BY OTHERS

- A. Other work on this Project which will be executed prior to start of Work of this Contract and may be concurrent to this Contract and which is excluded from this Contract is as follows:
 - 1. Fabrication of the fish barrier.

- B. CONTRACTOR shall blend work by others into the work so as to provide a stable, smooth and aesthetic transition.

1.07 MILESTONES /WORK SEQUENCE

Mobilization	Approx. January 28, 2013
Substantial Completion	Approx. March 15, 2013
Final Stabilization & Completion	Approx. June 30, 2013

- A. Construct Work in stages to accommodate operation of existing facilities during construction period; coordinate Construction Progress Schedule and operations with ENGINEER.

1.08 CONTRACTOR USE OF PREMISES

- A. Definition of Site: Work and disturbance shall be confined to the construction limits shown on the Drawings and access will be limited to the construction access areas shown on the drawings. The construction limits will be defined by a coordinate file provided to the contractor. The CONTRACTOR shall limit operations to within the construction limits boundary. No material or equipment storage is allowed within the wetland at any time. Any parking of vehicles and/or temporary staging of equipment and or materials on the street (CSAH 15) shall be pre-approved by MNDOT. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed. Damage to property outside the construction limits caused by CONTRACTOR's activities shall be repaired to equal or better condition by CONTRACTOR at his/her expense.
- B. CONTRACTOR shall keep driveways, roads, and entrances serving the residents clear and available to residents and emergency vehicles at all times. Do not use CSAH 15 for parking or storage of materials unless pre-approved by MNDOT. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
- C. Hours of Operation:
- D. CONTRACTOR'S operations shall be limited to the hours of local time as required by Meeker County, Monday through Saturday, unless prior arrangements are made with OWNER at least 48 hours in advance of proposed change and change is approved by Meeker County.
- E. Protection and Repair of Existing Facilities and Utilities:
- F. CONTRACTOR shall perform operations carefully and in such a manner as to protect existing facilities and utilities. Obstructions not shown on the Drawings may exist and shall be exposed by CONTRACTOR without damage. CONTRACTOR shall be responsible for damage to existing facilities

and utilities resulting from CONTRACTOR'S operations, and shall repair or replace damaged items to OWNER'S satisfaction.

G. Unfavorable Construction Conditions:

When unfavorable weather, soil, drainage, or other unsuitable construction conditions exist, CONTRACTOR shall confine operations to work which will not be adversely affected by such conditions. No portion of the Work shall be constructed under conditions which would adversely affect the quality of the Work, unless special means or precautions are taken to perform the Work in a proper and satisfactory manner.

H. Survey Markers:

CONTRACTOR shall conduct operations so as to preserve benchmarks, survey reference points, and stakes existing or established by OWNER for the construction. CONTRACTOR will be charged the expense of repairing or replacing survey markers and shall be responsible for mistakes or lost due to damage or destruction of survey markers due to CONTRACTOR'S operations.

- I. CONTRACTOR shall, at all times, conduct operations to ensure least inconvenience to general public and residents in the area.
- J. CONTRACTOR has full responsibility for protection and safekeeping of materials and equipment under this Contract.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION

SECTION 01010

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Work under this section includes descriptions of the measurement and payment methods for each bid item and directions about which work items shall have their prices merged and which are considered incidental to the project.
Notwithstanding, it is understood that the CONTRACTOR's total Bid Price represents complete construction and restoration and all costs to OWNER at the Project Site in accord with the Contract Documents.

1.02 RELATED SECTIONS

- Section 00020 Instructions to Bidders
Section 00030 Bid Form
Section 00110 General Conditions

1.03 MEASUREMENT AND PAYMENT

A. General

1. The costs to the OWNER for Work described by the Drawings and/or Specification Sections, where there is no specific corresponding payment item, shall be merged into other bid items. No further compensation will be made for such work.
2. Measurement and payment criteria applicable to portions of the work performed.
3. Defect assessment and non-payment for rejected work.
4. Unit Quantities Specified:
 - a) Quantities and measurements indicated in the Bid Schedule are for bidding and contract purposes.
 - b) A written Change Order may be submitted if the scope of work changes. Change Order approval will be required from the OWNER, in writing.
5. Measurement and Quantities:
 - a) Measurement of quantities expressed as volume are based upon a neat plan line projection to the work limits as determined on the Bid Schedule for each item with no additional allowances for shrinkage, swelling, or creep.
 - i. In computing volumes of excavation and fill, the average end area method or other methods, is used.
 - b) Measurements of quantities expressed as area shall be based upon square dimensions using mean length and width or radius.
 - c) Measurement of quantities expressed as linear foot shall be based on the length projected in plan view based on survey points (i.e., slopes projected flat).

- d) Lump Sum/Price Measurement: Items measured by volume, area, or linear means or combinations, as appropriate, as a completed item or unit of work.
6. Payment:
- a) Payment for each lump sum and unit price stated in the itemized bill shall constitute full compensation for all required labor, products, tools, equipment, plant, transportation, services, cleanup, all costs for doing related work as set forth in these specifications and/or on the Drawings or implied in carrying out their intent, and incidentals. The price bid sum stated in the itemized bid shall be deemed to include an allowance for overhead and profit.
 - b) Final payment for work governed will be made on the basis of unit prices bid and quantities accepted by OWNER.
 - c) Requests for payment shall be in accordance with the General Conditions of the Construction Agreement.
 - d) Payment will be made to the limits as specified in the Contract Documents and as shown on the Drawings. The payment for quantities that exceed the contract quantities can only be obtained through an approved Change Order before contract quantities are exceeded. Change Orders shall only be approved in the scope of work specified in the Contract Documents and Drawings.
 - e) No partial payments shall be made for the installation of items which have not been tested and approved.
 - f) No partial payment shall be made for material delivered to the site and stored until installation.
 - g) Payment for unit price items will be made monthly until completion of each item based on quantity estimated by CONTACTOR, and verified by OWNER. Final payment will be based on actual field measured quantities.
7. Defect Assessment:
- a) Replace the work, or portions of the work, not conforming to specified requirements.
 - b) If, in the opinion of OWNER, it is not practical to remove and replace defective work, OWNER will direct one of the following remedies:
 - i. The defective work may remain, but the unit/price will be adjusted to a new sum/price at the discretion of OWNER.
 - ii. The defective work will be partially repaired to the instructions of OWNER, and the unit/sum price will be adjusted to a new sum/price at the discretion of the OWNER.
 - c) The individual specification sections may modify these options or may identify a specific formula or percentage sum/price reduction.
 - d) The authority of OWNER to assess the defect and identify payment adjustment, is final.
8. Non-Payment for Rejected Products:
- a) Payment will not be made for any of the following:
 - i. Products wasted or disposed of in a manner that is not acceptable.
 - ii. Products determined as unacceptable before or after placement.
 - iii. Products not completely unloaded from the transporting vehicle.
 - iv. Products placed beyond the lines and levels of the required work.
 - v. Products remaining on hand after completion of the work.
 - vi. Loading, hauling, and disposing of rejected products.

1.04 BID ITEMS:

Bid Item 1:
Section 01100
Mobilization and Demobilization
Lump Sum

1. Basis of Measurement: The Work required for this item will be measured on the basis of satisfactory evidence of mobilization and demobilization of sufficient labor, equipment, and material to adequately advance the Work according to the schedule.
2. Basis of Payment: Work includes preparatory work, all personnel, equipment, supplies and incidentals, including but not limited to, those necessary for the movement to and from the project site. Fifty percent payment of the lump sum amount shall be made after mobilization is complete. The remaining 50% will be paid after substantial completion, demobilization is completed and the site has been accepted from a restoration standpoint.

Bid Item 2:
Section 01030
Field Engineering
Lump Sum

1. Basis of Measurement: No measurement of this item.
2. Basis of Payment: According to the lump sum price as stated on the Bid Form. Work includes material, labor, and all others specified and performed under this section.

Bid Item 3:
Section 02040
Site Preparation
Lump Sum

1. Basis of Measurement: No measurement of this item.
2. Basis of Payment: According to the lump sum price as stated on the Bid Form. Work includes material, labor, and all others specified and performed under this section.

Bid Item 4:
Section 01130 and 02080
Furnish and Install Temporary Erosion and Sediment Control
Lump Sum

1. Basis of Measurement: The basis of measurement for this item will be satisfactory completion of submittals, acquisition of permits, the furnishing, installation and maintenance of silt fence, floating silt curtain and other necessary erosion control measures so that erosion and sediment is effectively contained to within the limits of work areas and prevented from washing onto lands adjacent to work areas. Measurement also includes

satisfactory removal of temporary controls at the end of the project. Erosion control includes silt curtains, seed and mulch for temporary cover, flooding silt curtains, coir mats, coir logs, wood fiber blankets and other measures requested by the ENGINEER to effectively control sediment and erosion during construction or until vegetation is established. Measurement includes maintenance/reinstallation of silt fence or other erosion controls that are damaged, removed or failed throughout the project until final payment is made and any other measures that are needed to effectively prevent sediment transport.

2. Basis of Payment: The basis of payment is lump sum according to the lump sum bid price. The lump sum price includes all equipment, labor, material and subcontractor costs to install and maintain erosion control, including silt fence and other erosion control practices. Fifty percent of the lump sum amount will be paid after CONTRACTOR acquires permits, completes satisfactory submittals and installs erosion controls. Forty percent will be paid at substantial completion of the Work. The final 10% will be paid after all temporary erosion controls have been removed by CONTRACTOR.

Bid Item 5:

Section 01130, 02050 and 02080

Temporary Sedimentation Basin Installation and Restoration

Units: Lump Sum

1. Basis of Measurement: The basis of measurement for this item will be satisfactory completion of submittals, acquisition of permits, the installation and maintenance of temporary sedimentation basins so that erosion and sediment is effectively contained to within the limits of work areas and prevented from washing onto lands adjacent to work areas. Measurement also includes satisfactory removal of temporary controls at the end of the project. Measurement includes maintenance/reinstallation of temporary sediment basins that are damaged, removed or failed throughout the project until final payment is made and any other measures that are needed to effectively prevent sediment transport.
2. Basis of Payment: The basis of payment is lump sum according to the lump sum bid price. The lump sum price includes all equipment, labor, material and subcontractor costs to install and maintain temporary sedimentation basins. Fifty percent of the lump sum amount will be paid after CONTRACTOR acquires permits, completes satisfactory submittals and installs erosion controls. Forty percent will be paid at substantial completion of the Work once the basins are restored to final grade and stabilized. The final 10% will be paid after all temporary erosion controls have been removed by CONTRACTOR.

Bid Item 6:

Section 02045

Remove channel obstruction east of CSAH 15 (Beaver Dam)

Units: Each

1. Basis of Measurement: The basis of measurement for this item will be the removal of this obstruction from the channel. Location of the obstruction to be removed shall be marked by the OWNER prior to the work.
2. Basis of Payment: Payment will be based on the number of locations at which obstructions of this nature are removed.

Bid Item 7:

Section 02045

Culvert Removal and Disposal Off Site

Units: Lump Sum

1. Basis of Measurement: The basis of measurement for this item will be the removal of this culvert and disposal off site.
2. Basis of Payment: According to the lump sum price as stated on the Bid Form. Work includes material, labor, and all others specified and performed under this section.

Bid Item 8:

Section 02045

Remove Concrete Weir and Disposal Offsite

Units: Lump Sum

1. Basis of Measurement: The basis of measurement for this item will be the removal of this weir and disposal off site.
2. Basis of Payment: According to the lump sum price as stated on the Bid Form. Work includes material, labor, and all others specified and performed under this section.

Bid Item 9:

Section 01130 and 02080

Tree Removal DBH>12"

Units: Each

1. Basis of Measurement: The basis of measurement for this item will be the number of trees cut and removed from the site with diameters at breast height of more than 12 inches (DBH>12"). Trees to be removed shall be marked by the owner prior to the work.
2. Basis of Payment: Payment will be based on the number of trees removed from the site multiplied by the unit price bid.

Bid Item 10:
Sections 01130 and 02020
Tree Removal 6"<DBH<12"
Units: Each

1. Basis of Measurement: The basis of measurement for this item will be the number of trees cut and removed from the site with diameters at breast height of more than 6 inches, but less than 12 inches (6"<DBH<12"). Trees to be removed shall be marked by the owner prior to the work.
2. Basis of Payment: Payment will be based on the number of trees removed from the site multiplied by the unit price bid.

Bid Item 11:
Section 02030
Clear and Grub
Units: Acres

1. Basis of Measurement: The basis of measurement for the satisfactory clearing, removal and disposal of bushes, woody plants, tree stumps, cut branches and woody debris within the construction limits. Removal includes removal of stumps by extraction.
2. Basis of Payment: The basis of payment is the square feet of planimetric area that is cleared and grubbed multiplied by the unit price bid and covers all costs to the OWNER. Includes providing all labor, equipment and direct expenses to remove trees and dispose of woody materials including stumps, branches, bushes, woody debris and chips.

Bid Item 12:
Section 02050
Excavation and Disposal of Excess Material
Units: CY of excavated material

1. Basis of Measurement: The basis of measurement for this item is the volume of excavated material expressed on the bid form, which is estimated at 10,000 CY which must be disposed of by the CONTRACTOR at an off-site location of his/her choosing.
2. Basis of Payment: The basis of payment for excavation, hauling and disposal of excess soil is the CY of soil excavated multiplied by the unit price bid. This bid item includes all excavation, grading, all filling, compaction and preparing the sub-base and slopes, fine grading, and off-site disposal of all excess soil material to meet grades specified in Drawings.

Bid Item 13:

Sections 02070

Furnish and Install MnDOT Coarse Filter Agregate

Units: CY

1. Basis of Measurement: The basis of measurement for this item will be furnishing and satisfactory installation of Coarse Filter Agregate per MnDOT 3149 to a depth of 6 inches as shown in drawings.
2. Basis of Payment: The basis of payment is the unit price bid multiplied by the cubic yards of in-place Coarse Filter Agregate. The bid price includes all necessary equipment, labor, grading and material to install Coarse Filter Agregate.

Bid Item 14:

Sections 02070

Furnish and Install MnDOT Fine Filter Agregate

Units: CY

1. Basis of Measurement: The basis of measurement for this item will be furnishing and satisfactory installation of Fine Filter Agregate per MnDOT 3149 to a depth of 6 inches as shown in drawings.
2. Basis of Payment: The basis of payment is the unit price bid multiplied by the cubic yards of in-place Fine Filter Agregate. The bid price includes all necessary equipment, labor, grading and material to install Fine Filter Agregate.

Bid Item 15:

Sections 02070

Furnish and Install Geotextile, Nonwoven

Units: SF

1. Basis of Measurement: The basis of measurement for this item will be quare feet of geotextile fabric furnished and installed as shown in drawings.
2. Basis of Payment: The basis of payment is the unit price bid multiplied by the square feet of coverage according to planimetric dimensions of the filter trenches with no additional allowance for overlaps, seams, or vertical installation components. Side slope dimensions will be measured as the area of the slope viewed perbenndicular to the slope surface. The bid price includes furnishing installing geotextile in accordance with the Drawings and Specifications.

Bid Item 16:
Sections 02070
Furnish and Install Limestone Filter Berm
Units: CY

2. Basis of Measurement: The basis of measurement for this item will be furnishing and satisfactory installation of 6-inch Limestone Riprap installed per MNDOT 2511 as Limestone Filter Berm as shown in drawings.
2. Basis of Payment: The basis of payment is the unit price bid multiplied by the cubic yards of in-place 6-inch Limestone Riprap installed per MNDOT 2511. The bid price includes all necessary equipment, labor, grading and material to install the Limestone Filter Berm excluding the coarse and fine filter aggregate installed beneath Limestone Filter Berm which are accounted for in Bid Items 13 and 14.

Bid Item 17:
Section 02070
Furnish and Install Class IV Riprap
Units: CY

1. Basis of Measurement: The basis of measurement for this item will be furnishing and satisfactory installation of Class IV Limestone Riprap per MNDOT Table 3601-1 as Filter Berm as shown in drawings.
2. Basis of Payment: The basis of payment is the unit price bid multiplied by the cubic yards of in-place Class IV Limestone Riprap per MNDOT Table 3601-1. The bid price includes all necessary equipment, labor, grading and material to install the Class IV Riprap excluding the coarse and fine filter aggregate and geotextile which are accounted for in Bid Items 13, 14 and 15.

Bid Item 18:
Sections 02070
Furnish and Install 2 Foot Boulders
Units: EA

1. Basis of Measurement: The basis of measurement for this item will be furnishing and satisfactory installation of 2 foot boulders in the riffle structure per drawings.
2. Basis of Payment: The basis of payment is the unit price bid multiplied by the number of boulders placed. The bid price includes all necessary equipment, labor, grading, filter materials, and disposal of any excess materials excluding the coarse and fine filter aggregate and geotextile which are accounted for in Bid Items 13, 14 and 15.

Bid Item 19:
Sections 02210
Owner-Supplied Fish Barrier Installation
Units: LS

1. Basis of Measurement: The basis of measurement for this item will be the successful installation of the owner-supplied fish barrier in the channel in the location specified by the OWNER as approved by the OWNER.
2. Basis of Payment: According to the lump sum price as stated on the Bid Form. Work includes material, labor, and all others specified and performed under this section.

