

Project Manual

Cedar Old Highway 55 Stormwater Improvement Project

Corinna Township,
Minnesota

Prepared for:

**Clearwater River
Watershed
District**



Wenck

December 2014

SECTION 00005
PROFESSIONAL CERTIFICATIONS

PROJECT MANUAL
CEDAR OLD HIGHWAY 55 STORMWATER IMPROVEMENTS

Prepared For: **CLEARWATER RIVER WATERSHED DISTRICT**

75 Elm Street East
Box 481
Annandale, MN 55302
Telephone: (320) 274-3935
Fax: (320) 274-3975

Prepared By: **WENCK ASSOCIATES, INC.**

1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, Minnesota 55359
Telephone: (763) 479-4200
Fax: (763) 479-4242

Wenck File #0002-205

December 2014

I hereby certify that this specification 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.

	48386	12/10/14
Kevin Mattson, P.E. Wenck Associates, Inc.	Minn. Reg. No.	Date

SECTION 00010

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SECTION 00020

ADVERTISEMENT FOR BIDS

CLEARWATER RIVER WATERSHED DISTRICT Cedar Old Highway 55 Stormwater Improvements

Class of Work: Site Grading and Stormwater Improvements
Bids Close At: 1:00 PM, January 20, 2015

NOTICE TO CONTRACTORS

Sealed Bid Proposals will be received by the Engineer Wenck Associates at its office, 1800 Pioneer Creek Center, P.O. Box 249, Maple Plain, MN 55359, until 1:00 p.m., Tuesday, January 20th, at which time such bids will be publicly opened and read aloud. The work, in accordance with Plans and Specifications prepared by Wenck Associates, Inc., consists of all labor, materials, tools, permits, bonds, machinery, equipment, and services including utility and transportation services necessary for:

In general, Work consists of site grading and stormwater improvements.

4,135 CY	Common Excavation – Stockpile On-Site
45 LF	8" PVC Storm Sewer Pipe
1 EA	27" DIA. Storm Structure
125 CY	Limestone Riprap Filtration Berm
4,300 SY	Seeding incl. erosion control blanket

Together with removals, traffic control, erosion control, and other related appurtenances.

A Pre-bid meeting is scheduled at the on-site for 10 a.m. Tuesday, January 6th. Attendance not required.

Each bid proposal shall be accompanied by a "Bid Security" in the form of a certified check made payable to the "CLEARWATER RIVER WATERSHED DISTRICT" (OWNER) in the amount not less than five percent (5%) of the total bid, or a surety bond in the same amount, running to the OWNER, with the surety company thereon duly authorized to do business in the State of Minnesota. Such Bid Security to be a guarantee that the bidder will not, without the consent of the OWNER, withdraw his bid for a period of ninety (90) days after the opening of bids, and 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. All bid securities except those of the three lowest bidders will be returned within five days after the opening of bids.

Bid Proposals shall be submitted on forms furnished for that purpose. Bids shall be submitted in sealed envelopes clearly inscribed on the outside: "Bid Proposal for Cedar Old Highway 55 Stormwater Improvements, Clearwater River Watershed District." No bidder shall withdraw his bid, without the consent of the OWNER, for a period of ninety (90) days after the date for the opening thereof. The OWNER, however, reserves the right to reject any or all bids and to waive

any minor irregularities, informalities or discrepancies. A work history detailing qualifications and past experience shall be provided within 7 days if requested by OWNER.

**READ CAREFULLY THE WAGE SCALES AND DIVISION A OF THE SPECIAL
PROVISIONS AS THEY AFFECT THIS PROJECT**

The Project Manual is available on QuestCDN (www.questcdn.com). You may download the digital plan documents for \$10.00 by inputting Quest Project #3620525 on the website's project search page. Please contact QuestCDN at 952-233-1632 or info@questcdn.com for assistance in free membership registration, downloading, and working with this digital project information.

The Project Manual is also on file for inspection at Clearwater River Watershed District Offices, 75 Elm Street East, Annandale, MN 55302, and the office of Wenck Associates, Inc. Project Manual/Plan Set available with non-refundable deposit of \$50.00 check per set payable to "Wenck Associates, Inc." at:

Wenck Associates, Inc.
1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, MN 55359-0249
Telephone: (763) 479-4200
Facsimile: (763) 479-4242

Direct inquiries to Engineer Project Manager Rebecca Kluckhohn at (763) 479-4224 or Project Engineer Kevin Mattson at (763) 479-5125.

Dennis Loewen, District Administrator
Clearwater River Watershed District

SECTION 00100

INSTRUCTION TO BIDDERS

CLEARWATER RIVER WATERSHED DISTRICT
Cedar Old Highway 55 Stormwater Improvements
Class of Work: Site Grading and Stormwater Improvements

Forms included in the Contract Documents are not to be detached, filled out, or executed. Separate copies of Bid Form are furnished for the purpose of submission of bids. In submitting a Bid, bidders shall comply with the following instructions that shall control as to the submission of bids.

1. **SCOPE OF BIDDING:** The intent of the Contract Documents is to prescribe a complete project of work or improvement. The Contract shall be based upon and include by reference the Contract Documents, and all addenda as herewith provided; all bids must be based upon a full compliance of the Contract Documents. Should there be some item or items not shown on the Drawings or described in the Specifications which are required for the Work, these items and the furnishing of all related labor, materials and equipment shall be considered incidental to the Work and no additional compensation will be provided.
2. **PREVAILING WAGE:** The Contractor and all subcontractors shall conform to the labor laws of the State of Minnesota, and all other laws, ordinances, and legal requirements affecting the work in Wright County and Minnesota. The minimum wage rate per hour to be paid for each classification of work shall be the union wage rate in the locality of the project for those classifications over which the unions have jurisdiction and the local prevailing rate for those classifications of work in the localities over which the unions do not have jurisdiction. For purposes of this agreement, the terms "prevailing wage", "minimum wage rate per hour", and "prevailing rate" shall mean "prevailing wage rate" as defined in Minnesota Statutes §177.42. Pursuant to Minnesota Statutes 177.41 to 177.44 and corresponding Rules 5200.1000 to 5200.1120, this contract is subject to the prevailing wages as established by the Minnesota Department of Labor and Industry. Specifically, all contractors and subcontractors must pay all laborers, mechanics, and truck drivers the established prevailing wages for work performed under the contract. Failure to comply with the aforementioned may result in civil or criminal penalties. The contractor and subcontractor(s) shall furnish payroll certifications to Engineer on a monthly basis.
3. **DETERMINATION OF APPROVED EQUALS AS TO EQUIPMENT AND MATERIALS:** Certain types of equipment and kinds of material are described in the specifications by means of trade names and catalog numbers and/or manufacturers' names. In each instance where this occurs it is not intended to exclude from consideration such types of equipment and kinds of material bearing other trade names, catalog numbers and/or manufacturers' names, capable of accomplishing the purpose of the types of equipment and kinds of material specifically indicated. Such types of equipment and kinds of material will be acceptable to the OWNER if equivalence can be determined by ENGINEER.

Any types of equipment or kinds of material a Bidder proposes to use that are different than those specifically indicated in the Drawings or Specifications are, by definition, Substitutions and must be approved in writing by the ENGINEER and be agreed upon by the OWNER. In

general, substitutions by CONTRACTOR should only be proposed where CONTRACTOR can provide a product that can meet the specified purpose and that equals or exceeds the specified quality, at a reduced cost to the OWNER, for which a Change Order can be written to pass the savings to the OWNER. However, no determinations regarding substitutions will be made until after Notice of Award, and Bidders should base their bid on the exact equipment that is specified.

4. BID SECURITY: Together with bidder's Bid Form, the Bidder shall submit Bid Security in the form of a certified check made payable to the "CLEARWATER RIVER WATERSHED DISTRICT" in the amount of five percent (5%) of the Base Bid, or a surety bond on form as set forth in this Project Manual in the same amount, running to the OWNER, with the surety company thereon duly authorized to do business in the State of Minnesota. The Bid Security shall be given to guarantee that the bidder will not, without consent of the OWNER, withdraw its Bid for a period of ninety (90) days after the opening of bids and, if the successful bidder, that it will enter into a contract with the OWNER and in connection therewith give Performance Bond and Payment Bond in form as set forth in this Project Manual.

The Bid Securities of the three (3) lowest responsible bidders shall be retained by the OWNER until the contract is executed, but in no event longer than ninety (90) days after the opening of bids, provided, however, that the Bid Security of the successful bidder shall in any event be retained until a contract is executed. The Bid Securities of the other bidders shall be returned five (5) days after the opening of bids.

5. PRE-BID MEETING: A pre-bid meeting will be conducted at the on-site at 10:00 AM, Tuesday, January 6, 2015. Attendance is not mandatory.
6. ADDENDA: No oral interpretation will be made to any bidder as to the meaning of the Specification or of the Drawings incorporated therein by reference or otherwise. Every request for such an interpretation shall be made in writing to:

Mr. Kevin Mattson, P.E.
Wenck Associates, Inc.
1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, MN 55359

Any inquiry received five (5) or more calendar days (deadline is January 15th) prior to time for opening of bids will be considered. Every interpretation by the ENGINEER shall be in the form of an addendum that will be filed at Clearwater River Watershed District, 75 Elm Street East, Box 481, Annandale, MN 55302 and at the aforesaid office of the ENGINEER, at least two (2) calendar days (January 18th) before the date for opening bids. In addition such addenda will be mailed to all those procuring a set of drawings and specifications, but it shall be **the bidder's responsibility to make inquiry as to the addenda issued**, and all bids shall be considered and the contract let to the successful bidder upon the basis of all such addenda whether or not in fact received by the bidders. Only interpretations and clarifications issued by Addenda will be binding. Any Addenda issued during the bidding period shall be made a part of the Bidding Documents. Receipt of each Addendum shall be acknowledged on the Bid Form.

7. SUBCONTRACTING: No part of the Work shall be subcontracted except with the prior consent of OWNER. All subcontractors shall be contractors of recognized standing having a record of satisfactory performance. The CONTRACTOR shall be prepared to provide qualification information for on their subcontractors of previous work performed similar to proposed work shall at the request of the OWNER.
8. CONTRACT DOCUMENTS: The "Contract Documents" are listed in the Agreement in Section 00500.
9. QUALIFICATIONS OF BIDDER: To demonstrate qualifications to perform the Work, the low Bidder, if requested by the Owner, shall submit to Owner (with copy to Engineer) within seven (7) calendar days following the request by the Owner written documentation which demonstrates the Bidder's ability to complete the Work as specified. This documentation may include a description of present commitments; description of the Bidder's project experience 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, resources, and material supplies which demonstrate the Bidder's ability to furnish and install materials within the time frames specified and successfully complete the Work; a list of subcontractors Bidder proposes to use; and such other information the Owner believes is necessary.

The OWNER reserves the right to reject any bid if evidence submitted by, or investigation of, such bidder fails to satisfy the OWNER that such bidder is properly qualified to carry out the obligations of the Contract and to complete work contemplated therein.

Before any subcontractor may commence work, the successful Bidder must file with the ENGINEER and the OWNER satisfactory certificates, in duplicate, from the involved insurance companies, showing insurance coverage to the same extent and the amounts as required by the successful Bidder.

Neither the successful Bidder nor any subcontractor will be permitted to commence work until authorization by the ENGINEER to proceed is received in writing by the successful Bidder.

10. COMPLETION OF BID: Complete sets of the Bidding 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 Bidding Documents.

All blank spaces in the Bid form shall be filled in with ink or by typewriter and any alteration, correction or deletion must be initialed as approved by the Bidder, or in the case of a corporate bidder, by its duly authorized officer.

The price shall be in writing and in figures; in case of conflict, the former shall apply.

Bidder shall not include in the Bid any condition not contemplated by and included in the drawings, specifications and Bid form.

11. SUBMISSION OF BID: The bidder shall deliver to the ENGINEER WENCK ASSOCIATES, 1800 Pioneer Creek Center, PO Box 249, Maple Plain, MN 55359, not later than time and date indicated on Advertisement for Bids, its Bid, together with its bid security, all securely sealed in an envelope addressed to the OWNER at the above address, on the outside of which the following shall be clearly inscribed:

- a. Name of Bidder, and
- b. Name of Project, "Bid for: Cedar Old Highway 55 Stormwater Improvements, Clearwater River Watershed District."

The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Section 00100 and that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and by such means, methods, techniques, sequences or procedures of construction as determined by the Bidder, subject to the provisions of the Bidding Documents, and that the Bidding Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

12. WITHDRAWAL OF BID: No bid shall be withdrawn except with the consent of the OWNER for a period of ninety (90) days after the date the bids are opened or until a contract is let and executed by the successful bidder.

13. BASIS OF AWARD: The OWNER shall award a contract to the lowest responsible bidder meeting specifications based on the Base Bid amount and any selected alternates. The OWNER, however, reserves the right to reject any or all bids and to waive any minor irregularities, informalities, or discrepancies.

14. AWARD OF CONTRACT: The OWNER's acceptance of the Bid will be in the form of a written "Notice of Intent to Award" letter, which will specify that the CONTRACTOR execute the Contract and submit the required certificates of insurance coverage, Payment Bond and Performance Bond within ten (10) days from the date of Notice of Intent to Award. The OWNER will not execute the Contract until all of these required items are submitted and have been approved.

The Notice of Intent to Award letter will not be an order to proceed. The CONTRACTOR will have no authority to perform work under this Contract until all Contract Documents as indicated above are properly completed and placed on file at the OWNER'S office.

A Notice to Proceed with the Work under this project will be mailed to the CONTRACTOR upon satisfaction of the above-indicated requirements. A pre-construction conference will be scheduled thereafter.

15. EXECUTION OF BID: If the Bid is signed by individual or partnership bidders, it shall be signed by bidder or bidders individually; if signed for a corporate bidder, by the duly authorized officer or officers of a corporate bidder signing for and on behalf of their corporation; or, if signed by attorney-in-fact for a bidder, power of attorney evidencing authority of individual signing shall accompany Bid.

16. SUPPORTING DATA: The bidders shall, on request, submit prior to letting of contract all or any of the following:

- a. 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 evaluation of the merits thereof and determination whether such special equipment or materials comply with the Specifications.
- b. A properly executed Affidavit of Authority and Non-Collusion.

- c. A statement setting forth all items of work that the bidder proposes to sublet, and names of the subcontractors to whom such items will be sublet.

17. PRE-CONSTRUCTION CONFERENCE: Following execution of a Contract and prior to starting construction, a Pre-Construction Conference will be held with representatives of the OWNER and ENGINEER. The CONTRACTOR and any proposed subcontractors shall have a responsible person present with authority to represent it in all matters relative to scheduling, coordination of trades, safety procedures.

END OF SECTION

SECTION 00300

BID FORM

CLEARWATER RIVER WATERSHED DISTRICT
Cedar Old Highway 55 Stormwater Improvements
Class of Work: Site Grading and Stormwater Improvements
Bids Close At: January 20, 2015, 1:00 PM

CEDAR OLD HIGHWAY 55 STORMWATER IMPROVEMENTS

To:	Wenck Associates (ENGINEER)	For:	Clearwater River Watershed District (OWNER)
	1800 Pioneer Creek Center, P.O. Box 249		75 Elm Street East, Box 481
	Maple Plain, MN 55359		Annandale, MN 55302
	Office (763) 479-4200		Office (320) 274-3935
	Fax (763) 479-4242		Fax (320) 274-3975

Bid of _____
name

address

Pursuant to the Advertisement for Bids for Cedar Old Highway 55 Stormwater Improvements to furnish all necessary machinery, equipment, tools, labor and other means of construction and deliver materials and to perform all work at rates and at a total price or prices as hereinafter set forth and in accordance with Drawings and Specifications, and addenda thereto on file in the office of the aforesaid OWNER and the office of Wenck Associates, Inc., 1800 Pioneer Creek Center, P.O. Box 249, Maple Plain, Minnesota 55359.

First: In submitting this Bid, the undersigned bidder understands and agrees that the Instruction to Bidders and, without limiting the foregoing, that this Bid is based upon the following undertakings:

1. That bidder has inspected the site(s) of the work, existing construction in the areas of the proposed work, and has informed itself as to the condition thereof as the same bears on the work to be performed.
2. That bidder has received and examined the Project Manual, and has informed itself of all addenda thereto, the forms of the contract, and the Performance Bond and Payment Bond to be furnished in the event the Bidder is the successful bidder and is awarded the contract.
3. That Bids will be opened at the aforementioned office of the ENGINEER at 1:00 PM, January 20, 2015, and only Bids received at or before 1:00 PM will be considered.
4. That the OWNER intends to award a contract to the lowest responsible bidder based on the Base Bid. The OWNER, however, reserves the right to reject any or all bids and to waive

any minor irregularities, informalities or discrepancies.

5. That this bid and the Bid Security submitted herewith may not, except with the consent of the aforesaid OWNER, be withdrawn for a period of ninety (90) days after the day the bids are opened.

- Second: The undersigned bidder agrees, if the successful bidder, to execute the contract in the form as set forth in the specifications and to furnish the required certificates of insurance and Performance Bond and Payment Bond in forms as set forth in the Project Manual no later than ten (10) calendar days of receiving Notice of Intent to Award of contract from the OWNER.
- Third: The undersigned bidder further agrees to begin work on receipt of an executed contract and to prosecute said work so as to complete the same as specified in the Supplemental General Conditions, subject to Liquidated Damages, if they apply.
- Fourth: The undersigned bidder further agrees to guarantee performance of all work in accordance with the Project Manual 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 execution of the contract by the OWNER, to provide the following:
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 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 project including, where required, alternate bids, it being understood that this bid contemplates all machinery, equipment, tools, labor, and other means of construction and all materials and times specified in accordance with the Project Manual and all Addenda thereto. At the opening of Bid, the bidders' names and bid prices will be read out loud. The undersigned bidder proposes to do all unclassified work required to complete the contemplated improvement at the unit prices given in this Bid.
- 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.
- Eighth: The total bid price represents the material, labor, equipment, all other costs to the bidder, and the bidder's profit to complete the project as specified, in the timeframe anticipated.
- Ninth: The undersigned bidder agrees that the Work will be substantially completed on or before October 15, 2015, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before November 6, 2015.

Tenth: Be prepared to provide qualifications within 7 days of request by OWNER including a list of three (3) projects completed by the CONTRACTOR during the last five (5) years involving work of similar type and complexity. The list shall include the following information as a minimum:

- Names, addresses, and telephone number of owner.
- Name of project.
- Location of project.
- Brief description of the work performed.
- Contract amount.
- Date of completion of the project.
- Name, address, and telephone of the engineer or architect for the work.
- Name of the Owner's project engineer.

ADDENDUM ACKNOWLEDGMENT

Addendum No. 1 _____

Addendum No. 2 _____

Addendum No. 3 _____

Addendum No. 4 _____

Contractor _____

Print Name _____

Title _____

Signature _____

Date _____

Enclosed herewith is Bid Security in the form of

-)a) Certified check in the amount of
)
) _____
Dollars
) (\$ _____) payable to CLEARWATER RIVER WATERSHED
DISTRICT.
)
)or
)
)b) Bid Bond in the amount of
) Dollars (\$ _____) to CLEARWATER RIVER WATERSHED
DISTRICT as obligee.

The amount of the Bid Security being five percent (5%) of the total amount of this Bid as required by the Advertisement for Bids and by the Instruction to Bidders.

WITNESS Our hands and seals this _____ day of _____, 2015

Individual)
or)
Partnership) _____
Execution)
) Co-partners doing business under the name and style of:
)
) _____
)
) _____
A Corporation of the State of _____

Corporate)
Execution) _____
)
) By _____
)
) Title _____

Corporate)
Seal) By _____
)
) Title _____

BID FORM

CLEARWATER RIVER WATERSHED DISTRICT – Cedar Old Highway 55 Stormwater Improvements

Bid Item	Description	Units	Quantity	Unit Price	Subtotal
	BASE BID:				
1	MOBILIZATION	LUMP SUM	1		
2	TRAFFIC CONTROL	LUMP SUM	1		
3	REMOVE EXISTING DRAINTILE PIPE	LIN FT	25		
4	CONSTRUCT BULKHEAD	EACH	2		
5	SALVAGE & RESPREAD EXISTING TOPSOIL	LUMP SUM	1		
6	COMMON EXCAVATION - STOCKPILE ON-SITE (EV)	CU YD	4135		
7	8" PVC SDR-35 STORM SEWER PIPE	LIN FT	45		
8	8" PRECAST CONCRETE HEADWALL	EACH	1		
9	INSTALL 27" DIA. STORM STRUCTURE	EACH	1		
10	CONNECT EXISTING PIPE TO STRUCTURE	EACH	1		
11	LIMESTONE RIPRAP FILTRATION BERM W/GEOTEXTILE FABRIC	CU YD	105		
12	RANDOM RIPRAP CLASS II - SWALE	CU YD	25		
13	4" PERFORATED PVC SAMPLING PIPE	EACH	1		
14	EROSION CONTROL BLANKET CATEGORY 3	SQ YD	2800		
15	SEED MIXTURE - 34-271 WET MEADOW	SQ YD	2000		
16	SEED MIXTURE - 32-241 NATIVE CONSTRUCTION	SQ YD	800		
17	SEED MIXTURE - 22-111 TEMPORARY SEEDING FOR STOCKPILE	SQ YD	1500		
18	SILT FENCE, TYPE MACHINE SLICED - MAINTAINED	LIN FT	1285		
19	STREET SWEEPER WITH PICKUP BROOM	HOOR	5		
20	TEMPORARY CONSTRUCTION ENTRANCE	EACH	1		
				TOTAL BASE BID	

Total Written Amount for Base Bid

SECTION 00410

BID BOND

CLEARWATER RIVER WATERSHED DISTRICT

Cedar Old Highway 55 Stormwater Improvements

Class of Work: Site Grading and Stormwater Improvements

KNOW ALL PERSONS BY THESE PRESENTS that we, _____

_____ as principal, and _____

_____ as surety, are held and firmly bound unto the CLEARWATER RIVER WATERSHED DISTRICT as obligee, in the sum of

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

The condition of this obligation is such that whereas the principal has submitted the accompanying Bid dated _____, for construction work to construct the Kimball Phase II Stormwater Improvements.

NOW, THEREFORE, if the aforesaid principal shall not withdraw (his) (her) (its) (their) Bid for a period of ninety (90) days after the opening of bids, and if awarded a contract upon said Bid shall enter into a contract with the CLEARWATER RIVER WATERSHED DISTRICT, and give Performance Bond and Payment Bond as required by law and in form specified by the OWNER, then this obligation shall be null and void; otherwise the principal and surety will pay unto the obligee, the sum

of _____

not as a penalty, but as liquidated damages sustained by the CLEARWATER RIVER WATERSHED DISTRICT, as a result of such failure.

Signed and dated this _____ day of _____, 2015

Surety

Principal

Attorney in Fact

INDIVIDUAL AND CO-PARTNERSHIP ACKNOWLEDGMENT

STATE OF MINNESOTA)
)SS
COUNTY OF)

On this _____ day of _____, 2015, before me personally appeared _____
_____, to me known to be the person described in and who executed the
foregoing bond, and acknowledged that he (she) executed the same as his (her) own free act and
deed.

CORPORATE ACKNOWLEDGMENT FOR PRINCIPAL

STATE OF MINNESOTA)
)SS
COUNTY OF)

On this _____ day of _____, 2015, before me appeared to me personally
known, who, being duly sworn, did say that they are respectively _____ and
_____ of _____, a corporation; that the seal affixed to the
foregoing instrument is the corporate seal of the corporation, and that said instrument was executed
in behalf of the corporation, and that said instrument was executed in behalf of the corporation by
authority of its Board of Directors; and they acknowledge said instrument to be free act and deed of
the corporation.

AFFIX HERE ACKNOWLEDGMENT OF CORPORATE SURETY

The form of this bond has been prescribed by the CLEARWATER RIVER WATERSHED DISTRICT.

NOTICE OF CORPORATE SURETIES: This bond will not be accepted unless executed or countersigned by a Minnesota Agent, resident officers, or attorney in fact whose names and address must be noted in the space hereinafter provided. The corporate surety's form of corporate acknowledgment should be attached in the place provided on this form.

