

Contract Documents

Birch Lake IESF

White Bear Lake, Minnesota

Prepared for
Vadnais Lake Area Water Management Organization

August 2019

**TECHNICAL SPECIFICATIONS
BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION**

These specifications were prepared by Barr Engineering Co.



Barr Engineering Company
4300 MarketPointe Drive—Suite 200
Minneapolis, MN 55435

ENGINEER CERTIFICATION

I hereby certify that these Technical Specifications were 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.

A handwritten signature in black ink, appearing to read "Gregory J. Wilson". The signature is written in a cursive style with a horizontal line extending to the right.

Gregory J. Wilson, P.E.

Date: August 14, 2019 Registration No.: 25782



CONTRACT DOCUMENTS

BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION

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Advertisement for Bids

VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION

BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA

ADVERTISEMENT FOR BIDS

Sealed bids for Vadnais Lake Area Water Management Organization, Birch Lake Iron Enhanced Sand Filter (IESF) White Bear Lake, Minnesota will be received by the Owner at the office of Vadnais Lake Area Water Management Organization until 10:00 a.m., CST, Tuesday August 27, 2019 and then publicly opened and read aloud.

The Work consists of furnishing all labor, materials, equipment, skills, and performing all operations required to fully construct an iron enhanced sand filter (IESF). The Work includes, but is not limited to, mobilization and demobilization; installing erosion controls BMPs, silt fence, sediment logs, inlet protection, erosion control construction entrances, control of water and/or dewatering to perform work; removal of trees, stumps, and vegetation; protecting surrounding trees and vegetation, protection of existing wetland area not to be disturbed during construction, construction of gravel surface access driveway, excavation, grading and installation of iron enhanced sand filter, including providing water distribution features, drainage systems, and level control structure, and geotextile fabric liner; construction of control berm; construction of reinforced concrete walls with decorative stone finish (form liner) and water control stop logs; connecting to existing storm sewer and installing storm sewer piping, back flow preventer, and appurtenances; repair/replace and install riprap at outlet structures and drainage ditch; control of traffic at and around construction site, site restoration/seedling with native seed mixes; installing erosion control blanket on all exposed soil slopes. Clean-up of site, removal/disposal of temporary erosion control BMPs at the completion of Work, all as provided for in the Bidding Documents. All quantities and work items in this advertisement for bid are approximate and not guaranteed.

Complete digital project documents are available at www.questcdn.com. You may download the digital plan documents for thirty dollars (\$30.00) by inputting Quest Project # 6478643 on the website's Project Search page. Please contact QuestCDN.com at 952-233-1632 or info@questcdn.com for assistance in free membership registration, downloading, and working with this digital project information. An optional paper set of project documents may also be examined and/or obtained at the office of the Engineer. Potential bidders may obtain the documents for a nonrefundable price of one hundred dollars (\$100.00) per set. Please make your check payable to Barr Engineering Co. attention Sue Nelson at 4300 MarketPointe Drive, Suite 200, Bloomington, Minnesota 55435. Partial sets of documents will not be issued.



Instructions to Bidders

INSTRUCTIONS TO BIDDERS

VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA

ARTICLE 1 - DEFINED TERMS

1.01 Terms used in these Instructions to Bidders will have the meaning indicated in the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition) and the Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

A. *Bidder* - The individual or entity who submits a Bid directly to Owner, as distinct from a sub-bidder, who submits a bid to Bidder.

B. *Successful Bidder* - The lowest, qualified, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award. Upon execution of the Agreement, the Successful Bidder becomes the Contractor.

ARTICLE 2 - CONTRACT DOCUMENTS

2.01 The Contract Documents shall consist of the following:

- A. Written Amendment
- B. Change Orders
- C. Work Change Directives
- D. Agreement
- E. Purchase Order or similar document (if applicable)
- F. Field Orders and Field Memorandums
- G. Notice to Proceed
- H. Addenda
- I. Bid Form
- J. Instruction to Bidders
- K. Drawings
- L. Specifications



- M. Supplementary Conditions
- N. Standard General Conditions (EJCDC C-700, 2007 Edition)
- O. Advertisement for Bids
- P. Bonds

ARTICLE 3 - COPIES OF BIDDING DOCUMENTS

3.01 Complete sets of the Bidding Documents are available in electronic format on the Quest CDN website under Quest [CDN #6478643](#). A complete paper copy set of the Bidding Documents may also be obtained from the Engineer for the sum stated in the Advertisement for Bids.