Bid Item 20:
Sections 02170
Site Restoration
Units: LS

1. Basis of Measurement: There will be no measurement for this item.
2. Basis of Payment: According to the lump sum price as stated on the bid form. Includes all furnished itmes and activities for site restoration including:
 - Cleanup and disposal of miscellaneous debris on-site.
 - Removal of temporary erosion and sediment control once vegetation is established.
 - Furnish and installation of seed, mulch, and other site restoration items as required in the Storm Water Pollution Prevention Plan.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

****END OF SECTION****

SECTION 01020
COORDINATION

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. The CONTRACTOR shall coordinate material supply, material delivery/unloading, construction, and inspection to assure efficient and orderly completion of the Work.
- B. The CONTRACTOR shall notify the OWNER, in writing, when coordination of the OWNER'S or other CONTRACTOR'S activities are required.

1.02 PROJECT PERSONNEL

- A. The Project Manager is:

Dennis Loewen
Assistant District Administrator
Clearwater River Watershed District
75 Elm Street East, Box 481
Annandale, MN 55302
Phone: 320-274-3935
Cell: 320-290-8731
Email: Loewen.dennis@yahoo.com
- B. The Engineer is:

Norm Wenck, P.E.
Wenck Associates, Inc.
1800 Pioneer Creek Center
Box 249
Maple Plain, Minnesota 55359
Phone : 763-479-4201
Cell: 612-747-8199
Email: nwenck@wenck.com
- C. The Engineer's Representative is:

Rebecca Kluckhohn, P.E.
Wenck Associates, Inc.
1800 Pioneer Creek Center
Box 249
Maple Plain, Minnesota 55359
Phone: 763-479-4224
Cell: 612-408-7515
Email: rkluckhohn@wenck.com

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

****END OF SECTION****

SECTION 01030

FIELD ENGINEERING

PART 1 - GENERAL

1.01 PRIMARY CONTROL MONUMENT

- A. Coordinates will be provided by OWNER to establish primary vertical and horizontal control.
- B. A coordinate file will be provided to the CONTRACTOR for staking construction limits, installing silt fence and determining top-of-bank locations.
- C. CONTRACTOR shall preserve and maintain primary control monuments and benchmarks.
- D. OWNER will field locate trees to be removed.

1.02 PRIMARY LINE AND GRADE

- A. Primary line and grade will be provided and established by CONTRACTOR from the Primary Control Monument provided by the OWNER as listed above.
- B. CONTRACTOR shall provide primary line and grade for all work including other work as requested by ENGINEER. Arrange operations to avoid interference with primary lines and grades. Check accuracy of line and grade by visual inspection, checks between stakes, and periodic checks (with surveying equipment) between primary control monuments and stakes. CONTRACTOR responsible for protection and preservation of stakes.

1.03 CONSTRUCTION LINE AND GRADE

- A. CONTRACTOR shall bear sole responsibility for correct transfer of construction lines and grades from primary line and grade points and for correct alignment and grade of completed Work based upon lines and grades shown on Drawings.
- B. CONTRACTOR shall transfer line and grade for open cut construction of culverts and road reconstruction from primary line and grade stakes to Work by means of grade boards, laser beam or other approved methods.

1.04 DOCUMENTATION SURVEY

- A. OWNER shall provide documentation survey in accordance with subsequent specification sections.

1.05 QUANTITY DETERMINATION SURVEY

- A. OWNER will determine pay quantities by survey or measurement.
- B. Where earthwork volumes are to be determined by surveyed cross-sections and average end area calculations, OWNER shall perform survey cross-sections on a maximum spacing of 100 feet.
- C. Where pay quantities are determined by planimetric survey, OWNER shall survey the specified feature at 50-foot intervals and at all changes in directions.
- D. CONTRACTOR to submit documentation for quantities requested for payment.

1.06 LOT CORNERS AND SURVEY MONUMENTS

- A. CONTRACTOR will provide services of registered land surveyor to replace lot corners and survey monument disturbed by construction operations at no additional cost to OWNER.

1.07 SUBMITTALS

- A. When requested by ENGINEER, CONTRACTOR shall submit a statement certifying elevations and locations of work are in conformance with Contract Documents, explain all deviations.

PART 2 - PRODUCTS

(Not Used)

PART 3 – EXECUTION

- 3.01 The CONTRACTOR will perform construction staking.
- 3.02 The CONTRACTOR shall make no changes or relocations to control points without prior written approval from the OWNER.
- 3.03 The CONTRACTOR shall report to the OWNER when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
- 3.04 The CONTRACTOR shall replace Project control points, which are lost or destroyed at no additional cost to OWNER. Replacement shall be re-established based on original survey control.
- 3.05 The CONTRACTOR shall establish and maintain all lines and levels, located and laid out, by instrumentation and similar appropriate means, as required to efficiently complete all Work indicated by the Drawings and Specifications.
- 3.06 As construction proceeds, the CONTRACTOR shall check every element for line, level, and plumb.

- 3.07 CONTRACTOR shall provide sufficient staking to clearly define all construction elements.
- 3.08 Locations of existing sewers, culverts, and other utilities shown on the Drawings are approximate and shall be field-verified by the CONTRACTOR, prior to construction, as required to complete the Work.
- 3.09 Provide copy of construction staking survey notes to ENGINEER.
- 3.10 CONTRACTOR shall notify ENGINEER 2 working days in advance of needing documentation survey for work performed.

END OF SECTION

SECTION 01040

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 STANDARDS, CODES, AND LAWS

- A. The CONTRACTOR shall complete the WORK in accordance with federal, state, and local codes, laws, regulations, and rules that govern such operations, including public safety, occupational safety and fire codes.
- B. Materials and products are specified herein for their appropriateness in the completed work. The CONTRACTOR is responsible for: providing training and education to the CONTRACTOR's employees and obtaining and distributing information regarding the potential dangers and appropriate safety measures for material and products during the work as required by the Occupational Safety and Health Administration, Hazard Communication Standard and the State of Minnesota.

1.02 PERMITS AND LICENSES

- A. OWNER will obtain the permit approvals required by Clearwater River Watershed District rules. CONTRACTOR shall comply with all provisions of these approvals including erosion control provisions.
- B. OWNER will obtain the Minnesota Department of Natural Resources Public Waters Work and/or Fisheries permit. CONTRACTOR shall comply with all provisions of this permit.
- C. OWNER will obtain approval from ditch authority (Meeker County). CONTRACTOR shall comply with all provisions of this plan review including any County approved detour system, traffic control, working hours and haul routes.
- D. Other than the specific permits listed above, CONTRACTOR shall secure any and all other approvals that are required from Meeker County, Kingston Township and the MPCA. A Minnesota Pollution Control Agency (MPCA) General Construction Stormwater Permit (NPDES) is required for this project.
- E. The CONTRACTOR shall conduct his operations in accordance with the provisions of all permits, whether obtained by the CONTRACTOR or provided by the OWNER. Any violations or fines are at the expense of and are the sole responsibility of the CONTRACTOR.

1.03 SUBMITTALS

Owner shall prepare his/her own Erosion Control Plan and submit to ENGINEER at the Pre-construction Meeting. The CONTRACTOR's Erosion Control Plan shall meet the requirements of Meeker County ordinances, the MPCA Construction Stormwater Permit, the erosion control requirements of the Clearwater River Watershed District and shall address CONTRACTOR's expected schedule, construction sequencing, plan for staging materials, etc.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION

SECTION 01050

DEFINITIONS AND STANDARDS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Basic definitions are provided in the General Conditions.
- B. Additional technical definitions are provided in appropriate sections of these Specifications.
- C. Abbreviations and acronyms are sometimes used in the Specifications to identify reference standards. Implied words and meanings shall be interpreted as appropriate.
- D. When a standard is specified by reference, the CONTRACTOR shall comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents, or when applicable codes established more strict standards.
- E. When published standards are referenced, the publication in effect on the date of issue of Contract Documents shall apply, unless specified otherwise.

1.02 ABBREVIATIONS, NAMES, AND ADDRESSES OF ORGANIZATIONS

The CONTRACTOR shall obtain copies of referenced standards, direct from the publication source, when needed for proper performance of Work, or when required for submittal by Contract Documents.

AASHTO American Society of State Highway and Transportation Officials
44 North Capital Street, NW
Washington, DC 20001

ASTM American Society for Testing and Materials
1916 Race Street
Philadelphia, PA 19103

GRI Geosynthetic Research Institute
475 Kedron Avenue
Folsom, PA 19033-1208

MN/DOT Minnesota Department of Transportation
395 John Ireland Blvd
St. Paul, MN 55155-1899

1.03 OTHER DEFINITIONS

- A. Furnish: Supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
- B. Install: Operations at the Project Site, including unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- C. Provide: To furnish and install in-place, complete and ready for the intended use.
- D. Installer: The CONTRACTOR or another entity engaged by the CONTRACTOR, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.

The term experienced, when used with the term Installer, means having a minimum of five previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of the authorities having jurisdiction.

- E. Project Site: Is the space available for performing construction activities, either exclusively or in conjunction, with others performing work as part of the Project. The extent of the Project Site is shown on the Drawings or in other portions of the Contract Documents and may or may not be identical with the description of the land on which the Project is to be built.
- F. Standard Specifications: Minnesota Department of Transportation "Standard Specifications for Construction" 2005 edition with revisions and supplements.
- G. OWNER, ENGINEER & OWNER'S REPRESENTATIVE: as discussed in Section 01020.

PART 2 – PRODUCTS

(Not Used)

PART 3 – EXECUTION

(Not Used)

END OF SECTION

SECTION 01060

ON-SITE HEALTH AND SAFETY REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. CONTRACTOR shall be responsible for implementation and enforcement of safe work practices, including, but not limited to personnel monitoring, personnel exposure to hazards, use of trenching, sheeting, and shoring, scaffolding; materials handling and drilling; operation of equipment; and safety of public during progress of Work.

1.02 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies:
 - 1. CONTRACTOR shall plan for and ensure personnel comply with basic provisions of OSHA Safety and Health Standards (29 CFR 1910) and General Construction Standards (29 CFR 1926) as appropriate.
 - 2. CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for safety of persons or property.

1.03 OPERATIONS AND EQUIPMENT SAFETY

- A. CONTRACTOR shall be responsible for initiating, maintaining, and supervising safety precautions and programs in connection with Work. CONTRACTOR shall take necessary precautions for safety of employees on project site and other persons and organizations who may be affected by the project.
- B. CONTRACTOR'S duties and responsibilities for safety in connection with Work shall continue until such time as all Work is completed and ENGINEER has issued notice to CONTRACTOR that Work is complete.

1.04 HEALTH AND SAFETY

- A. CONTRACTOR is responsible for implementation and enforcement of health and safety requirements and shall take necessary precautions and provide protection for:
 - 1. All personnel working on or visiting project site, irrespective of employer, including public and local residents.
 - 2. Work and materials or equipment to be incorporated in Work area whether on or off-site.
 - 3. Other property at or adjacent to project site.
 - 4. Public exposed to job-related operations or potential hazards.
- B. CONTRACTOR shall prepare a site-specific Health And Safety Plan (HASP). If CONTRACTOR does not have the capability to prepare HASP, CONTRACTOR shall employ a professional with appropriate capability. CONTRACTOR is solely

responsible for the adequacy of the HASP, its preparation, monitoring, management, and enforcement. At a minimum, CONTRACTOR'S HASP shall address the following:

1. Site description and history.
 2. Project activities and coordination with other CONTRACTORS.
 3. Hazard evaluation.
 4. On-site safety responsibilities.
 5. Work zones.
 6. Personnel training.
 7. Any atmospheric monitoring.
 8. Personal protection, clothing, and equipment.
 9. Emergency procedures.
- C. If OWNER contracts with others for Work on the site, CONTRACTOR shall amend the HASP to include provisions for Work of others. CONTRACTOR shall also manage, enforce, and monitor the health and safety activities of other CONTRACTORS during duration of other CONTRACTORS' Work.

1.05 ENGINEER RESPONSIBILITIES

- A. The ENGINEER will be present on Project Site during construction activities. The ENGINEER will comply with CONTRACTOR'S safety plans, programs, and procedures.
- B. If ENGINEER determines CONTRACTOR'S safety plans, programs, and procedures do not provide adequate protection for ENGINEER, ENGINEER may direct its employees to leave Project Site or implement additional safeguards for ENGINEER protection. If taken, these actions will be in furtherance of ENGINEER responsibility to its employees only, and ENGINEER will not assume responsibility for protection of any other persons affected by Work.
- C. If ENGINEER observes situations that appear to have potential for immediate and serious injury to persons, ENGINEER may warn persons who appear to be affected by such situations. Such warnings, if issued, shall be given based on general humanitarian concerns, and ENGINEER will not, by issuance of any such warning, assume any responsibility to issue future warnings or any general responsibility for protection of persons affected by Work.

1.06 SUBMITTALS

- A. Submit copies of HASP to OWNER and ENGINEER.
1. Submit HASP to OWNER and ENGINEER within 7 days after Notice of Award. Work on-site shall not proceed until the HASP has been submitted to ENGINEER.
 - a. Submittal of CONTRACTOR'S Health and Safety Plan to ENGINEER is to inform ENGINEER and OWNER so they can comply with HASP during performance of their on-site responsibilities as described in Contract Documents.

- b. Submittal of CONTRACTOR'S Health and Safety Plan shall neither impose on ENGINEER'S responsibility for adequacy of HASP nor relieve CONTRACTOR from full responsibility therefore.
- B. Submit with HASP list of personnel to perform work on Site and documentation of personnel safety training required.
 - 1. Personnel who supervise on-site work and have the potential to come in contact with waste, hazards or toxic environment shall be safety trained as required under OSHA 29 CFR 1910.120. This does not include personnel whose sole responsibility is the transport of such from one site to another. Such personnel shall remain in vehicle at all times until vehicle loading is complete.

END OF SECTION

SECTION 01070
PROJECT MEETINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes requirements for project meetings on-site.

1.02 PRECONSTRUCTION MEETING

- A. ENGINEER will schedule and conduct a preconstruction meeting to be held prior to beginning Work.

1.03 WEEKLY PROGRESS MEETINGS

- A. Weekly progress meetings to be held every work week on an agreed upon day by OWNER, ENGINEER AND CONTRACTOR.

1.04 DAILY MEETINGS

- A. Daily meetings may be held at ENGINEER'S discretion.

PART 2 – PRODUCTS

(Not Used)

PART 3 – EXECUTION

- 3.01 Notice of preconstruction meeting received by attendees a minimum of five (5) calendar days prior to meeting date.

- A. Attendees at the preconstruction meeting.
 - 1. OWNER
 - 2. ENGINEER
 - 3. CONTRACTOR'S superintendent and foreman.
- B. Notice to include
 - 1. Date
 - 2. Time
 - 3. Agenda
 - a. Safety programs.
 - b. Review submittals.
 - c. Review the responsibilities of each party.
 - d. Address CONTRACTORS' questions.
 - e. Review lines of authority and communication.

- f. Review principal features of Work.
- g. Review methods for documenting and reporting, and for distributing documents and reports.
- h. Make additional appropriate modifications to the CQA Plan if needed.
- i. Establish protocols for testing.
- j. Establish protocols for handling deficiencies, repairs, and retesting.
- k. Review the time schedule for construction.
- l. Review progress schedules.
- m. Payrolls and labor relations.
- n. Environmental protection.
- o. Payment and procurement of materials.
- p. Establish soil stockpiling locations (if any).

C. Attendance:

- 1. CONTRACTOR'S superintendent.
- 2. Quality control supervisor.
- 3. Safety personnel.
- 4. Major subcontractors' job superintendents.
- 5. OWNER
- 6. Contractor's Health and Safety Manager
- 7. ENGINEER

D. Specifics of CONTRACTOR'S health, safety, and emergency plan shall be discussed so emergency procedures and safety requirements are understood by those directly related to site Work.

3.02 PROGRESS MEETINGS

A. ENGINEER shall schedule and administer progress meetings approximately once per week and such additional meetings as required, or as requested by OWNER.

B. Attendance:

- 1. OWNER or ENGINEER
- 2. CONTRACTOR'S superintendent
- 3. CONTRACTOR'S quality control supervisor
- 4. CONTRACTOR'S safety and emergency coordinator
- 5. Subcontractors as appropriate to agenda
- 6. Suppliers as appropriate to agenda

C. General Meeting Requirements:

- 1. ENGINEER shall administer following general requirements for progress meetings.
 - a. Prepare agenda for meetings
 - b. Make physical arrangements for meetings
 - c. Preside at meetings
 - d. Record significant proceedings and decisions of meeting

2. The ENGINEER will reproduce and distribute copies of meeting record within three (3) days after each meeting to participants in meeting and to parties affected by decisions made at meeting. Furnish three (3) copies of minutes to OWNER, two (2) copies to OWNER'S site representative.