Full Name of Surety Company _____

Name of Attorney In Fact _____

Name of Local Agency _____

If this bond is executed outside of the State of Minnesota, it must be countersigned by a Minnesota Resident Agency of the Surety Company.

Name of Agency and Agent affixing countersignature _____

Address _____

Signature _____

END OF SECTION

SECTION 00500

CONTRACT AGREEMENT

THIS AGREEMENT is by and between

Clearwater River Watershed District, Minnesota

("Owner") and

("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: site grading and stormwater improvements.

ARTICLE 2 – THE PROJECT

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows: Cedar Old Highway 55 Stormwater Improvements.

ARTICLE 3 – ENGINEER

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

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

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

4.02 *Dates for Substantial Completion and Final Payment*

- A. The Work will be substantially completed on or before October 15, 2015. Substantial completion shall be defined as the completion of the following items:
1. Completion of site grading, utility installation, and site restoration
- B. All of the Work of the Project shall be completed and ready for Final Payment in accordance with Paragraph 14.07 of the General Conditions on or before November 6, 2015.

4.02 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall be assessed the sum of \$500 for each calendar day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete.
- B. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time specified in Paragraph 4.02 above or any extension thereof granted by Owner in accordance with Article 12 of the General Conditions, Contractor shall be assessed the sum of \$500 for each calendar day that expires after Substantial Completion until the Work is completed and ready for Final Payment. Assessed Liquidated Damages will be withheld from progress payments.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds as set forth in the Bid Form.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions as may be modified by the Supplementary Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions as may be modified by the Supplementary Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 25th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions.
 - a. 95 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of

the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

- b. 95 percent of cost of materials and equipment incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

ARTICLE 7 – INTEREST

- 7.01 Payment due dates and calculation of interest for monies not paid when due as provided in ARTICLE 14 of the General Conditions, shall be determined in accordance with the provisions of the Minnesota Prompt Pay Law, Minnesota Statutes §471.425.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 By signing this Agreement, Contractor makes the following representations :
 - A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Contract Documents.
 - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, performance, or furnishing of the Work.
 - C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance, or furnishing of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data".
 - E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the

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

- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Bidding Documents prior to the due date for submitting such notice and has submitted this Bid in reliance only on the Bidding Documents and any Addenda issued by the Engineer prior to the due date.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. Written Amendments, Modifications, Change Orders, and other documents amending, modifying, or supplementing the Contract Documents pursuant to Paragraphs 3.04 of the General Conditions, as modified by the Supplementary Conditions, after the date of execution of this Agreement shall become incorporated into, attached to, and made a part of this Agreement on the effective date of such document. Agreement.
 - 2. Bid Form.
 - 3. Affidavit of Authority and Non-Collusion.
 - 4. Instructions to Bidders.
 - 5. Contract Drawings – Cedar Old Highway 55 Stormwater Improvements
 - 6. Project Manual – Cedar Old Highway 55 Stormwater Improvements
 - 7. Prevailing Wage Rates
 - 8. Truck Rental Rates
 - 9. Supplementary Conditions.
 - 10. General Conditions.

- 11. Performance Bond.
- 12. Payment Bond.
- 13. Bid Bond.
- 14. Advertisement for Bids
- B. The documents listed in Paragraph 9.01.A are attached to (except as expressly noted otherwise above) and made a part of this Agreement.
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. In case of discrepancy in the Contract Documents, the order listed above shall be the order of precedence for the Contract Documents, that is, the governing document shall be Change Order(s) followed by the Agreement, and so forth.
- E. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.
- B. If there is a discrepancy between a definition in the General Conditions, as modified by the Supplementary Conditions, and a definition in the Contract Documents, the provision most favorable to the Owner shall prevail.

10.02 *Indemnification*

- A. Contractor shall indemnify, hold harmless and defend Owner, its officers, officials, agents, and employees against any and all liability, losses, costs, damages, expenses, claims, or actions, including attorney's fees, which Owner, its officers, officials, agents, or employees may hereafter sustain, incur, or be required to pay, arising out of or by reason of any act or omission of Contractor or its subcontractors, or Contractor's or subcontractors' officers, agents, subcontractors, or employees, in the execution, performance, or failure to adequately perform Contractor's obligations pursuant to this Agreement.

10.03 *Assignment of Contract*

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

10.04 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its partners, officers, officials, successors, assigns, and legal representatives to the other party hereto, its partners, officers, officials, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in this Agreement.

10.05 *Severability*

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

10.06 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.06:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.07 *Other Provisions*

- A. This Agreement shall be governed by the laws of the State of Minnesota.
- B. There are no other provisions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in duplicate. One counterpart has been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

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

OWNER:

Clearwater River Watershed District

By: _____

Title: _____

Attest: _____

Title: _____

Address for giving notices:

75 Elm Street East, Box 481

Annandale, MN 55302

CONTRACTOR

By: _____

Title: _____

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

Attest: _____

Title: _____

Address for giving notices:

License No.: _____

(Where applicable)

Designated Representative:

Name: _____

Title: _____

Address: _____

Phone: _____

Facsimile: _____

Designated Representative:

Name: _____

Title: _____

Address: _____

Phone: _____

Facsimile: _____

SECTION 00505

AFFIDAVIT OF AUTHORITY AND NON-COLLUSION

CLEARWATER RIVER WATERSHED DISTRICT
Cedar Old Highway 55 Stormwater Improvements
Class of Work: Site Grading and Stormwater Improvements

I hereby swear (or affirm) under the penalty for perjury:

1. That I am the bidder (if the bidder is an individual), a partner of the bidder (if the bidder is a partnership), or an officer or employee of the bidding corporation (if the bidder is a corporation), having authority to sign on his, hers, or its behalf and if awarded the contract to enter into such contract;
2. That the attached bid or bids have been arrived at by the bidder independently and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with any other vendor of materials, supplies, equipment or services described in the Advertisement for Bids, designed to limit independent bidding or competition;
3. That the contents of the bid or bids have not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid or bids and will not be communicated to any such person prior to the official opening of the bid or bids; and
4. That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

[Insert Name of Contractor]

By _____
Its _____

By _____
Its _____

SECTION 00510
NOTICE OF AWARD

To:

Project Title: Cedar Old Highway 55 Stormwater Improvements

Project Description: The WORK, in accordance with the Project Manual, consists of all labor, materials, tools, permits, bonds, machinery, equipment, and services including utility and transportation services necessary for the construction of the Cedar Old Highway 55 Stormwater Improvements in the Clearwater River Watershed District.

The OWNER has considered the Bid submitted by you for the above-described work in response to its Advertisement of Bids dated _____, 2015, and Instruction to Bidders.

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

You are required by the Information Available to Bidders to execute the Agreement and furnish the required CONTRACTOR'S Performance Bond and Payment Bond, and certificates of insurance 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 and certificates within ten (10) 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 as may be granted by law.

This Notice of Award is NOT a notice to proceed with the work. CONTRACTOR shall not commence work (other than as specified above) until a Notice to Proceed is issued by OWNER.

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

Dated this the ____ day of _____, 2015.

Clearwater River Watershed District
(OWNER)

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by _____
_____ this the ____ day of _____, 2015.

By: _____

Title: _____

SECTION 00520

NOTICE TO PROCEED

To: _____ Date: _____

_____ Project: Cedar Old Highway 55 Stormwater Improvements

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 2015, on or before _____, 2015, and you are to complete the WORK within _____ consecutive calendar days thereafter. The date of completion of all work is therefore _____, 2015.

Clearwater River Watershed District
(OWNER)

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Proceed is hereby acknowledged by _____ this the ____ day of _____, 2015.

By: _____

Title: _____

END OF SECTION

SECTION 00530

PAYMENT REQUEST FORM

OWNER: Clearwater River Watershed District
PROJECT: Cedar Old Highway 55 Stormwater Improvements
CONTRACTOR: _____

PAY ESTIMATE NO. _____

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

I declare under penalty of perjury that this account, claim, or demand is just and correct and that no part of it has been paid.

CONTRACTOR

CERTIFICATE OF CONTRACTOR

I hereby certify that the work and the materials supplied to date, as shown on the request for payment, represents the actual value of accomplishment under the terms of the contract dated

_____, 2015 between the Clearwater River Watershed District (OWNER)

and _____ (CONTRACTOR) and all authorized changes thereto.

By _____

Title _____

Approval:

(CONTRACTOR)

Date _____

WENCK ASSOCIATES, INC.

Date _____

Kevin Mattson, P.E.

CLEARWATER RIVER WATERSHED DISTRICT

Date _____

END OF SECTION

SECTION 00540
CHANGE ORDER

Change Order No. _____

Date _____

Agreement Date _____

Name of Project: Cedar Old Highway 55 Stormwater Improvements

Owner: Clearwater River Watershed District

Contractor: _____

The following changes are hereby made to the Contract Documents:

Justification: _____

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 \$ _____

Original Contract-Required Completion Date: _____

Current Contract Completion Date adjusted to previous Change Order: _____

The Contract Time will be (increased) (decreased) by _____ calendar days.

The revised Contract Completion Date for completion of Work will be _____

Approvals Required:

To be effective, this 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 Supplemental General Conditions.

Requested by: _____
Kevin Mattson, P.E.

Ordered by: _____
Clearwater River Watershed District

Accepted by: _____
(Contractor)

END OF SECTION

SECTION 00620

PERFORMANCE BOND

Any singular reference to CONTRACTOR, SURETY, OWNER, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address)

SURETY (Name and Principal Place of Business)

OWNER (Name and Address)

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

CONSTRUCTION CONTRACT

DATE: _____, 2015

AMOUNT: _____

(Written Amount) _____

Description (Project Name and Location):

Cedar Old Highway 55 Stormwater Improvements, Clearwater River Watershed District, Corinna Township, MN

BOND

DATE: _____, 2015

AMOUNT: _____

(Written Amount) _____

Contractor (Corporate Seal)

Surety (Corporate Seal)

Company Name:_____

Company Name:_____

By: _____
(Signature)

By: _____
(Signature)

Name:(Typewritten)

Name:(Typewritten)

ITS: _____
(Title)

ITS: _____
(Title)

On this ____ day of _____, 2015, before me personally appeared _____ and _____, on behalf of the CONTRACTOR and SURETY named in this Performance Bond above, respectively, and each of them, as their free act and deed, caused this Performance Bond to be executed as of this date.

Notary Public

ATTACH POWER OF ATTORNEY FROM SURETY TO THIS BOND

For Information Only (Name, Address and Telephone)

Agent or Broker:

Owner's Representative (Engineer)

1. Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.
3. If there is no Owner Default, the Surety's obligation under this Bond shall arise after:
 - 3.1. The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below, that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and
 - 3.2. The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.
4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 4.1. Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or
 - 4.2. Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or
 - 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or
 - 4.5. 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 the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or
 2. Deny liability in whole or in part and notify the Owner citing reasons therefor.
5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.
6. After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:
 - 6.1. The responsibilities of the contractor for correction of defective work and completion of the Construction Contract;
 - 6.2. Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and
 - 6.3. Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
7. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, or successors.
8. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
9. 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 the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.
11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
12. Definitions.
 - 12.1. Balance of the Contract Price: The total amount payable by the Owner to the Contractor under

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

- 12.2. Construction Contract: The agreement between the Owner and the Contractor identified in the signature page, including all Contract Documents and changes thereto.
- 12.3. Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.
- 12.4. Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

END OF SECTION

SECTION 00630

PAYMENT BOND

Any singular reference to CONTRACTOR, SURETY, OWNER, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address)

SURETY (Name and Principal Place of Business)

OWNER (Name and Address)

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

CONSTRUCTION CONTRACT

DATE: _____, 2015

AMOUNT: _____

(Written Amount) _____

Description (Project Name and Location):

Cedar Old Highway 55 Stormwater Improvements, Clearwater River Watershed District, Corinna Township, MN

BOND

DATE: _____, 2015

AMOUNT: _____

(Written Amount) _____

Contractor (Corporate Seal)

Surety (Corporate Seal)

Company Name: _____

By: _____
(Signature)

Name:(Typewritten)

ITS: _____
(Title)

Company Name: _____

By: _____
(Signature)

Name:(Typewritten)

ITS: _____
(Title)

On this ____ day of _____, 20____, before me personally appeared _____ and _____, on behalf of the CONTRACTOR and SURETY named in this Payment Bond above, respectively, and each of them, as their free act and deed, caused this Payment Bond to be executed as of this date.

Notary Public

ATTACH POWER OF ATTORNEY FROM SURETY TO THIS BOND

For Information Only (Name, Address and Telephone)

Agent or Broker:

Owner's Representative (Engineer)

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.
2. With respect to the Owner, this obligation shall be null and void if the Contractor:
 - 2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies and holds harmless the Owner from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands liens or suits to the Contractor and the Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
4. The Surety shall have no obligation to Claimants under this Bond until:
 - 4.1. Claimants who are employed by or have direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and send a copy, or notice thereof, to the 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 the Contractor:
 1. Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the 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 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 the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above 30 days, have send a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.
5. If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.
6. When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
 - 6.1. Send an answer to the Claimant, with a copy to the Owner within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 6.2. Pay or arrange for payment of any undisputed amounts.
7. The 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 the Surety.
8. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the construction Contract and to satisfy claims, if any, under any Construction Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
9. The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for 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. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
11. No suite 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 Subparagraph 4.1 or Clause 4.2 (iii), or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
12. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner or the 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 or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom

and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the 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 the Contractor or with a subcontractor of the 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 Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

- 15.2. Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

- 15.3 Owner Defaults: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

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

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

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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 00800

SUPPLEMENTARY CONDITIONS

PART I - AMENDMENTS TO GENERAL CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC Document No. C-700, 2007 edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions which are defined in the General Conditions have the meanings assigned to the General Conditions.

ARTICLE 1. DEFINITIONS AND TERMINOLOGY

SC-1.01.A.12.

Delete paragraph 1.01.A.12 of the General Conditions in its entirety and insert the following in its place:

SC-1.01.A.12 *Contract Documents* – The documents that comprise the Contract Documents are set forth in the Instruction to Bidders.

SC-1.01.A.19

Add a new sentence at the end of Paragraph 1.01.A.19 to read as follows:

The project has been designed by Wenck Associates, Inc. 1800 Pioneer Creek Center, Maple Plain, MN 55359 who will act as ENGINEER in connection with completion of the Work in accordance with the Contract Documents.

SC-1.01.A.29

Add a new sentence at the end of Paragraph 1.01.A.29 to read as follows:

Any reference to “OWNER” in these Bid Documents should be construed as synonymous with the Clearwater River Watershed District.

SC-1.01.A.52

Add the following new definition after paragraph 1.01.A.51:

SC-1.01.A.52

Utilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, poles or other such facilities or attachments and supports, and any encasements containing such facilities which have been installed above or underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

ARTICLE 2. PRELIMINARY MATTERS

SC-2.01

Delete paragraph 2.01.B of the General Conditions in its entirety and insert the following in its place:

SC-2.01.B Evidence of Insurance:

Before any Work at the site is started, CONTRACTOR shall deliver to OWNER, with copies to ENGINEER and each additional insured identified in Article 5 of the Supplementary Conditions,

certificates of insurance (and other evidence requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with the requirements of Article 5.

SC-2.02

Delete the word "ten" from the first sentence of paragraph 2.02A and insert the word "three" in place of "ten."

SC-2.03

Delete paragraph 2.03.A of the General Conditions in its entirety and insert the following in its place:

SC-2.03.A

A Notice to Proceed may be given at any time within thirty days after the Effective Date of the Agreement. The Contract Time will commence at the time specified in the Notice to Proceed or, if no such notice is given, thirty days following the Effective Date of the Agreement, provided the Notice to Proceed may not specify a time of commencement later than sixty days after the Effective Date of the Agreement.

SC-2.05.

Add a new paragraph immediately after 2.05.A.3 of the General Conditions to read as follows:

SC-2.05.A.4

A list of Subcontractors and major suppliers.

SC-2.06.

Add a new sentence at the end of Paragraph 2.06.A to read as follows:

The CONTRACTOR will also be prepared to discuss his/her proposed methods of complying with the Contract Documents.

ARTICLE 3. CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

SC-3.01

Add a new paragraph immediately after Paragraph 3.01.A of the General Conditions which is to read as follows:

SC-3.01.A.1.

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

Add the following language prior to the last sentence of paragraph 3.01.B of the General Conditions:

If there is any conflict between the provisions of the Contract Documents and any such referenced provisions, the language of the Contract Documents will take precedence over that of any standard specification, manual or code.

ARTICLE 4. AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

SC-4.01.

Add a new paragraph immediately after paragraph 4.01.C of the General Conditions which is to read as follows:

SC-4.01.D.

If all lands and rights-of-way are not obtained as herein contemplated before construction begins, CONTRACTOR shall begin the Work upon such land and rights-of-way as OWNER has previously acquired.

SC-4.05.

Add a new paragraph immediately after paragraph 4.05.A. of the General Conditions which is to read as follows:

SC-4.05.A.

ENGINEER may check the lines, elevations, reference marks, batter boards, etc., set by CONTRACTOR, and CONTRACTOR shall correct any errors disclosed by such check. Such a check shall not be considered as approval of CONTRACTOR's work and shall not relieve CONTRACTOR of the responsibility for accurate construction of the entire Work. CONTRACTOR shall furnish personnel to assist ENGINEER in checking lines and grades.

ARTICLE 5. INSURANCE AND BONDS

SC-5.01.

Delete paragraph 5.01.A. of the General Conditions in its entirety and replace with the following:

SC-5.01.A.

Unless otherwise exempted in these Contract Documents, the Contractor shall furnish a Performance Bond and a Labor and Material Payment Bond (individually a "Bond" and collectively "Bonds") to the Owner. The Performance Bond shall be in an amount equal to 100% of the full amount of the Contract sum as security for the faithful performance of the Contract, and the Labor and Material Payment Bond shall be in an amount equal to 100% of the full amount of the Contract sum as security for the payment of all persons performing labor and furnishing materials in connection with the Contract Documents. Such Bonds shall be on forms approved by or provided by the Owner and shall name the Owner as primary Obligee.

The surety issuing the Bonds shall be satisfactory to the Owner, be licensed to issue Bonds in the State of Minnesota, shall be rated by A.M. Best an A-(minus) or better.

SC-5.04.

Add new paragraphs immediately after paragraph 5.04.B which are to read as follows:

SC-5.04.C. COMMERCIAL GENERAL LIABILITY

Contractor shall maintain insurance to cover claims arising from operations under this Contract, whether such operations are by the Contractor, Subcontractor, Sub-Subcontractor or by anyone directly or indirectly employed under this Contract. Unless otherwise specified, the insurance **minimum** limits of liability shall be as follows:

\$2,000,000 – Per Occurrence

\$2,000,000 – Annual Aggregate applying per project or location

\$2,000,000 – Annual Aggregate applying to Products and Completed Operations

\$50,000 – Fire Damage (any one fire)

\$5,000 – Medical Expense (any one person per occurrence)

The following coverages shall be included:

- Premises and Operations Bodily Injury and Property Damage

- Personal Injury & Advertising Injury
- Products and Completed Operations Liability, to be maintained for at least 3 years after completion of the work under this contract.
- Contractual Liability as provided in ISO form CG 00 01 10 01 or its equivalent
- Pollution exclusion with standard exception as per Insurance Services Office (ISO) Commercial
- General Liability Coverage Form – CG 00 01 10 01 or equivalent
- Independent Contractors – Let or Sublet work
- Explosion, Collapse, and Underground (XCU) perils
- Broad Form PD
- Waiver of Subrogation in favor of the State of Minnesota

Officers and Employees of the Owner, the Engineer and its agents shall be named as Additional Insureds, by endorsement, ISO Forms CG 20 10 and CG 20 37 or their equivalent for claims arising out of the Contractor's negligence or the negligence of those for whom the Contractor is responsible.

INDEMNIFICATION

To the fullest extent permitted by law and to the extent claims, damages, losses or expenses are not covered by insurance purchased by the Contractor in accordance with SC-5.04, the Contractor shall indemnify and hold harmless the Owner, Owner's Representatives, Engineer, Engineer's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in these Indemnification requirements.

In claims against any person or entity indemnified under these Indemnification requirements by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under the paragraph above shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

The obligations of the Contractor under these Indemnification requirements shall not negate, abridge or reduce the liability of the Engineer, the Engineer's consultants and agents and employees of any of them.

SC-5.04.D. BUSINESS AUTOMOBILE LIABILITY

Contractor shall maintain insurance to cover liability arising out of the operations, use, or maintenance of all owned, non-owned and hired vehicles. Unless otherwise specified, the insurance **minimum** limits shall be as follows:

\$2,000,000 – Per Occurrence combined Single Limit Bodily Injury and Property Damage.

The following coverages shall be included:

- Owned Automobiles
- Hired Automobiles
- Non-owned Automobiles
- CA 9948 Endorsement – Pollution Liability – Broadened Coverage (or equivalent)

CA 9948 is an endorsement that is attached to an Automobile Liability policy for Contractors who are handling pollutants. This endorsement extends the Automobile Liability policy to cover liabilities incurred as a result of the discharge, dispersal, seepage, migration, release or escape of pollutants that are

part of the contract work, which are being transported, towed by, handled, stored, disposed of or processed in or upon a covered vehicle, if they are upset or overturned.

- MCS 90 Endorsement

MCS-90 is an endorsement that is attached to the Automobile Liability policy of motor carriers as set forth by the Motor Carrier Act of 1980. The endorsement assures compliance by the insured, within the limits stated therein, with Sections 29 and 30 of the Motor Carrier Act of 1980 and the rules and regulations of the Federal Highway Administration (FHWA) and the Interstate Commerce Commission (ICC).

In addition, such insurance shall include a waiver of subrogation in favor of the Owner.

SC-5.04.E. WORKER'S COMPENSATION

Contractor shall provide the statutory requirements for workers compensation insurance.

Evidence of Subcontractor insurance shall be filed with the Contractor.

SC-5.04.F. UMBRELLA OR EXCESS LIABILITY

An Umbrella or Excess Liability insurance policy may be used to supplement the Contractor's policy limit to satisfy the full policy limits required by the Contract.

ADDITIONAL INSURANCE CONDITIONS

SC-5.04.G. Primary and Non-Contributory – Contractor's policy(ies) shall be primary and non-contributory insurance to any other valid and collectible insurance available to the State of Minnesota or self-insurance maintained by the State of Minnesota with respect to any claim arising out of this Contract.

SC-5.04.H. Contractor is responsible for payment of contract related insurance premiums and deductibles.

SC-5.04.I. Insurance Companies must have an AM Best rating of A-(minus) and a Financial Size Category of VII, or better, and be authorized to do business in the State of Minnesota.

SC-5.04.J. The above establishes minimum insurance requirements. It is the sole responsibility of the Contractor to determine the need for and to procure additional insurance that may be needed in connection with this contract.

SC-5.04.K. Certificates of Insurance acceptable to the Owner shall be submitted prior to commencement of the work under this contract. Such Certificates and the insurance policies required under SC-5.04 shall contain a provision that coverage afforded under these policies shall not be cancelled without at least thirty (30) days advanced written notice to the Owner. Upon written request of the Owner, the Contractor shall provide a true copy of any policy, and endorsement thereof that is part of this Contract. The failure of the State of Minnesota to obtain Certificate(s) of Insurance, for the policy(ies) required under SC-5.04 or renewals thereof, shall not constitute a waiver by the Owner to the Contractor to provide such insurance.

SC-5.04.L. Owner's Liability Insurance: The Owner will be responsible for maintaining its own liability insurance or self insurance program and, at its option, may purchase and maintain such insurance as will protect the Owner against claims which may arise from operations under the Contract.

ARTICLE 6. CONTRACTOR'S RESPONSIBILITIES

SC-6.03. Add the following to the end of Paragraph 6.03.B. of the General Conditions:

Preference will be given to Minnesota manufactured products where quality and cost considerations are equal and the products are in compliance with the specifications.

Requests for substitutions must be received by the ENGINEER at least 10 days prior to the bid opening in order to be considered for pre-bid approval. Requests after this date will not be considered until after the award of the Contract.

SC-6.06.