3.02 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. Bidding documents will be provided to Bidders in electronic pdf format, but only hard copy printouts of the documents will be accepted as bid submissions.

3.03 Owner and Engineer in making copies of the Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

ARTICLE 4 - QUALIFICATIONS OF BIDDERS

4.01 To demonstrate qualifications to perform the Work, the low Bidder (if requested by the Owner), shall submit to Owner (with copy to Engineer), within three calendar days following the Owner's request, 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 relevant 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 and resources which demonstrate the Bidder's ability to successfully complete the Work; a list of subcontractors Bidder proposes to use; and such other information the Owner believes is necessary.



4.02 This project is funded in part by the Clean Water Legacy Fund Act. The local prevailing wage rates published by the Minnesota Department of Labor and Industry under Minnesota Statutes 2017. Section 177.41 to 177.44 or any succeeding statutes shall be the minimum rate paid to workers, laborers, and mechanics on the project. The wage rate requirements are included in the Contract Documents.

ARTICLE 5 - EXAMINATION OF CONTRACT DOCUMENTS AND SITE

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

5.02 Subsurface and Physical Conditions

A. *Subsurface and Physical Conditions:*

(No soil Borings or Test Samples)

B. *Existing Structures and above ground facilities:*

1. All existing above-ground structures, including but not limited to buildings, pavements, sidewalks, fences, utilities, and anything installed by others at the sites may not be shown on the Drawings and Bidder shall be responsible to verify the existence and location of all above ground structures and provide protection of those existing structures and above ground facilities. Bidder's Bid shall include the costs necessary for the performance, progress, furnishing, and installing of the Work as relates to protecting and/or replacing existing above ground structures that may be near the work areas and potentially be damaged as a part of the Work.



C. Underground Facilities and Utilities:

1. The known or suspected utilities located within the areas requiring excavation for the project are shown on the Drawings and bidder shall have noted responsibilities as described in the following paragraph C.3.

2. The Owner and Engineer have no reliable information regarding the existence of subsurface structures whether or not those are indicated in the Drawings, which are at or contiguous to the Work. If the Bidder suspects or verifies the existence of subsurface structures which may affect the cost, performance, progress, furnishing, or installing of the work in accordance with the Contract Documents prior to the time for the opening of bids, the Bidder shall notify Owner and Engineer promptly, in writing, of the conflict. If such an existing subsurface structure is located at any time thereafter, Owner and Engineer will consider the existing subsurface structure under the provisions for differing conditions.

3. Whether Underground Facilities and Utilities are shown or indicated, or not shown or indicated, on the Drawings the Contractor shall have the full responsibility for locating all Underground Facilities and Utilities prior to the performance of all elements of the Work. The additional responsibilities of Bidder regarding Underground Facilities and Utilities are set forth in the General Conditions. Underground utilities shown on the Drawings represent typical utility depths used by utility companies in the area, and do not necessarily represent the true depth or location of utilities at the site.

5.03 Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, Underground Facilities and Utilities) at or contiguous to the site or otherwise which may affect the cost, progress, performance or furnishing of the Work, and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents. Bidder's failure to conduct or perform such examinations, investigations, explorations, tests, and studies or obtain additional information, shall represent that Bid has included adequate cost contingencies as Bidder deems necessary for performing and



furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.

5.04 It is the Bidder's responsibility to obtain access to each site with permission from the Owner, to conduct such explorations and tests as Bidder deems necessary for submission of a Bid. Bidder shall be responsible for restoration of all such lands to a condition equal to or better than the existing conditions.

5.05 Except for the easements or construction limits indicated on the Drawings, all lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Owner may or may not be able to assist or aid Contractor with acquisition of lands and access thereto for purposes of construction other than areas identified on the Drawings.

5.06 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 5 and that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and by such means, methods, techniques, sequences or procedures of construction as may be specifically indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5.07 No plea of ignorance of conditions that exist or that may hereafter exist, or of difficulties that will be encountered in the execution of the Work, as a result will be accepted as a sufficient excuse for any failure or omission on the part of the Bidder to fulfill in every detail all the requirements of these Contract Documents, or will be accepted as a basis for any claim whatsoever for extra compensation or for an extension of time.