D. Typical Agenda:

1. Review and approval of record of previous meeting
2. Review of Work progress since previous meeting
3. Field observations, problems, and conflicts
4. Problems impeding Work schedule
5. Review of off-site delivery schedules
6. Corrective measures and procedures to regain projected schedule
7. Revisions to project schedule
8. Planned progress during Work period
9. Coordination of schedule
10. Review submittal schedules; expedite as required
11. Maintenance of quality and safety standards
12. Pending changes and substitutions
13. Review proposed changes for effect on construction schedule and completion date, and on other contracts of project
14. Other business

END OF SECTION

SECTION 01080

SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section contains requirements for submittals of construction progress schedules, shop Drawings, test results, operation and maintenance data, construction photographs, and other submittals required by Contract Documents.
- B. Health and Safety Plan (HASP), Erosion Control Plan, and Request for Determination of Approved Equivalent submittal requirements are discussed in Sections 01060, 02080, and 01160 respectively.
- C. Submittal for Review:
 - 1. Submit required materials for ENGINEER'S review in accordance with requirements of Contract Documents.
- D. Submittal for Record:
 - 1. Submit required materials for inclusion into OWNER'S records. Submittal materials may or may not be reviewed by ENGINEER or OWNER.

1.02 CONSTRUCTION PROGRESS SCHEDULES

- A. Prepare and submit construction progress schedule in accordance with requirements of General Conditions.
- B. Comply with Meeker County and Kingston Township requirements for working hours. However, emergency Work may be done without prior permission. Coordinate working hours with the Meeker County.
- C. Prepare schedules in form of horizontal bar chart, and submit at the pre-construction meeting.
 - 1. Provide separate horizontal bar for each operation.
 - 2. Horizontal Time Scale: Identify first Work day of each week.
 - 3. Scale and spacings to allow space for notations and future revisions.
 - 4. Arrange listings in order of start of each item of Work.

D. Construction Progress Schedule:

1. Show complete sequence of construction by activity.
2. Show dates for beginning and completion of each major element of construction and installation dates for major items. Elements shall include, but not be limited to, the following:
 - a. Site preparation.
 - b. Material and equipment order, manufacturer, delivery.
 - c. Each Bid Item.
 - d. Temporary bypass road construction, use and removal
 - e. Subcontractor's items of Work.
 - g. Final cleanup
 - h. Allowance for inclement weather.
 - i. Miscellaneous items.
3. Show projected percentage of completion for each item as of first day of each month.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.01 SUBMITTAL REQUIREMENTS

A. Provide complete copies of required submittals as follows:

1. Construction progress schedule:
 - a. Two copies of initial schedule
 - b. Two copies of each revision
2. Test results: Three (3) copies
3. HASP: Three (2) copies
4. Equipment and Materials Staging Plan: One (1) copy
5. CONTRACTOR's Erosion Control Plan: Three (3) copies
6. Shop Drawings for approval Three (3) copies
7. Contact Information for Soils Testing Lab: One (1) copy
8. Other required submittals:
 - a. Three (3) copies if required for review
 - b. Three (3) copies if required for record

B. Deliver required copies of submittals to ENGINEER.

END OF SECTION

SECTION 01090

TESTING LABORATORY SERVICES

CONTRACTOR shall employ services of an independent soils testing laboratory for testing source materials, density testing and other material testing requirements.

*****END OF SECTION*****

SECTION 01100

MOBILIZATION AND DEMOBILIZATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Includes all preparatory work and operations, including, but not limited to, those necessary for the movement, to and from the project site, of personnel, equipment, supplies, and incidentals and establishment of all CONTRACTOR offices and buildings or other facilities necessary for work on the Project. Mobilization includes but is not limited to permitting, preparation of submittals, meetings, providing temporary facilities, safety, and other incidentals for performance of the work.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

- 3.01 Stage equipment and materials within Project Site limits or off-site.
- 3.02 Submit equipment and materials staging plan.

*****END OF SECTION*****

SECTION 01110

PROTECTION OF EXISTING FACILITIES

PART 1 - GENERAL

1.01 GENERAL

- A. The CONTRACTOR shall protect all existing utilities and improvements not designated for removal and shall restore, at CONTRACTOR'S expense, damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation.
- B. The CONTRACTOR shall verify the exact locations and depths of all utilities that may interfere with the WORK and, if necessary, shall make exploratory excavations of the interfering utilities. All such exploratory excavations shall be performed as soon as practicable after award of the contract and, in any event, a sufficient time in advance of construction to avoid delays of the CONTRACTOR'S work. When such exploratory excavations show any utility location as shown on the Drawings to be in error, the CONTRACTOR shall so notify the ENGINEER.

1.02 PROTECTION OF SURVEY MARKERS AND STREET OR ROADWAY MARKERS

- A. The CONTRACTOR shall not destroy, remove, or otherwise disturb any existing private or public survey markers, or existing street or roadway markers, without proper authorization. No excavation shall be started until all survey or other permanent marker points that may be disturbed by the construction operations have been properly referenced. All survey markers disturbed by the CONTRACTOR shall be restored by a land surveyor, registered in the state in which the project is located, at CONTRACTOR'S expense. All street or roadway markers and other public or private signage disturbed by the CONTRACTOR shall be restored at CONTRACTOR'S expense.

1.03 EXISTING UTILITY OPERATIONS

- A. Utilities and services shall not be disrupted during construction.
- B. The CONTRACTOR shall maintain the passage of flow in the Clearwater River during construction so that water does not significantly back up in the River.

1.04 RESTORATION OF PAVEMENT

- A. General: Utility crossings under roads or driveways that are shown on the Drawings as jacking or boring locations must be installed by the CONTRACTOR without disturbing the pavement/shouldering of such roads/driveways. All paved areas that are specified to be open cut, or that are damaged by the CONTRACTOR during construction, shall be replaced with similar materials and of equal thickness to match the existing adjacent

undisturbed areas, except where specific reconstruction requirements have been called for in these Contract Documents or in the requirements of the agency issuing the permit. CONTRACTOR shall assist the ENGINEER in coordinating the Work with the affected pavement owner. The joint between new pavement and existing pavement shall be saw cut in straight lines.

- B. Temporary Resurfacing: The CONTRACTOR shall place temporary surfacing promptly after backfilling trenches located in streets, drives, or roadways and shall maintain such surfacing for the period of time fixed by the owner of said streets, drives, or roadways before proceeding with the final restoration of improvements.
- C. Permanent Resurfacing: In order to obtain a satisfactory junction with adjacent surfaces, the CONTRACTOR shall saw cut the existing surface so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of pavement. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straight lines. All pavement restoration and other facilities restoration shall be constructed to finished grades compatible with adjacent undisturbed pavement.
- D. Restoration of Sidewalks or Private Driveways: Wherever private roads, driveways, or field entrances have been removed or damaged for purposes of construction, the CONTRACTOR shall place suitable temporary replacements after trench backfilling and shall maintain them in satisfactory condition until the final restoration thereof has been made.
- E. For any construction that will affect traffic and/or parking, the CONTRACTOR must coordinate timing with the ENGINEER. The ENGINEER will coordinate with Meeker County.

1.05 NOTIFICATION BY THE CONTRACTOR

- A. Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, petroleum products, or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way, the CONTRACTOR shall notify the owner's or agencies responsible for such facilities not less than 3 days nor more than 7 days prior to excavation so that a representative of said owner's or agencies can be present during such work if they so desire. The CONTRACTOR shall also contact Gopher State One Call (1-800-252-1166) for locations and physically locate utilities before any excavation is initiated.
- B. Prior to any excavation in the vicinity of any existing above ground facilities, including all electric power, communications, lines, poles, or television cables; all traffic signal and street lighting facilities; public and private signs, structures, and property; the CONTRACTOR shall notify the respective authorities representing the owner's or agencies responsible for such facilities not less than 3 days nor more than 7 days prior to excavation so that a representative of said owner's or agencies can present during such work if they so desire.

1.06 RESTORATION OF VEGETATION AND LANDSCAPING

- A. The CONTRACTOR shall not destroy, remove, or otherwise disturb any vegetation or landscaping without proper authorization and shall minimize such disturbances to only as much as is reasonably required for completion of the Work. All vegetation and landscaping disturbed by the CONTRACTOR shall be restored at CONTRACTOR'S expense and shall be completed in accordance with the Drawings and Specifications and with the CONTRACTOR'S Erosion Control Plan. Where requirements for restoration are not specifically stated in these Contract Documents, CONTRACTOR shall restore to pre-existing conditions or better.

1.07 PROTECTION OF CONSTRUCTION IN PROGRESS

- A. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage and deterioration when project is complete.
- B. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period.
- C. Limiting Exposures: Supervise construction operations to assure that no part of the Work, completed or in progress, is subject to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period. Where applicable, such exposures may include:
 - 1. Excessive static or dynamic loading.
 - 2. Water or ice.
 - 3. Solvents.
 - 4. Chemicals.
 - 5. UV exposure
 - 6. Puncture.
 - 7. Abrasion.
 - 8. Heavy traffic.
 - 9. Misalignment.
 - 10. Unprotected storage.
 - 11. Improper shipping or handling.
 - 12. Theft.
 - 13. Vandalism.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION

SECTION 01120

SITE ACCESS AND STORAGE

PART 1 - GENERAL

1.01 SITE ACCESS

- A. During the execution of this project, all access, movement of construction equipment, and storage of materials shall be within the work limits identified in the Contract Documents. Any CONTRACTOR'S material storage and parking areas outside the Construction Limits shall be as approved by the Clearwater River Watershed District and the ENGINEER.
- B. The CONTRACTOR shall be solely responsible for making arrangements for any necessary off-site storage or shop areas.
- C. CONTRACTOR shall notify Meeker County of any activities that may disrupt traffic or access to residences or facilities or parking areas. Notification shall occur at least 24 hours prior to activity.

1.02 HIGHWAY LIMITATIONS

- A. The CONTRACTOR shall make an investigation of the condition of available public roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the project sites. It shall be the CONTRACTOR'S responsibility to construct and maintain any temporary roads required for its construction operations in accordance with the provisions of Section 2051.4 of MN/DOT's "Standard Specifications for Construction", latest Edition with revisions and supplements. CONTRACTOR shall obtain all permits and pay all fees required for oversize loads.

1.03 TEMPORARY STREET CLOSURE

- A. The CONTRACTOR is responsible for preparing a detour and traffic control plan for approval by Meeker County and the ENGINEER in advance of temporary closures.

1.04 TRAFFIC CONTROL

- A. In addition to the traffic control procedures required in the detour and traffic control plan, this section of traffic control requirements is applicable to any other traffic control devices required to complete the work.
- B. For the protection of traffic in public or private streets and ways, the CONTRACTOR shall provide, place, and maintain all necessary barricades, traffic cones, warning signs, lights, and other safety devices in accordance with the requirements of the "Manual of

Uniform Traffic Control Devices, Part VI - Traffic Controls for Street and Highway Construction and Maintenance Operations," published by U.S. Department of Transportation, Federal Highway Administration (ANSI D6.1).

- C. The CONTRACTOR shall take all necessary precautions for the protection of the WORK and for the safety of the public. All barricades and obstructions shall be illuminated at night, from sunset until sunrise. The CONTRACTOR shall station such guards or flag persons and shall conform to such special safety regulations relating to traffic control as may be required by the public authorities within their respective jurisdictions. All signs, signals, and barricades shall conform to the requirements of Subpart G, Part 1926, of the OSHA Safety and Health Standards for Construction.
- D. The CONTRACTOR shall remove traffic control devices when no longer needed, repair all damage caused by installation of the devices, and shall remove post settings and backfill the resulting holes to match grade.

1.05 TEMPORARY CROSSINGS

- A. General: The CONTRACTOR shall provide continuous, unobstructed, safe, and adequate pedestrian and vehicular access to fire hydrants; sidewalks and trails; commercial, residential, and industrial establishments; agricultural field entrances; and parking lots, as applicable. The CONTRACTOR shall cooperate with parties involved in the delivery of mail and removal of trash and garbage so as to maintain existing schedules for such services. Vehicular access to residences shall be maintained, except when necessary construction precludes such access for short periods of time.
- B. Temporary Bridges: Wherever necessary, the CONTRACTOR shall provide suitable temporary bridges or steel plates over unfilled excavations, except in such cases where the CONTRACTOR has secured the written consent of the individuals or authorities of jurisdiction to omit such temporary bridges or steel plates. Such written consent shall be delivered to the ENGINEER prior to excavation. All such bridges or steel plates shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges or steel plates for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the CONTRACTOR shall adopt designs furnished by said authority for such bridges or steel plates, or shall submit designs to said authority for approval, as may be required.
- C. Fire Hydrants: Fire hydrants on or adjacent to the WORK shall be kept accessible to fire-fighting equipment at all times.
- D. Drainage: Temporary provisions shall be made by the CONTRACTOR to assure the proper functioning of all drainage facilities including but not limited to Kingston Wetland Restoration, natural waterways, ditches, culverts, etc.
- E. Temporary Drive/Parking Closure: The CONTRACTOR shall notify the ENGINEER and the affected owner or occupant (if not owner-occupied) of the pending closure of any road or parking area at least five working days prior to the closure. The CONTRACTOR shall minimize the inconvenience and minimize the time period that said area will be closed. The CONTRACTOR shall fully explain to the owner/occupant how long the work will take and when closure is to start.

1.06 PARKING

A. The CONTRACTOR shall:

1. Direct its employees to park in areas that do not obstruct local traffic or sight lines.
2. Maintain traffic and parking areas in a sound condition, free of excavated material, construction equipment, mud, and construction materials.
3. Repair potholes, low areas that collect standing water, and other deficiencies.
4. Not allow overnight parking of any vehicles or equipment on city, County, Township, or State jurisdictional roadways and streets.
5. Keep roads clean and free of debris, sediment, mud and other material generated or caused by construction activities.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION

SECTION 01130

PROTECTION OF ENVIRONMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. CONTRACTOR, in executing Work, shall maintain Work areas on-site and off-site free from environmental pollution that would be in violation of any federal, state or local regulations.

1.02 SUBMITTALS

- A. Submit CONTRACTOR's Erosion Control Plan at preconstruction meeting or earlier.

1.03 PROTECTION OF WATERWAYS

- A. Observe rules and regulations of State of Minnesota and agencies of U.S. government prohibiting pollution of any lake, stream, river or wetland by dumping of refuse, rubbish, dredge material or debris therein.
- B. CONTRACTOR is specifically cautioned that disposal of materials into any waters of state must conform with requirements of U.S. Army Corps of Engineers. Permits, if needed, shall be obtained by CONTRACTOR at CONTRACTOR'S cost.
- C. Kingston Wetland is public water under the jurisdiction of Minnesota Department of Natural Resources and the Clearwater River Watershed District. Care shall be taken by the CONTRACTOR to prevent sedimentation of the creek from disturbed areas throughout the project. Provide methods, which will divert flows away from construction activity, so as to prevent silting of waterways or flooding damage to property.
- D. Comply with procedures outlined in U.S. EPA manuals entitled, "Guidelines for Erosion and Sedimentation Control Planning and Implementation," Manual EPA-72-015 and "Processes, Procedures, and Methods to Control Pollution Resulting from All Construction Activity," manual EPA 43019-73-007.

1.04 STORMWATER DISCHARGE

- A. ENGINEER will inspect construction site and CONTRACTOR shall make corrections or repairs required to manage storm water, stop erosion and/or sediment transport.

1.05 EROSION AND SEDIMENT CONTROL

- A. Apply appropriate soil conservation measures to protect project area and adjacent lands. These measures may include, but not be limited to, mulching, rapid growth vegetation, fabric mat, hay bales, filter barriers, sediment traps, silt fences and basins, and silt curtains.
- B. Select methods of erosion and sediment control in field to meet conditions encountered.
- C. Prepare and submit CONTRACTOR's Erosion Control Plan to ENGINEER at the Pre-construction Conference. Plan shall include:
 - 1. Limits of disturbance.
 - 2. Type(s) of stabilization to be used.
 - 3. Existing and proposed culverts, storm drains, and outfalls.
 - 4. Location of stabilized construction entrance.
 - 5. Location of proposed sediment control measures.
 - 6. Details of sediment traps and basins and other sediment control measures.
 - 7. Sequence of construction as it relates to installation, phasing, and removal of sediment control measures.
- D. Provide erosion control measures, in-place, before commencing work on project site.
 - 1. Maintain erosion control measure during course of construction.
 - 2. Remove erosion control measures upon establishment of permanent, surface stabilization.
- E. Complete temporary or permanent stabilization of surface of perimeter controls, dikes, swales, ditches, perimeter slopes, and slopes greater than 3:1 within 7 calendar days following initial soil disturbance. Stabilize other disturbed or graded areas within 14 calendar days.
- F. CONTRACTOR shall maintain public haul and access routes in a clean condition, and shall sweep or otherwise clean roads on a daily basis so that daily use of roads by the public is not hazardous or a nuisance.

1.06 DISPOSAL OF WASTE MATERIALS

- A. Dumping of waste oil or fuel at this site is unacceptable. Accidental fuel or oil spills will require excavation of contaminated soils and disposal at an authorized facility. CONTRACTOR shall be responsible for cleanup of any waste oil, fuel or other contaminant spills, including contaminated soil or water, at the Project Site.

1.07 PROTECTION OF AIR QUALITY

- A. Minimize air pollution by requiring use of properly operating combustion emission control devices on construction vehicles and equipment used by CONTRACTORS, and encouraging shutdown of motorized equipment not actually in use.

- B. Trash burning will not be permitted on construction site.
- C. If temporary heating devices are necessary for protection of Work, they shall be of type that will not cause air pollution.