Delete Paragraphs 6.06.A and 6.06.B of the General Conditions in their entirety and insert the following in its place:

SC-6.06.A CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization, (including those who are to furnish the principal items of materials or equipment), whether initially or as a substitute, against whom OWNER may have reasonable objection. Acceptance of any Subcontractor, other person or organization by OWNER shall not constitute a waiver of any right of OWNER to reject defective Work. CONTRACTOR shall not be required to employ any Subcontractor, other person or organization against whom CONTRACTOR has reasonable objection.

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the Contract or Contracts or any portion thereof, or of right, title, or interest therein, without written consent of the Owner. In case consent is given, the Contractor will be permitted to sublet a portion thereof, but the Contractor's organization shall perform work amounting to not less than 50 percent of the total original Contract cost. Items designated in the Contract as "specialty items" may be subcontracted and the cost of any specialty items performed by subcontract will be deducted from the total cost before computing the amount of work required to be performed by the Contractor's own organization.

SC-6.06.B. OWNER or ENGINEER may furnish to any such Subcontractor, Supplier or other person or organization, to the extent practicable, information about amounts paid on their behalf to CONTRACTOR in accordance with CONTRACTOR's Applications for Payment.

Add a new paragraph after paragraph 6.06.G of the General Conditions which is to read as follows:

SC-6.06.H. The prime CONTRACTOR is required to make payments to the Subcontractor(s) in the same manner that the OWNER is required to make payments to the prime CONTRACTOR.

1. Prompt Payment: In accordance with MN Stat. 16A. 1245, the prime CONTRACTOR shall, within 10 days of receipt of a progress payment, pay all Subcontractors and suppliers having an interest in the contract their pro rata share of the payment for all undisputed services provided by the Subcontractors on any undisputed amount not paid on time.

If the prime CONTRACTOR does not pay any Subcontractor or supplier on time, the prime CONTRACTOR must pay interest of 1 1/2% per month or any part of a month on any undisputed amount not paid on time. The minimum monthly interest penalty payment for an unpaid balance of \$100.00 or more is \$10.00. For an unpaid balance of less than \$100.00, the prime CONTRACTOR shall pay the actual penalty due the Subcontractor. Any Subcontractor who prevails in a civil action to collect interest penalties from a prime CONTRACTOR must be awarded its costs and disbursements, including attorney's fees incurred bringing the action.

2. Retainage: The prime CONTRACTOR may withhold as retainage from Subcontractor(s) progress payments in an amount not to exceed five (5) percent of the payment. The prime CONTRACTOR shall reduce or eliminate the retainage for a Subcontractor in the same manner that the OWNER reduces or eliminates the retainage for the prime CONTRACTOR.
3. Enforcement: The enforcement of these conditions shall be the responsibility of the Subcontractor(s) working through the prime CONTRACTOR and the prime CONTRACTOR's surety. To facilitate the resolution of any problems relating to these provisions, the prime CONTRACTOR shall furnish the Subcontractor(s) with the name, address and telephone number of the prime CONTRACTOR's surety within ten (10) days of the date on which the prime CONTRACTOR signs a Contract with the

OWNER.

The attention of the Subcontractor is directed to the State Requirement that each CONTRACTOR be required to file a bond with the State in the amount of the Contract price.

Minnesota Statute 574.31 provides a limit of time to bring an action on any such bond.

For the benefit of all parties we quote the section in its entirety:

574.31 LIMIT OF TIME TO BRING ACTION

No action shall be maintained on any such bond unless within 90 days after the completion of the Contract and acceptance thereof by the proper public authorities, the claimant shall file a written notice specifying the nature and amount of his/her claim and the date of furnishing the last item thereof in the office of the Commissioner of Insurance, in case the contract is for the performance of work for the State or any department thereof, and, in case the contract is let by any County, Municipal corporation, in which such Municipal Corporation, Public Board or body is situate, and if situate in two or more counties, then such notice shall be filed in the office of the auditor of each County; nor unless action is begun within one year after the filing of such notice. The County auditor shall enter the time of filing every notice in a book kept for that purpose, which shall be properly indexed.

"Subd. 2. **Claims on payment bonds.** (a) In the event of a claim on a payment bond by a person furnishing labor and materials, no action shall be maintained on the payment bond unless, within **90 days** after completion, delivery, or provision by the person of its last item of labor and materials, for the public work, the person serves written notice of claim under the payment bond personally or by certified mail upon the surety that issued the bond and the contractor on whose behalf the bond was issued at their addresses as stated in the bond specifying the nature and amount of the claim and the date the claimant furnished its last item of labor and materials for the public work. For the purpose of this section, notice is sufficient if served personally or via certified mail to the addresses of the contractor and surety listed on the bond."

The form of the notice is contained in Minn. Stat. 574.31, subd. 2.

SC-6.09

Add new paragraphs immediately after paragraph 6.09.C. of the General Conditions to read as follows:

SC-6.09.D. The CONTRACTOR shall conform with and agree to provisions of Minnesota Statutes section 181.59 which prohibits discrimination in the hiring of labor by reason of race, creed or color, which section is reproduced below:

SC-6.10.

Add a new paragraph immediately after paragraph 6.10.A. of the General Conditions to read as follows:

SC-6.10.B. All Contractors and subcontractors shall comply with the provisions of Minnesota Statutes 290.92 relative to the withholding of income tax on wages and no final settlement with any Contractor shall be made until said Contractor has offered satisfactory proof of compliance with the provisions of the withholding section of the statute.

SC-6.20.

Add a new paragraph immediately after paragraph 6.20.C. to read as follows:

SC-6.20.D If through the acts of neglect on the part of CONTRACTOR, any other Contractor or any other Subcontractor shall suffer loss or damage on the Work, CONTRACTOR shall settle with such other Contractor or Subcontractor by agreement or arbitration if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor shall assert any claim against OWNER on account of

any damage alleged to have been sustained, OWNER shall notify CONTRACTOR, who shall indemnify and save harmless OWNER against any such claims.

ARTICLE 8. OWNER'S RESPONSIBILITIES

SC-8.06.

Delete Paragraph 8.06 of the General Conditions in its entirety.

ARTICLE 9. ENGINEER'S STATUS DURING CONSTRUCTION

SC-9.03.

Add a new paragraph immediately after paragraph 9.03.A. of the General Conditions which is to read as follows:

SC-9.03.B Resident Project Representative (RPR) will be ENGINEER'S employee or agent at the Site, will act as directed by and under the supervision of ENGINEER, and will confer with ENGINEER regarding RPR'S actions.

RPR'S dealings in matters pertaining to the on-site Work shall in general be with ENGINEER and CONTRACTOR keeping OWNER advised as necessary. RPR'S dealings with Subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. RPR shall generally communicate with OWNER with the knowledge of and under the direction of ENGINEER.

1. Duties and Responsibilities to RPR:

- a. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals and schedule of values prepared by CONTRACTOR and consult with ENGINEER concerning acceptability.
- b. Conferences and Meetings: Attend meetings with CONTRACTOR, such as pre-construction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
- c. Liaison:
 - 1) Serve as ENGINEER'S liaison with CONTRACTOR, working principally through CONTRACTOR'S superintendent and assist in providing understanding of the intent of the Contract Documents; and assist ENGINEER in serving as OWNER'S liaison with CONTRACTOR when CONTRACTOR'S operations affect OWNER'S operations on the Site.
 - 2) Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
- d. Shop Drawings and Samples:
 - 1) Record date of receipt of Shop Drawings and Samples, which are received at the Site.
 - 2) Receive Samples which are furnished at the Site by CONTRACTOR, and notify ENGINEER of availability of Samples for examination.
 - 3) Advise ENGINEER and CONTRACTOR of the commencement of any Work requiring a Shop Drawing or Sample if the submittal has not been approved by ENGINEER.
- e. Review Work, Rejection of Defective Work, Inspections and Tests:
 - 1) Conduct observation of the Work in progress on the Site to assist ENGINEER in determining if the work is in general proceeding in accordance with the Contract Documents.
 - 2) Report to ENGINEER whenever RPR believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise ENGINEER of Work that RPR believes should be corrected or rejected or should be uncovered for observations, or requires special testing, inspection or approval.

- 3) Verify that tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records thereof; and observe, record and report to ENGINEER appropriate details relative to the test procedures and startups.
- 4) Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to ENGINEER.
- f. Interpretation of Contract Documents: Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and transmit to CONTRACTOR clarifications and interpretations as issued by ENGINEER.
- g. Modifications: Consider and evaluate CONTRACTOR'S suggestions for modifications in Drawings or Specifications and report with RPR'S recommendations to ENGINEER. Transmit to CONTRACTOR decisions as issued by ENGINEER.
- h. Records:
 - 1) Maintain at the Site orderly files for correspondence, reports of job conferences, Shop Drawings and Samples, and reproductions of original Contract Documents including all Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Agreement. ENGINEER'S clarifications and interpretations of the Contract documents, progress reports, and other Project related documents.
 - 2) Keep a record, recording CONTRACTOR hours on the Site, weather conditions, and data relative to questions on Change Orders or changed conditions, list of visitors to the site, daily activities, decisions, observation in general, and specific observations in more detail as in the case of observing test procedures; and send copies to ENGINEER.
 - 3) Record names, address and telephone numbers of all CONTRACTORS, subcontractors and major suppliers of materials and equipment.
- i. Reports:
 - 1) Furnish ENGINEER periodic reports as required of progress of the Work and of CONTRACTOR'S compliance with the progress schedule and schedule of Shop Drawings and Sample submittals.
 - 2) Consult with ENGINEER in advance of scheduled major tests, inspections or start of important phases of the Work .
 - 3) Draft proposed Change Orders, obtaining backup material from CONTRACTOR and recommend to ENGINEER Change Orders and Field Orders.
 - 4) Report immediately to ENGINEER and OWNER upon the occurrence of any accident.
- j. Payment Requests:

Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and submit recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.
- k. Certificates, Maintenance and Operation Manuals:

During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to ENGINEER for review and forwarding to OWNER prior to final payment for the Work.
- l. Completion:
 - 1) Before ENGINEER issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring completion or correction.
 - 2) Conduct final inspection in the company of ENGINEER, OWNER and CONTRACTOR and prepare a final list of items to be completed or corrected.
 - 3) Observe that all items on final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance.

2. Limitations of Authority of RPR:

RPR shall not:

- a. Authorize any deviation from the Contract or Documents or substitution of materials or equipment, unless authorized by ENGINEER.
- b. Exceed limitations of ENGINEER'S authority as set forth in the Agreement or the Contract Documents.
- c. Undertake any of the responsibilities of CONTRACTOR, subcontractor or CONTRACTOR'S superintendent.
- d. Advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advise or directions are specifically required by the Contract Documents.
- e. Advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.
- f. Accept Shop Drawings or Sample submittals from anyone other than CONTRACTOR.
- g. Authorized Owner to occupy the Project in whole or in part.
- h. Participate in specialized filed of laboratory tests or inspections conducted by others except as specifically authorized by ENGINEER.

ARTICLE 11. COST OF WORK; CASH ALLOWANCE; UNIT PRICE WORK

SC-11.03 Delete paragraph 11.03.C. in its entirety and replace with the following:

SC-11.03.C. The unit price of an item of Unit Price Work shall be subject to re-evaluation and adjustment under the following conditions:

1. if the total cost of a particular item of Unit Price Work amount to 5 percent or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by CONTRACTOR differs by more than 15 percent from the estimated quantity of such item indicated in the Agreement; and
2. if there is no corresponding adjustment with respect to any other item of Work; and
3. if CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof; or if OWNER believes that the quantity variation entitles OWNER to an adjustment in the unit price, either OWNER or CONTRACTOR may make a claim for an adjustment in the contract Price in accordance with Article 12 if the parties are unable to agree as to the effect of any such variation in the quantity of Unit Price Work performed.

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

SC-12.01.

Delete paragraph 12.01.B.3. in its entirety and insert the following in its place:

SC-12.01.B.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 12.01B.2, on the basis of the actual cost of materials and labor on the job site with a maximum CONTRACTOR'S fee of **10 percent on materials and labor for total overhead and profit including the cost of insurance and field supervision..** If the Work is done by a Subcontractor, the CONTRACTOR'S fee shall not exceed **10 percent for its general overhead and profit. In preparing the Change Order, the following documentation must be provided:**

- 1) An itemized breakdown of materials, an hourly breakdown of labor, and other direct costs must be shown on each supplement submitted for the general contractor, the subcontractor and sub-subcontractors.**
- 2) All supporting documents must be included with the OWNER'S copy of the Supplemental Agreement.**
- 3) Corrections must be dated and initialed by the contractor and Consultant.**

- 4) **The Contractor summary must be complete and adequate justification and supporting documentation must be included with each supplement.**
- 5) **The extent to which the contract time increases or decreases as a result of the Supplemental Agreement.**

Delete paragraph 12.01.C.1 of the General Conditions in its entirety.

In paragraph 12.01.C.2.b, directly before the semi-colon, add the following language:
“based on Subcontractors Cost of the work”.

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

SC-13.05.

Add a new paragraph immediately after paragraph 13.05.A of the General Conditions to read as follows:

13.05.B. If the OWNER stops Work under Paragraph 13.05.A. CONTRACTOR shall be entitled to **no** extension of Contract Time or increase in Contract Price.

SC-13.07.

Amend the first sentence of Paragraph 13.07A by striking out the words “one year” and inserting the words “two years.”

ARTICLE 14. PAYMENTS TO THE CONTRACTOR AND COMPLETION

SC-14.02.B. Add the following new paragraphs immediately after paragraph 14.02.B.1. of the General Conditions which are to read as follows:

Should CONTRACTOR neglect to pay any undisputed claims, made in writing to OWNER within thirty days after completion of the Work, but continuing unsatisfied for a period of ninety days, OWNER may pay such claim and deduct the amount thereof from the balance due CONTRACTOR. OWNER may also, with the written consent of CONTRACTOR, use any moneys retained, due, or to become due under this Contract for the purpose of paying for both labor and materials for the Work, for which claims have not been filed.

Security is provided both by the Payment Bond and the power of OWNER to retain any moneys for claims, but payment by one shall in no way impair or discharge the liability of the other.

Any and all liens for work and materials may be paid off by OWNER within a reasonable time after filing for record in accordance with State and local laws, a notice of such liens except where the claim on which the lien is filed is being litigated by CONTRACTOR, and in such case OWNER may pay the amount of any final judgment or decree or any such claim within a reasonable time after such final judgment or decree shall be rendered.

All moneys paid by OWNER in settlement of liens as aforesaid, with the costs and expenses incurred by OWNER in connection therewith, shall be charged to CONTRACTOR, shall bear interest at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank, and shall be deducted from the next payment due CONTRACTOR under the terms of this Contract.

SC-14.02.C Amend the first sentence of paragraph 14.02.C.1. by striking out the word “Ten” and inserting the word “thirty” in its place, and as so amended, paragraph 14.02.C.1. remains in effect.

SC-14.03.

Add the following new paragraphs immediately after paragraph 14.03.A of the General Conditions which are to read as follows:

No materials or supplies for the Work shall be purchased by CONTRACTOR or Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. CONTRACTOR warrants that he/she has good title to all materials and supplies used by him/her in the Work, free from all liens, claims or encumbrances.

CONTRACTOR shall indemnify and save OWNER harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this Contract. CONTRACTOR shall at OWNER'S request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If CONTRACTOR fails to do so, then OWNER may, after having served written notice on the said CONTRACTOR either pay unpaid bills, of which OWNER has written notice, direct, or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to CONTRACTOR shall be resumed, in accordance with the terms of this Contract, but in no event shall the provisions of this sentence be construed to impose any obligations upon OWNER to either CONTRACTOR or his/her Surety. In paying any unpaid bills of the CONTRACTOR, OWNER shall be deemed the agent of CONTRACTOR and any payment so made by OWNER, shall be considered as payment made under the Contract by OWNER to CONTRACTOR and OWNER shall not be liable to CONTRACTOR for any such payment made in good faith.

SC-14.07.

Delete paragraph 14.07.B. of the General Conditions in its entirety and insert the following in its place:

SC-14.07.B. 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 - all 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 indicate in writing his/her recommendation of payment and present the Application to OWNER for payment. Thereupon ENGINEER will 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 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. If the Application and accompanying documentation are appropriate as to form and substance, OWNER shall, within sixty-five days after receipt thereof pay CONTRACTOR the amount recommended by ENGINEER.

ARTICLE 15. SUSPENSION OF WORK AND TERMINATION

SC-15.02.

Add a new paragraph immediately after paragraph 15.02.A.4. of the General Conditions which is to read as follows:

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

ARTICLE 16. DISPUTE RESOLUTION

SC-16.01

Delete paragraph 16.01 in its entirety.

ARTICLE 17. MISCELLANEOUS

Add new paragraphs immediately after paragraph 17.06 which are to read as follows:

SC-17.07 Overcharge Claims:

- A. The CONTRACTOR certifies that they have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a solicitation response; that this solicitation response has been independently arrived at without collusion with any other vendor, competitor, or potential competitor; that this solicitation response has not been knowingly disclosed prior to the opening of solicitation responses of any other vendor or competitor; and that the above statement is accurate under penalty of perjury.

SECTION 00820
WAGE REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY

- A. Contractor and subcontractors to comply with all Wage Requirements.

1.02 REQUIREMENTS

- A. Comply with the attached wage requirements.
- B. This Project is a prevailing wage contract. The Contractor shall comply with all Minnesota Department of Labor and Industry rules and guidelines.
- C. The Prime Contractor is responsible to ensure that its workers and those of all subcontractors are compensated according to the MN/DLI state prevailing wage determination(s) incorporated into and found elsewhere in this Contract. The Contractor shall be liable for any unpaid wages to its workers or those of any subcontractor, ITO, MTO, and Truck Broker.
- D. Contractor is responsible for documenting and submitting all appropriate labor and trucking documentation to the Engineer.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

3.01 LIST OF ATTACHMENTS

- A. Minnesota Department of Revenue Labor and Industry Prevailing Wages for State Funded Construction Projects:
 - 1. Highway/Heavy.
- B. Minnesota Department of Revenue Labor and Industry Truck Rental Rates.

END OF SECTION

**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: 05

Counties within region:

- BENTON-05
- ISANTI-30
- SHERBURNE-71
- STEARNS-73
- WRIGHT-86

Effective: 2014-10-20 Revised: 2014-11-04

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

LABOR CODE AND CLASS

EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
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LABORERS (101 - 112) (SPECIAL CRAFTS 701 - 730)

101	LABORER, COMMON (GENERAL LABOR WORK)	2014-10-20	23.16	15.75	38.91
		2015-05-01	24.14	16.12	40.26
102	LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN)	2014-10-20	23.16	15.75	38.91
		2015-05-01	24.14	16.12	40.26
103	LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR)	2014-10-20	18.75	13.24	31.99
		2015-05-01	19.96	13.59	33.55
104	FLAG PERSON	2014-10-20	27.77	16.52	44.29
		2015-05-01	28.94	16.89	45.83
105	WATCH PERSON	2014-10-20	16.20	6.10	22.30
106	BLASTER	2014-10-20	24.06	13.49	37.55
107	PIPELAYER (WATER, SEWER AND GAS)	2014-10-20	25.66	15.75	41.41
		2015-05-01	26.64	16.12	42.76
108	TUNNEL MINER	2014-10-20	23.07	15.03	38.10
109	UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL)	2014-10-20	23.86	15.75	39.61
		2015-05-01	24.84	16.12	40.96
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	2014-10-20	28.50	14.97	43.47

PREVAILING WAGE PROJECT BY A LAND SURVEYOR
WHO IS LICENSED PURSUANT TO MINNESOTA
STATUTES, SECTIONS 326.02 TO 326.15.

111	TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE)	2014-10-20	27.77	16.52	44.29
		2015-05-01	28.94	16.89	45.83
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.	2014-10-20	26.04	3.81	29.85

SPECIAL EQUIPMENT (201 - 204)

201	ARTICULATED HAULER	2014-10-20	28.66	16.70	45.36
202	BOOM TRUCK	2014-10-20	23.91	17.20	41.11
		2015-05-01	24.61	17.90	42.51
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	2014-10-20	27.82	17.20	45.02
		2015-05-01	28.68	17.90	46.58
204	OFF-ROAD TRUCK	2014-10-20	32.07	17.20	49.27
		2015-05-01	32.93	17.90	50.83
205	PAVEMENT MARKING OR MARKING REMOVAL EQUIPMENT (ONE OR TWO PERSON OPERATORS); SELF-PROPELLED TRUCK OR TRAILER MOUNTED UNITS.	2014-10-20	24.48	17.14	41.62

HIGHWAY/HEAVY POWER EQUIPMENT OPERATOR

GROUP 2	2014-10-20	32.92	17.20	50.12
	2015-05-01	33.78	17.90	51.68
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)			
GROUP 3	2014-10-20	32.37	17.20	49.57
	2015-05-01	33.23	17.90	51.13
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	2014-10-20	32.07	17.20	49.27
	2015-05-01	32.93	17.90	50.83
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)				
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, PLANING, 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	2014-10-20	26.94	17.20	44.14
	2015-05-01	27.80	17.90	45.70

- 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
- 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	2014-10-20	21.60	17.20	38.80
	2015-05-01	22.30	17.90	40.20

- 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	2014-10-20	19.00	5.38	24.38
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- 601 MECHANIC . WELDER
- 602 TRACTOR TRAILER DRIVER
- 603 TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)

GROUP 2	2014-10-20	21.65	5.38	27.03
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- 604 FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK

GROUP 3	2014-10-20	26.60	14.40	41.00
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- 605 BITUMINOUS DISTRIBUTOR DRIVER
- 606 BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION)

607 THREE AXLE UNITS

GROUP 4	2014-10-20	18.00	5.38	23.38
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				
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	2014-10-20	41.17	19.06	60.23
702 BOILERMAKERS	2014-10-20	32.75	26.76	59.51
703 BRICKLAYERS	2014-10-20	29.14	18.41	47.55
704 CARPENTERS	2014-10-20	28.98	16.96	45.94
	2015-05-01	30.36	16.96	47.32
705 CARPET LAYERS (LINOLEUM)	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVIEWWAGE@STATE.MN.US			
706 CEMENT MASONS	2014-10-20	33.05	17.00	50.05
707 ELECTRICIANS	2014-10-20	37.28	25.33	62.61
711 GROUND PERSON	2014-10-20	16.63	6.38	23.01
712 IRONWORKERS	2014-10-20	34.55	22.85	57.40
	2015-05-01	36.05	22.85	58.90

713 LINEMAN	2014-10-20	24.82	8.50	33.32
714 MILLWRIGHT	2014-10-20	32.95	19.83	52.78
	2015-05-01	34.35	19.83	54.18
715 PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT MARKINGS)	2014-10-20	24.48	17.14	41.62
716 PILEDRIVER (INCLUDING VIBRATORY DRIVER OR EXTRACTOR FOR PILING AND SHEETING OPERATIONS)	2014-10-20	28.98	16.96	45.94
	2015-05-01	30.36	16.96	47.32
717 PIPEFITTERS . STEAMFITTERS	2014-10-20	37.72	27.67	65.39
719 PLUMBERS	2014-10-20	41.71	20.24	61.95
721 SHEET METAL WORKERS	2014-10-20	39.37	20.73	60.10
723 TERRAZZO WORKERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PRE VWAGE@STATE.MN.US			
724 TILE SETTERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PRE VWAGE@STATE.MN.US			
725 TILE FINISHERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PRE VWAGE@STATE.MN.US			
727 WIRING SYSTEM TECHNICIAN	2014-10-20	35.24	14.03	49.27
728 WIRING SYSTEMS INSTALLER	2014-10-20	24.36	9.63	33.99
729 ASBESTOS ABATEMENT WORKER	2014-10-20	28.12	15.59	43.71
	2015-01-01	29.13	15.96	45.09

730 SIGN ERECTOR

FOR RATE CALL 651-284-5091 OR
EMAIL
DLI.PRE VWAGE@STATE.MN.US

**DEPARTMENT OF LABOR AND INDUSTRY
LABOR STANDARDS UNIT**

May 1, 2012

**NOTICE OF CERTIFICATION OF TRUCK RENTAL RATES AND EFFECTIVE
DATE PURSUANT TO MINNESOTA RULES, PART 5200.1105**

On May 1, 2012, the Commissioner of the Department of Labor and Industry ("DLI") certified the minimum truck rental rates for highway projects in the state's ten highway and heavy construction areas for trucks and drivers operating "four or more axle units, straight body trucks," "three axle units," "tractor only" and "tractor trailers." The certification followed publication of the Notice of Determination of Truck Rental Rates in the *State Register* on March 12, 2012, and the informal conference held pursuant to Minnesota Rules, part 5200.1105 on April 4, 2012.