ARTICLE 6 - INTERPRETATIONS AND CLARIFICATIONS

6.01 Prior to the submittal of Bids, if any potential Bidder is in doubt as to the true meaning, or finds discrepancies in or omissions from the Contract Documents, that potential Bidder shall submit to the Engineer a written request for an interpretation or clarification thereof. The Bidder submitting the request shall be responsible for prompt delivery. Interpretations and clarifications



considered necessary by Engineer in response to such requests will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Contract Documents. Requests received less than three (3) calendar days prior to the date for opening of Bids may not be answered. Only interpretations and clarifications issued by Addenda will be binding. Oral interpretations and clarifications will be without legal effect. After execution of the Agreement clarifications and interpretations shall be directed to Engineer in accordance with Article 9 of the General Conditions.

6.02 The estimate of quantities as shown in the Bid Form shall be used as the basis for calculation upon which the award of Contract will be made and for calculation of the initial Contract Price, but these quantities are not guaranteed to be accurate and are furnished without liability on the part of Owner and Engineer. The actual quantities of the various items of work performed can be expected to differ (at times, significantly) from the estimates indicated on the Bid Form and will effect the final Contract Price. No additional compensation will be provided for actual quantities that differ from those shown on the bid form. The Contractor shall cooperate with and assist the Engineer as necessary to obtain the actual measurements required for the Engineer's determination of the actual quantities. The Contractor may also be required to furnish to the Resident Project Representative or Owner's representative, on a daily basis, daily reports stating information such as quantities of work performed, labor force used, hours worked, and equipment used.

6.03 It is the intent of the Contract Documents to cover all aspects of the Work. 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 necessary labor, materials and equipment shall be considered incidental to the Work and no additional compensation will be provided.

6.04 Any Addenda issued during the time of the bidding or forming a part of the Contract Documents loaned to the Bidder for the preparation of a Bid shall be included in the Bid and shall be made a part of the Contract Documents. Receipt of each Addendum shall be acknowledged on the Bid Form in the spaces provided.



ARTICLE 7 - BID SECURITY

7.01 Each Bid must be accompanied by Bid security made payable to the Owner in an amount of five (5) percent of the Bidder's total base Bid price and in the form of a certified or bank check or a Bid Bond issued by a surety meeting the requirements of paragraph 5.01.B of the General Conditions.

7.02 The Bid security of the apparent Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Performance and Payment Bonds and Certificates of Insurance, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement within seven (7) calendar days after Notice of Award, or within seven (7) calendar days after executable Agreement is sent to successful bidder, whichever is later, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited.

7.03 The Bid security of the second and third low Bidders may be retained until the earlier of the seventh (7) day after the Effective Date of the Agreement or the forty-sixth (46) day after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. Bid security of all other Bidders will be returned within ten (10) days after the Bid opening, although Bids shall remain subject to acceptance per Article 15 of these Instructions to Bidders.

ARTICLE 8 - CONTRACT TIME

8.01 The number of calendar days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Time) are set in paragraphs 8.02 through 8.04 below.

8.02 The Work shall commence not more than five calendar days after the date stated in the Notice to Proceed. The Owner expects that the date of the Notice to Proceed will be issued on or around September 11, 2019.

8.03 All Work shall be substantially complete by end of the day on November 8, 2019.

8.04 Work shall be complete and ready for final payment in accordance with paragraph 14.06 of the General Conditions not later than one (1) calendar week after the date for the Substantial Completion of the Work in accordance with paragraph 8.03 above.



ARTICLE 9 - LIQUIDATED DAMAGES

9.01 All time limits stated in these Contract Documents are of the essence of the Agreement.

9.02 Owner and Contractor recognize that time is of the essence with regard to completion of the Work, and that Owner may suffer financial loss if the Work is not substantially completed within the times specified in Article 8 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. Accordingly, Owner and Contractor agree that as liquidated damages for delay (but not as penalty), Contractor shall pay compensation to Owner for those reasonable additional claims, costs, losses, and damages sustained by Owner for each working day that expires after the time specified for Substantial Completion of the Work. After substantial completion, if Contractor shall neglect, refuse, or fail to complete the Work within the Contract Time specified in Article 8 above or any proper extension thereof granted by Owner, Contractor shall pay compensation to Owner for those reasonable additional claims, costs, losses, and damages sustained by Owner for each working day that expires after the time specified in Article 8 above for completion and readiness for final payment.