1.08 USE OF CHEMICALS

- A. Chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of either U.S. EPA or U.S. Department of Agriculture or any other applicable regulatory agency.
- B. Use of such chemicals and disposal of residues shall be in conformance with manufacturer's instructions.

1.09 NOISE CONTROL

- A. Conduct operations to cause least annoyance to residents in vicinity of Work, and comply with applicable local ordinances.
- B. Equip compressors, hoists, and other apparatus with such mechanical devices as may be necessary to minimize noise and dust. Equip compressors with silencers on intake lines.
- C. Equip gasoline or oil-operated equipment with silencers or mufflers on intake and exhaust lines.
- D. Line storage bins and hoppers to limit impact noise.
- E. Conduct operation of dumping rock and of carrying rock away in trucks so as to cause minimum of noise and dust.
- F. Route vehicles carrying rock, concrete, or other material over such streets as will cause least annoyance to public and operate on public streets only during hours of local time, Monday through Saturday as approved by the Meeker County. If different working hours are required, arrangements must be made with OWNER at least 48 hours in advance, and the changed hours must be approved by the Meeker County.

1.10 DUST CONTROL

- A. Take special care in providing and maintaining temporary roadways, haul roads, and public roads used for construction operations in clean, dust-free conditions during construction operations.
- B. The CONTRACTOR shall provide positive methods and apply dust control water to minimize raising dust from construction operation, and provide positive means to prevent airborne dust from dispersing into the atmosphere. Chemical dust suppressant shall not be used. CONTRACTOR shall supply water, as needed.

- C. Comply with local environmental regulations for dust control and direction of OWNER. If CONTRACTOR'S dust control measures are considered inadequate, ENGINEER will require CONTRACTOR to take additional dust control measures at no additional cost.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

3.01 EROSION CONTROL

- A. Prepare CONTRACTOR's Erosion Control Plan.
- B. Install and maintain erosion control devices as directed by OWNER or ENGINEER where soil erosion and sediment transport from the site may occur due to CONTRACTOR'S activities.
- C. Install temporary erosion control devices during the progress of the work and maintain them until permanent erosion control (turf establishment, aggregate surfacing, etc.) has been established.
- D. Following construction, repair any eroded areas, remove sediment as necessary, replace eroded soils, and establish vegetation in accordance with these Contract Documents.
- E. Silt fences shall be installed at the perimeter location indicated on the Drawings and other locations, if necessary, to prevent sediment from leaving the site and entering waters of the state.
- F. Horizontal slope grading and slope roughening practices shall be performed to reduce the amount of erosion on the slopes. These practices include using bulldozers or other equipment to make tracks perpendicular to the direction of surface water runoff. Temporary cover materials may also be used along the slopes and along the ditch channels if excess erosion is expected to occur.

END OF SECTION

SECTION 01140

TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes requirements for CONTRACTOR supplied temporary utilities. A contractor supplied field office is not required for this project.

1.02 UTILITY REQUIREMENTS

A. Electrical

- 1. Provide temporary power supply for construction activities and appurtenances, if any.

B. Water

- 1. No water supply available at site for CONTRACTOR'S use
- 2. Obtain and supply water for usage at site
- 3. Supply potable water for personnel use at site

C. Sanitary facilities

- 1. Provide sanitary facilities for personnel at the site

- D. Fire Protection: CONTRACTOR shall make all arrangements necessary to assure that the Site and the Work have adequate fire protection services throughout the duration of the Work. Any special fees or charges imposed by the local governmental units or other organization to provide such services shall be paid by CONTRACTOR.

- E. Lighting: CONTRACTOR shall furnish such temporary lighting as may be required to perform the Work.

1.03 TRASH DISPOSAL

- A. The CONTRACTOR shall be responsible for collecting and properly disposing of all trash and debris. Trash, debris, and waste shall not be allowed to accumulate.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

- 3.01 Provide temporary utilities required for project Work.
- 3.02 Disconnect temporary power and water supply upon project completion.
- 3.03 Remove personnel sanitary facilities upon project completion.

END OF SECTION

SECTION 01150

MATERIAL AND EQUIPMENT

PART 1 – GENERAL

1.01 SUMMARY

- A. Material and Equipment incorporated into Work:
 - 1. Conform to applicable specifications and standards.
 - 2. Comply with size, make, type, and quality specified.
- B. Manufactured and Fabricated Materials and Equipment:
 - 1. Design, fabricate, and assemble in accordance with engineering and shop practices standard with industry.
 - 2. Material and equipment shall be suitable for service conditions.
- C. Do not use material or equipment for purpose other than for which it is designed or specified.

1.02 MANUFACTURER'S INSTRUCTIONS

- A. Installation of materials shall comply with manufacturer's instructions. Obtain and distribute printed copies of such instructions to parties involved in installation, including 2 copies to ENGINEER.
 - 1. Maintain one set of complete instructions at job site during installation until completion of entire Project.
- B. Handle, store, install, connect, clean, condition, and adjust materials in accordance with manufacturer's written instructions and in conformance with Specifications.
 - 1. If job conditions or specified requirements conflict with manufacturer's instructions, consult ENGINEER for further instructions.
 - a. Do not proceed with Work without written instructions.

PART 2 – PRODUCTS

(Not Used)

PART 3 – EXECUTION

(Not Used)

*****END OF SECTION*****

SECTION 01160

SUBSTITUTIONS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes basic procedures for request of proposed substitutions during and after the bidding period.

1.02 SUBMITTALS

- A. Submit enclosed Substitution request form
 - 1. Attachment 1: Prior to Bid Opening
 - 2. Attachment 2: After Contract Award
- B. Procedures for Contractors request for consideration of substitute as an “Approved Equivalent”
 - 1. To consider products of other manufacturers as “Approved Equivalent” CONTRACTOR shall demonstrate the substitution is equal to or better than the specified item. Factors to be addressed are:
 - i. Environment (ambient conditions, climate, etc.)
 - ii. Quality
 - iii. Dependability
 - iv. Durability
 - v. Strength
 - vi. Performance
 - vii. Operation Efficiency
 - viii. Maintenance
 - ix. Warranty
 - x. Overall Cost Effectiveness
 - 2. Contractor shall submit only proposed items that duplicate the intended design or function. The CONTRACTOR may be asked to provide references to other sites where the proposed substitutions have been installed.
 - 3. Basis of Acceptance: The CONTRACTOR’S provided data shall be the basis for accepting/rejecting the proposed substitution. Substitutions shall not be accepted without the approval of the ENGINEER.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

Attachment 1 to Section 01160
REQUEST FOR DETERMINATION OF APPROVED EQUIVALENT - PRIOR TO BID OPENING

Project: _____ Substitution Request Number: _____

From: _____
To: _____ Date: _____

Re: _____ Wenck Project #: _____

Specification Title: _____ Description: _____
Drawing #: _____ Detail #: _____
Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: _____
Manufacturer: _____ Address: _____ Phone: _____
Trade Name: _____ Model No.: _____
Installer: _____ Address: _____ Phone: _____
Differences between proposed substitution and specified product: _____

☐ Point-by-point comparative data attached – REQUIRED BY SECTION 01160

Similar Installation:

Project: _____

Engineer: _____

Address: _____

Owner: _____

Date Installed: _____

Proposed substitution affects other parts of Work: ☐ No ☐ Yes, explain _____

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

Attachment 1 to Section 01160
SUBSTITUTION REQUEST (Page 2 of 2) Prior to Bid Opening

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

Signature: _____

Firm: _____

Address: _____

Telephone: _____

Attachments: _____

ENGINEERS REVIEW AND ACTION

☐

Substitution approved – Make submittals in accordance with Specification Section 01160.

☐

Substitution rejected – Use specified materials.

☐

Substitution Request received too late – Use specified materials.

Signed by: _____

Date: _____

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ Engineer

Attachment 2 to Section 01160
REQUEST FOR DETERMINATION OF APPROVED EQUIVALENT - AFTER CONTRACT
AWARD

Project: _____	Substitution Request Number: _____
_____	From: _____
To: _____	Date: _____
_____	_____
Re: _____	Wenck Project #: _____

Specification Title: _____	Description: _____
Drawing #: _____	Detail #: _____
Section: _____	Page: _____ Article/Paragraph: _____

Proposed Substitution: _____

Manufacturer: _____ Address: _____ Phone: _____

Trade Name: _____ Model No.: _____

Installer: _____ Address: _____ Phone: _____

History: ☐ New Product ☐ 2-5 years old ☐ 5-10 years old ☐ More than 10 years old

Differences between proposed substitution and specified product: _____

☐ Point-by-point comparative data attached – REQUIRED BY SECTION 01160

Reason for not providing specified item: _____

Similar Installation:

Project: _____	Engineer: _____
Address: _____	Owner: _____
_____	Date Installed: _____

Proposed substitution affects other parts of Work: ☐ No ☐ Yes, explain _____

Savings to Owner for accepting substitution: _____ (\$ _____)

Proposed substitution changes Contract Time: ☐ No ☐ Yes _____ days.

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

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Approved: NCW

Substitutions
Kingston Wetland Restoration

Attachment 2 to Section 01160
SUBSTITUTION REQUEST (Page 2 of 2) - After Contract Award

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including engineering design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

Signature: _____

Firm: _____

Address: _____

Telephone: _____

Attachments: _____

ENGINEERS REVIEW AND ACTION

- ☐ Substitution approved – Make submittals in accordance with Specification Section 01160.
- ☐ Substitution rejected – Use specified materials.
- ☐ Substitution Request received too late – Use specified materials.

Signed by: _____ Date: _____

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ Engineer

END OF SECTION

SECTION 2

Technical Specifications

SECTION 02020

TREE REMOVAL

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. The CONTRACTOR shall cut, remove and dispose of trees marked for removal within the Construction Limits. Trunks, branches and woody debris and litter shall be removed and disposed of off-site. Any elm, ash or red oak trees shall be handled and disposed of in accordance with Minnesota Rules 1505 and local ordinances.
- B. CONTRACTOR shall provide 72-hour notice to CRWD Project Manager so trees to be removed may be marked.
- C. The CONTRACTOR shall notify the ENGINEER when trees are to be removed so a representative can be on-site during activities.

1.02 TREE INVENTORY

- A. OWNER will provide CONTRACTOR with a list of the trees to be removed prior to issuance of Notice to Proceed and mark trees for removal.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

*****END OF SECTION*****

SECTION 02030
CLEARING AND GRUBBING

PART 1 – GENERAL

1.01 SUMMARY

- A. Includes the removal and disposal of brush, shrubs, windfalls, dead fall on the banks and in the creek channel, logs, stumps, roots, fallen timber, and other surface vegetation or debris.

1.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Standard Specifications are defined as the "Standard Specifications for Construction", State of Minnesota Department of Transportation, 2005 Edition with latest supplements.
 - 1. The Provisions of Mn/DOT 2101 – Clearing and Grubbing shall apply.
- B. Minnesota Rules Chapter 1505.

1.03 COORDINATION

- A. The CONTRACTOR shall coordinate work with others performing work at project site.
- B. The CONTRACTOR shall notify Gopher State One Call (800-252-1166) to mark locations of utilities prior to beginning the Work.

PART 2 – PRODUCTS

(Not Used)

PART 3 – EXECUTION

3.01 APPLICABLE SPECIFICATIONS

The CONTRACTOR shall perform all WORK under this section in conformance with the provisions of Mn/DOT 2101 – Clearing and Grubbing.

3.02 PROTECTION

The CONTRACTOR shall:

- A. Conduct all operations within the limits of construction, as indicated on the Drawings.
- B. Protect all trees and plant materials not designated for removal.

- C. Conduct operations in such a manner that does not damage protected trees and vegetation outside of limits of construction.

3.03 GENERAL

- A. Clearing and grubbing consists of cutting and disposing of bushes, brush, windfalls, deadfall, logs, and other surface vegetation or debris, and removing and disposing of roots, stumps, stubs, grubs, logs, and other timber from the work area including woody debris and litter.
- B. Do not remove or cut down trees unless located within limits of excavation, and then only after marked for removal and approved by ENGINEER.
- C. Do not trim trees unless approved by ENGINEER. Trim in accordance with generally accepted horticultural practices when partial removal of roots necessitates trimming to save trees, and paint cut limbs greater than 1 inch in diameter with asphalt base tree paint.
- D. Protect all trees and plant materials that do not need to be removed to complete the Work.

3.04 GRUBBING

The CONTRACTOR shall:

- A. Remove and dispose of stumps and roots.
- B. Completely remove stumps and roots.
- C. Backfill depressions with native or specified soils and compact backfill as directed by the ENGINEER.

3.05 DISPOSAL

The CONTRACTOR shall:

- A. Dispose of Elm, Ash and Red Oak debris removed by clearing and grubbing in accordance with Minnesota Rules Chapter 1505.
- B. Dispose of all cleared and grubbed material at off-site locations. The CONTRACTOR shall not bury cleared and grubbed waste within the limits of construction or anywhere on the project site.

END OF SECTION

SECTION 02040

SITE PREPARATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Includes the requirements for miscellaneous site preparations.

1.02 DEFINITIONS

- A. Structures and Surface Features: For purpose of this section, shall mean existing structures and surface features, including but not limited to buildings, bridges, retaining walls, patios, stairways, pavements, curb and gutter, signs, posts, fences, trees, shrubs, other landscaped features.
- B. Salvaged Topsoil: Natural loam, sandy loam, silt loam, silty clay loam, or clay loam humus-bearing soils available from overlying portions of areas to be excavated for construction.
- C. Unsuitable Material: Topsoil, peat, organic soils, and materials containing roots, stones, slag, cinders, debris, and rubble or soil with less than required bearing capacity as determined by ENGINEER.
- D. Utilities: Existing gas mains; water mains; electric lines; conduits, telephone, and other communication lines; sewer pipe; cable television, other utilities, and appurtenances.

1.03 PROJECT/SITE CONDITIONS

- A. Provide 72 hour notice, prior to beginning construction, to Meeker County, and other owners of utilities, structures, and surface features.

1.04 COORDINATION

- A. Coordinate work with any others performing work at project site.
- B. Call **Gopher One** to check for utilities prior to beginning Work.
- C. Call Meeker County to locate all city utilities, easements and right-of-way.
- D. Call Meeker County and CRWD to locate and verify access and haul routes.

PART 2 - PRODUCTS

(Not Used)

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Approved: NCW

Site Preparation
Kingston Wetland Restoration

PART 3 - EXECUTION

3.01 PREPARATION

- A. Provide protection and support during construction for existing utilities, structures, and surface features adjacent to construction area or easements and rights-of-way.
- B. Remove obstructions such as mounds of dirt, stone or debris located within working limits.
- C. Obstructions such as street signs, small culverts, and guard posts located within construction limits may be removed if promptly replaced to original condition unless otherwise specified.
- D. Install silt fence at construction limits and the rock construction entrance before Work begins.

3.02 SALVAGED TOPSOIL

- A. Excavate and temporarily stockpile salvaged materials in quantities adequate to restore areas disturbed by construction.
- B. All material stockpile areas shall be stripped of topsoil, woody debris and litter prior to stockpiling.
- C. Provide transportation of material and sites for stockpiles if adequate areas not available within the construction limits as shown on the Drawings.

3.03 ESTABLISHMENT MAINTENANCE AND REMOVAL OF HAUL ROADS

- A. Prior to hauling operations, CONTRACTOR shall construct necessary haul roads in ENGINEER approved locations. While hauling operations are in progress, CONTRACTOR shall maintain haul roads in condition satisfactory to the ENGINEER. Work shall include any or all of the following items:
 - 1. Application of water
 - 2. Bituminous material
 - 3. Sweeping
 - 4. Others as necessary
- B. When hauling operations are completed, CONTRACTOR shall:
 - i. Remove any material placed for installation of haul roads.
 - ii. Restore grassed areas to condition that existed at the time hauling operations were started by tilling to loosen soil, seed, and mulch according to Section 02486.

- C. The ENGINEER shall make the determination as to the kind and amount of Work required to restore the haul road to a condition equal to the time hauling operations began.
- D. When hauling operations are complete and restoration is complete to the satisfaction of the ENGINEER, the CONTRACTOR will be relieved of any additional obligation in connection to the maintenance and restoration of the haul road.

END OF SECTION

SECTION 02045

DEMOLITION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes descriptions for abandonment/demolition of existing site features.

PART 2 – PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 EXISTING CULVERT

- A. Existing 72- inch RCP culvert located at the western (upstream) edge of Kingston Wetland is to be removed and disposed of offsite.

3.02 EXISTING CHANNEL OBSTRUCTIONS

- A. Existing concrete channel diversion located adjacent to existing 72-inch RCP culvert is to be removed and disposed of offsite.
- B. Clear channel obstruction in the Clearwater River located approximately 500 LF downstream of CSAH 15 and dispose of material offsite.