According to Minnesota Rules, part 5200.1105, the purpose of the informal conference is for DLI to obtain further input regarding the proposed rates before the rates are certified. Approximately 18 individuals attended the informal conference. Many of the attendees voiced strong concerns regarding the inadequacy of the proposed rates. Among the concerns raised was the fact that the proposed rates were based on 2010 costs, including the 2010 price of fuel. Speakers indicated that because of the dramatic increase in the price of diesel in recent months, the published rates were far below the operators' current costs. As stated by some attendees:

"This year, right now yesterday we were paying \$4.10...I know when fuel went up that last time, a lot of us had to eat the cost because there was no way of recouping it."

Testimony of Colleen Donovan, Transcript of Informal Conference, pp. 13, 14.

Ms. Donovan provided DLI written information that her 2010 average cost for fuel was \$2.99 per gallon.

"And, like the price of fuel, \$4.25, \$4.30. That's what it is down by my place, anyway."

Testimony of Bob Dornsbach, Transcript of Informal Conference, p. 32.

Mr. Bob Dornsbach provided DLI written information that in October 2010 his fuel cost was \$3.15 per gallon.

In response to the informal conference Jim Lloyd provided written information that his 2010 fuel cost was close to \$3.00 per gallon and "now is at \$4.00 plus and it does not look like it is going to decrease."

After the informal conference, Tom Barnes provided written information that his fuel costs in March 2010 were \$2.82 per gallon and that his fuel costs for March 2012 were \$4.07 per gallon.

Following the informal conference, DLI staff obtained data from the United States Department of Energy ("DOE") regarding the price of diesel during 2010 as compared to current costs.¹ That data, available at www.eia.doe.gov, show that the average price of diesel during 2010 was \$2.964 per gallon. The average price of diesel during January, February, and March 2012 was \$3.862 per gallon. Consequently, the average price of diesel for the first three months of this year was 30.4% higher than the average cost of diesel during 2010.

The purpose of Minnesota Rules, part 5200.1105, as stated in its Statement of Need and Reasonableness, is to "provide equitable compensation" to independent truck operators. The commissioner finds that in order to carry out the purpose of the rule, it is appropriate to consider the concerns expressed at the informal conference² and to use average 2012 diesel costs in computing and certifying 2012 truck rental rates. Specifically, the commissioner finds that the extreme disparity between 2010 and current fuel costs warrants this adjustment in order for truck operators to be equitably compensated.³

Construction truck operating costs were initially determined by survey on a statewide basis and were the subject of further input by interested parties attending the informal conference pursuant to Minnesota Rules, part 5200.1105 on April 4, 2012 and further data on fuel prices from the DOE for 2010 and 2012. In light of the discussion above, fuel costs stated in the surveys were adjusted upward by 30.4% to determine statewide operating costs. As a result of this adjustment, the operating cost for "four axle units, straight body trucks" is determined to be \$51.58 per hour; the operating cost for "three axle units" is determined to be \$37.35 per hour; the operating cost for "tractor only" is determined to be \$41.43 per hour; and the operating cost for "tractor trailers" is determined to be \$52.89 per hour.

Adding the prevailing wage for drivers of these four types of trucks from each of the State's ten highway and heavy construction areas to the operating costs, the minimum

¹ U.S. Energy Information Administration Midwest No. 2 Retail Prices (Dollars per Gallon)

² The DLI has historically used input from the informal conferences to establish certified rates. For example, truck rental rates certified in 2009 varied from the proposed rates based on information gathered at the informal conference.

³ The commissioner notes that the Minnesota Department of Transportation incorporates a fuel adjustment clause in certain of its contracts to accommodate the fluctuating price of fuel. That clause generally provides for the adjustment of contract payments when the cost of fuel increases or decreases by more than 15% from an indexed rate during the term of the contract. By using 2012 fuel costs in certifying 2012 truck rental rates, the commissioner is not intending to adopt or establish a similar fuel adjustment mechanism. Rather, he is taking this action to effectuate the purpose of Part 5200.1105 in light of the concerns raised at the informal conference and the dramatic increase in the price of diesel between 2010 and effective date of 2012 truck rental rates.

hourly truck rental rate for the four types of trucks in each area is certified to be as follows:

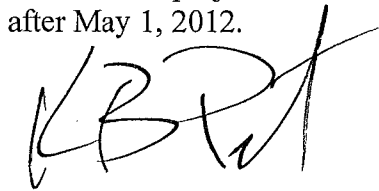
		3 Axle Units		
	Effective Date	607 Driver Rate	Operating Cost	Truck Rental Rate
Region 1	May 1, 2012	40.10	37.35	77.45
Region 2	May 1, 2012	33.76	37.35	71.11
Region 3	May 1, 2012	25.40	37.35	62.75
Region 4	May 1, 2012	33.76	37.35	71.11
Region 5	May 1, 2012	40.50	37.35	77.85
Region 6	May 1, 2012	38.30	37.35	75.65
Region 7	May 1, 2012	33.76	37.35	71.11
Region 8	May 1, 2012	33.76	37.35	71.11
Region 9	May 1, 2012	40.50	37.35	77.85
Region 10	May 1, 2012	13.22	37.35	50.57

		4 or more Axle Units		
	Effective Date	604 Driver Rate	Operating Cost	Truck Rental Rate
Region 1	May 1, 2012	40.20	51.58	91.78
Region 2	May 1, 2012	33.91	51.58	85.49
Region 3	May 1, 2012	24.71	51.58	76.29
Region 4	May 1, 2012	33.91	51.58	85.49
Region 5	May 1, 2012	26.34	51.58	77.92
Region 6	May 1, 2012	38.40	51.58	89.98
Region 7	May 1, 2012	20.87	51.58	72.45
Region 8	May 1, 2012	20.87	51.58	72.45
Region 9	May 1, 2012	40.60	51.58	92.18
Region 10	May 1, 2012	32.91	51.58	84.49

		Tractor				
	Effective Date	602 Driver Rate	Operating Cost	Tractor Only Truck Rental Rate	Plus Trailer Operating Cost	Tractor Trail Rental Rate
Region 1	May 1, 2012	40.75	41.43	82.18	11.46	93.64
Region 2	May 1, 2012	34.42	41.43	75.85	11.46	87.31
Region 3	May 1, 2012	22.37	41.43	63.80	11.46	75.26
Region 4	May 1, 2012	34.42	41.43	75.85	11.46	87.31
Region 5	May 1, 2012	21.38	41.43	62.81	11.46	74.27
Region 6	May 1, 2012	37.95	41.43	79.38	11.46	90.84
Region 7	May 1, 2012	25.85	41.43	67.28	11.46	78.74
Region 8	May 1, 2012	34.42	41.43	75.85	11.46	87.31
Region 9	May 1, 2012	41.15	41.43	82.58	11.46	94.04
Region 10	May 1, 2012	33.42	41.43	74.85	11.46	86.31

The operating costs, including the average truck broker fees paid by those survey respondents who reported paying truck broker fees, and the truck rental rates may also be reviewed by accessing DLI's website at www.dli.mn.gov. Questions regarding the operational costs and truck rental rates can be answered by calling (651) 284-5091.

The minimum truck rental rates certified for these four types of trucks in the state's ten highway and heavy construction areas will be effective for all highway and heavy construction projects financed in whole or part with state funds advertised for bid on or after May 1, 2012.



KEN B. PETERSON
COMMISSIONER

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 CONTRACT DOCUMENTS

- A. The Contract Documents are as defined in Section 00100 INSTRUCTION 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 this Project Manual 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 general construction including excavation of stormwater basins, extension of storm sewer utilities, and street reconstruction for the Cedar Old Highway 55 Stormwater Improvements in Corinna Township, Minnesota, located near the intersection of TH-55 and Illsley Avenue NW.
- B. Work specifically included in this contract includes:
 - 4,135 cubic yards Common Excavation – Stockpile On-Site
 - 45 lineal feet 8" PVC storm sewer pipe
 - 1 each 27" DIA storm structure
 - 125 cubic yards Limestone Riprap Filtration Berm
 - 4,300 square yards Seeding including erosion control blanket
 - Removals
 - Traffic Control
 - Erosion Control
- C. It is the intent of the Project Manual to cover all aspects of the Project. Should there be some item or items not shown on the Drawings or not described in these Specifications which are required for the Work, those items and the furnishing of all labor, materials, and equipment shall be considered incidental to the Work and no additional compensation will be provided.

- 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. Some Work described in these specifications use systems approach to identify systems of structure or facility. System components either specified in system specifications or by reference to another section.
- B. 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 and shall be full compensation for labor, equipment, materials, and other items (not specifically mentioned) required to complete the Work in accordance with the Plans and Specifications for the base bid Work.
- B. Provide for the surface water improvements as indicated on the Contract Drawings.

1.05 PERMITS

- A. Apply for, obtain, and comply with the stipulations of the following permits:
 - 1. MPCA Stormwater Discharges Associated With Construction Activities NPDES General Permit
 - 2. MnDOT Form 2525 – Application for Utility Accommodation on Trunk Highway Right Of Way
 - 3. USACE General Permit
 - 4. Wetland Conservation Act
- B. CONTRACTOR shall apply for, obtain, and comply with other permits, licenses, and approvals which may be required for the Project.

1.07 CONTRACTOR USE OF PREMISES

- A. Definition of Site: The Site is defined as the area within the property lines and construction limits shown on the Contract Documents. Contractor shall limit operations, including material and equipment storage to within construction limits.
- B. CONTRACTOR shall keep driveways, roads, and entrances serving the site clear and available to OWNER and OWNER'S employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
- C. Hours of Operation:
 - 1. CONTRACTOR'S operations shall be limited to Monday through Saturday between the hours of 8:00 AM and 5:00 PM. No Work shall be done on Sundays or legal holidays without written permission of OWNER. However, emergency Work may be done without prior permission.
 - 2. CONTRACTOR shall reimburse the OWNER for additional engineering and/or inspection costs incurred as a result of overtime work in excess of the regular working hours stipulated herein. At OWNER'S option, overtime costs may either be deducted from the CONTRACTOR'S monthly payment request or deducted from the CONTRACTOR'S retention prior to release of final payment. Overtime costs for the OWNER'S personnel shall be based on the individual's current overtime wage rate. Overtime costs for personnel employed by the ENGINEER or OWNER'S independent testing laboratory shall be calculated in accordance with the terms of their respective contracts with the OWNER.
- D. Protection and Repair of Existing Facilities and Utilities: 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. Groundwater monitoring wells shall be protected during construction.
- E. 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.
- F. OWNER will occupy site and existing buildings during entire period of construction for conduct of normal operations. Cooperate with OWNER during construction operations to minimize conflict and facilitate OWNER'S operations.
- G. CONTRACTOR shall, at all times, conduct operations to ensure least inconvenience to OWNER, other contractors, and general public.

- H. Coordinate use of premises under direction of OWNER.
- I. Assume full responsibility for protection and safekeeping of materials and equipment under this Contract.
- J. Obtain and pay for use of additional storage or Work areas needed for operations at no additional cost to OWNER.

1.08 SEQUENCE OF WORK

- A. CONTRACTOR shall determine the sequence of Work to meet the requirement of these Contract Documents.

1.09 RESPONSIBILITY OF THE CONTRACTOR

- A. The CONTRACTOR shall be responsible for the scheduling and general management of the work of the Project and for the acts and omissions of all of their employees; all SUBCONTRACTORS, their agents and employees; and all other persons performing any of the Work under a contract with the CONTRACTOR either above or below ground or water.
- B. The CONTRACTOR shall supervise and direct the Work, using its best skills and attention. It shall be solely responsible for all construction means, methods, techniques and procedures and for coordinating all portions of the Work under this Contract.
- C. The CONTRACTOR shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work.
- D. A CONTRACTOR representative who speaks English shall be on-site at all times.

1.10 COMMENCING WORK

- A. The CONTRACTOR shall not commence work nor allow any SUBCONTRACTOR to commence work until the OWNER has issued a Notice to Proceed.
- B. Work shall not commence without the approval of the Engineer, acting on behalf of the OWNER.
- C. Work shall not commence until all utility companies have been contacted and any and all buried utility lines have been marked.

1.11 SURVEYING AND CONSTRUCTION OBSERVATION

- A. Provide ENGINEER a minimum of 48-hour notice in advance of the need for establishing lines, grades, measurements, grade checks, and observation of Work.

- B. 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 time that result due to damage or destruction of survey markers due to CONTRACTOR'S operations.
- C. CONTRACTOR shall verify all grades, lines, levels, elevations and dimensions shown on the drawings. CONTRACTOR shall report errors and inconsistencies to the Engineer prior to commencing work.

1.12 CONSTRUCTION SCHEDULING

- A. Resident notification of work directly affecting their property is required for all situations. The Project Inspector may assist with notifying residents. However, it is the responsibility of the Contractor to ensure that residents are aware of issues as access restrictions.

1.13 PROJECT MANUAL

- A. CONTRACTOR shall have a complete Project Manual on site for the duration of the project. If CONTRACTOR does not have a complete Project Manual on site, a fine of \$1,000 per occurrence shall be deducted from the CONTRACTOR'S next invoice.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION

SECTION 01025

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 including directing the CONTRACTOR which work items shall have their prices merged and which are considered incidental to the project.

1.02 MEASUREMENT AND PAYMENT

A. General

1. Work under the following specification sections are considered incidental to the project, and no further compensation will be made.
 - a. Section 01050 – Field Engineering
 - b. Section 01155 – Health and Safety
 - c. Section 01200 – Project Meetings
 - d. Section 01300 – Submittals
 - e. Section 01410 – Testing Laboratory Services
 - f. Section 01530 – Protection of Existing Facilities
 - g. Section 01560 – Protection of Environment
 - h. Section 01568 – Air, Land and Water Pollution
 - i. Section 01590 – Temporary Construction Facilities and Utilities
 - j. Section 01600 – Material and Equipment
 - k. Section 01700 – Project Closeout
 - l. Section 01711 – Maintenance and Final Cleanup
 - m. Section 01720 – Project Record Documents
 - n. Section 02101 – Clearing and Grubbing
 - o. Section 02140 – Dewatering
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 Form are for bidding and contract purposes.
 - b. A Change Order may be submitted if the scope of work changes. Change Order approval will be required from the OWNER.

5. Measurement and Quantities:

- a. Measurement of quantities expressed as volume are based upon a neat plan line protection to the work limits as determined on the Bid Form for each item with no additional allowances for shrinkage, swelling, or creep.
- 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, and incidentals: erections, application on installation of an item of the work required to complete all work specified under that particular item including cleanup, and all costs for doing related work as set forth in these specifications and/or on the Drawings or implied in carrying out their intent.
 - i. 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 bid 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 unit price 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 the 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.

B. Bid items:

- 1. Mobilization – Section 01505
 - a. Basis of Measurement: There will be no measurement of this item.
 - b. Basis of Payment: According to the unit price as stated on the bid form. 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. Included in the CONTRACTOR’S Lump Sum Contract for mobilization as stated on the bid form. The amount of Lump Sum Bid shall not exceed **5 percent** of the Total Base Bid.

Partial payment of the Lump Sum Bid Item “Mobilization” will be made using a percentage based on the following:

	<u>Cumulative Percent</u>
First Partial Payment	50
Percent of original contract earned – 25	70
Percent of original contract earned – 50	90
Percent of original contract earned – 100	100

- 2. Traffic Control – Section 01550
 - a. Basis of Measurement: There will be no measurement of this item.
 - b. Basis of Payment: According to the unit price as stated on the bid form. The lump sum payment shall be compensation in full for all costs of providing a Traffic Control Layout for review and approval by the Owner, furnishing, installing, maintaining, relocating, and removing the individual traffic control devices as required for the entire project.

Partial payment of the Lump Sum Bid Item “Traffic Control” will be made using a percentage based on the following:

	<u>Cumulative Percent</u>
First Partial Payment	50
Percent of original contract earned – 25	70
Percent of original contract earned – 50	90
Percent of original contract earned – 100	100

3. Remove Existing Drain Tile Pipe – Section 02225
 - a. Basis of Measurement: By the lineal foot.
 - b. Basis of Payment: According to the unit price as stated on the bid form. Includes work and materials required to remove and dispose of the sanitary sewer pipe as specified.
4. Construct Bulkhead – Section 02630
 - a. Basis of Measurement: By each.
 - b. Basis of Payment: According to the unit price as stated on the bid form. Includes work and materials required to construct bulkhead as specified.
5. Salvage & Respread Topsoil – Section 02101
 - a. Basis of Measurement: By each.
 - b. Basis of Payment: According to the unit price as stated on the bid form. Includes work and materials required to salvage and respreads topsoil as specified.
6. Common Excavation – Stockpile On-Site (EV) – Section 02315
 - a. Basis of Measurement: By the volume of material (cubic yard) based on pre-construction cross sections and the design grading grade shown on the Drawings. Quantity paid shall be Drawing quantity with no adjustment to the volume unless the scope of the soil moved has changed from that shown on the Drawings.
 - b. Basis of Payment: According to the unit price as stated on the bid form including excavation, loading, hauling, stockpiling, and fine grading suitable material to the grades shown on the Drawings.
7. 8” PVC SDR-35 Storm Sewer Pipe – Section 02630
 - a. Basis of Measurement: By lineal foot.
 - b. Basis of Payment: According to the unit bid price as stated on the bid form. Work includes all costs related to furnishing and installing pipe complete in place as specified, including excavation, backfilling, and compaction.
8. 8” Precast Concrete Headwall – Section 02630
 - a. Basis of Measurement: Per each.
 - b. Basis of Payment: According to the unit bid price as stated on the bid form. Work includes all costs related to furnishing and installing precast concrete headwall complete in place as specified, including tie-rods, excavation, backfilling, and compaction.

9. Install 27" DIA Storm Structure – Section 02630
 - a. Basis of Measurement: Per each
 - b. Basis of Payment: According to the unit price as stated on the bid form. Includes furnishing and installing structures complete in place, including casting, frame, cover, adjustment rings, excavation, backfilling, and compaction as specified.
10. Connect Existing Pipe to Structure – Section 02630
 - a. Basis of Measurement: By each connection made, regardless of type of existing pipe or type of connection made.
 - b. Basis of Payment: According to the unit bid price as stated on the bid form. Work includes all costs related to making the connection, including cutting of existing pipe, fittings, sleeves, excavation, backfilling, and compaction.
11. Limestone Riprap Filtration Berm – Section 02630
 - a. Basis of Measurement: By the cubic yard of riprap placed according to class as determined from weight tickets delivered to the Engineer.
 - b. Basis of Payment: According to the unit bid price as stated on the bid form. Work includes furnishing and installing riprap as shown on Drawings. Payment shall include placement of geotextile fabric.
12. Random Riprap Class II - Swale – Section 02630
 - a. Basis of Measurement: By the cubic yard of riprap placed according to class as determined from weight tickets delivered to the Engineer.
 - b. Basis of Payment: According to the unit bid price as stated on the bid form. Work includes furnishing and installing riprap as shown on Drawings. Payment shall include placement of geotextile fabric.
13. 4" Perforated PVC Sampling Pipe – Section 02630
 - a. Basis of Measurement: By each.
 - b. Basis of Payment: According to the unit bid price as stated on the bid form. Work includes furnishing and installing pipe complete in place as specified, including excavation, backfilling, and compaction.
14. Erosion Control Blanket Category 3 – Section 02630
 - a. Basis of Measurement: By the square yard.
 - b. Basis of Payment: According to the unit bid price as stated on the bid form. Work includes furnishing and installing erosion control blanket complete in place as specified.
15. Seed Mixture – 34-271 Wet Meadow – Section 02930
 - a. Basis of Measurement: By the square yard.
 - b. Basis of Payment: According to the unit price as stated on the bid form. Work includes preparing topsoil, preparation of seedbed, fertilizer, seed and all correlated activity as specified.

16. Seed Mixture – 32-241 Native Construction – Section 02930
 - a. Basis of Measurement: By the square yard.
 - b. Basis of Payment: According to the unit price as stated on the bid form. Work includes preparing topsoil, preparation of seedbed, fertilizer, seed and all correlated activity as specified.
17. Seed Mixture – 22-111 Temporary Seeding for Stockpile – Section 02930
 - a. Basis of Measurement: By the square yard.
 - b. Basis of Payment: According to the unit price as stated on the bid form. Work includes preparing topsoil, preparation of seedbed, fertilizer, seed and all correlated activity as specified.
18. Silt Fence, Type Machine-Sliced Maintained – Section 01570
 - a. Basis of Measurement: By the lineal foot.
 - b. Basis of Payment: According to the unit price as stated on the bid form. Includes work and materials required to install and maintain silt fence for the duration of the project as specified. 80-percent payment will be made upon installation and 20-percent will be made upon removal and restoration.
19. Street Sweeper (With Pickup Broom) – Section 01568
 - a. Basis of Measurement: By the hour for a sweeper and operator.
 - b. Basis of Payment: According to the unit price as stated on the bid form. Includes furnishing all equipment necessary to perform the sweeping operation and disposal of the material as specified.
20. Temporary Construction Entrance – Section 01570
 - a. Basis of Measurement: By each.
 - b. Basis of Payment: According to the unit price as stated on the bid form. Includes work and materials required to install and maintain temporary rock construction entrance for the duration of the project as specified. 80-percent payment will be made upon installation and 20-percent will be made upon removal and restoration.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01040
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 OWNER is:

Clearwater River Watershed District
75 Elm Street East, Box 481
Annandale, MN 55302
Office (302) 274-3935
Fax (302) 274-3975
- B. The ENGINEER is:

Mr. Kevin Mattson, P.E.
Wenck Associates, Inc.
1800 Pioneer Creek Center
Maple Plain, MN 55359-0249
Phone: (763) 479-5125
Fax: (763) 479-4242

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01050
FIELD ENGINEERING

PART 1 - GENERAL

1.01 PRIMARY CONTROL MONUMENT

- A. Benchmarks will be provided by OWNER to establish primary vertical control.
- B. Monuments or references for primary horizontal control will be provided by OWNER for construction of Work.
- C. CONTRACTOR shall preserve and maintain primary control monuments.

1.02 PRIMARY LINE AND GRADE

- A. Primary line and grade will be provided and established by ENGINEER.
- B. CONTRACTOR shall:
 - 1. Arrange operations to avoid interference with primary lines and grades.
 - 2. Check accuracy of line and grade by visual inspection, checks between stakes, and periodic checks (with surveying equipment) between primary control monuments and stakes.
 - 3. 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.
- B. CONTRACTOR shall transfer line and grade for open cut construction of utilities 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 LOT CORNERS AND SURVEY MONUMENTS

- A. Provide services of registered land surveyor to replace lot corners and survey monument disturbed by construction operations.

1.06 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

Not Used

PART 3 – EXECUTION

- 3.01 The CONTRACTOR shall make no changes or relocations to control points without prior written approval from the OWNER.
- 3.02 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.
- 3.03 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.
- 3.04 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.
- 3.05 As construction proceeds, the CONTRACTOR shall check every element for line, level, and plumb.
- 3.06 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.

END OF SECTION

SECTION 01095

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 Association 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 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: as discussed in Section 01040.

PART 2 – PRODUCTS

(Not Applicable)

PART 3 – EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01155

HEALTH AND SAFETY

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, 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.
 - 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 release of toxic or hazardous materials.
- 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 consultants with appropriate capability. CONTRACTOR is solely

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

1. Site description
 2. Project activities and coordination with other CONTRACTORS.
 3. Hazard evaluation.
 4. On-site safety responsibilities.
 5. Work zones.
 6. Personnel training.
 7. Personal protection, clothing, and equipment.
 8. 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 is anticipated to 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 to Proceed. 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.

END OF SECTION

SECTION 01200
PROJECT MEETINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes requirements for project meetings onsite.

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 as needed on an agreed upon day by OWNER, ENGINEER AND CONTRACTOR.

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. Establish protocols for testing.