ARTICLE 10 - SUBSTITUTE OR "OR-EQUAL" ITEMS

10.01 The Agreement, if awarded, will be on the basis of materials and equipment described in the Drawings or stated in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or stated in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if approved, application for such approval will not be considered by Engineer until after the Effective Date of the Agreement. The procedure for submission of any such application and consideration of application is set forth in the General Requirements and in Paragraphs 6.05.A, 6.05.B, 6.05.C, 6.05.D, 6.05.E, and 6.05.F of the General Conditions.

ARTICLE 11 - BID FORM

11.01 The Bid Form is included with these Contract Documents; additional copies may be obtained from Engineer or downloaded from Quest CDN.



11.02 The Bid Form may be completed in ink or by typewriter, or may be printed from its electronic pdf form.

11.03 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.

11.04 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

11.05 All names must be typed or printed below the signature.

11.06 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).

11.07 The address and telephone number for communications regarding the Bid must be shown on the Bid Form.

ARTICLE 12 - SUBMISSION OF BIDS

12.01 Bids shall be submitted as follows:

- A. Oral proposals or modifications will not be considered.
- B. It is the sole responsibility of the Bidder to see that his bid proposal is received at the proper place and in proper time. Any proposal received after the scheduled closing time for receipt of the proposals will be rejected.
- C. In case of a difference between the unit prices and the extensions of the unit price, the unit prices shall govern. Discrepancies between the indicated sum of any column of numbers and the correct sum thereof shall be resolved in favor of the correct sum.
- D. All bid proposals shall be submitted on the unaltered forms included with these Contract Documents. The blank spaces on the proposals shall be filled in correctly in ink, typewritten



or printed where indicated for each and every item for which a quantity is given, and the Bidder shall clearly indicate the unit prices for which he proposes to do each item of work contemplated. Additional copies of the Bid Form and other forms may be obtained from the Engineer or downloaded from Quest CDN (#6478643).

- E. The Bid Form including required attachments shall be submitted in a sealed envelope clearly marked:

BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION

and the name of the Bidder.

- F. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notification "BID ENCLOSED" on its face.
- G. Either at the time of submitting the Bid Documents, but no later than 2 days after being notified of being the Successful Bidder, Bidder shall provide a "Successful Bidder Contractor Affidavit/Oath". Failure to provide said documentation may be cause for Owner to reject said Bid.
- H. Bid proposal shall be delivered to:

Vadnais Lake Area Water Management Organization
800 East County Road E.
Vadnais Heights, Minnesota 55127
Attn: Stephanie McNamara, Administrator

- I. Bids shall be received not later than the date and time stated in the Advertisement for Bids unless modified by Addendum.

ARTICLE 13 - MODIFICATION AND WITHDRAWAL OF BIDS

13.01 Bids may be withdrawn without prejudice to the Bidder by submitting a written request to the Owner at the address specified for the submission of Bids at any time prior to the time set for receipt of Bids. The request for withdrawal shall be executed in the manner a Bid must be



executed; the request must be signed in the same manner and by the same person or persons who signed the bid and should not reveal the amount of the bid; if such request for withdrawal is not explicit and if it is in any sense subject to misinterpretation, the Bid shall be subject to either acceptance or rejection, as may be in the best interest of the Owner, and in its discretion. Withdrawn Bids may be modified and resubmitted anytime prior to the time set for the opening of Bids. Requests shall be clearly marked "Request for Withdrawal of Bid" and labeled with the project name.

ARTICLE 14 - OPENING OF BIDS

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

ARTICLE 15 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

15.01 All bids will remain subject to acceptance for forty-five (45) calendar days after the Bid opening, but Owner may, in its sole discretion, release any Bid prior to that date. Bid security shall be returned as stated in Article 7 of these Instructions to Bidders.

ARTICLE 16 - REJECTION OF BIDS AND AWARD OF CONTRACT

16.01 Owner reserves the right to reject any and all bids and the right to disregard all non-conforming, non-responsive, unbalanced or conditional bids. However, Owner reserves the right to waive any and all informalities and negotiate contract terms with the successful bidder, provided the informality does not materially alter the bid price, time or changes in work. Owner defines "material alteration" as a change in a bid price, time or work which causes the apparent low bidder to no longer be the apparent low bidder." Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Discrepancies in the multiplication of units of Work and unit prices (if used) shall be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof shall be resolved in favor of the correct sum.