*****END OF SECTION*****

SECTION 02050

EXCAVATION AND DISPOSAL

PART 1 - GENERAL

1.01 SUMMARY

- A. Work described in this section includes excavation for creek channel relocation and shaping, any needed subcutting, excavation of creek bed deposits in the channel and all excavations as shown on the Drawings. This section also includes any subgrade preparation required prior to backfilling; or installing coir block; and/or installing geotextiles, riprap, boulders, cobbles and riffles.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM):
1. ASTM D422 - Standard Method for Particle Size Analysis of Soils.
 2. ASTM D1140- Standard Test Method for Amount of Material in Soils Finer than the No. 200 (75 um) Sieve.
 3. ASTM D1556- Standard Test Method for Density of Soil in-Place by the Sand Cone Method.
 4. ASTM D698 - Standard Test Methods for Moisture-Density Relations of Soils and Soil Aggregate Mixtures Using 5.5-lb (2.49 kg) Rammer and 12-inch (305 mm) Drop.
 5. ASTM D2167- Standard Test Method for Density and Unit Weight of Soil in-Place by the Rubber Balloon Method.
 6. ASTM D2487- Standard Test Method for Classification of Soils for Engineering Purposes.
 7. ASTM D2922- Standard Test Methods for Density of Soil and Soil-Aggregate in-Place by Nuclear Methods (Shallow-Depth).
 8. ASTM D3017- Standard Test Method for Water Content of Soil and Rock in-Place by Nuclear Methods (Shallow Depth).

1.03 SUBMITTALS

(Not Used)

1.04 QUALITY ASSURANCE

- A. Sheet piling, Shoring, and Bracing:
1. Any temporary sheet piling, shoring, and bracing shall be designed by a Professional Engineer registered in the State of Minnesota.
 2. Sheet piling, shoring, and bracing shall conform to safety requirements of federal, state, or local public agency having jurisdiction over such matters. Most stringent of these requirements shall apply.

1.05 DEFINITIONS

- A. Influence Zone Under Foundations, Pavements, or Sidewalks: Area below foundation or pavement and sidewalk base bounded by 1 horizontal to 2 vertical slope extending outward from 1 ft beyond outer edges of foundation, pavement, or sidewalk.
- B. Influence Zone Around Culverts: Area below limits bounded by line 12 in. above pipe or duct and by 1 horizontal to 2 vertical slope extending outward from that line 1 ft beyond outer edge of pipe.
- C. Unsuitable Material: Topsoil, peat, organic soils, and materials containing roots, stones, slag, cinders, foundry sand, debris, and rubble or soil with less than required bearing capacity as determined by ENGINEER.

1.06 FIELD MEASUREMENTS

- A. Verify control monuments and intended elevations for Work as shown on Drawings.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine and verify acceptability and condition of surfaces to perform Work.
- B. Notify ENGINEER before placing fill material.
- C. Do not use frozen material or place fill on frozen subgrade.
- D. Where pipes or electrical conduits leave structures, protect by backfilling pipe or duct influence zone down to undisturbed soil with controlled fill.
- E. Place fill simultaneously on both sides of free-standing structures.
- F. Provide mechanical compaction for cohesive material and vibratory compaction for granular materials.
- G. Lift Thickness and Compaction: Place and compact fill material in maximum lift thickness and to minimum densities listed below. Where "Quality Compaction Method" is listed, reference "Standard Specifications" Section 2105.3.F2.

	Fill Placement	Maximum Compacted Lift <u>Thickness (inches)</u>	Standard Proctor (%)
1.	Controlled Cohesive Fill for Pipe Trench Backfill	8	100
2.	Controlled Granular Fill for Sub-Grade	6	100
3.	Coarse Sand	12	2105.3F2.
4.	Class 5 Aggregate	4	100
5.	Controlled Granular Fill for Subcut Replacement	6	100
6.	Coarse Aggregate	12	Do Not Compact
7.	Intermediate Aggregate	6	Do Not Compact
8.	Clay	6	100

3.02 PREPARATION

- A. Identify required lines, grades, levels, contours, and datum.
- B. Protect benchmarks, structures, equipment, and partially completed Work.
- C. Over-excavate soft areas of subgrade not capable of in-situ compaction as directed by ENGINEER.
- D. Notify corporations, companies, individuals, or authorities owning above- or below-ground conduits, wires, pipes, or other utilities running to property or encountered during excavating operations.
- E. Cap or remove and relocate services in accordance with instructions by owners of services.
- F. Protect, support, and maintain conduits, wires, pipes, and other remaining utilities in accordance with requirements of owners of said services.
- G. CONTRACTOR may encounter groundwater or upward seepage during construction and is responsible for dewatering:
 - 1. Keep excavations free from water.
 - 2. Maintain groundwater minimum of 12 inches below excavations.
 - 3. Remove soil disturbed by pressure or flow of groundwater and replace with free-draining material.
 - 4. Maintain dewatering system to prevent uplifting of structures.
 - 5. Protect adjacent properties from damage resulting from dewatering operations.

- 6. Dewatering wells shall be drilled, maintained, and abandoned in accordance with federal, state, and local ordinances.
- H. Keep construction site free-draining.
- I. Fill settled areas where excavations or trenches were backfilled and holes made by demolition, tree removal, and site preparation work.
- J. Remove all topsoil, organic material, and soft, wet, or loose soils below proposed riffle areas. During excavation or exposure of in-situ soils, the CONTRACTOR shall subcut 2 feet beneath plan subgrade if soft, wet, or loose soils are encountered. Replace unsuitable materials with structural fill material such as coarse aggregate. Soft, wet, loose, and competent soils will be determined by the ENGINEER.

3.03 COMMON EXCAVATION

- A. Excavations shall conform to lines and grades as staked, and as shown on Drawings.
- B. Excavations beyond those lines and grades without the ENGINEER's authorization will be considered unauthorized work.
- C. Method of excavation shall be consistent with soil types encountered and result in competent subgrade.
- D. Remove stumps, roots, debris, large stones or boulders, and any other deleterious material from excavated materials to be used in embankments or as fill.
- E. Upon completion of excavation, notify ENGINEER before proceeding with further work.

3.04 FIELD QUALITY CONTROL

- A. Subgrade elevations shall be between -0.2 and +0.0 feet.

3.05 ADJUSTMENT AND CLEANING

- A. Remove excess material and unsuitable materials from site.

3.06 STOCKPILE REQUIREMENTS

- A. Stockpiling is not permitted within the construction limits or the wetland.

3.07 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION

SECTION 02060

GEOTEXTILES

PART 1 GENERAL

1.01 SUMMARY

- A. Work under this section includes furnishing and installing geotextile for the sand filter trench construction, rip rap installation or other structure support and soil stabilization as needed.

1.02 RELATED SECTIONS

Section 02090 – Riprap and Toe Boulders
Section 02080 – Coarse Sand ZVI Filter Material

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM D1777-Method for Measuring Thickness of Textile Materials.
 - 2. ASTM D5261-Test Methods for Mass per Unit Area (Weight) of Woven Fabric.
 - 3. ASTM D3786-Test Method for Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics: Diaphragm Bursting Strength Tester Method.
 - 4. ASTM D4355-Test Method for Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon Arc-Type Apparatus).
 - 5. ASTM D4533-Test Method for Trapezoid Tearing Strength of Geotextiles.
 - 6. ASTM D4632-Test Method for Grab Breaking Load and Elongation of Geotextiles.
 - 7. ASTM D4751-Test Method for Determining the Apparent Opening Size of a Geotextile.
 - 8. ASTM D4833-Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products.

1.04 SUBMITTALS

- A. Manufacturer's certificates indicating conformance test results of furnished material to Specifications.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Roll Identification:
 - 1. Provide geotextiles in rolls protected by impermeable and opaque covers and tagged with the following information:
 - a. Manufacturer's name, address, and telephone number.
 - b. Product identification.

- c. Lot number.
 - d. Roll number.
 - e. Roll dimension.
 - 2. Provide instructions on special handling during hauling and storage.
 - 3. Handle and protect product to ensure product is not damaged.
- B. Material will not be accepted on-site without Quality Control Certificates for every roll.

PART 2 - PRODUCT

2.01 MATERIAL

- A. Furnish materials whose minimum roll values meet or exceed those specified in the Geotextile Fabric Properties paragraph.
- B. Unless specifically authorized, do not furnish special run or value added products.
- C. Material shall retain a minimum 70 percent strength after 500 hours direct exposure to sunlight. (Ultra Violet Resistance ASTM D4355-84).

2.02 GEOTEXTILE FABRIC PROPERTIES

- A. AASHTO M288 Class 2 Non-Woven
 - 1. Minimum general.
 - a. Nonwoven.
 - b. Polypropylene.
 - 2. Minimum dimensional.
 - a. Thickness - 100 mils (ASTM D1777-64, 2kPa loading).
 - b. Mass/unit area - 8 ounces per square yard (ASTM D5261).
 - 3. Minimum permeability/filtration.
 - a. Apparent opening size - 50-100 U.S. Standard Sieve (ASTM D4751-87).
 - b. Permittivity – 100 gal/min/ft² (ASTM D4491).
- B. AASHTO M288 Class 1 Woven to be used for stabilization of soft areas or to enhance bearing capacity.

2.03 SOURCE QUALITY CONTROL

- A. Manufacturer's certification indicating material conformance to geotextile fabric properties.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine and verify acceptability of surface to receive installation of geotextile.

3.02 INSTALLATION

A. General.

1. Roll out in a manner to keep material in constant tension.
2. Weight material with sandbags or approved equivalent during installation to prevent movement and wind disruption. Keep weight in-place until cover material is applied.
3. Do not expose material to precipitation prior to installation.
6. Do not expose material to direct sunlight for more than 24 hours prior to installation.

B. Seams.

1. Seam by sewing, fusion, or other approved methods.
2. Seam shall be continuous.
3. Overlap shall be a minimum of 12 inches.
4. Seam vertical on slope, not across slope.
5. Thread shall be polymeric with properties equal to or exceeding the geotextile.

3.03 REPAIR

A. Slope Areas

1. Sew fabric in-place using a double-lock stitch, seam stitches $\frac{1}{4}$ - to $\frac{3}{4}$ -inch apart and no closer than 1 inch from edges.
2. Tear exceeding 10 percent of roll width, remove roll from slope and replace.

B. Nonslope areas - spot seam fabric patch in-place with a minimum 24-inch overlap in each direction.

C. Remove debris, soil, or other material which may have penetrated geotextile.

END OF SECTION

SECTION 02070

FILTER MATERIAL, RIPRAP AND RIFFLES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Installation of filter material, riprap, and riffles. The work to be done shall include the furnishing of all labor, materials, tools and equipment, to construct and complete in-place all site riprap and riprap structures described in this section as shown on the drawings and as specified herein.

1.02 REFERENCES

- A. State of Minnesota Department of Transportation (MnDOT):
 - 1. 2511 Riprap
 - 2. 3601 Riprap Materials
 - 3. 3149 Granular Material
 - 4. 1512 Unacceptable and Unauthorized Work

1.03 SUBMITTALS

- A. Sample of Filter Blanket material or gradation test.

PART 2 PRODUCTS

- 2.01 Riprap and riffles shall be furnished and installed as shown on Plans and shall conform to MnDOT materials specification 3601. All riprap and boulders shall be igneous or metamorphic rounded fieldstone material of sound quality, unless otherwise shown on the Drawings.
- 2.02 Filter Blanket material shall be used where shown on the Drawings and shall provide a base for Riprap and Riffle structures. Filter Blanket material shall be free draining mineral product, excluding crushed carbonate quarry rock, crushed concrete, and salvaged bituminous mixture, and meeting the grading requirements of MnDOT Section 3149.2 Coarse Filter Aggregate and Fine Filter Aggregate as specified in Drawings.
- 2.03 Riprap shall be Class IV
- 2.04 Riffle boulders shall be of the size indicated on the Drawings and placed as shown.

PART 3 EXECUTION

3.01 CONSTRUCTION

- A. The foundation for the riprap, toe boulders and riffles shall be excavated and shaped to the cross-sections indicated in the Drawings, unless otherwise directed by the ENGINEER.
- B. The CONTRACTOR shall place granular material under all riprap and riffle structures in accordance with MnDOT Section 2511.
- C. The CONTRACTOR shall place a 6-inch depth of Fine Filter Blanket Material as specified in MnDOT Section 3149.2 followed by a 6-inch depth of Coarse Filter Blanket as specified in MnDOT Section 3149.2 below riprap.
- D. The Contractor shall place riprap, riffles and boulders to the dimensions shown on the Drawings.
- E. Riprap shall be placed by starting at the lowest elevations and working upwards. Stones shall not be dropped from a height greater than 1 foot. Dumping of stone at the top of slope and rolling of the stone down the slope will not be permitted. All toe boulder and riffle construction shall be machine or hand placed, not dumped. Toe boulders and riffle stones shall be keyed into the existing creek bottom and banks as shown on the Drawings.
- F. Slopes shall not be steeper than 3H: 1V, unless the Drawings show steeper slopes.
- G. Riprap and riffle boulders shall be positioned in a manner that will provide uniform distribution of the various sizes of stone and produce a dense, well-keyed layer of stones with the least practical quantity of void space. The surface shall be leveled as necessary, to produce a reasonably uniform appearance and the required thickness.

3.02 FIELD QUALITY CONTROL

- A. The ENGINEER may order the removal of up to 4 square yards of riprap to inspect for filter material, subject to MnDOT 1512, Unacceptable and Unauthorized Work.
- B. The riprap on each separate area shall have, upon completion, a minimum thickness of 1.5 times the average rock diameter.

END OF SECTION

SECTION 02080
EROSION CONTROL

PART 1 - GENERAL

1.01 SUMMARY

- A. Work includes the furnishing, installing and maintaining temporary erosion control measures as required by the regulatory agencies and as required by CONTRACTOR'S Erosion Control Plan.
- B. Heavy-duty silt fence and bale checks shall be installed for erosion control where required by the CONTRACTOR'S Erosion Control Plan, or by permits issued for the project.
- C. CONTRACTOR is responsible to secure any required NPDES construction activity permit. (The construction site is greater than 1 acre in size.)

1.02 RELATED SECTIONS

- A. 01040 REGULATORY REQUIREMENTS
- B. 01130 PROTECTION OF ENVIRONMENT

1.03 SUBMITTALS

- A. Manufacturer's certificates indicating specification conformance test results of furnished material.
- B. CONTRACTOR's Erosion Control Plan at Pre-construction Conference, or sooner.

1.04 QUALITY ASSURANCE

- A. The heavy duty silt fencing shall conform to the "Standard Specification" Section 3886.

PART 2 - PRODUCT

2.01 HEAVY DUTY SILT FENCE

- A. A heavy duty silt fence shall consist of a composite of woven wire fence fabric, posts, geotextile, and fasteners to be assembled by the CONTRACTOR.
- B. Woven wire fence fabric shall be a standard field fence type minimum 30 inches high, maximum mesh spacing of 6 inches and minimum 14½-gauge wire.

C. Silt Fence Geotextile Properties:

1. Minimum Properties

- a. Width - 36 inches
- b. Grab tensile strength ASTM D4632 -100 pounds
- c. Apparent opening size, AOS, ASTM D4751 - Range 20-70 Sieve
- d. U.V. Stability, after 500 Xenon Weatherometer Hours - Not less than 70%

2. Geotextile Material

- a. The net backing shall consist of an industrial polypropylene mesh which is joined to the geotextile at both top and bottom with double stitching of heavy duty cord.

- D. Posts shall be metal or wood with a minimum length of 5 feet. Metal posts shall be "studded tee" or "U" type with a minimum weight of 1.3 lbs/linear feet. Wood posts shall have a minimum diameter of 3 inches. Staple fasteners for wood posts shall be at least 1½ inches long.

2.02 EROSION CONTROL BLANKET

- A. Category 4 in accordance with the "Standard Specification" Section 3885.
- B. Use mulch on all slopes greater than 4:1 that are without vegetation.

2.03 EROSION STABILIZATION MAT (ESM)

- A. ESM Class 3 soil filled and non-soil filled 3-dimensional blanket in accordance with "Standard Specification" Section 3888.
- B. Use as necessary to control erosion.

2.04 FLOATATION SILT CURTAIN

- A. Floatation silt curtain in accordance with "Standard Specification" Section 3887.
- B. Use as necessary to control turbidity in adjacent waters.

PART 3 – EXECUTION

3.01 USAGE

- A. Silt fence where shown on CONTRACTOR's Erosion Control Plan and as required by permits issued for the project.
- B. Category 4 erosion blanket in drainage swales.

3.02 SILT FENCE INSTALLATION

- A. Erosion control measures to be installed prior to site disturbance.
- B. Silt fence shall be trenched in with a minimum of six inches of fabric buried.
- C. Silt fence to be installed using the static slicing method or approved equivalent installation method.
- D. CONTRACTOR shall be responsible for maintenance and repair of silt fence until final acceptance of the project.

3.03 REMOVAL OF SILT FENCE

- A. CONTRACTOR shall maintain silt fence for two growing seasons following acceptance of the Work and shall remove and dispose of silt fence after completion of the period and the establishment of vegetation.

3.04 EROSION CONTROL BLANKET AND STABILIZATION MAT

- A. Place in accordance with Manufacturer's recommendations.
- B. At a minimum, anchor upstream edges of all materials at least 4 inches into the soil to prevent underflow.
- C. Shingle materials downslope.
- D. Overlaps shall be as follows:
 - 1. End lap – 24 inches minimum.
 - 2. Edges – 12 inches minimum.
- E. At transition to riprap channel lining, extend ESM at least 24 inches under the riprap, but above the riprap underlayment geotextile.
- F. Staple sizes and spacings to be in accordance with "Standard Specification" Sections 3885 and 3888 for erosion control blankets and stabilization mats, respectively.
- G. For Soil-Filled ESM, hand rake topsoil into blanket, filling in accordance with manufacturer's installation recommendations.