- i. Establish protocols for handling deficiencies, repairs, and retesting.
- j. Review the time schedule for construction.
- k. Review progress schedules.
- l. Payrolls and labor relations.
- m. Environmental protection.
- n. Payment and procurement of materials.
- o. 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 as needed 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 of Work progress since previous meeting
2. Field observations, problems, and conflicts
3. Problems impeding Work schedule
4. Review of off-site delivery schedules
5. Corrective measures and procedures to regain projected schedule
6. Planned progress during Work period
7. Coordination of schedule
8. Review submittal schedules; expedite as required
9. Maintenance of quality and safety standards
10. Pending changes and substitutions
11. Other business

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section contains requirements for submittals of construction progress schedules, Shop Drawings, test results, 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 01155, 01570 and 01630 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. No Work shall be done between 7:00 p.m. and 7:00 a.m., nor on Saturdays, Sundays or legal holidays without written permission of OWNER. However, emergency Work may be done without prior permission.
- C. Prepare schedules in form of horizontal bar chart, and submit within 1 week of notice to proceed or 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. Shop Drawing receipt from supplier/manufacturer, submittal to ENGINEER, review and return to supplier/manufacturer.
 - c. Material and equipment order, manufacturer, delivery.
 - d. Performance tests and supervisory services activity.
 - e. Each Bid Item.
 - f. 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.

E. Schedule Revisions:

- 1. Every 30 days to reflect changes in progress of Work.
- 2. Indicate progress of each activity at date of submittal.
- 3. Show changes occurring since previous submittal of schedule.
 - a. Major changes in scope.
 - b. Activities modified since previous submittals.
 - c. Revised projections of progress and completion.
 - d. Other identifiable changes.
- 4. Provide narrative report as needed to define:
 - a. Problem areas, anticipated delays, and impact on schedule.
 - b. Corrective action recommended and its effect.
 - c. Effect of changes on schedule of other CONTRACTORS.

1.03 SHOP DRAWINGS AND SAMPLES

A. Submit Shop Drawings and samples required in individual specification sections.

B. CONTRACTOR'S responsibilities shall include:

- 1. Review Shop Drawings and samples prior to submittal.
- 2. Determine and verify:
 - a. Field measurements.
 - b. Field construction criteria.
 - c. Catalog numbers and similar data.
 - d. Conformance with specifications
- 3. Coordinate each submittal with requirements of Work and of Contract Documents.
- 4. Notify ENGINEER in writing, at time of submittal, of deviations in submittals from requirements of Contract Documents.

5. Begin no fabrication or Work that requires submittals until return of submittals with ENGINEER approval.
6. Designate in construction progress schedule, dates for submittal and receipt of reviewed shop Drawings and samples.

C. Submittals shall contain:

1. Date of submittal and dates of previous submittals.
2. Project title and number.
3. Contract identification.
4. Names of:
 - a. CONTRACTOR
 - b. Supplier
 - c. Manufacturer
5. Identification of product, with identification numbers, and Drawings and specification section numbers.
6. Field dimensions, clearly identified.
7. Identify details required on Drawings and in specifications.
8. Show manufacturer and model number, give dimensions, and provide clearances.
9. Relation to adjacent or critical features of Work or materials.
10. Applicable standards, such as ASTM or Federal Specification numbers.
11. Identification of deviations from Contract Documents.
12. Identification of revisions on resubmittals.
13. 8-inch by 3-inch blank space for CONTRACTOR or ENGINEER stamps.
14. CONTRACTOR'S stamp, signed, certifying to review of submittal, verification of products, field measurement, field construction criteria, and coordination of information within submittal with requirements of Work and Contract Documents.

D. Resubmittal requirements shall include:

1. Corrections or changes in submittals required by ENGINEER. Resubmittals are required until approved.
2. Shop Drawings and product data:
 - a. Revise initial Drawings or data and resubmit as specified for initial submittal.
 - b. Indicate changes which have been made other than those requested by ENGINEER.
3. Submit new samples as required for initial submittal.

E. Distribute reproductions of shop Drawings and copies of product data which carry ENGINEER'S stamp approval to:

1. Record documents file.
2. Subcontractors.
3. Supplier or fabricator.

F. ENGINEER'S duties include:

1. Review submittals with reasonable promptness and in accordance with schedule.
2. Affix stamp and signature, and indicate requirements for resubmittal, if required.
3. Return submittals to CONTRACTOR for distribution or for resubmittal.

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. Shop Drawings: Six (6) copies
3. Test results: Three (3) copies
4. Other required submittals:
 - a. Six (6) 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 01410

TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. OWNER will employ and pay for services of an independent testing laboratory to perform specified **in place** testing as described in respective sections of specifications.
 - 1. CONTRACTOR shall cooperate to facilitate execution of its required services.
- B. CONTRACTOR shall employ and pay for services on an independent testing laboratory to perform specified **SOURCE TESTING** as described in respective sections.
- C. Related requirements in other parts of project Manual:
 - 1. Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities: Conditions of Contract.

1.02 CONTRACTOR RESPONSIBILITIES

- A. Cooperate with laboratory personnel and provide access to Work.
- B. Provide to laboratory preliminary design mix proposed to be used for concrete and other material mixes which require control by testing laboratory.
- C. Furnish copies of product test reports.
- D. Furnish Labor and Facilities:
 - 1. To provide access to Work to be tested.
 - 2. To assist in obtaining samples at project site
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- E. Notify laboratory and ENGINEER sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
 - 1. When tests or inspections cannot be performed after such notice, reimburse OWNER for laboratory personnel and travel expenses incurred due to CONTRACTOR'S negligence.
- F. Make arrangements with laboratory and pay for additional samples and tests required for CONTRACTOR'S convenience.

END OF SECTION

SECTION 01505

MOBILIZATION AND DEMOBILIZATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes 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; for the establishment of all CONTRACTOR offices and buildings or other facilities necessary for work on the Project.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

- 3.01 Stage equipment in OWNER designated location.

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

SECTION 01530

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 shall show the utility location as shown 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. Existing utilities shall not be disrupted during construction.

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 resurfacing 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 finish 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.

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 **aboveground** 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. Adjust and lubricate operable components to assure operability without damaging effects.
- C. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:

- | | |
|---|-----------------------------------|
| 1. Excessive static or dynamic loading. | 6. Excessive weathering. |
| 2. Heavy traffic. | 7. Unprotected storage. |
| 3. Soiling, staining, and corrosion. | 8. Improper shipping or handling. |
| 4. Unusual wear or other misuse. | 9. Theft. |
| 5. Destructive testing. | 10. Vandalism. |

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01550

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. The CONTRACTOR'S material storage and parking areas shall be as approved by the OWNER and ENGINEER.
- B. The CONTRACTOR shall be solely responsible for making arrangements for any necessary off-site storage or shop areas.

1.02 HIGHWAY LIMITATIONS

- A. The CONTRACTOR shall make an investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the project. It shall be the CONTRACTOR'S responsibility to construct, maintain, and restore any haul 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 TRAFFIC CONTROL

- A. In addition to the traffic control procedures required in the 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 residential and agricultural driveways shall be maintained, except when necessary construction precludes such access for reasonable 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 natural waterways, ditches, culverts, etc.

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.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01560

PROTECTION OF ENVIRONMENT

PART 1 - GENERAL

1.01 DESCRIPTION

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

1.02 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(S) are 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. Provide holding ponds or approved method which will divert flows, including storm flows and flows created by construction activity, so as to prevent excessive 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.

1.03 DISPOSAL OF EXCESS EXCAVATED WASTE AND OTHER WASTE MATERIALS

- A. Dumping of waste oil or fuel at this site will be unacceptable. Accidental fuel or oil spills will require excavation of contaminated soils and disposal at an authorized facility. CONTRACTOR shall be responsible for cleanup.

1.04 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.

1.05 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.

1.06 NOISE CONTROL

- A. Conduct operations to cause least annoyance to residents in vicinity of Work, and comply with applicable local ordinances.
- B. Conduct operation of dumping rock and of carrying rock away in trucks so as to cause minimum of noise and dust.
- C. Route vehicles carrying rock, concrete, or other material over such streets as will cause least annoyance to public and do not operate on public streets between hours of 7:00 p.m. and 7:00 a.m., or on Saturdays, Sundays, or legal holidays unless approved by ENGINEER.

1.07 DUST CONTROL

- A. 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 pumping equipment, as needed.
- B. 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.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

SECTION 01568

AIR, LAND AND WATER POLLUTION CONTROL

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. General requirements for the control of pollution from construction sites and related activities.

B. Related Section:

1. Section 01570 - Erosion Control.

1.02 REFERENCES

- A. MN/DOT Section 1717 - Air, Land, and Water Pollution.**

1.03 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Conduct all operations to prevent, control and abate the pollution of air, land and water in accordance with the rules, regulations and standards adopted and established by the following agencies:
 - a. Minnesota Pollution Control Agency.
 - b. Minnesota Department of Natural Resources.
 - c. U.S. Army Corps of Engineers.

1.04 SCHEDULING

- A. Schedule and conduct all operations to minimize soil erosion and prevent siltation and the resultant turbidity of public waters.**

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 PREPARATION

- A. Review all local conditions and regulations pertaining to air and land pollution prior to commencing operations.**

3.02 PROTECTION OF WATERS

- A. Prevent pollution of flowing or impounded waters from particulate or liquid matter that may be harmful to fish and wildlife or detrimental to public use.
- B. Remove sediment from aggregate wash operations by filtration or settlement prior to discharge into public waters.
- C. Do not discharge wash water or waste from concrete mixing operations into live streams.
- D. Fueling operations shall be conducted in a manner to not cause any pollution.
- E. Street sweeping is required daily during trucking operations or as required by OWNER.

END OF SECTION

SECTION 01570

EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.01 SUMMARY

- A. Managing storm water runoff and other related water discharges to minimize sediment pollution during construction.

1.02 REFERENCES

- A. "Standard Specifications"
 - 1. 2130 – Application of Water
 - 2. 2573 – Storm Water Management
 - 3. 2575 – Controlling Erosion and Establishing Vegetation

1.03 SUBMITTALS

- A. Manufacturer's certificates indicating specification conformance test results of furnished material.
- B. Erosion Control Schedule and Site Plan
 - 1. Conform to MnDOT Spec. 1717.2D
 - 2. Submit when requested by Engineer.

1.04 QUALITY ASSURANCE

- A. Erosion Control Supervisor
 - 1. Responsible for directing the erosion control operations and insure compliance with all Federal, State, and Local Ordinances and regulations.
- B. Certified Installer
 - 1. Provide a certified installer to install or direct installation of erosion and sediment control practices.
 - 2. Certified by the University of Minnesota Erosion Control Inspector/Installer Certification Program or approved equal.

1.05 PERMITS

- A. Project disturbs 1 or more acres of total land area. Co-submittal with Owner of a completed NPDES application form for the MPCA's General Stormwater Permit for Construction Activity is not required. Submit a copy of the completed, signed, and dated application to the Owner.
- B. USACE General Permit

1.05 SEQUENCING AND SCHEDULING

- A. Install sediment control measures prior to grading activities.
- B. Coordinate construction operations so that erosion and sediment control measures (temporary or permanent) are installed and maintained concurrently with the remaining work of the project.
- C. Infiltration areas and constructed infiltration systems should not be constructed until the contributing drainage area and/or adjacent construction has been completely stabilized. When the timing of construction is not possible, the Contractor shall insure sediment from exposed soil areas does not enter into the filtration area or system.
- D. If the Contractor fails to install erosion or sediment measures, the Engineer may withhold payment from related work until the control measures are in place by the Contractor.
 - 1. If the Contractor fails to take action ordered by the Engineer to remedy erosion or sediment control problems, the Engineer shall issue a Written Order to the Contractor.
 - 2. The Contractor shall respond within 24 hours with sufficient personnel, equipment, materials, and conduct the required work or be subject to a \$1,000 per calendar day deduction for noncompliance.
- E. Establish permanent turf in accordance with Section 02930.

PART 2 - PRODUCT

2.01 SILT FENCE: Conform to MnDOT Spec. 3886

- A. Machine-sliced.

2.02 TEMPORARY ROCK CONSTRUCTION ENTRANCE

- A. Conform to the details on the Drawings.

2.03 MULCH

- A. Conform to MnDOT Spec. 3882.

- B. Hydraulic soil stabilizer may be used in lieu of mulch with the approval of the Engineer.

2.04 EROSION CONTROL BLANKET

- A. Conform to MnDOT Spec. 3885, Category 3.

2.05 FILTER LOGS

- A. Conform to MnDOT Spec. 3897.
 - 1. Straw or wood fiber biorolls, 6 to 7 inches in diameter.
 - 2. Compost or rock logs, 6 to 8 inches in diameter.

2.06 TEMPORARY SEED

- A. Conform to Section 02930.

PART 3 – EXECUTION

3.01 GENERAL

- A. Comply with all applicable laws, ordinances, regulations, permit requirements, orders pertaining to erosion and sediment control and stormwater discharge.
- B. Take necessary precautions to prevent off-site damage resulting from work conducted on the project related to stormwater runoff.

3.02 INSTALLATION

- A. Install temporary stormwater management and sediment control devices in conformance with the details, typical sections, and elevations shown on the Drawings.
- B. The location of the temporary stormwater and sediment control devices may be adjusted to accommodate actual field conditions and increase the effectiveness of the installation.
- C. Silt fence: Conform to MnDOT Spec. 2573.3C
 - 1. Install at locations shown on the Drawings or as directed by the Engineer.
 - 2. Use additional measures, such as rock, placed along the base of the silt fence when the geotextile cannot be properly trenched.
- D. Temporary Rock Construction Entrance
 - 1. Install at locations shown on the Drawings or as directed by the Engineer.
 - 2. Construct construction entrance prior to beginning grading operations.
 - 3. Inspect construction entrance daily for mud accumulation to minimize tracking of sediment onto public roadways.

E. Slope (Cat) Tracking

1. Slope tracking consists of operating a dozer up and down slopes so that the cleats of the tracks create grooves perpendicular to the slope.
2. Required on all slopes equal to or greater than 3:1 (H:V).

F. Erosion Control Blanket

1. Install immediately in accordance with MnDOT Spec. 2575.3J.
2. Install blanket parallel to the direction of flow.

3.03 MAINTENANCE

A. Conform to MnDOT Spec. 2575.3M and as follows:

1. Inspect, maintain, and repair all washouts or accumulations of sediment that occur as a result of construction.
2. Inspection of all erosion and sediment control items shall take place immediately after each runoff event and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
3. The contractor shall maintain the items until they are no longer required and removed.
4. Upon final acceptance the contractor shall remove all temporary erosion control measures.

B. Sediment Removal: Conform to MnDOT Spec. 2573.3N

1. If an erosion control device has been reduced in capacity by 30 percent or more, the Contractor shall restore such features to their original condition.

END OF SECTION

SECTION 01590

TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes requirements for CONTRACTOR and temporary utilities.

1.02 UTILITY REQUIREMENTS

A. Electrical

- 1. Provide temporary power supply as may be required for construction activities and appurtenances.

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 had 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 Examine and verify site acceptability to receive and construct temporary utilities.
- 3.02 Connect to utilities provided by CONTRACTOR.
- 3.03 Provide utilities required for project Work.
- 3.04 Remove personnel sanitary sewer facilities upon project completion.

END OF SECTION

SECTION 01600

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 or as specifically approved.
- 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 OWNER'S REPRESENTATIVE.
 - 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 01630

SUBSTITUTIONS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes basic procedures for request for consideration 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 that are currently in satisfactory use at other similar landfill sites. 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 as stated in paragraphs 1 and 2 above shall become the basis for accepting 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 01630
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 01630

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 01630
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 01300.
- ☐ 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 01630
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 01630

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 ☐ _____

Attachment 2 to Section 01630
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 01300.
- ☐ 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

01630-5

Substitutions

SECTION 01700

PROJECT CLOSEOUT

PART 1 – GENERAL

1.01 FINAL CLEANUP

- A. The CONTRACTOR shall promptly remove from the vicinity of the completed WORK, all rubbish, unused materials, concrete forms, construction equipment, and temporary facilities and erosion control used during construction. Final acceptance by the OWNER will be withheld until the CONTRACTOR has satisfactorily performed the final cleanup.

1.02 FINAL SUBMITTALS

- A. The CONTRACTOR, prior to requesting final payment, shall obtain and submit the following items to the ENGINEER for transmittal to the OWNER:
 - 1. Certificates of inspection and acceptance by any local governing agencies having jurisdiction.
 - 2. Releases from all parties who are entitled to claims against the subject project, property, or improvement pursuant to the provisions of law.
 - 3. Form IC-134 as required per Minnesota Statute §290.97.

1.03 MAINTENANCE AND WARRANTY

- A. The CONTRACTOR shall comply with the maintenance and warranty requirements contained in Article 3.5 WARRANTY, Article 9 PAYMENTS AND COMPLETION, Article 12 UNCOVERING AND CORRECTION OF WORK; Article 13.7 COMMENCEMENT OF STATUTORY LIMITATION PERIOD of the General Conditions; and also all Supplementary Conditions. The CONTRACTOR shall warrant workmanship and materials, including settling and vegetation growth for two years following final acceptance by the OWNER.
- B. Replacement of earth fill or backfill or replacement of roadway, where it has settled below the required finish elevations, shall be considered as a part of such required correction, and any repair or resurfacing constructed by the CONTRACTOR which becomes necessary by reason of such settlement shall likewise be considered as a part of such correction.
- C. The CONTRACTOR shall make all corrections promptly upon receipt of a written order from the OWNER. If the CONTRACTOR fails to make such corrections promptly, the OWNER reserves the right to do the WORK and the CONTRACTOR and its surety shall be liable to the OWNER for the cost thereof.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

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

01700-1

Project Closeout

SECTION 01711

MAINTENANCE AND FINAL CLEANUP

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The CONTRACTOR is responsible for protecting existing trees, sprinkler systems and other improvements. Any tree roots damaged shall be neatly cut perpendicular to the root.
- B. The CONTRACTOR shall report to the OWNER in writing any undesirable conditions, such as silt or sand in manholes and valve boxes, damaged castings and valve boxes, etc., prior to commencing work on any street. Once work has commenced it will be assumed that all damage to underground installations except that reported above, has been caused by the CONTRACTOR'S operations and it will be the CONTRACTOR'S responsibility to make necessary repairs.
- C. All underground utilities including manholes and valve boxes shall be maintained in a condition that allows access in case emergency use is required
- D. Underground utilities shall be maintained in an operable condition. All debris or sediment shall be removed immediately.
- E. All debris, waste materials or other remains from construction shall be removed from the site and properly disposed of before final acceptance of work.
- F. Each Contract item will not be finally accepted until it's associated clean up is performed.
- G. Until each item's clean up is completed, the OWNER may withhold partial payments or deduct the estimated clean up cost from the partial payment value.
- H. The CONTRACTOR is responsible for keeping streets and roadways clean of dust, dirt, mud and debris both inside and outside the work area.
 - 1. This may require measures to clean trucks before leaving the site and sweeping paved areas.
 - 2. Roadways shall be cleaned by a pickup sweeper within 24 hours of direction by the OWNER.
- I. The Contractor's staging, storage, and equipment parking areas shall be seeded before final acceptance of the work.

1.02 DURATION OF WARRANTY PERIOD

Warranty:

- A. Contractor's warranty period for all work shall be for two years and begin immediately after final acceptance of project. Contractor shall manage all areas, other than those described above, for the duration of the warranty period.
- B. Contractor's warranty for seeded area is greater than 90% coverage at the end of the warranty period. If coverage is not met, bare area shall be prepared with compost and reseeded.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 PLANT MAINTENANCE

- A. Invasive species removal
 - 1. The following exotic species shall be cleared and stumps shall be effectively killed in fall or winter (October - March) during the maintenance period: Buckthorns - *Rhamnus* spp., Honeysuckles - *Exotic Lonicera* spp., Asian Mulberry - *Morus alba*. Stump resprouts shall be herbicided in June through July. New seedlings shall be herbicided 2 times per year, according to manufacturer's application rates, times, and temperatures.
 - 2. The following exotic species shall be removed or herbicided minimum 3 times: Purple Loosestrife - *Lythrum salicaria*, Smooth, Crown Vetch - *Coronilla varia*, Bird's Foot Trefoil - *Lotus corniculatus*, Curly Dock - *Rumex crispus*, Canada Thistle - *Cirsium arvense*, Giant Ragweed - *Ambrosia trifida*, Common Ragweed - *Ambrosia artemisiifolia*, Leafy Spurge - *Euphorbia esula*, Japanese Knotweed - *Polygonum cuspidatum*, Garlic Mustard - *Alliaria petiolata*, White and Yellow Sweet Clover, *Phragmites australis*, Common Reed
 - 3. Purple Loosestrife, White and Yellow Sweet Clover, Curly Dock, and Garlic Mustard shall be bagged and physically removed from site after each herbicide treatment.

3.02 RECORD REPORTING

A. Plant Maintenance Records

1. Contractor shall submit a written record of maintenance activities performed to OWNER within 30 days of each plant maintenance activity. This record shall include at a minimum:
 - a. A record of invasive species controlled; approximate location and densities of invasive species present
 - b. Method used to control each species, including:
 - i. Mowing techniques
 - ii. Herbicide type, concentration and application method used
 - iii. Hand pulling and whether or not species was removed from site
 - c. Documentation of species lists, supplier, and quantities for re-vegetation.

****END OF SECTION****

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Maintain at site one record copy of:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change orders and other modifications to Contract.
 - 5. OWNER and ENGINEER field orders, written instructions or clarifications.
 - 6. Approved submittals.
 - 7. Field test records.
 - 8. Construction photographs.
 - 9. Associated permits.
 - 10. Certificates of inspection and approvals.

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in a secure location apart from documents used for construction.
 - 1. Provide files and racks for storage of documents
 - 2. Provide secure storage space for storage of samples
- B. Maintain documents in clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents and samples available at all times for inspection by OWNER and ENGINEER.
- D. Failure to properly maintain record documents may be reason to delay a portion of progress payments until records comply with Contract Documents.

1.03 RECORD DOCUMENTS

- A. Maintain record set of Drawings and Specifications legibly changed to transfer approved modifications in completed Work that differ from Contract Documents.
- B. Label each document "PROJECT RECORD" in neat, large printed letters.
- C. Record information concurrently with construction progress.
 - 1. Do not conceal Work until required information is recorded.
 - 2. Record changes made by Written Amendment, Field Order, Change Order, or Work Directive Change.

D. Drawings

1. General:
 - a. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - b. Location of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of structure.
 - c. Field changes.
 - d. Details not on original Drawings.
 - e. Location and identification of piping.

1.04 SUBMITTALS

A. At Substantial Completion

1. Deliver one marked up set of Drawings to OWNER for use in preparation of record drawings.

B. Accompany submittals with transmittal letter in duplicate, containing following.

1. Date.
2. Project title and number.
3. CONTRACTOR's name and address.
4. Title of record document.
5. Signature of CONTRACTOR or AUTHORIZED REPRESENTATIVE.

END OF SECTION

SECTION 02101
CLEARING AND GRUBBING

PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes the removal, trimming, and disposal of trees, brush, shrubs, windfalls, logs, stumps, roots, fallen timber, and other vegetation.
- B. Stripping and stockpiling of sod and topsoil.

1.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Standard Specifications
 - 1. 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

- A. The CONTRACTOR shall perform all WORK under this section in conformance with the provisions of 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 trees, brush, windfalls, logs, and other vegetation, and removing and disposing of roots, stumps, stubs, grubs, logs, and other timber. Also includes removal and relocation of trees as necessary to complete the work.
- B. Do not remove or cut down trees unless located within limits of excavation, and then only after 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 TREE REMOVAL

The CONTRACTOR shall:

- A. Tree removal shall be completed by qualified personnel/businesses and according to accepted horticulture practices.

3.05 GRUBBING

The CONTRACTOR shall:

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

3.06 DISPOSAL

The CONTRACTOR shall:

- A. Dispose of Elm and Red Oak debris removed by clearing and grubbing in accordance with Minnesota Rules Chapter 1505.
- B. Consider Beneficial Use Designations for unadulterated wood, wood chips, bark and sawdust.
- C. Be prohibited from the burying of cleared and grubbed waste within the limits of construction.
- D. Dispose of materials removed by clearing and grubbing at an off-site disposal facility.