16.02 Owner reserves the right to award the bid in its sole discretion, if a bid is awarded, to the apparent lowest responsible bidder which the Owner deems will be in the best interest of the project. **The lowest bid, in the project award process, will refer to the base bid, not including bid alternates.**

A. Owner may use the following, all or in part, to aid them in determining the lowest responsible bidder. Those items include, but not be limited to, the statement of experience and qualifications (if requested), current work commitments, information gathered from references, financial viability of Bidder, Owner's past experience with bidder (if any), and the proposed schedule for performing all the work (Article 4) as well as the Bid prices.

B. Owner's selection of the lowest responsible bidder shall be final.

16.03 If the contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within forty-five (45) calendar days after the day of the Bid opening.

ARTICLE 17 - CONTRACT SECURITY

17.01 Paragraphs 5.01 and 5.02 of the General Conditions set forth Owner's requirements as to the Performance Bond and the Payment Bond. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by the required Performance Bond and Payment Bond.

ARTICLE 18 - SIGNING OF AGREEMENT

18.01 When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within seven (7) calendar days thereafter Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner, via the Engineer, in accordance with the instructions for delivery in the Notice of Award along with the required Bonds, evidence of insurance, and any other required submittals.

18.02 Owner or Engineer will review required submittals and may require Successful Bidder to make revisions. Successful Bidder shall make required revisions and resubmit to Owner within seven (7) calendar days of Owner's request for such revision. Within seven (7) days after receipt of



all acceptable materials, Owner will deliver one (1) fully signed counterpart of the Contract Documents to Contractor. Each counterpart is to be accompanied by a complete set of the Contract Documents with appropriate identification.

ARTICLE 19 - PAYMENT AND RETAINAGE

19.01 Provisions concerning progress payments and final payment are set forth in Article 14 of the General Conditions as modified by the Supplementary Conditions.

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

19.03 Retainage shall be 5 percent of the value of the Work completed.

ARTICLE 20 - PRE-BID MEETING

20.01 A pre-bid meeting will not be held.

ARTICLE 21 - PRECONSTRUCTION CONFERENCE

21.01 Prior to the beginning of construction operations, a preconstruction conference will be held as provided for by paragraph 2.06 of the General Conditions.

ARTICLE 22 - CONSTRUCTION LIMITS

The construction limits shall be as described on the Drawings.



Bid Form

BID FORM

**BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION**

THIS BID FOR: **BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA**

IS SUBMITTED TO:

Vadnais Lake Area Water Management Organization
800 East County Road E.
Vadnais Heights, Minnesota 55127
Attn: Stephanie McNamara

ARTICLE 1

1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time and in accordance with the other terms and conditions of the Contract Documents.

ARTICLE 2

2.01 Bidder accepts all of the terms and conditions of Advertisement for Bids (00 11 13) and Instructions to Bidders (00 21 13), including without limitation those dealing with the disposition of Bid Security, and other Contract Documents. This Bid will remain subject to acceptance as set forth in the Instruction to Bidders. Bidder shall sign and submit the Agreement with the Performance Bonds, Payment Bond, and other documents required by the Contract Documents within ten (10) days after the date of Owner’s Notice of Award.

ARTICLE 3

3.01 In submitting this Bid, Bidder represents, as more fully set forth in the Contract Documents, and incorporated into the Agreement by reference, that:

- A. Bidder has examined copies of all the Bidding Documents and of the following Addenda (receipt of all of which is hereby acknowledged):

No.	Date	Addendum Number	Signature
1			
2			
3			



- B. Bidder has familiarized himself/herself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- C. Bidder has studied carefully all Above-Ground, Subsurface and Physical Conditions as they relate to above-ground, subsurface conditions, existing structures, and underground facilities and utilities as identified in paragraphs 5.02.A, 5.02.B, and 5.02.C of the Instructions to Bidders, and accepts the terms of paragraphs 5.02.A, 5.02.B, and 5.02.C in the Instructions to Bidders as to the extent of the technical data upon which Bidder is entitled to rely.
- D. Bidder has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, studies, and drawings which pertain to the surface and subsurface or physical conditions at the site or otherwise may affect the cost, progress, performance or furnishing of the Work as Bidder considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraphs 5.02.A and 5.02.B of the Instructions to Bidders; and no additional examinations, investigations, explorations, tests, reports or similar information or data are or will be required by Bidder for such purposes.
- E. Bidder has reviewed and checked all information and data with respect to existing Underground Facilities and Utilities at or contiguous to the site whether shown or indicated, or not shown or indicated, on the Drawings and Bidder assumes full responsibility for the accurate location of said Underground Facilities and Utilities prior to the performance of all elements of the Work. No additional examinations, investigations, explorations, tests, reports or similar information or data in respect of said Underground Facilities and Utilities are or will be required by Bidder in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 5.02.C of the Instructions to Bidders and paragraphs 4.04.A and 4.04.B of the General Conditions.
- F. Bidder has correlated the results of all such observations, examinations, investigations, explorations, tests, reports, studies, and drawings with the terms and conditions of the Contract Documents.
- G. Bidder has given Engineer written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder.
- H. This Bid is genuine and not made in the interest of 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 corporation to refrain from bidding.