3.05 SILT CURTAIN

Silt curtains shall be used to isolate working areas on the creek bank from the flow in the creek. Acceptable silt curtain specifications shall meet the requirements of Standard Specification 3887 for moving water (Table 3887-1).

Woven Curtain Material Specifications:

Property	Test Method	Results	Results	Results
Fabric Code		AEF 200W	AEF 300W	AEF 650W
Fabric Structure		Woven	Woven	Woven
Polymer		Polypropylene	Polypropylene	Polypropylene
Composition	ASTM D-4632	4.2 oz/sq. yd.	5.8 oz/sq. yd.	6.3 oz/sq. yd.
Weight	ASTM D-4632	200 lbs.	300 lbs.	390 x 250 lbs.
Grab Strength	ASTM D-4533	90 lbs.	120 lbs.	115 x 65 lbs.
Trap Tear	ASTM D-3786	400 psi	600 psi	495 psi
Strength	ASTM D-3787	90 lbs.	150 lbs.	130 lbs.
Burst Strength	(mod)	20%	20%	30%
Puncture	ASTM D-4632	70% (500 hrs)	70% (500 hrs)	70% (500 hrs)
Elongation	ASTM D-4335	40	40	70-100
U.V. Resistance	CW-02215			
E.O.S.				

END OF SECTION

SECTION 02170
SITE RESTORATION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section contains requirements for topsoil, seeding, fertilizing, and mulching.
- B. Seed and mulch all areas disturbed by construction activities at the site as shown in SWPPP.

1.02 REFERENCES

- A. Minnesota Department of Transportation Standard Specifications for Construction, latest edition. (Standard Specifications)

1.03 SUBMITTALS

- A. Test Results:
 - 1. Copy of soils test results including fertilizer and lime requirement before seeding work begins.
 - 2. Copy of soils test results after seeding work has been completed.
 - 3. Suppliers analysis for standard products.
- B. Submit in accordance with Section 01080.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Delivery:
 - 1. If required, deliver fertilizer to site in original, unopened containers bearing manufacturer's guaranteed chemical analysis, name, trade name, trademark, and conformance to state law.
 - 2. Deliver seed to site in unopened, original bags bearing supplier's name and address, type of seed contained, percentage of purity and germination, percentage of hard seed if any, and percentage of inert material.
 - 3. Fertilizer and seed delivered to site shall be stored in a waterproof location as directed by OWNER.
 - 4. Locate mulch on site where indicated by OWNER.
- B. Storage
 - 1. No topsoil shall be stockpiled on site to be used for site restoration.

1.05. GUARANTEE

- A. Guarantee seeded area for duration of one year after seeding to be alive and in satisfactory growth at end of guarantee period.
 - 1. For purpose of establishing acceptable standard, scattered bare spots, none larger than 1 square foot will be allowed up to maximum of 3 percent of seeded area.
 - 2. Acceptance will be based upon meeting this standard one year after initial seeding or reseeded.

PART 2 - PRODUCTS

2.01 SEED

- A. Native Seed Mix area shall be BWSR 34-361 (formerly R1) Seed Mix for Native Riparian and floodplain restoration.

2.02 MULCH

- A. MNDOT Type 1 straw mulch.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Do not begin ground preparation until boulders, debris, and similar materials have been removed, depressions and ruts filled, and area to be seeded is shaped, trimmed, and finished uniformly to grades and cross-sections shown on Drawings, or to match original grade.

3.02 SITE PREPARATION FOR SEEDING

- A. Topsoil
 - 1. Scarify subgrade to depth of 3 inches for bonding of subsoil with topsoil.
 - 2. No topsoil shall be placed or worked in frozen or muddy condition.
 - 3. Prepare areas to be seeded to required depth of approximately 3 inches by disking, rototilling, harrowing or other approved means.
 - 4. Remove and dispose of rock, trash, or other materials brought to surface from preparation activities.

3.03 TOPSOIL/FINISH GRADING

- A. Topsoil/Finish grade is established final grade as shown on Contract Drawings. Grades not otherwise indicated are uniform levels or slopes between points where elevations are given or between such points and existing finished grades. Finish grade shall be approved by the ENGINEER prior to seeding.
- B. The depth of topsoil shall be at least 4 inches.
- C. Grade, rake, and roll with roller weighing not more than 100 lbs./lf and not less than 25 lbs./lf.

- D. Maximum allowable variation from correct elevation is 2 in. in 10 ft.

3.04 SEEDING

- A. Apply seed at BSWR suggested rate of 6 lbs/ acre.
- B. Do not seed on saturated or frozen soil.
- B. Do not seed when wind velocity exceeds 6 mph.
- C. Seed all riparian areas disturbed by construction.
- E. Do not seed if surface has been compacted by recent rain event.

3.05 CLEANUP

- A. Paved surface and other site areas shall be kept clean of seeding, fertilizing, and mulching materials.
- B. Clean up shall occur at the end of each work day or as required by OWNER. Pavement shall be swept with a street sweeper as directed by ENGINEER throughout the project.
- C. Restore existing utilities, surface features, and structures to condition equal to condition which existed prior to construction.
- D. Replace to original condition or better, damaged vegetation or landscape work.
- E. Complete project punch-list prepared by ENGINEER.

3.06 MAINTENANCE OF SEEDED AREA

- A. Maintenance of seeded areas shall begin immediately following last seeding application. Continue until Work is accepted.
- B. Maintain seeded area by watering and replanting as necessary to produce uniform stand of grass until Work is accepted.
- C. Rework/replace topsoil where original topsoil has eroded or washed away as directed by ENGINEER.
- D. Remulch any areas where the original mulch has washed away as directed by the ENGINEER.
- E. Implement erosion control measures as required to keep area free of rutted and eroded soils and protection fences and barriers as necessary.

3.07 RESEEDING AND REPAIR

- A. Reseed areas that fail to show more than 75 plants/square feet and open areas or gaps larger than 6 inches in diameter.
- B. Where plant density is less than 50 plants/square foot, retill and reseed areas in accordance with seeding and maintenance requirements.

3.08 ACCEPTANCE OF SEEDED AREAS

- A. CONTRACTOR shall notify OWNER in writing 7 days prior to inspecting seeded area for acceptance.
- B. CONTRACTOR and OWNER shall inspect seeded areas for contract compliance and acceptance of work. Upon completion of inspecting seeded areas, OWNER shall provide written acceptance or rejection to CONTRACTOR with further requirement for completing the seeding work. Seeding work remaining to be completed shall be reinspected by OWNER before final acceptance.

END OF SECTION

SECTION 02210

FISH BARRIER INSTALLATION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section contains requirements for installation of the OWNER provided fish barrier.

1.02 DELIVERY, STORAGE, AND HANDLING

- A. Delivery:
 - 1. Coordinate with OWNER for delivery of OWNER-supplied fish barrier to coincide with installation to prevent vandalism or theft.
- B. Storage:
 - 1. No storage on site is allowed.

PART 2 - PRODUCTS

2.01 FISH BARRIER

- A. OWNER to supply fabricated fish barrier.
- B. All other material needed for installation will be incidental to installation.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Notify ENGINEER and OWNER 48 hours prior to installation so that installation can be inspected.

3.02 SITE PREPARATION, PROTECTION AND RESOTRATION

- A. Prepare, protect and restore area disturbed by installation of fish barrier in accordance with Sections 02040, 02080 and 02210.

3.03 MAINTENANCE OF FISH BARRIER

- A. Fish barrier installation is guaranteed by CONTRACTOR for a period of one calendar year following installation.

3.04 ACCEPTANCE OF INSTALLATION

- A. CONTRACTOR shall notify OWNER in writing 2 days prior to inspecting installation of fish barrier for acceptance.
- B. CONTRACTOR and OWNER shall inspect seeded areas for contract compliance and acceptance of work. Upon completion of inspecting fish barrier installation, OWNER shall provide written acceptance or rejection to CONTRACTOR with further requirement for completing the work. Installation work remaining to be completed shall be reinspected by OWNER before final acceptance.

END OF SECTION

APPENDIX A

Drawings

KINGSTON WETLAND

RESTORATION

KINGSTON, MN

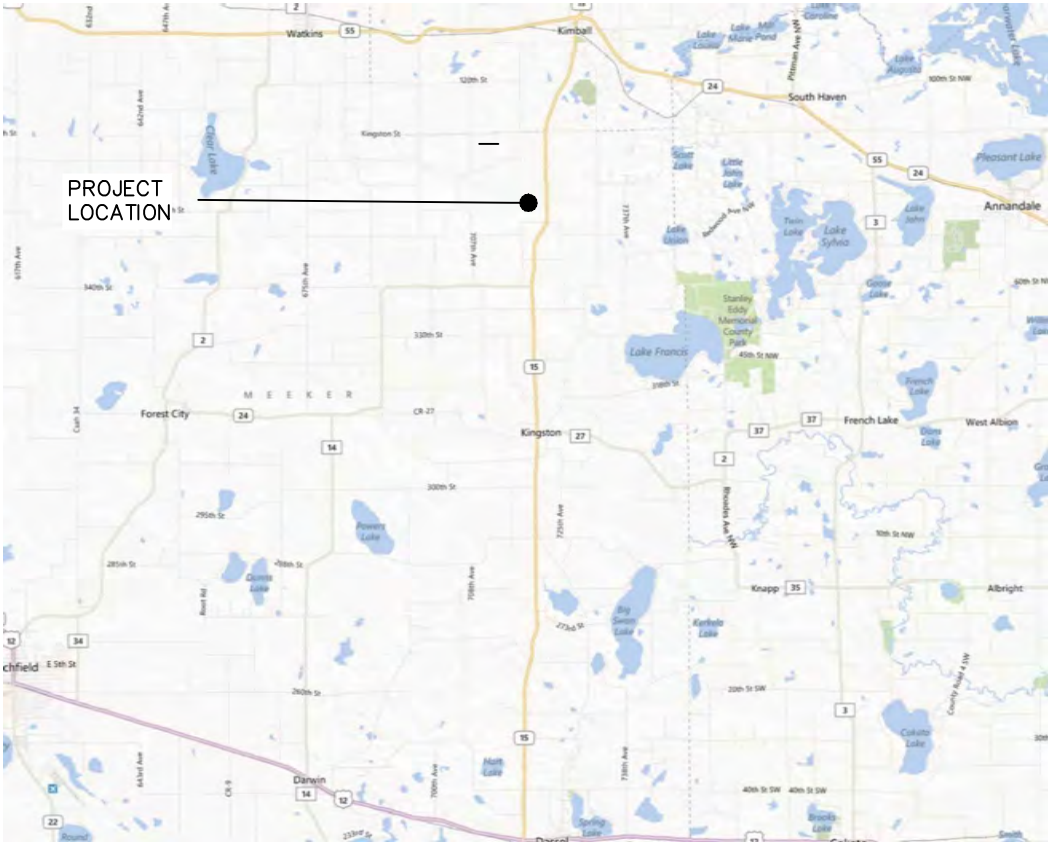
DECEMBER, 2012

WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

CALL BEFORE YOU DIG
GOPHER STATE ONE CALL
TWIN CITY AREA: 651-454-0002
TOLL FREE 1-800-252-1166



PROJECT LOCATION MAP

10000 0 5000 10000
GRAPHIC SCALE IN FEET



ENLARGED PROJECT LOCATION MAP

1000 0 500 1000
GRAPHIC SCALE IN FEET

INDEX OF SHEETS

G-101	TITLE AND INDEX SHEET
C-101	EXISTING CONDITIONS
C-102	PROJECT OVERVIEW
C-103	CHANNEL PLAN AND PROFILE STA 3+00 TO 18+00
C-104	CHANNEL PLAN AND PROFILE STA 18+00 TO 32+00
C-105	CHANNEL PLAN AND PROFILE STA 32+00 TO 46+00
C-106	CHANNEL PLAN AND PROFILE STA 46+00 TO 61+00
D-101	DETAILS
D-102	DETAILS

GOVERNING SPECIFICATIONS:

1. THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" LATEST EDITION & SUPPLEMENTS.
2. CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM) STANDARD UTILITIES SPECIFICATIONS (LATEST EDITION)
3. ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCE WILL BE COMPLETED WITH IN THE CONSTRUCTION OF THIS PROJECT.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
2	FINAL PLANS	BWC	RK	12/31/12
1	DRAFT FINAL PLANS	BWC	NCW	12/21/12

SEAL

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME REBECCA KLICKHOHN

SIGNATURE Rebecca Kluckhohn

DATE 01/03/2013 REG. NO. 42013

PRIME CONSULTANT

 **Wenck**
Consulting Engineers
1800 PIONEER CREEK CENTER
MAPLE PLAIN, MN 55359
(763)-479-4200
(763)-479-4242
Web Site: www.wenck.com

PROJECT TITLE

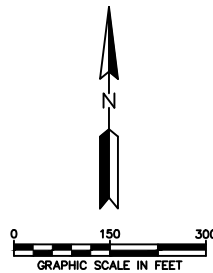
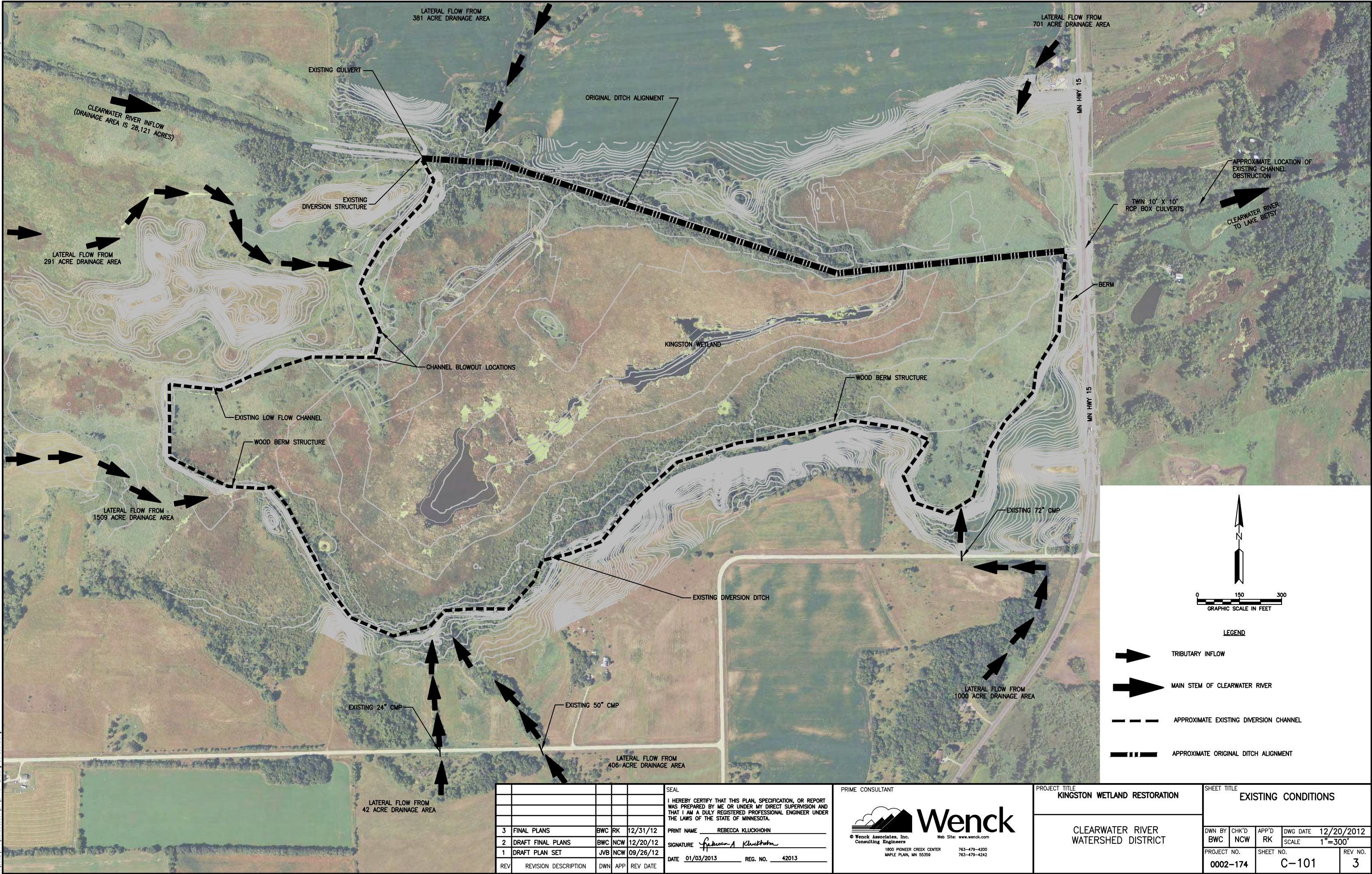
KINGSTON WETLAND RESTORATION