3.07 STRIPPING

- A. After clearing and grubbing have been completed, strip sod and topsoil to a line 2 feet outside of areas to be occupied by structures, walks, roadways, areas to be excavated or filled, and other areas shown on the Drawings.
- B. Stockpile sufficient topsoil to re-spread at a uniform depth of 4 inches to all disturbed areas identified for seeding.
 - 1. Do not strip within drip line (branch spread) of trees identified to remain.

END OF SECTION

SECTION 02140

DEWATERING

PART 1 – GENERAL

1.01 DESCRIPTION

- A. The CONTRACTOR, in executing the Work, shall install, maintain and remove temporary dewatering and dewatering-related erosion control measures.

1.02 RELATED SECTIONS

- A. Section 01560 – Protection of the Environment
- B. Section 01570 – Erosion Control

1.03 SUBMITTALS

- A. CONTRACTOR'S Temporary Dewatering Plan for ENGINEER review.
- B. The CONTRACTOR'S dewatering plan must clearly indicate the method and location of dewatering and the means of disposal of excess water.
- C. The CONTRACTOR's specific plan must clearly indicate if dewatering discharges are proposed to discharge to the sanitary sewer.

1.04 QUALITY ASSURANCE

- A. The CONTRACTOR shall design the dewatering systems needed to perform the work, obtain the permission of the landowners of the dewatering and discharge sites, where discharge is on or affects private property, and obtain the necessary dewatering permits.

1.05 SEQUENCING AND SCHEDULING

- A. Notify the ENGINEER 48 hours prior to commencing dewatering.

PART 2 – PRODUCTS

2.01 EQUIPMENT

- A. The CONTRACTOR shall be responsible for furnishing, installing, and operating all equipment necessary for dewatering.

PART 3 – EXECUTION

3.01 APPLICATION

- A. The CONTRACTOR shall ensure that discharge water is free of sediment, shall not appear turbid, and shall comply with any Department of Natural Resources and MPCA General Construction Stormwater Permit conditions.
- B. The CONTRACTOR shall be fully responsible and liable for all damages which may result from failure to keep excavations adequately dewatered.

3.02 GENERAL REQUIREMENTS

- A. The CONTRACTOR shall provide all equipment necessary for dewatering and shall have on hand, at all times, sufficient pumping equipment and machinery in good working condition along with competent workmen for the operation of the pumping equipment. Adequate standby equipment shall be kept available at all times to insure efficient dewatering and maintenance of dewatering operation during power failure.
- B. Dewatering excavation shall commence when water is first encountered, and shall be continuous until such times as water can be allowed to rise in accordance with the provisions of these specifications.
- C. The CONTRACTOR shall grade the site so that at all times:
 - 1. Surface runoff is diverted from the excavation.
 - 2. Water entering the excavation from surface runoff is collected in shallow ditches around the perimeter of the excavation, drained to sumps, and pumped or drained by gravity away from the excavation so that a bottom free from standing water is maintained.
- D. The CONTRACTOR shall dewater the excavation in such a manner as to preserve the undisturbed bearing capacity of the subgrade soils at the bearing points of the pipe or structure to be installed.
- E. If foundation soils subside, are disturbed or loosened by the upward seepage of water or an uncontrolled flow of water, the CONTRACTOR shall consult with ENGINEER before proceeding.
- F. If sumps are used for dewatering, the CONTRACTOR shall prevent pumping of fine sands or silts from the subsurface by adequately spacing the sumps or using sandpacking or other means to provide the necessary dewatering.
- G. The CONTRACTOR shall release the water to its static level in such a manner as to maintain the undisturbed state of the natural foundation soils.

END OF SECTION

SECTION 02225

REMOVALS

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes complete or partial removal and disposal of piping and other miscellaneous items.

1.02 REFERENCES

- A. Standard Specifications
 - 1. 2104 – Removing Pavement and Miscellaneous Items
- B. Minnesota Rules Chapter 7035.2860.

1.03 DEFINITIONS

- A. Remove: To take away or eliminate from the Site by any method selected by the Contractor, including disposal of material.
- B. Salvage: To dismantle, disassemble, or remove carefully without damage so the item can be re-assembled, replaced, or reused in a workable condition equal to that existing before removal.
- C. Abandon: To fill, bulkhead, or close off pipes and structures so that no settlement or flow can occur.

1.04 REGULATORY REQUIREMENTS

- A. Conform to Spec. 2104.3C, with the following modifications:
 - 1. Dispose of all materials designated for removal outside of the Site at locations selected by Contractor.
 - 2. Stockpile or temporarily store materials designated for salvage at locations provided by Contractor.

1.05 COORDINATION

- A. Coordinate work with others performing work at project site.
- B. CONTRACTOR must notify Gopher State One Call (800-252-1166) to mark location of utilities prior to beginning Work.

PART 2 – PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 GENERAL

- A. Dispose of all items removed. Said disposal shall be in accordance with all laws, regulations, statutes, etc.
 - 1. No on-site disposal allowed.
- B. Perform removal work without damage to adjacent work. Where such work is damaged, the Contractor shall repair to original condition at no expense to the Owner.
- C. Consider Beneficial Use Designations for uncontaminated recognizable concrete and bituminous.

3.02 PREPARATION

- A. Conduct operations within project limits of construction.
- B. Implement Traffic Control Plan, On-Site Health and Safety Plan, and Erosion Control Plans, as submitted to ENGINEER.
- C. Prepare a neat square edge prior to restoration.

3.03 REMOVE SECTION OF EXISTING PIPE

- A. Conform to information contained on the Drawings.
- B. Pipes to be abandoned shall be bulkheaded with brick, non-shrink grout, and concrete masonry blocks (8 inches).
- C. Pipe to be abandoned shall be removed if the top of pipe is within 3 feet of final surface elevation.

3.04 BACKFILLING

- A. Backfill all depressions immediately created from removal operations.

3.05 FIELD QUALITY CONTROL

- A. Sawcut at limits shown on the plans or as marked by the ENGINEER in the field. Payment for sawcutting is incidental to the removal bit item.
- B. Damage to the pavement beyond the sawcut limits will be repaired by the CONTRACTOR at no cost to the OWNER.

END OF SECTION

SECTION 02280

ADJUST MISCELLANEOUS STRUCTURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Adjustment of utility structures.

1.02 REFERENCES

- A. American Society of Testing and Materials (ASTM):

- 1. A48 - Specification for Gray Iron Casting.

- B. Standard Specifications

- 1. 2506 - Manholes and Catch Basins.

1.03 SEQUENCING AND SCHEDULING

- A. Contractor shall inspect all existing structures prior to beginning construction.
- B. Owner will remove any foreign material found in the existing structures prior to construction. Contractor is responsible for removing any foreign material that enters the structures during construction.

PART 2 - PRODUCTS

2.01 ADJUSTMENT RINGS

- A. Concrete

- 1. Size to match cone or opening in top slab.
 - 2. Concrete compressive strength: Minimum 3,000 psi.
 - 3. Reinforcing: Single hoop 8-gauge steel wire.
 - 4. Thickness: Minimum inches, maximum 4 inches.

2.02 ADHESION MATERIAL

- A. Ram-Nek material, or approved equal.
- B. Mortar
 - 1. Standard Portland Cement: Type I, ASTM C150.

2. Normal Finishing Hydrated Lime: ASTM C6.
3. Hydraulic Hydrated Lime for Structural Purposes: ASTM C141.
4. Mix Proportions: 1-part cement to 3-parts mortar sand; lime may be added to mixture: maximum amount 15 percent by volume.

2.03 CASTINGS

A. Manhole and Catch Basin Frames and Covers:

1. Requirement: ASTM A48.
2. Material: Class 35 cast iron. Best grade. Free from injurious defects and flaws.
3. Finish Preparation: Sandblast.
4. Machine cover and frame contact surface for non-rocking protection.
5. Type and Style: Per details on Drawing.

PART 3 - EXECUTION

3.01 GENERAL

- A. The frame shall be raised or lowered to match the street or gutter.
- B. Prevent sand, concrete, or any other debris from entering the structures.

3.02 ADJUST FRAME AND RING CASTING

- A. Remove all dirt, debris, dust, and other deleterious material from surface prior to placement of first adjustment ring.
- B. Concrete Adjustment Ring
 1. Mortar on top and bottom surfaces of all concrete adjustment rings; between surface of top slab or cone and bottom ring; between surface of top ring and casting; on entire surface area of ring with no gaps. Mortar thickness $\frac{1}{4}$ to $\frac{1}{2}$ inch.
 2. No shims of any material allowed.
 3. Required cross slope of casting to be achieved by varying thickness of mortar.
 4. Do not plaster the inside of surface rings.
 5. Wipe clean all excess mortar from the joints inside all rings and frame.
 6. Remove all mortar spills from the structure.

7. Minimum of 2, maximum of 5 adjustment rings allowed.
8. Use a 6-inch ring where applicable.

3.03 FIELD QUALITY CONTROL

- A. Secure manholes and structures immediately after completion or before suspension of operations at the end of the working day with castings or suitable alternative devices.
- B. Adjust Manholes and Catch Basin Frames 1/8 inch to 3/8 inch below grade prior to placing the final bituminous pavement course. Thorough tamping of the material around the manhole and catch basin frames is required.

END OF SECTION

SECTION 02315

EXCAVATION AND BACKFILL

PART 1 - GENERAL

1.01 SUMMARY

- A. Excavation and fill for channels and other areas.

1.02 REFERENCES

- A. Standard Specifications

1. 2105 – Excavation and Embankment.
2. 3149 – Granular Material

1.03 DEFINITIONS

- A. The definitions of the different classifications of excavation and borrow material shall conform to Spec. 2105.2, or as modified herein:
 1. Grading Grade: Bottom of the aggregate base as shown on the Drawings.
 2. Common Excavation: Will include all excavation below the grading grade. Other excavations directed by Engineer, such as subgrade excavation, shall be included as common excavation.

1.04 SUBMITTALS

- A. The CONTRACTOR shall submit source-testing results of materials.

1.05 QUALITY ASSURANCE

- A. Assist testing laboratory by excavating for density tests. Assist testing laboratory with obtaining material samples.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 GENERAL

- A. Conform to Spec. 2105.3A, or as modified herein:
 1. Establish erosion control devices prior to excavation work.
 2. Notify utility companies of progress schedule so they can accomplish relocations, removals, and holding of lines.

3.02 PREPARATION OF EMBANKMENT

A. Conform to Spec. 2105.3B, or as modified herein:

1. Engineer's approval is required for all areas where preparation work has been performed prior to the placement of the embankment or fill material.
2. Where embankment is to be constructed over swamp, marsh, or other locations where the foundation material is unstable, the foundation material shall be excavated to remove all or part of the unstable material.

3.03 EXCAVATION OPERATIONS

A. Conform to Spec. 2105.3C, or as modified herein.

1. Perform excavations to the alignment, cross section, and grade as shown on the Drawings and staked by Engineer.
2. Excavation of unstable material below grade shall be done under the direction of the Engineer as the subsurface conditions are disclosed.
3. Notify the Engineer immediately of any large boulders or ledge rocks encountered so proper management or profile can be made for pay quantities.
4. No solid rock will be allowed within 12 inches of the subgrade.
5. Provide and maintain temporary drainage facilities until permanent facilities are completed.

3.04 DISPOSITION OF EXCAVATED MATERIALS

A. Conform to Spec. 2105.3D, or as modified herein:

1. No disposition of bituminous millings will be permitted, unless thoroughly mixed with other on Site materials.

3.05 PLACING EMBANKMENTS

A. Conform to Spec. 2105.3E.

3.06 COMPACTING EMBANKMENTS

A. Conform to Spec. 2105.3F, or as modified herein:

1. Compaction required for embankment materials shall conform to the Specified Density Method with the testing location and rates being determined by the Engineer.
2. Clayey or silty soil used as fill will need to be placed at a water content sufficient to attain compaction (near the "optimum water content" defined in ASTM D698). If the Contractor wishes to use soils which are not at the needed water content, it is the

responsibility of the Contractor to moisture condition the soil (wet or dry) to a uniform condition such that the entire profile (lift thickness) attains the minimum specified compaction level. Some on-site soils will be wet (or could be dry) and the Contractor shall not claim that this is a changes condition.

3. The Contractor recognizes that inclement weather (sometimes heavy) occurs during the construction season and the Contractor shall be responsible for protecting the moisture condition of soils during the construction phase. Such protection measures include sloping of exposed surfaces to promote runoff (avoid ponding) and compacting exposed surfaces prior to rain events to minimize infiltration.

3.07 FINISH OPERATIONS

A. Conform to Spec. 2105.3G, or as modified herein:

1. Finish grading of subgrade prior to placement of an aggregate base course shall conform to the following tolerances:
 - a. Not vary by more than 0.10 feet above or below the prescribed elevation at any point where a measurement is made.

B. Grading of the soils beneath the proposed topsoil shall be reviewed and approved by the Engineer prior to placement of topsoil.

END OF SECTION

SECTION 02320

TRENCH EXCAVATION AND BACKFILL

PART 1 - GENERAL

1.01 SUMMARY

- A. Trenching requirements for underground piping and appurtenances including excavation, backfill and compaction.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM C1479 – Standard Practice for Installation of Precast Concrete Sewer, Storm Drain, and Culvert Pipe Using Standard Installations.
 - 2. ASTM D2321 – Recommended Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe.
- B. Standard Specifications
 - 1. 2105 – Excavation and Embankment.
 - 2. 3149 – Granular Material
- C. American Water Association
 - 1. C1479 – Standard Practice for Installation of Precast Concrete Storm Sewer, Storm Drain, and Culvert Pipe Using Standard Installations
 - 2. D698 – Test Method for Laboratory Compaction Characteristics for Soil Using Standard Effort (12,400 ft-lbf/ft).

1.03 DEFINITIONS

- A. Influence Zone Around Piping Area: below limits bounded by line 12 in. above pipe and by 1 horizontal to 2 vertical slope extending outward from that line 1 foot beyond outer edge of pipe or duct.
- B. Unsuitable or Unstable Material: Topsoil, peat, organic soils, and materials containing slag, cinders, foundry sand, debris, and rubble or soil with less than required bearing capacity.
- C. Bedding: The soil material adjacent to the pipe which makes contact with the pipe foundation, walls of the trench, and upper level of backfill. The purpose of bedding is to secure the pipe to true line and grade, and to provide structural support to the pipe barrel.
- D. Improved Pipe Foundation: Foundation provided by importing material from sources outside the Site. Required when foundation is soft or unstable.

- E. Filter Aggregate: Free draining material product used around drain tile pipe.

1.04 SUBMITTALS

- A. The CONTRACTOR shall submit source-testing results of materials.

1.05 PROJECT/SITE CONDITIONS

- A. General locations of known utilities are shown on the Drawings. The OWNER and the ENGINEER do not guarantee utility locations. CONTRACTOR should uncover utilities and verify both vertical and horizontal alignment prior to trench excavation.
- B. The CONTRACTOR must notify Gopher State One Call (800-252-1166) to mark location of utilities prior to beginning work.
- C. The CONTRACTOR is required to meet all applicable OSHA standards.
- D. The CONTRACTOR is responsible for notifying utilities at least 48 hours prior to commencing WORK within 50 feet of the respective facility:
- E. Backfill and compact all trench excavations promptly after pipe is installed.
- F. CONTRACTOR is responsible for implementing appropriate trench ventilation and regular air monitoring.
- G. Provide continuance of flow of existing sewer and other facilities.

1.06 WARRANTY

- A. Settlements that occur during the correction period and are greater than 1/2 inch as measured by a 10-foot straight edge will be repaired in a manner acceptable to the OWNER at the CONTRACTOR's expense.

PART 2 – PRODUCTS

2.01 PIPE BEDDING MATERIAL

- A. Polyvinyl Chloride (PVC) Pipe
 - 1. Comply with MnDOT Spec. 3149.2B1 for granular borrow.
 - a. No on-site granular material encountered during construction may be used without the permission of the Engineer.

2.02 BACKFILL MATERIAL

- A. Suitable materials selected from the excavated materials to the extent available and practical.
- B. Suitable materials are mineral soils free of rubbish, trees, stumps, debris, frozen soil, concrete and bituminous chunks, and other similar unsuitable material.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Prior to construction, inspect existing utility structures and surface features to document condition.

3.02 PREPARATION

- A. The CONTRACTOR shall 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.
- B. The CONTRACTOR shall protect, support, and maintain conduits, wires, pipes, poles, trees, pavement, and other remaining utilities in accordance with requirements of owners of services.
- C. Notify utility companies of progress schedule so they can accomplish any necessary relocations and removals that they have agreed to relocate, remove, or support.
- D. The CONTRACTOR shall remove and replace or compact natural soils or compacted fills softened by frost, flooding or weather.
- E. The CONTRACTOR shall remove unsuitable or unstable material.
- F. Complete temporary removal or relocation of surface features such as fences, shrubs, signs, and mailboxes.
- G. The CONTRACTOR shall implement traffic control according to ENGINEER approved submittals.
- H. When Crossing under Existing Utility Lines, the CONTRACTOR shall:
 - 1. Use extreme care when excavating in the vicinity of underground utility lines to avoid damage to protective coatings and surfaces.
 - 2. Where possible and as authorized by the utility, temporarily remove the utility line, install the new pipe and reinstall the utility line.
 - 3. When the existing line cannot be removed or is not feasible to remove, securely support, excavate under, backfill under and around the utility line to 100 percent Standard Proctor density.
 - 4. Report and repair damaged lines prior to backfilling trench.

3.03 CONSTRUCTION

- A. Conform to ASTM C2321, or as modified herein.
- B. Trench Excavation:
 - 1. Excavate to the alignment and grade as shown on Drawings.

2. The trench width at the surface may vary and depends on the depth of trench and nature of the excavated material encountered. It shall be of ample width to permit the pipe to be laid and jointed properly and the backfill to be placed and compacted properly.
3. Correct any part of the trench that is over-excavated below grade with approved material compacted to 100-Percent Standard Proctor Dry Density.
4. Brace, shore, or sheet trench and provide drainage. Comply with all applicable State Regulations relating to industrial safety to a safe angle of repose. Angle of repose may be no less than that required by the Accident Prevention Division of the State Industrial Commission or the requirements of the Occupational Safety and Health Act (OSHA), whichever is most restrictive.
5. Segregate soils that are not suitable for trench backfill and dispose of in a manner that is consistent with the requirements specified herein under "Backfill Above Pipe Zone."
6. Dispose of excess excavated materials off of right-of-ways and easements at a suitable site selected by the Contractor.
7. Haul excess excavated materials to an approved landfill.

C. Water Control

1. Dewater the ground as necessary to excavate the trench and install the pipe. All pipe and structures shall be laid in a dry condition prior to backfill.
2. Trench dewatering shall meet all state and federal regulations.

3.04 PIPE BEDDING

- A. Polyvinyl Chloride Sewer Pipe: Bed pipe in accordance with ASTM D2321.
- B. Use only selected materials free from rock, debris, or other high void content materials to a level 1 foot above the top of pipe.
- C. Dig bell holes of ample dimension at each joint such that the barrel rests continuously on the bedding.

3.05 BACKFILL WITHIN PIPE ZONE

- A. Backfill immediately after pipe is laid. Restrain pipe as necessary to prevent movement during backfill operations.
- B. Place material completely under pipe haunches in uniform layers not exceeding 4 inches in depth.
- C. Hand (shovel) tamp along pipe within haunch zone.

3.06 BACKFILL ABOVE PIPE ZONE

- A. Use suitable materials meeting the requirements of Backfill Material.

- B. Place in uniform lifts not to exceed 12 inches before compaction. Complete compaction of each lift before placing material for the succeeding lift.
- C. Compact each layer by mechanical means until it meets the requirements of Spec. 2105.3F1 "Specified Density Method." Trenches shall be compacted to a minimum of 95 percent, except to 100 percent in the upper 3 feet.
- D. The method and means of placement and type of compaction equipment used is at the discretion of the Contractor. All portions of the trench backfill must meet minimum specified compaction requirements.
- E. Any deficiency in quantity of backfill material (caused by shrinkage or settlement) shall be supplied at no additional cost to the Owner.
- F. Excavated material not suitable or required for backfill shall be disposed of outside of the site.

3.07 RESTRICTED TRENCH WIDTH

- A. Restrict width of trench to conform to construction limits indicated on the Drawings.

3.08 FIELD QUALITY CONTROL

- A. Density tests: To be performed by an approved soils testing firm at various locations and depths throughout the Site as directed by the Engineer. The Contractor shall cooperate fully and provide assistance as necessary to complete these tests.
- B. Failed density test areas shall be excavated and re-compacted until density requirements are met.

END OF SECTION

SECTION 02630
STORM DRAINAGE

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Work under this section shall consist of storm sewer pipe, structures, fittings, rip rap, and miscellaneous appurtenances.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM)
 - 1. A48 – Specification for Gray Iron Castings
 - 2. C150 – Specification for Portland Cement
 - 3. C206 – Specification for Finishing Hydrated Lime
 - 4. C478 – Specification for Precast Reinforced Concrete Manhole Sections
 - 5. F477 – Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
- B. Standard Specifications
 - 1. 2511 – Rip Rap
 - 2. 3601 – Rip Rap Materials
 - 3. 3733 – Geotextiles

1.03 SUBMITTALS

- A. Submit Shop Drawings for storm sewer structures consistent with Section 01330.
- B. Submit Manufacturer's Certificate of Compliance for the following items:
 - 1. Gray Iron Castings
 - 2. Precast manhole sections

1.04 SITE CONDITIONS

- A. All work must be confined to within the limits of construction easements or public right-of-way.

PART 2 – PRODUCTS

2.01 MATERIALS:

A. Mortar Materials:

1. Cement: Use Type 1 Standard Portland Cement conforming to ASTM C150.
2. Lime: Use normal finishing hydrated lime meeting the requirements of ASTM C206.
3. Mix Proportions:
 - a. 1-part cement to 3 parts of suitable plaster sand for mortar used for plastering the exterior walls of manholes and catch basins, adjusting rings, and lift holes. Use lime or mortar mix in the amount necessary to make a suitable mixture for plastering purposes, but not to exceed 15 percent by volume.
 - b. 1-part Portland cement to 2 parts of sand to which lime or mortar mix may be added, but not to exceed 15 percent by volume for mortar used for laying concrete block.

2.02 STORM MANHOLE AND CATCH BASIN FRAMES AND COVERS

- A. General Requirements: ASTM A48.
- B. Material: Class 35 cast iron. Best grade. Free from injurious defects and flaws.
- C. Type and Style: As shown on the Drawings. Covers without grate openings shall be stamped "STORM SEWER."
- D. Covers with 2 concealed pick holes of approved design.
- E. Weight: Minimum of 380 lbs.

2.03 STORM MANHOLES AND CATCH BASINS

- A. General Requirements: ASTM C478 and details on the Drawings.
- B. Structures and bases shall be of precast concrete.
- C. Manhole Joints: Rubber o-ring gasket type meeting ASTM C443.
- D. Manhole Steps: Reinforced polypropylene plastic steps with No. 2 deformed grade rod steel.

2.04 PIPE MATERIALS

A. Perforated PVC Pipe

1. PSM Poly Vinyl Chloride (PVC) Plastic Pipe
 - a. General requirement: ASTM D1784
 - b. Materials: ASTM D3034
 - c. Design: Minimum wall thickness conforming to SDR 35

d. Joints: Elastomeric gasket providing a water-tight seal conforming to ASTM D3212 or ASTM F477.

e. Marking: Conform to ASTM D3034

2.05 RIP RAP

A. General Requirement: Conform to Spec. 2511

1. Rip Rap Materials: Conform to Spec. 3601

2. Granular Filter: Conform to Spec. 3601

3. Geotextile Filter: Conform to Spec. 3733

2.06 LIMESTONE RIPRAP FILTRATION BERM

A. General Requirement: Conform to details on the Drawings.

2.07 PRECAST CONCRETE HEADWALL

A. General Requirement: Conform to details on the Drawings.

PART 3 – EXECUTION

3.01 PREPARATION

A. Trench Excavation and Backfill shall conform to Section 02320.

B. By-Pass Pumping: Contractor responsible for all items required to maintain sewer flows during construction of the new storm sewer. All work and costs for by-pass pumping is considered incidental to the Project, unless otherwise specified.