- I. This Bid has been arrived at the Bidder independently, and has been submitted without collusion with, and without any agreement, understanding, or planned common course of action with any other Bidder or vendor of materials, supplies, equipment or services described in the Contract Documents designed to, or acting to, limit independent bidding or competition.
- J. This Bid has 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, and will not be communicated to any such person prior to the opening of the Bid.

ARTICLE 4

4.01 Bidder will complete the Work for the following price(s) as referenced in Section 01 22 00 Unit Price Measurement and Payment of the Specifications:

A. BID ITEMS

Item	Description	Unit	Estimated Quantity	Unit Price	Extension
General					
1.04.A	Mobilization/Demobilization	L.S.	1		
1.04.B	Control of Water	L.S.	1		
1.04.C	Traffic Control	L.S.	1		
1.04.D	Construction Entrance (Wood Chip)	EACH	1		
1.04.E	Clear and Grub; Removal of Trees, Brush, and Debris (Disposal Off Site)	L.S.	1		
1.04.F	Silt Fence	L.F.	416		
1.04.G	Sediment Log (9-Inch Diameter)	L.F.	50		
1.04.H	Inlet Protection	EACH	2		
1.04.I	Erosion Control Blanket	S.Y.	304		
1.04.J	Access Mud Mats Through Wetland	L.S.	1		
1.04.K	Salvage and Replace Existing Top Soil (P)	C.Y.	25		
1.04.L	Common Excavation (P)	C.Y.	60		
1.04.M	Construct Control Berm Embankment (P)	C.Y.	25		
1.04.N	Reinforced Concrete Wall with Footings, Decorative Rock Face and Water Control Stop Log Slot	L.S.	1		
1.04.O	Stop Logs and Rails	L.S.	1		
1.04.P	Disposal of Excess Excavated Materials	C.Y.	35		
1.04.Q	Geotextile Fabric Sand Filter Liner, Mn/DOT Type V	S.Y.	150		
1.04.R	Iron Aggregate (Filings)	TON	3.5		



Item	Description	Unit	Estimated Quantity	Unit Price	Extension
1.04.S	Clean Washed Filter Sand	TON	70		
1.04.T	Connect to Existing 30" RCP, Core Drill and Install Inserta-Tee Water Tight Fitting for 10" CPEP	EACH	1		
1.04.U	10" Dual Wall CPEP-WT with 45 Degree Bend	L.F.	60		
1.04.V	8" Slotted PVC Underdrain Pipe	L.F.	38		
1.04.W	10" Backflow Preventer	EACH	1		
1.04.X	30" PVC Nyloplast™ Control Structure with Locking Dome Gate	EACH	1		
1.04.Y	12" PVC Nyloplast™ Cleanout Structure with Locking Dome Gate	EACH	1		
1.04.Z	Remove and Dispose of Existing Rip Rap	C.Y.	20		
1.04.AA	Rip Rap Mn/DOT Class III and Filter Materials	TON	15		
1.04.AA	Rip Rap Mn/DOT Class II and Filter Fabric	TON	18		
1.04.AB	Gravel Surface Driveway	S.Y.	122		
1.04.AC	Seed Area	S.Y.	405		
1.04.AD	Wet Prairie, BWSR Seed Mix 34-262	LBS.	1.12		
1.04.AE	Mesic Prairie Southeast, BWSR Seed Mix 35-641	LBS.	1.25		
1.04.AF	Site Restoration and Clean-up	L.S.	1		
TOTAL BASE BID =					

(in words) _____ Dollars (\$ _____)

4.02 Quantities are not guaranteed and are expected to vary. Final payment will be based on actual quantities of work performed as determined by the Engineer in accordance with Article 9 of the General Conditions.

ARTICLE 5

5.01 Bidder agrees that the entire Work will be substantially complete and completed and ready for final payment in accordance with Article 14 of the General Conditions within the number of calendar days, or by the date, provided in Article 8 of the Instructions to Bidders.