CLEARWATER RIVER WATERSHED DISTRICT

SHEET TITLE			
TITLE AND INDEX SHEET			
DWN BY	CHK'D	APP'D	DWG DATE
BWC	NCW	RK	12/21/2012
PROJECT NO.		SCALE	
2683-08		AS NOTED	
SHEET NO.		REV NO.	
G-101		2	

Plot Date & Time: 3 January 2013 8:11 PM

M:\0002\174\Construction\CA\101-101 Existing Conditions.dwg



- LEGEND
- TRIBUTARY INFLOW
 - MAIN STEM OF CLEARWATER RIVER
 - APPROXIMATE EXISTING DIVERSION CHANNEL
 - APPROXIMATE ORIGINAL DITCH ALIGNMENT

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
3	FINAL PLANS	BWC	RK	12/31/12
2	DRAFT FINAL PLANS	BWC	NCW	12/20/12
1	DRAFT PLAN SET	JVB	NCW	09/26/12

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PROJECT TITLE
KINGSTON WETLAND RESTORATION

**CLEARWATER RIVER
WATERSHED DISTRICT**

SHEET TITLE EXISTING CONDITIONS			
DWN BY BWC	CHK'D NCW	APP'D RK	DWG DATE 12/20/2012
PROJECT NO. 0002-174		SCALE 1"=300'	
SHEET NO. C-101		REV NO. 3	

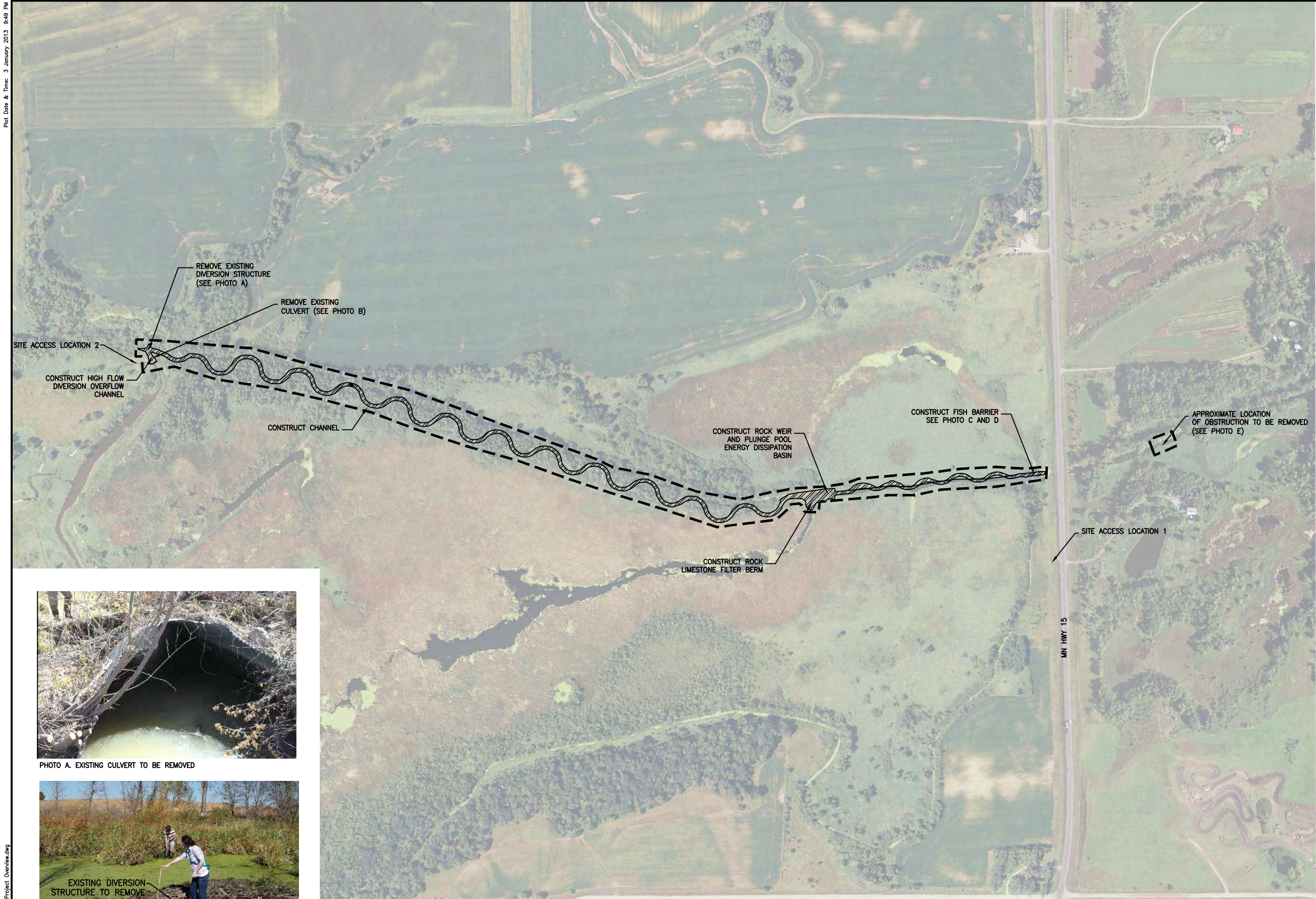


PHOTO A. EXISTING CULVERT TO BE REMOVED



PHOTO B. EXISTING DIVERSION TO BE REMOVED



PHOTO C. FISH BARRIER INSTALLATION EXAMPLE 1



PHOTO D. FISH BARRIER INSTALLATION EXAMPLE 2

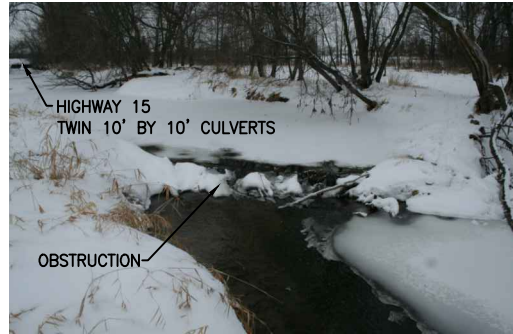
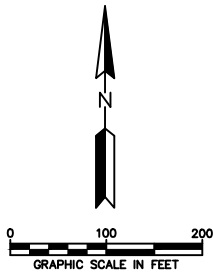


PHOTO E. EXISTING CHANNEL OBSTRUCTION TO BE REMOVED



LEGEND

- CONSTRUCTION LIMITS
- /// EXCAVATION EXTENT

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
3	FINAL PLANS	BWC	RK	12/31/12
2	DRAFT FINAL PLANS	BWC	NCW	12/20/12
1	DRAFT FINAL PLANS	BWC	NCW	12/21/12

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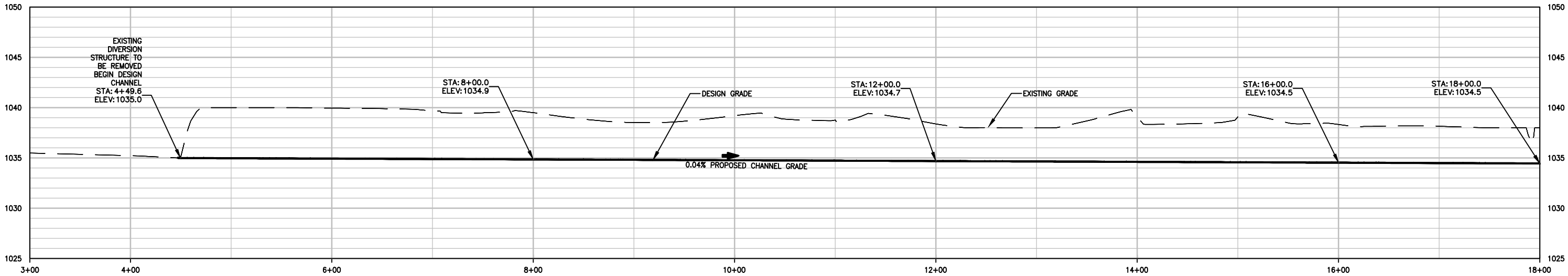
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KINGSTON WETLAND RESTORATION

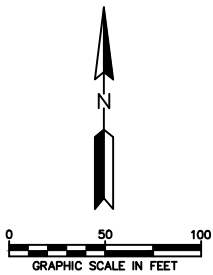
CLEARWATER RIVER WATERSHED DISTRICT

SHEET TITLE			
PROJECT OVERVIEW			
DWN BY	CHK'D	APP'D	DWG DATE
BWC	NCW	RK	12/21/2012
PROJECT NO.		SCALE	
0002-174		AS NOTED	
SHEET NO.		REV NO.	
C-102		3	

Plot Date & Time: 3 January 2013 3:15 PM



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REV	REVISION DESCRIPTION	DWN	APP	REV DATE
3	FINAL PLANS	BWC	RK	12/20/12
2	DRAFT FINAL PLANS	BWC	NCW	12/20/12
1	DRAFT PLAN SET	JVB	NCW	09/26/12

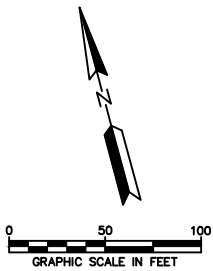
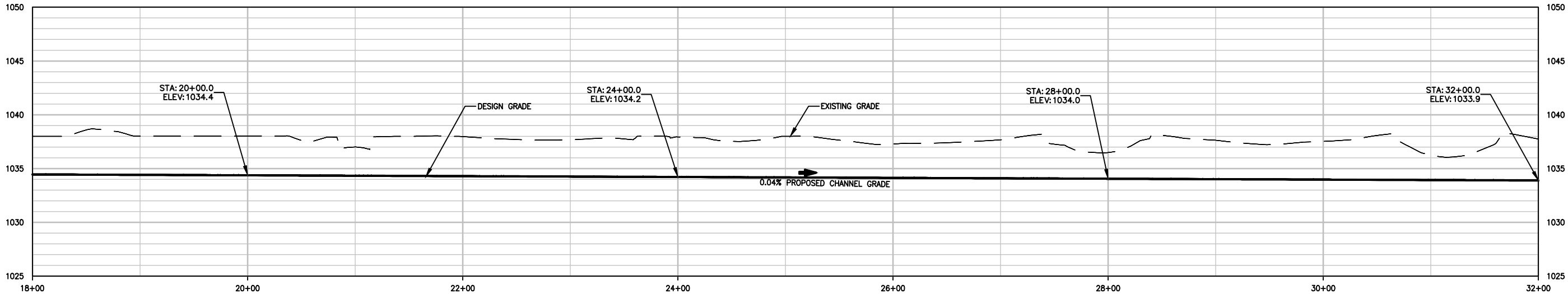
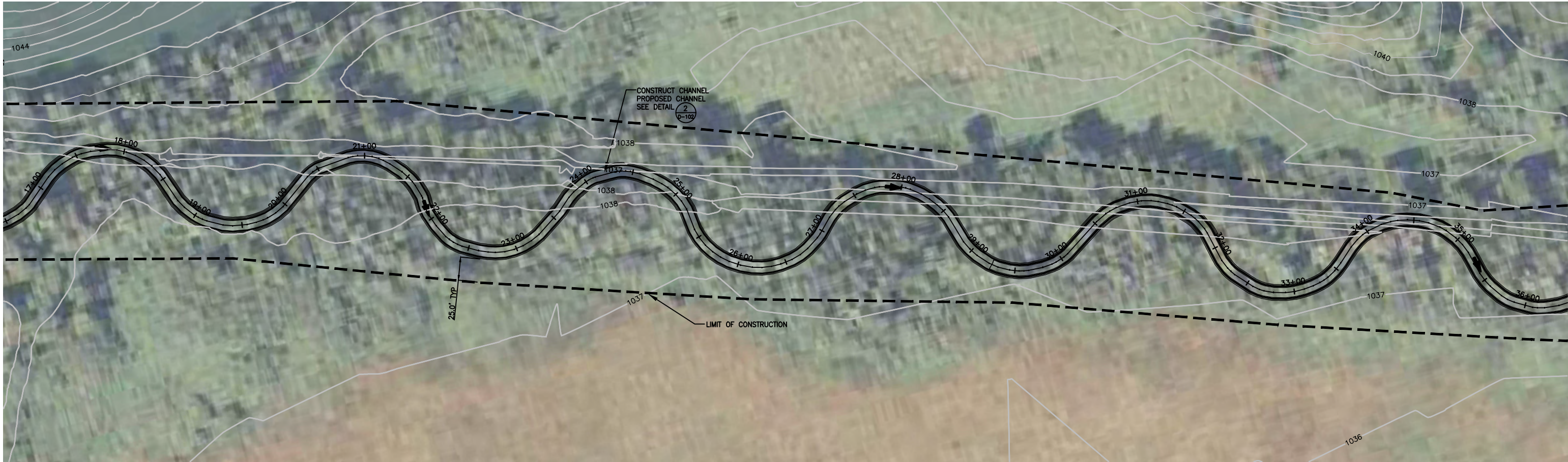
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PROJECT TITLE
KINGSTON WETLAND RESTORATION
CLEARWATER RIVER
WATERSHED DISTRICT

SHEET TITLE			
CHANNEL PLAN AND PROFILE STA.3+00 TO STA. 18+00			
DWN BY BWC	CHK'D NCW	APP'D RK	DWG DATE 12/20/2012
PROJECT NO. 0002-174	SHEET NO. C-103	SCALE AS NOTED	REV NO. 3



REV	REVISION DESCRIPTION	DWN	APP	REV DATE
3	FINAL PLANS	BWC	RK	12/20/12
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1	DRAFT PLAN SET	JVB	NCW	09/26/12

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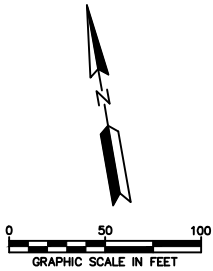
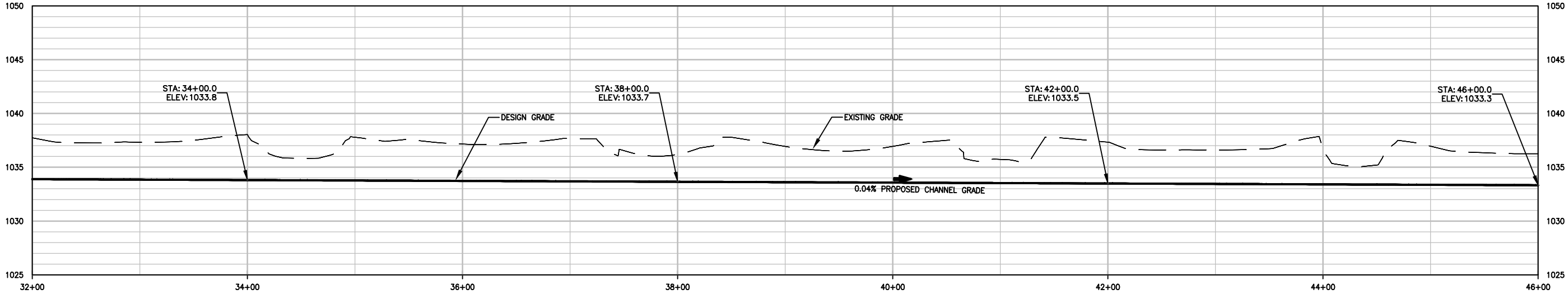
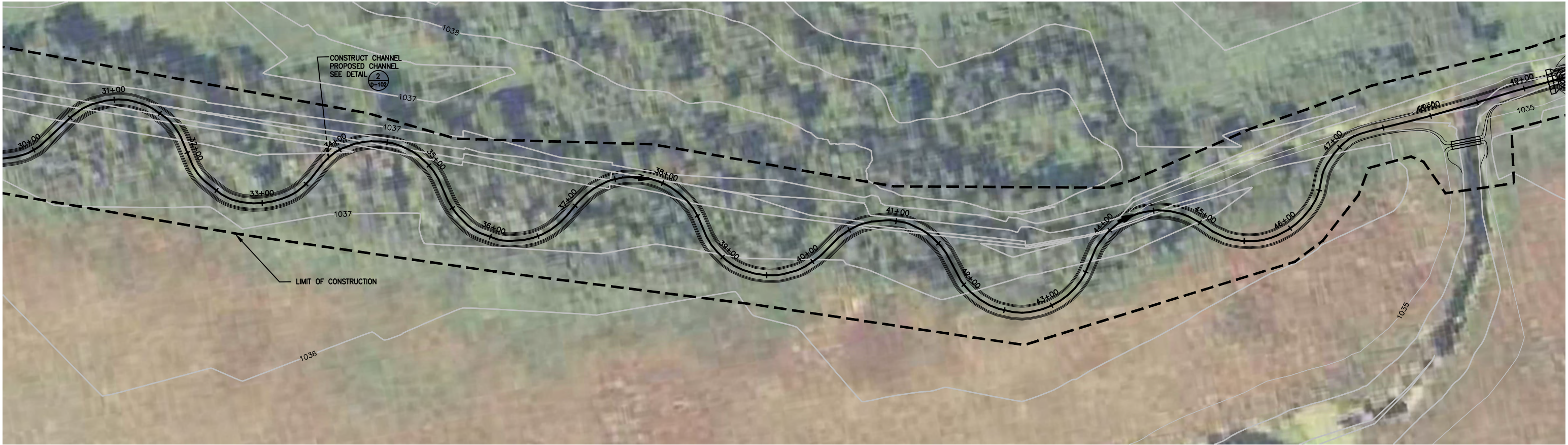
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PROJECT TITLE
KINGSTON WETLAND RESTORATION