3.02 INSTALLATION

A. Connect Existing Pipe to Storm Structure

1. Connect existing pipe at locations shown on the Drawings.

2. Take care not to damage existing pipe. Any segment of pipe damaged by Contractor shall be replaced with new materials at no expense to the Project.

3. Utilize standard bell and spigot joint with rubber o-ring gasket if possible.

4. If butt connection must be made to existing pipe, construct concrete collar around joint. Collar shall be minimum of 12 inches thick in all locations and shall extend a minimum of 12 inches each way of the joint.

B. Pipe Installation

1. Lay and maintain pipe appurtenances to the alignment, grade, and location shown on the Drawings and/or staked in the field. No deviation from the Drawing and/or staked alignment, grade, or locations is allowed, unless approved by Engineer. Deviation from

grade in excess of 0.05 percent may be cause for removal and relaying pipe at the Contractor's expense.

2. General Pipe Installation Procedures:

- a. Wipe joints clean, apply the manufacturer's recommended lubricant compound over the entire joint surface; center spigot in bell and push spigot home; take care to prevent dirt from entering joint space; bring pipe to proper line and grade, and secure pipe in place by properly bedding.
3. Lay pipe upgrade with spigot ends pointing in the direction of flow.
4. All joints must be watertight.
5. Remove all foreign matter or dirt from the inside the pipe. Keep the bell and spigot clean during and after installation. Take care to prevent dirt from entering the joint space. Remove any superfluous material inside the pipe after pipe installation by means of an approved follower or scraper.
6. Where cut-ins make it impossible to construct bell and spigot joints or when dissimilar pipe materials are joined, a reinforced concrete collar shall be placed completely surrounding the joint or the connection shall be made by using an approved adapter.
7. Any pipe which has been disturbed after being laid must be taken up, the joint cleaned and properly relayed as directed by Engineer.
8. Where a sewer line outlets to grade or where the line is terminated with a flared-end section:
 - a. Fasten at least the last 3 joints together using 2 "U" bolt fasteners per joint approved and recommended by the pipe manufacturers.

C. Structures and Appurtenances Installation

1. Furnish and install structures in accordance with the Drawings.
2. Excavate to depth and size as shown on the Drawings.
3. Pour inverts shaped to the half section of equivalent size pipe conforming to the inlet and outlet pipe so as to allow for a free, uninterrupted flow with all surfaces sloping to the flow line.
4. Preformed inverts not allowed where pipe grades are 2 percent or greater, unless design grade is built through the manhole.
5. All concrete pipes entering manholes must be cut with a concrete saw.
6. Steps:
 - a. Locate on the downstream side, except for pipe 24 inches in diameter or greater. Install in the most appropriate place to provide suitable access.
 - b. Secure and neatly mortar in place 15 inches on center spacing.

7. Position vertical wall of the eccentric cone on the downstream side.
8. On structures with a build that contains more than 1 barrel section, the section immediately below the precast top slab shall be a maximum 16 inch height.
9. Lift holes neatly mortared up.
10. Install adjustment rings and adjust casting conforming to Section 02280.

D. Construct Bulkhead

1. Bulkhead pipe at locations shown on Drawings with brick, non-shrink concrete grout, or concrete block masonry 8 inches thick.
2. Precast concrete plugs may be used in lieu of bulkhead. Plug must fit snugly into pipe opening and be watertight.

E. Rip Rap

1. General: Conform to Spec 2511.

3.03 FIELD QUALITY CONTROL

A. Scope

1. All pipeline testing is considered incidental to the Bid cost of the pipe.
2. Engineer to observe and verify that all tests and visual inspections have been completed prior to final acceptance.

B. Cleaning

1. Consists of cleaning the pipe and structures
 - a. If newly installed mains and structures are kept clean during construction cleaning will not be required.
 - b. If newly installed mains and structures become dirty due to negligence of the Contractor, cleaning will be performed at the sole expense of the Contractor.
2. The bailing or flushing method of cleaning pipe is acceptable only if adequate provisions acceptable to the Engineer for keeping dirt and debris out of the existing sewer system or ponds are employed. Jetting may be required.
3. Complete prior to final inspection for acceptance.

C. Required Tests and Inspections

1. Infiltration
 - a. To determine the amount of ground water infiltration into the sewers.
 - b. Test waived if no visible infiltration is observed during the lamping inspection.

- c. Measurement made by means of 90-degree v-notch weirs placed in the lines as directed by the Engineer.
- d. Measurements taken at the points where in the Engineer's opinion the flow of water in the sewer is greater than the maximum allowable leakage.
- e. Maximum Allowable Rate of Leakage: Not more than 100 gallons per mile per inch diameter per day.
- f. Tests may be taken between individual manholes and the infiltration in any given line must not exceed the specified maximum allowable rate.
- g. Method of Measurement: Measurement of time for a predetermined volume of flow to occur.

2. Lamping

- a. Verify installation is to true line and grade.
- b. Verify installed pipe is structurally sound.
- c. Verify there are no broken or defective pipe.
- d. Verify that joints are all home.
- e. Verify structures conform to specified requirements.

3.04 PROTECTION

- A. Plug all entrances and openings to the system promptly and before suspension of operations at the end of the working day.
- B. Secure manhole and structures immediately after completion or before suspension of operations at the end of the working day with castings or suitable alternative device.
- C. Implement erosion control measures.
- D. Mark structures to avoid being damaged by construction related traffic during construction.

END OF SECTION

SECTION 02921

GEOTEXTILE FABRIC

PART 1 - GENERAL

1.01 SUMMARY

- A. Geotextile fabric used for stormwater features.

1.02 REFERENCES

- A. Standard Specifications

- 1. 3733 - Geotextiles

1.03 SUBMITTALS

- A. The CONTRACTOR shall submit manufacturer's certificates indicating conformance test results of furnished material.

1.05 QUALITY ASSURANCE

- A. Roll Identification

- 1. Provide geotextiles in rolls wrapped in relatively impermeable and opaque protective covers and marked with the following information:
 - a. Manufacturer's name
 - b. Product identification
 - c. Lot number
 - d. Roll number
 - e. Roll dimensions

- B. Handle geotextiles in such a manner as to ensure geotextiles are not damaged.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Conform to MnDOT Spec. 3733 - Geotextile Fabric, Type III

PART 3 – EXECUTION

3.01 PREPARATION

- A. Excavation: Conform to Section 02315.

3.02 INSTALLATION

- A. Place geotextile immediately ahead of the covering operation
 - 1. No geotextile shall be left exposed to sunlight during installation for a total of more than 7 calendar days.
 - 2. The geotextile shall be laid smooth without excessive wrinkles.
 - 3. The geotextile shall be dragged through mud or over sharp objects which could result in damage to the geotextile.
- B. All adjoining sections of the geotextile shall be overlapped a minimum of 18 inches or sewn using mechanical machine.
- C. Secure fabric in place by means of stone weights to prevent displacement.
- D. If geotextile is torn or punctured, the damaged area shall be repaired or replaced:
 - 1. The patch shall overlap the existing geotextile a minimum of 3 feet from the edge of any part of the damaged area.

3.03 FILL PLACEMENT

- A. Only regular spreading methods that will not tear the fabric shall be used.
- B. Granular borrow shall be dropped on the fabric from a height greater than 3 feet:
 - 1. Place a minimum of 8 inches of granular borrow on the geotextile prior to the movement of construction equipment. Carefully monitor turning movements.
 - 2. Tracked or wheeled equipment shall not be permitted to drive directly on the fabric.
 - 3. Any ruts occurring during construction shall be filled with additional granular borrow and compacted to the specified density.
- C. Compaction of first lift above the geotextile shall be limited to routing of placement and spreading equipment only. No vibratory compaction will be allowed on the first lift.

END OF SECTION

SECTION 02930

TURF RESTORATION

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. Restoration of construction area by installation of topsoil, seed, sod, soil amendments, mulch, and erosion control.

1.02 REFERENCES

- A. Standard Specifications
 - 1. 2575 – Turf Establishment.
- B. Minnesota Department of Transportation Seeding Manual 2014 (MnDOT Seeding Manual)

1.03 SUBMITTAL

- A. Provide source and invoice for seed.
- B. Producer's certificate of compliance – Written documentation verifying compliance of mixture of seed furnished. Include percentage of various seed species, year of production, germination rate, seed bag tags, and weed seed content. Submit to Engineer at least 5 days prior to delivery.
- C. Species within the native seed mixes species shall have their origin documented by the Minnesota Crop Improvement Association (MCIA) to certify that the product is a local ecotype plant.

1.04 PLANT ESTABLISHMENT PERIOD

- A. The Establishment Period for plants shall begin immediately after installation, with the approval of the Engineer, and continue until the date that the Engineer performs a final inspection.
 - 1. The establishment period for seeded areas is 2 years.

1.05 FIELD QUALITY CONTROL

- A. Provide the Engineer with seed bag tags used for identification purposes.

PART 2 – PRODUCTS

2.01 SEED MIX

- A. Conform to Spec. 3876
 - 1. The Cover Crop seed mixture shall be MnDOT 21-111.
 - 2. The Mid-term Stabilization Native seed mixture shall be MnDOT 32-241.
 - 3. The Wetland seed mixture shall be MnDOT 34-271.
- B. Local nursery grown seed sources in the specified mix
- C. Weeds shall not exceed 0.25%
- D. Comply with current U.S. Department of Agriculture rules and regulations.

2.02 WATER

- A. Contractor shall be responsible for water.

2.03 FERTILIZER

- A. The fertilizer shall be a commercial mixture with the following minimum guaranteed analysis:

Nitrogen	6% by weight
Potash	24% by weight
Phosphorus	24% by weight
- B. Common fertilizer shall comply with the applicable state and federal regulations.
- C. The fertilizer shall be delivered to the site in suitable containers labeled with the manufacturer's guaranteed analysis. Copies of the analysis shall be furnished to the ENGINEER.

2.05 MULCH

- A. Mulch shall be MN/DOT Type 3 mulch.
 - 1. Certified by the Minnesota Crop Improvement Association (MCIA)

2.06 EROSION CONTROL BLANKET

- A. Conform to Spec. 3885, Category 3.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Finish grade are to be inspected and approved by the Engineer prior to start of restoration.

3.02 PREPARATION

- A. General: Conform to Spec. 2575.3A.
- B. Soil Preparation: Conform to Spec. 2575.3B.
- C. Fertilizers and Conditioners: Conform to Spec. 2575.3C.
 - 1. Apply fertilizer at the recommended rate or 400 lbs. per acre (9.2 lbs/1,000 sq. ft.)
 - 2. Apply fertilizer no more than 48 hours prior to seeding.
 - 3. Where pH is lower than 5.5, apply lime at 3 tons per acre (140 lbs/1,000 sq. ft.)

3.03 SOWING SEED

- A. Conform to Spec. 2575.3 for the mixes specified.

3.04 EROSION CONTROL BLANKET

- A. Erosion control blanket shall be installed immediately following the seeding in accordance with Spec. 2575.3J, and as modified below.
 - 1. Raking or harrowing of soil/seed shall be done before installation of erosion control blanket.
 - 2. Blanket shall be installed parallel to the direction of flow in all areas.

3.05 MAINTENANCE

- A. Seed maintenance shall be done in conformance with the MnDOT Seeding Manual Maintenance Requirements for year 1.
- B. Maintain seeded area by watering, mowing, and replanting as necessary to produce uniform stand of grass until work is accepted.
- C. Implement erosion control measures as required to keep area free of rutted or eroded soils.

3.06 INSPECTION AND ACCEPTANCE

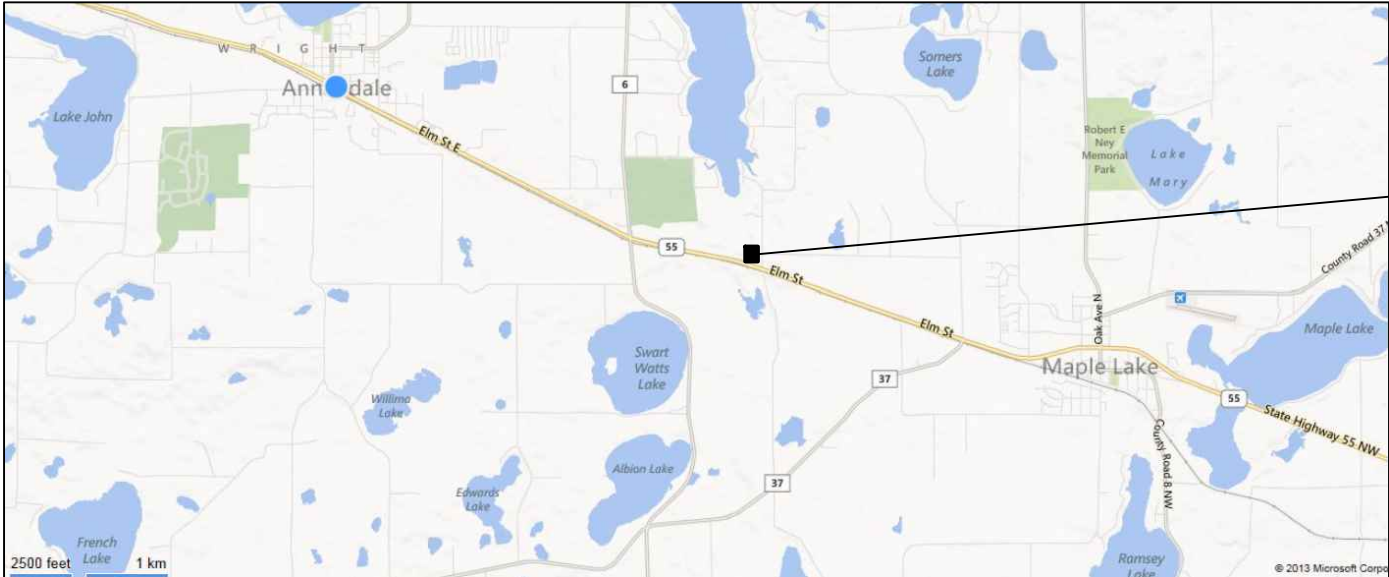
- A. Seed evaluation at the conclusion of the establishment period shall be based on at least one species per square foot and 90 percent of seeding per square foot is of permanent seed species within the applied mix.
- B. When inspected landscape work does not comply with requirements, replace rejected Work and continue specified maintenance until re-inspected by Engineer and found to be acceptable.

- C. The opinion of the Engineer shall govern in any and all disputes by the Contractor regarding the condition and disposition of unsatisfactory maintenance procedures.

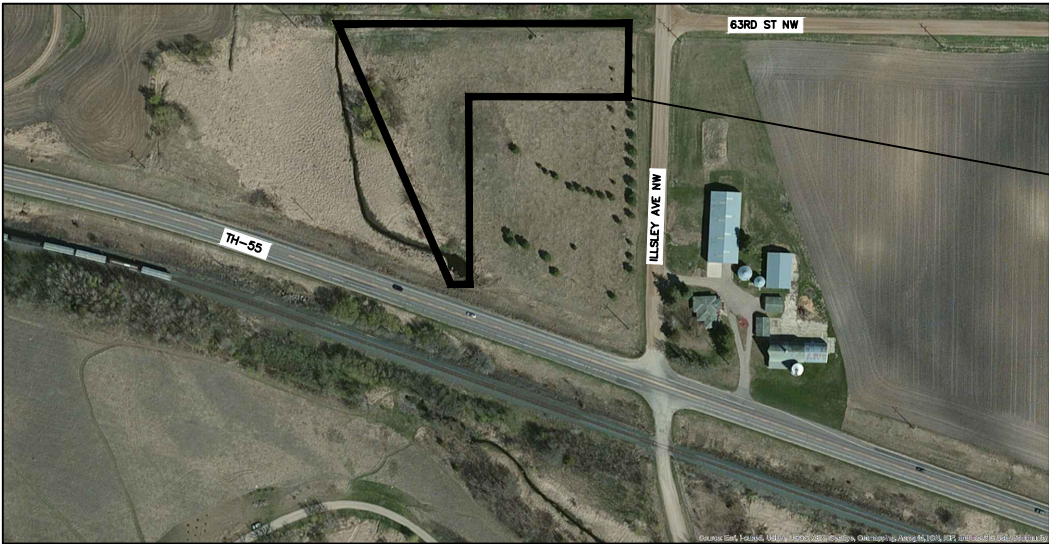
END OF SECTION

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CONTRACT DRAWINGS
CEDAR OLD HIGHWAY 55 STORMWATER IMPROVEMENTS
CLEARWATER RIVER WATERSHED DISTRICT
DECEMBER 2014



PROJECT LOCATION MAP



ENLARGED PROJECT LOCATION MAP

INDEX OF SHEETS

G-101	TITLE SHEET
C-101	EXISTING CONDITIONS & REMOVAL PLAN
C-201	SWPPP PLAN
C-202	EROSION & SEDIMENT CONTROL PLAN
C-301	GRADING PLAN
C-801	DETAILS

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

0	FOR REVIEW	KBM	12/5/14	
REV	REVISION DESCRIPTION	DWN	APP	REV DATE

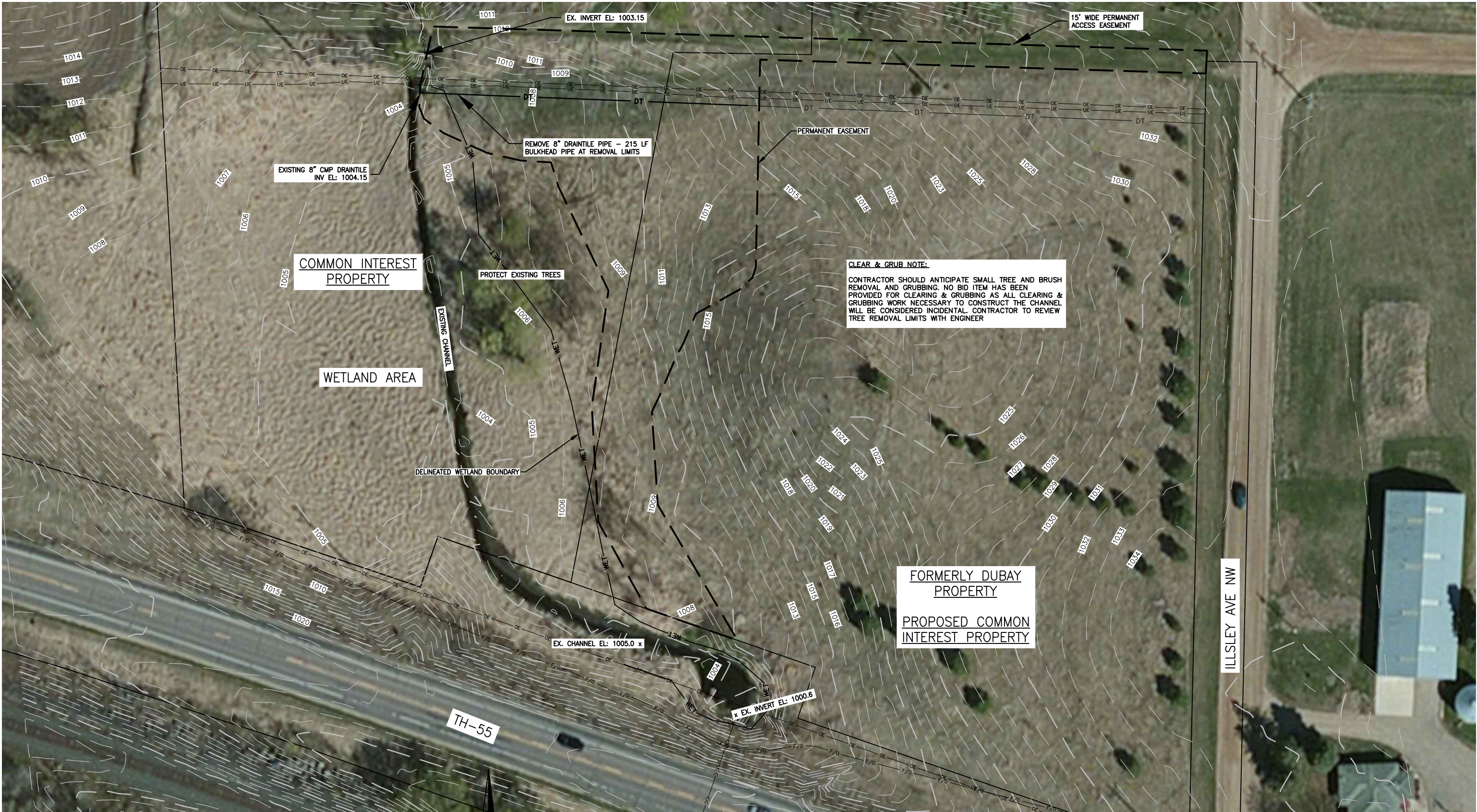
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PRINT NAME KEVIN B. MATTSO
SIGNATURE _____
DATE 12/5/14 LICENSE # 48386

PRIME CONSULTANT
**Wenck**
Consulting Engineers
1800 PIONEER CREEK CENTER
MAPLE PLAIN, MN 55359
763-479-4200
763-479-4242
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PROJECT TITLE
**CEDAR OLD HIGHWAY 55
STORMWATER IMPROVEMENTS**

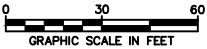
**CLEARWATER RIVER
WATERSHED DISTRICT**

TITLE SHEET				
DWN BY	CHK'D	APP'D	DWG DATE	DEC 2014
KBM	RAK		SCALE	AS SHOWN
PROJECT NO.		SHEET NO.		REV NO.
0002-205		G-101		0



GENERAL NOTES


1. SALVAGE AND REINSTALL ALL SIGNS AS DIRECTED BY ENGINEER (INCIDENTAL).
2. ALL QUANTITIES ARE APPROXIMATE AND MAY VARY TO ALLOW COMPLETION OF WORK.
3. PRIVATE UTILITIES ARE SHOWN IN GENERAL LOCATIONS. CONTRACTOR TO COORDINATE WITH PRIVATE UTILITY OWNERS PER GOPHER STATE ONE REQUIREMENTS.
4. NOTIFY ENGINEER IMMEDIATELY OF ALL EXISTING SEWER AND WATER SERVICE CONFLICTS.
5. CONTRACTOR TO STRIP AND SALVAGE EXISTING TOPSOIL.
6. REVIEW ALL TREE REMOVALS WITH ENGINEER.