5.02 Bidder accepts the provisions of the Contract Documents as to liquidated damages in the event of failure to complete the Work on time.

ARTICLE 6

6.01 Bid Security meeting the requirements set forth in the Instruction to Bidders is attached to and made a condition of this Bid.



ARTICLE 7

7.01 Bidder understands and agrees that Owner reserves the right to reject any or all Bids and to waive formalities. It is further understood and agreed that this Bid may not be withdrawn within forty-five (45) calendar days following opening of Bids.

ARTICLE 8

8.01 The terms used in this Bid which are defined in the other Contract Documents have the meanings assigned to them in the Contract Documents.

ARTICLE 9

9.01 Communications concerning this Bid shall be addressed to the address of Bidder indicated below.

THIS BID IS SUBMITTED BY:

Firm Name _____

By (Typed or Printed): _____

Signature: _____

Title: _____

Official Address: _____

Phone: () _____

Federal Tax I.D. No. _____

Date: _____



Successful Bidder Contractor Affidavit/Oath

- (iv) has been found by the commissioner of labor and industry to have repeatedly or willfully violated any of the sections referenced in this clause pursuant to section 177.27;
- (v) has been issued a ruling or findings of underpayment by the administrator of the Wage and Hour Division of the United States Department of Labor that have become final or have been upheld by an administrative law judge or the Administrative Review Board; or
- (vi) has been found liable for underpayment of wages or penalties or misrepresenting a construction worker as an independent contractor in an action brought in a court.

Provided that, if the Contractor or related entity contests a determination of underpayment by the Department of Transportation in a contested case, a violation does not occur until the contested case proceeding has concluded with a determination that the Contractor or related entity underpaid wages or penalties;

(3) The Contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 181.723 or chapter 326B. For purposes of this clause, a violation occurs when a Contractor or related entity has been issued a final administrative or licensing order;

(4) The Contractor or related entity has not, more than twice during the three-year period before submitting the verification, had a certificate of compliance under section 363A.36 revoked or suspended based on the provisions of section 363A.36, with the revocation or suspension becoming final because it was upheld by the Office of Administrative Hearings or was not appealed to the office;

(5) The Contractor or related entity has not received a final determination assessing a monetary sanction from the Department of Administration or Transportation for failure to meet targeted group business, disadvantages business enterprise, or veteran-owned business goals, due to a lack of good faith effort, more than once during the three-year period before submitting the verification;

(6) The Contractor or related entity is not currently suspended or debarred by the federal government or the state of Minnesota or any of its departments, commissions, agencies, or political subdivisions; and

(7) The Contractor intends to use the Subcontractors and/or Motor Carriers to perform work listed herein on Exhibit A. The Contractor shall obtain and submit a supplemental verification, Minnesota Statute §16C.285, subdivision 5, that said subcontractors and motor carriers meet the responsible Contractor's requirements.

Any violations, suspensions, revocations, or sanctions, as defined in clauses (2) to (5), occurring prior to July 1, 2014, shall not be considered in determining whether a Contractor or related entity meets the minimum criteria.



THE UNDERSIGNED HEREBY VERIFIES THAT HE OR SHE IS AN OWNER OR AN OFFICER OF SAID COMPANY AND IS IN A POSITION TO BIND THE COMPANY TO THE TERMS OUTLINED HEREIN.

Dated: _____

PRIME CONTRACTOR:

[PRIME CONTRACTOR NAME]

By _____
Its _____

Subscribed and sworn to before me
this ____ day of _____, ____.

Notary Public



VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION
SUCCESSFUL BIDDER SUBCONTRACTOR VERIFICATION- EXHIBIT A

The foregoing are Subcontractors and/or Motor Carriers that the Contractor intends to use to perform work:

The undersigned Contractor hereby verifies to the Contracting Authority that it has obtained Contractor and Subcontractor Verifications for the above-listed Subcontractors. Copies of said signed Verifications of Compliance from all Subcontractors may be provided upon request.

Furthermore, if additional Subcontractors are added to the list, a Verification for each new Subcontractor shall be obtained by Contractor within fourteen (14) days of retaining the additional Subcontractor.