**CLEARWATER RIVER
WATERSHED DISTRICT**

SHEET TITLE			
CHANNEL PLAN AND PROFILE STA. 18+00 TO STA. 32+00			
DWN BY BWC	CHK'D NCW	APP'D RK	DWG DATE 12/20/2012
PROJECT NO. 0002-174	SCALE AS NOTED	SHEET NO. C-104	REV NO. 3



REV	REVISION DESCRIPTION	DWN	APP	REV DATE
3	FINAL PLANS	BWC	RK	12/20/12
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SIGNATURE Rebecca Kluckhohn

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PRIME CONSULTANT

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PROJECT TITLE

KINGSTON WETLAND RESTORATION

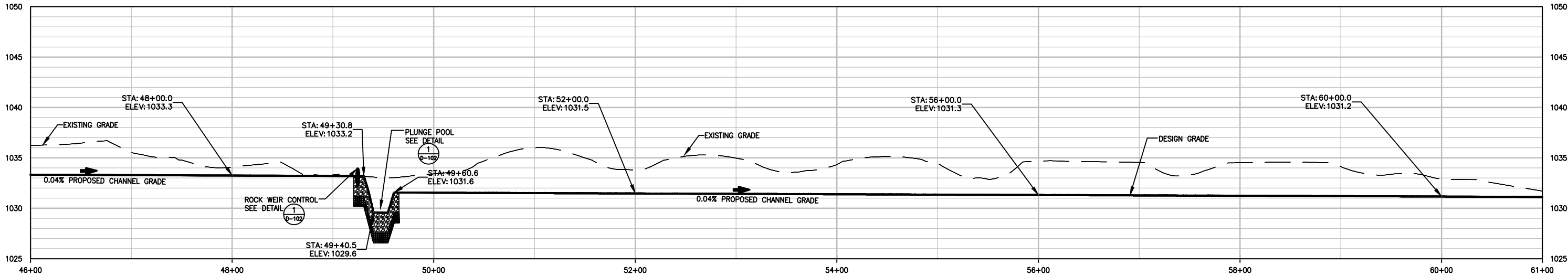
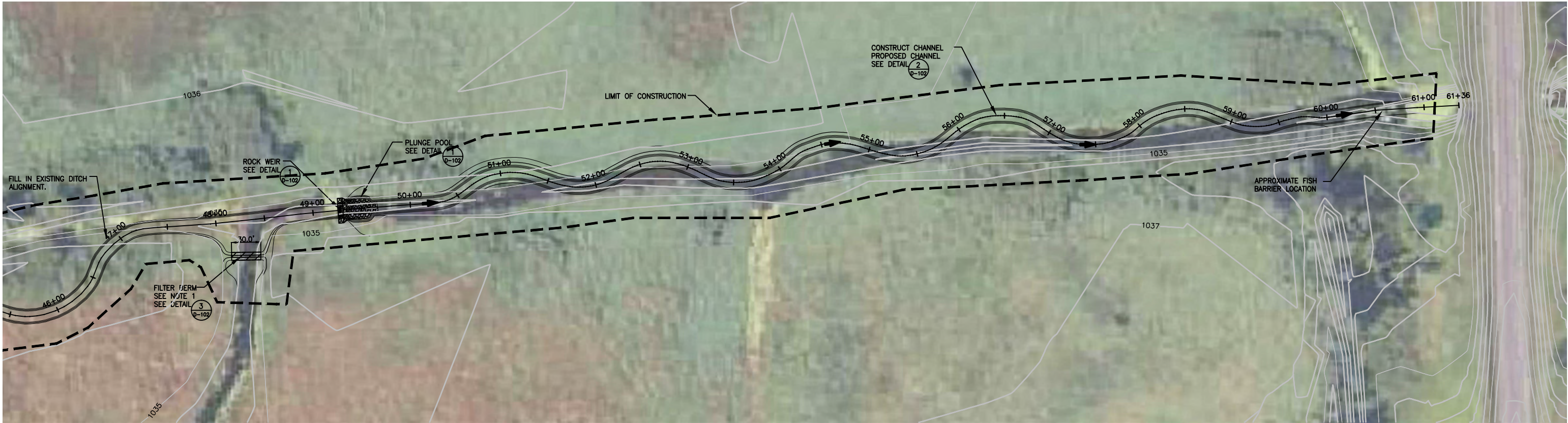
CLEARWATER RIVER WATERSHED DISTRICT

SHEET TITLE

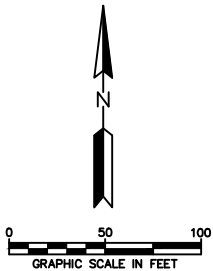
**CHANNEL PLAN AND PROFILE
STA. 32+00 TO STA. 46+00**

DWN BY	CHK'D	APP'D	DWG DATE
BWC	NCW	RK	12/20/2012
PROJECT NO.		SCALE	
0002-174		AS NOTED	
SHEET NO.		REV NO.	
C-105		3	

Plot Date & Time: 3 January 2013 8:38 PM



M:\0002\174\Construction\c\c-107 Profile Sheet 4800-6200.dwg



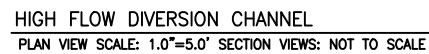
REV	REVISION DESCRIPTION	DWN	APP	REV DATE
3	FINAL PLANS	BWC	RK	12/20/12
2	DRAFT FINAL PLANS	BWC	NCW	12/20/12
1	DRAFT PLAN SET	JVB	NCW	09/26/12

SEAL
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME: REBECCA KLICKHOHN
SIGNATURE: *Rebecca Klickhorn*
DATE: 01/03/2013 REG. NO.: 42013

PRIME CONSULTANT
Wenck
Wenck Associates, Inc.
Consulting Engineers
1800 PIONEER CREEK CENTER
MAPLE PLAIN, MN 55359
763-479-4200
763-479-4242
Web Site: www.wenck.com

PROJECT TITLE
KINGSTON WETLAND RESTORATION
CLEARWATER RIVER
WATERSHED DISTRICT

SHEET TITLE CHANNEL PLAN AND PROFILE STA.46+00 TO STA. 61+00			
DWN BY JVB	CHK'D NCW	APP'D RK	DWG DATE 9/26/12
PROJECT NO. 0002-174		SCALE AS NOTED	
SHEET NO. C-106		REV NO. 3	



3	FINAL PLANS	BWC	RK	12/31/12
2	DRAFT FINAL PLANS	BWC	NCW	12/20/12
1	DRAFT PLAN SET	JVB	NCW	09/26/12
REV	REVISION DESCRIPTION	DWN	APP	REV DATE

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PRINT NAME <u>REBECCA KLUCKHOHN</u>
SIGNATURE <u><i>Rebecca A Kluckhohn</i></u>
DATE <u>01/03/2013</u> REG. NO. <u>42013</u>

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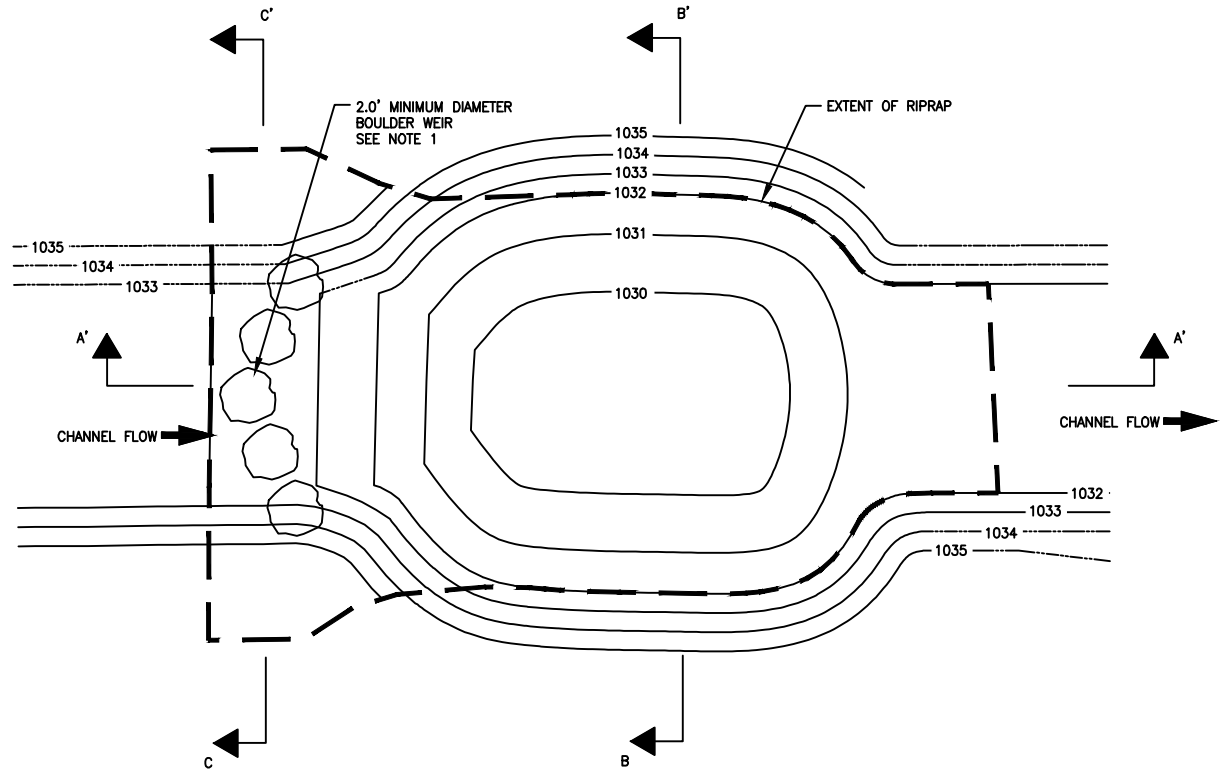
PROJECT TITLE	KINGSTON WETLAND RESTORATION
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CLEARWATER RIVER
WATERSHED DISTRICT

SHEET TITLE

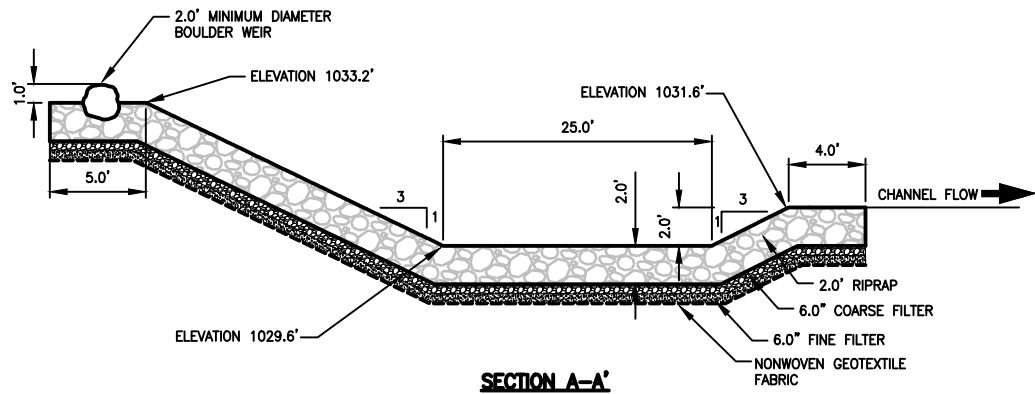
DETAILS

DWN BY BWC	CHK'D NCW	APP'D RK	DWG DATE 12/21/2012
		SCALE AS NOTED	
PROJECT NO. 0002-174		SHEET NO. D-101	
		REV NO. 3	

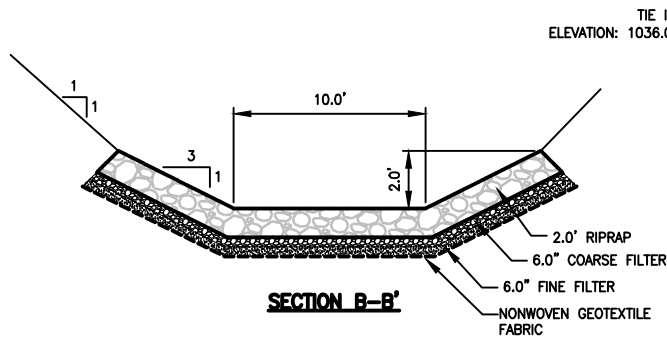


RIPRAP BASIN AND ROCK WEIR DETAIL
SCALE: 1"=5' ABOVE, NOT TO SCALE BELOW

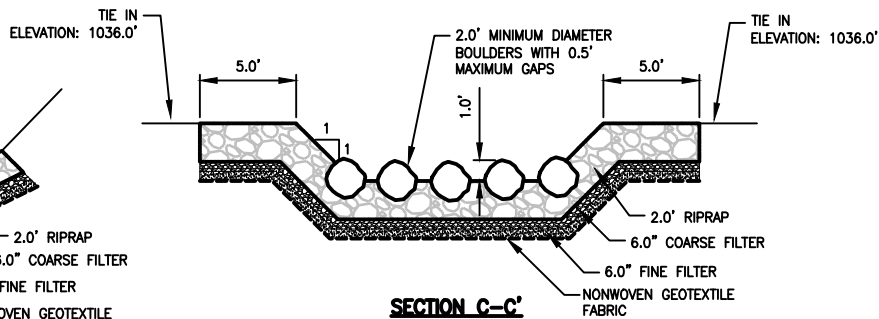
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D-102



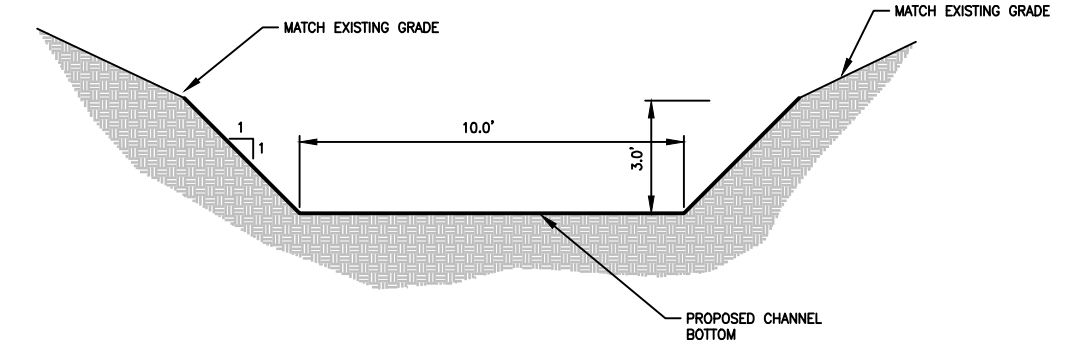
SECTION A-A'



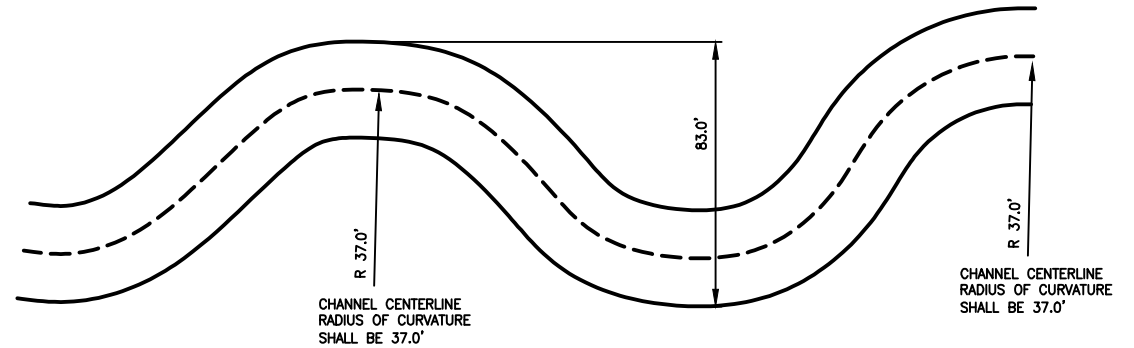
SECTION B-B'



SECTION C-C'



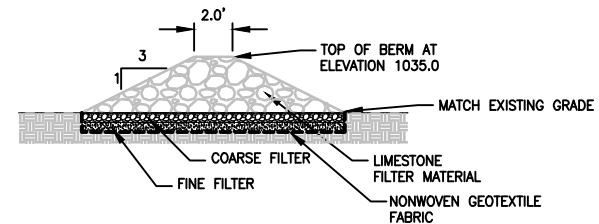
SECTION



PLAN

TYPICAL DITCH DETAILS
NOT TO SCALE

2
D-102



LIMESTONE FILTER BERM TYPICAL CROSS SECTION
NOT TO SCALE

3
D-102

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
3	FINAL PLANS	BWC	RK	12/31/12
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SIGNATURE Rebecca Kluckhohn
DATE 01/03/2013 REG. NO. 42013

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PROJECT TITLE
KINGSTON WETLAND RESTORATION

CLEARWATER RIVER
WATERSHED DISTRICT

SHEET TITLE
DETAILS

DWN BY	CHK'D	APP'D	DWG DATE
BWC	NCW	RK	12/21/2012
PROJECT NO.	SHEET NO.	SCALE	REV NO.
0002-174	D-102	AS NOTED	3