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		REV	DATE

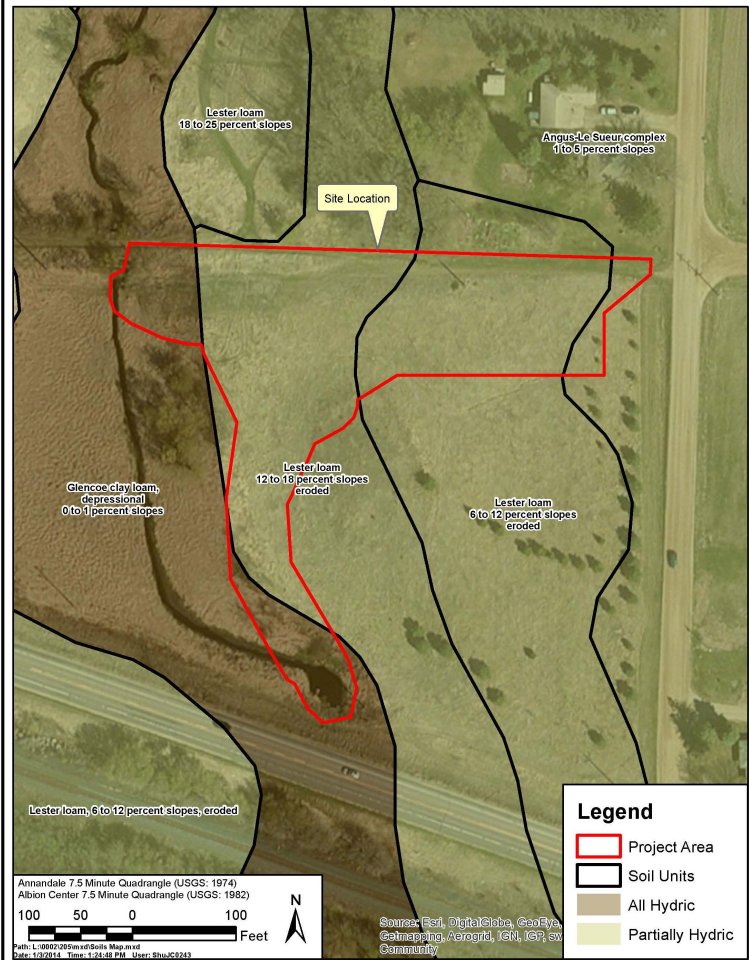
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PROJECT TITLE	CEDAR OLD HIGHWAY 55 STORMWATER IMPROVEMENTS
CLEARWATER RIVER WATERSHED DISTRICT	

SHEET TITLE	EXISTING CONDITIONS & REMOVAL PLAN		
DWN BY KBM	CHK'D RAK	APP'D	DWG DATE DEC 2014
PROJECT NO. 0002-205	SHEET NO. C-101	SCALE AS SHOWN	REV NO. 0



CLEARWATER RIVER WATERSHED DISTRICT

Soils Map

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JAN 2014
Figure 2

Cumulative Impervious Surface
Existing impervious surface - 0.00 acres
Proposed impervious surface - 0.00 acres

Total Area Disturbed by Construction - 1.5 acres

Construction Dates: February 2015 - December 2015

Party Responsible for Long Term Operation and Maintenance of the Site - OWNER
Clearwater River Watershed District
75 Elm St E, Box 481
Annandale, MN 55301 320-274-3935

Party Responsible for Implementation of the SWPPP - CONTRACTOR (TBD)

CERTIFICATION
In accordance with Part III.A.2.a.i. of the General Permit Authorization to Discharge Stormwater Associated with Construction Activity under the NPDES, the preparer of this document was trained under the University of Minnesota Erosion and Sediment Control Certification Program. Ms. Heather Libby's certification in Design of SWPPP is valid through May 31, 2017.

EROSION AND SEDIMENT CONTROL PRACTICES

Prior to any site disturbance the erosion prevention measures, including rock construction entrances and silt fence, will be installed at the site as shown on Sheets C-202.

All exposed soil areas within 7 days or as soon as possible must have temporary erosion protection (slash mulch, erosion control blanket, seed) or permanent cover year round.

CONTRACTOR shall implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading, and other construction practices that minimize erosion when practical.

The normal wetted perimeter of any temporary or permanent drainage ditch that drains water from a construction site, or diverts water around a site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge to any surface water. Stabilization must be completed within 24 hours of connecting to a surface water. Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.

Sediment control practices must minimize sediment from entering surface waters, including curb and gutter systems and storm sewer inlets. The following measures will be taken as sediment control practices in order to minimize sediments from entering surface waters:

1. Installation of sediment control practices on all down gradient perimeters prior to land disturbing activities.
2. Minimize vehicle tracking by use of the rock construction entrances.
3. Street sweeping of tracked sediment when necessary.

Dewatering is anticipated for the excavation work of this project. Discharge filtration should be incorporated into the dewatering activities. Energy dissipation shall be provided at all discharge points to prevent scour.

Because the project is less than 5 acres, temporary sedimentation basins are not required.

Record Retention

The SWPPP, all changes to it, and inspection and maintenance records must be kept on-site during construction. The OWNER must retain a copy of the SWPPP along with the following records for three (3) years after submittal of the Notice of Termination.

1. Any other permits required for the project;
2. Records of all inspection and maintenance conducted during construction;
3. All permanent operations and maintenance agreements that have been implemented, including all right of way, contract, covenants and other binding requirements regarding perpetual maintenance; and
4. All required calculations for design of the temporary and permanent stormwater management systems.

Pollution Prevention Measures

Solid Waste

Solid waste, including but not limited to, collected asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other waste must be disposed of properly and must comply with MPCA disposal requirements.

Hazardous Materials

Hazardous materials, including but not limited to oil, gasoline, paint and any hazardous substance must be properly stored including secondary containments, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MCPA regulations.

Washing of Construction Vehicles

External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.

Concrete Washout Area

Concrete washout is not anticipated for this project.

Inspections

The inspection log will be completed by the CONTRACTOR for the construction site. Inspections at the site will be completed as follows:

- Once every seven (7) days during active construction and,
- Within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.

The individual performing inspections must be trained as required by part IV.E of the Permit. CONTRACTOR to provide OWNER with proof of training. Inspections must include stabilized areas, erosion prevention and sediment control BMPs, and infiltration areas. Corrective actions must be identified and date of correction must be noted as identified in Section IV.E. of the Permit.

Final Stabilization

All areas disturbed by construction will receive seed and mulch or sod according to the plans and specifications and within the specified vegetative time schedule. Final stabilization will occur when the site has a uniform vegetative cover with a density of 70% over the entire disturbed area. All temporary synthetic erosion prevention and sediment control BMPs (such as silt fence) must be removed as part of the site final stabilization. All sediment must be cleaned out of conveyances and temporary sedimentation basins if applicable.

Notice of Termination (NOT) must be submitted within 30 days of final stabilization.

IMPAIRED WATERS, SPECIAL WATERS, AND WETLANDS

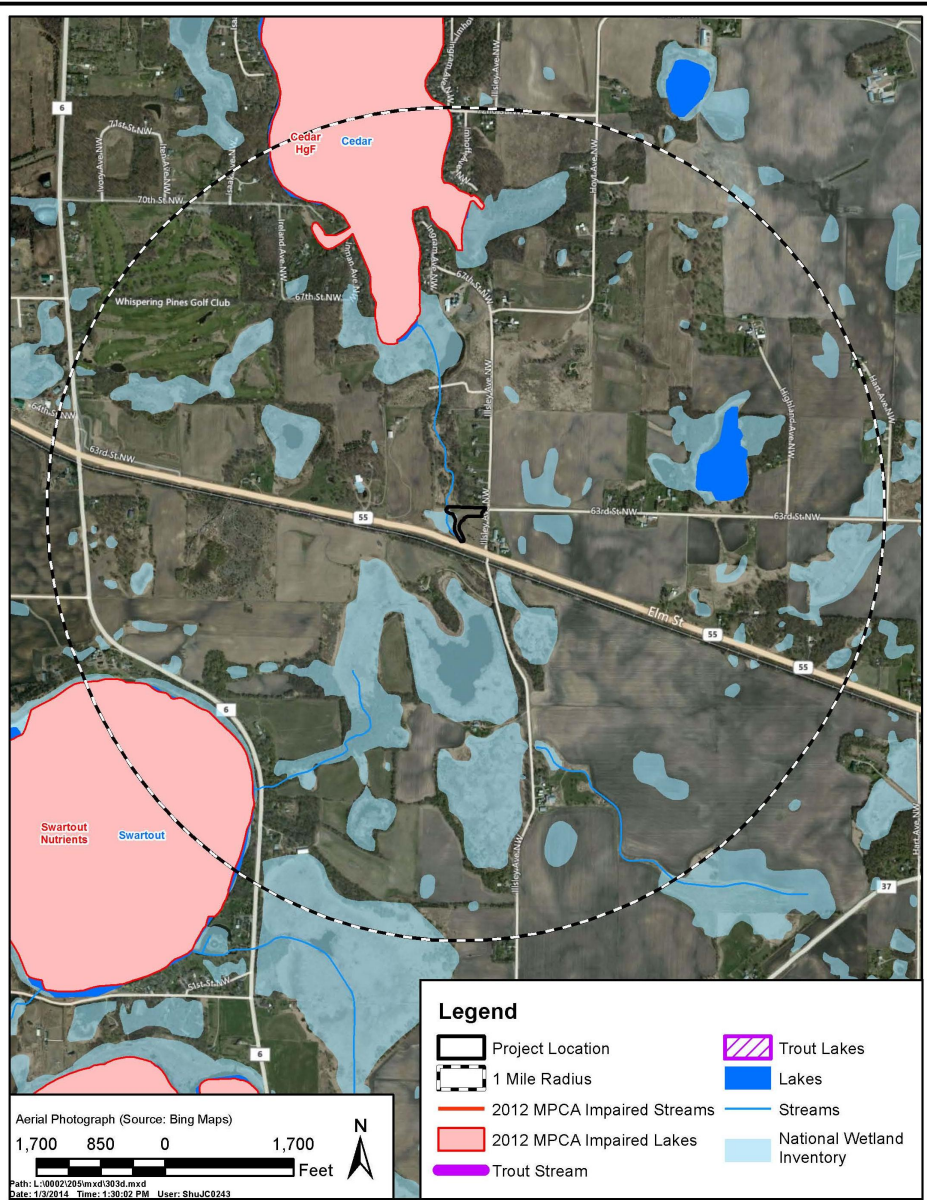
This Project is not located within 1 mile of a special water.

This Project is located within 1 mile of an impaired waters (Figure 3 this sheet):

- Cedar Lake impaired for HgF
- Swartout Lake impaired for Nutrients

Because of the proximity of the project to an impaired water during construction:

1. All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than seven (7) days after the construction activity in that portion of the site has temporarily or permanently ceased.
2. Temporary sediment basins are required to handle runoff for common drainage locations that serve an area with 5 or more acres disturbed at one time.



CLEARWATER RIVER WATERSHED DISTRICT

303d Impaired Waters and Wetlands Map

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Figure 3

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					SIGNATURE _____
					DATE <u>12/5/14</u> LICENSE # <u>48386</u>
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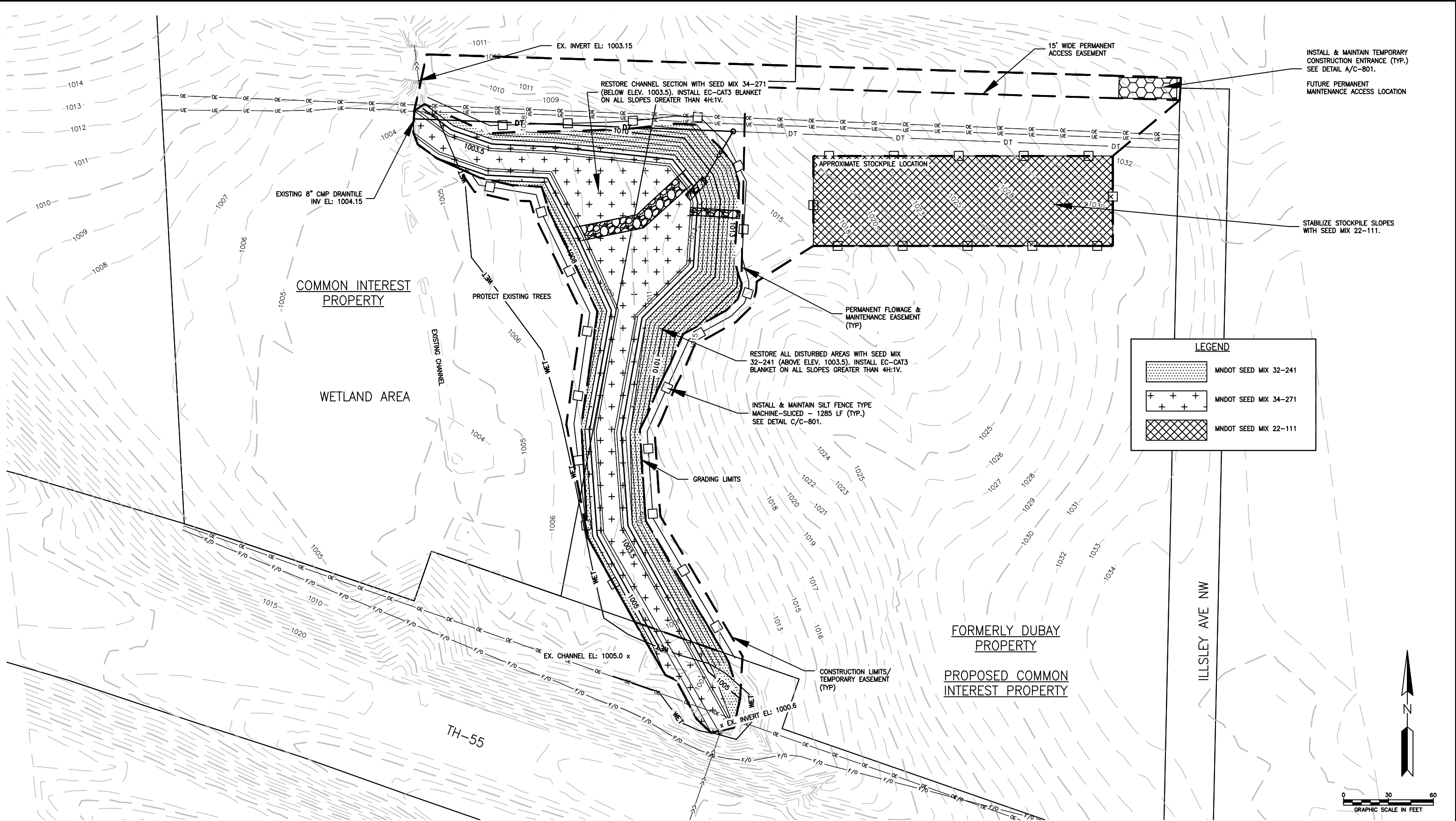
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PROJECT TITLE

CEDAR OLD HIGHWAY 55
STORMWATER IMPROVEMENTS

CLEARWATER RIVER
WATERSHED DISTRICT

SHEET TITLE			
SWPPP PLAN			
DWN BY KBM	CHK'D RAK	APP'D	DWG DATE DEC 2014
PROJECT NO. 0002-205		SCALE AS SHOWN	
SHEET NO. C-201		REV NO. 0	




EROSION CONTROL NOTES

1. ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
2. RESTORE ALL DISTURBED AREAS ABOVE EL. 1003.5 WITH 4" TOPSOIL AS SPECIFIED.
3. PERMANENT RESTORATION SHALL OCCUR AT THE EARLIEST POSSIBLE STAGE.
4. ALL QUANTITIES ARE APPROXIMATE AND MAY VARY TO ALLOW COMPLETION OF WORK.
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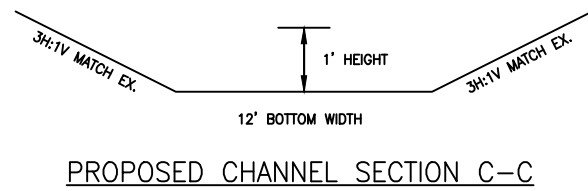
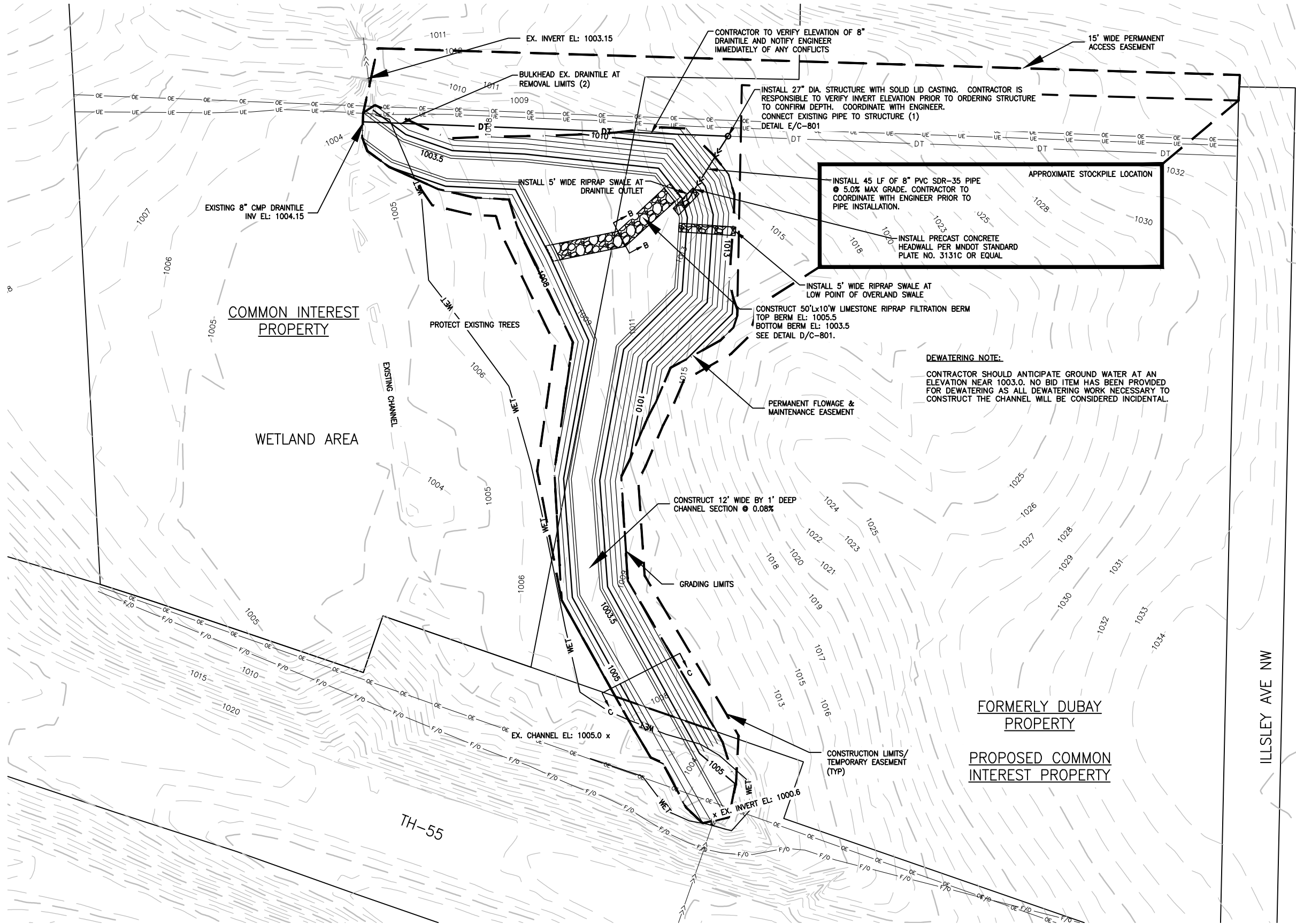
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PROJECT TITLE	
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CLEARWATER RIVER WATERSHED DISTRICT	

SHEET TITLE			
EROSION & SEDIMENT CONTROL PLAN			
DWN BY	CHK'D	APP'D	DWG DATE
KBM	RAK		DEC 2014
PROJECT NO.		SCALE	
0002-205		AS SHOWN	
SHEET NO.		REV NO.	
C-202		0	



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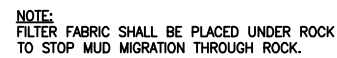
CEDAR OLD HIGHWAY 55
STORMWATER IMPROVEMENTS

CLEARWATER RIVER
WATERSHED DISTRICT

SHEET TITLE

GRADING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	SCALE	AS SHOWN
KBM	RAK		DEC 2014		
PROJECT NO.	SHEET NO.				
0002-205	C-301				0



CATCH BASIN CASTING AND GRATE SHALL BE SOLID LID CASTING NEEHAH R-1642B OR EQUAL

PRECAST CONCRETE STRUCTURE

PIPE, SEE PLAN FOR SIZE AND MATERIAL

27"

5"

VARIABLES

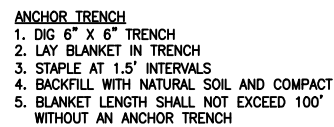
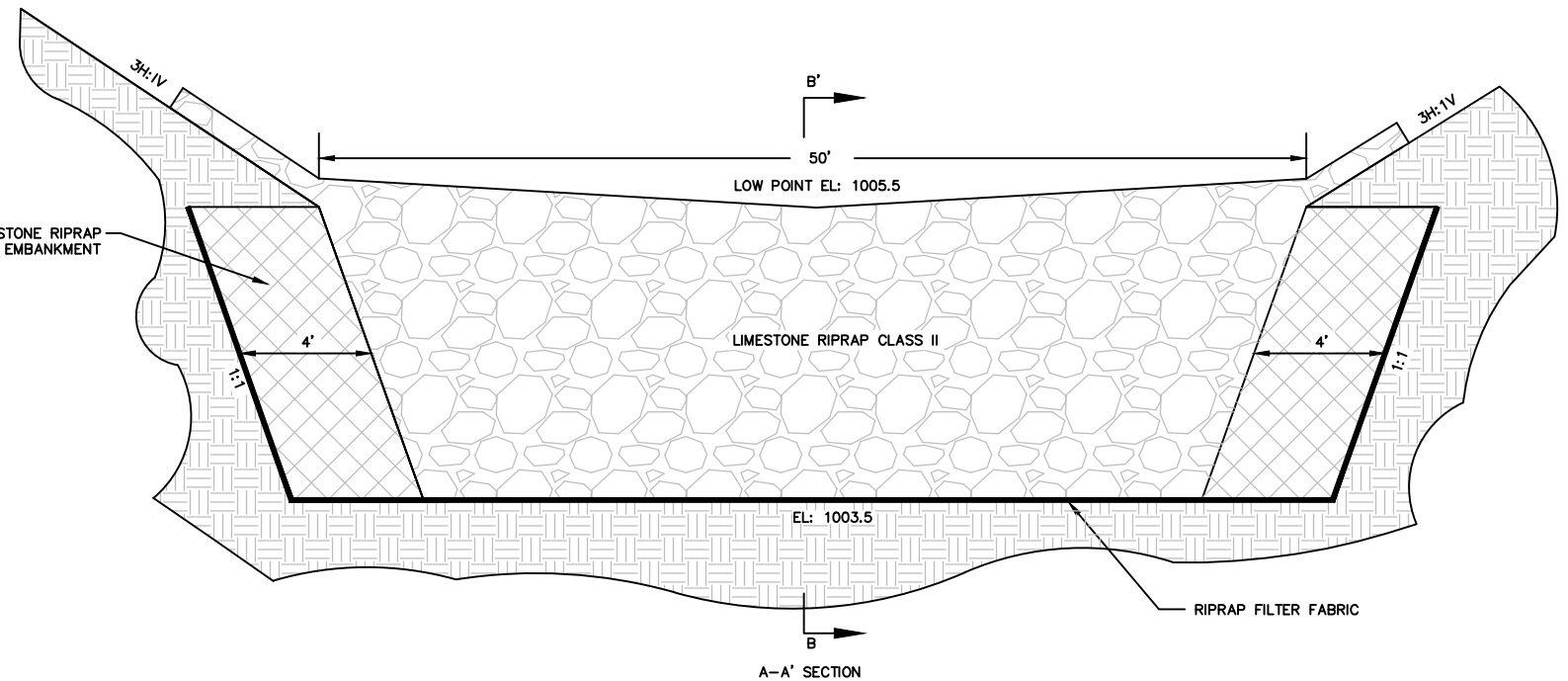
MIN. 2/MAX. 5 CONCRETE OR HOPE ADJUSTMENT RINGS WITH FULL BED OF MORTAR BETWEEN EACH RING

EXTEND 4 FEET

INSTALL 12" GRANULAR BEDDING (INCIDENTAL)

40" DIA. X 5" THICK PRECAST REINFORCED CONCRETE BASE SLAB

EXTEND LIMESTONE RIPRAP
4 FEET INTO EMBANKMENT



The diagram illustrates two methods of erosion control:

SILT FENCE: This method involves installing a silt fence made of woven geotextile (48" wide) supported by 2x2 hardwood posts (5' min. to 6' max. spacing). The fence is installed in a trench 6" minimum deep. The direction of runoff is indicated by an arrow pointing right.

EROSION CONTROL WITH SIDEWALK: This method shows a silt fence installed adjacent to a concrete sidewalk and curb & gutter. The fence is supported by 2x2 hardwood posts (42" min. to 6' max. spacing). The distance between the fence and the sidewalk is labeled "VARIES". The fence is installed in a trench 6" minimum deep. The direction of runoff is indicated by an arrow pointing right.

EROSION CONTROL WITHOUT SIDEWALK: This method shows a silt fence installed adjacent to a curb & gutter. The fence is supported by 2x2 hardwood posts (42" min. to 6' max. spacing). The distance between the fence and the curb is labeled "VARIES". The fence is installed in a trench 6" minimum deep. The direction of runoff is indicated by an arrow pointing right.

(D) FILTRATION BERM DETAIL

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CLEARWATER RIVER
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