The undersigned and all the foregoing Subcontractors hereby understand the following:

- Any Prime Contractor or Subcontractor that does not meet the minimum criteria as noted in the responsible Contractor Document, or fails to verify that it meets those criteria is not a responsible Contractor and is not eligible to be awarded a Construction Contract for the Project or perform work on the Project.
- Furthermore, a false statement under oath verifying compliance with any of the minimum criteria shall render the Prime Contractor or Subcontractor that makes the false statement ineligible to be awarded a Construction Contract on the Project and may result in termination of a Contract awarded to a Prime Contractor or Subcontractor that submits a false statement.
- Furthermore, the Prime Contractor shall submit to the Contracting authority, upon request, copies of all signed Verifications of Compliance from all said Contractor on any tier.

THE UNDERSIGNED HEREBY VERIFIES THAT HE OR SHE IS AN OWNER OR AN OFFICER OF SAID COMPANY AND IS IN A POSITION TO BIND THE COMPANY TO THE TERMS OUTLINED HEREIN.

SUBSCRIBED AND SWORN TO BEFORE
THIS ____ DAY OF _____, ____.

Notary Public

PRIME CONTRACTOR:
[PRIME CONTRACTOR NAME]

By _____

Its _____



Prevailing Wages

STATE FUNDED ONLY CONSTRUCTION CONTRACTS

SPECIAL PROVISIONS DIVISION A - LABOR

I. INTRODUCTION

- A. **Policy Statement.** It is in the public interest that public buildings and other public works projects be constructed and maintained by the best means and the highest quality of labor reasonably available and that persons working on public works projects be compensated according to the real value of the services they perform.¹
- B. **State Regulations Govern.** This Contract is subject to the Minnesota Prevailing Wage Act², Minnesota Fair Labor Standards Act³, Minnesota Rules⁴, Minnesota Department of Labor and Industry (MnDLI) Wage Decision(s), and the MnDLI Truck Rental Rate Schedule.
- C. **Purpose.** These provisions: (1) outline your obligations under state and federal laws, rules and regulations; (2) explain the requirements necessary to demonstrate compliance; and (3) explain the processes that the Department will undertake to ensure compliance.
- D. **Questions or Resources.** Please visit the Minnesota Department of Transportation (MnDOT) Labor Compliance Unit (LCU) website at: www.dot.state.mn.us/const/labor.

II. DEFINITIONS

Many of the terms used in these provisions are defined in MnDOT's Standard Specifications for Construction,⁵ unless defined below.

- A. **Apprentice.** A Worker at least 16 years of age who is employed to learn an apprenticeable trade or occupation in a registered apprenticeship program.⁶
- B. **Bona Fide.** Made or carried out in good faith; authentic.⁷
- C. **Certified Payroll Report (CPR).** A report comprised of two components; (1) a payroll report, and (2) a statement of compliance report.⁸
- D. **Contractor.** An individual or business entity that is engaged in construction or construction service-related activities including trucking activities either directly or indirectly through a Contract, or by Subcontract with the Prime Contractor, or by a further Subcontract with any other person or business entity performing Work.⁹
- E. **Employer.** An individual, partnership, association, corporation, business trust, or other business entity that hires a Worker.¹⁰
- F. **Fringe Benefit.** An employment benefit given in addition to a Worker's wages or salary.¹¹
- G. **Independent Truck Owner/Operator (ITO).** An individual, partnership, or principal stockholder of a corporation who owns or holds a vehicle under lease and who contracts that vehicle and the owner's services to an entity which provides construction services to a public works project.¹²

¹ Minn. Stat. 177.41

² Minn. Stat. 177.41 to 177.44

³ Minn. Stat. 177.21 to 177.35

⁴ Minn. R. 5200.1000 to 5200.1120

⁵ MnDOT Standard Specifications for Construction, Section 1103

⁶ Minn. Stat. 178.011, Subdivision 2

⁷ The American Heritage College Dictionary, Third Edition, 2000

⁸ Minn. R. 5200.1106, Subpart 10

⁹ Minn. R. 5200.1106, Subpart 2(D)

¹⁰ Minn. Stat. 177.42, Subdivision 7

¹¹ The American Heritage College Dictionary, Third Edition, 2000

¹² Minn. R. 5200.1106, Subpart 7(A)

- H. **Journeyworker.** A person who has attained a level of skill, abilities, and competencies recognized within and industry as having mastered the skills and competencies required for the trade or occupation.¹³
- I. **Prime Contractor.** An individual or business entity that enters into a Contract with the Department.¹⁴
- J. **Subcontract.** A Contract that assigns some obligations of a prior Contract to another party.¹⁵
- K. **Substantially In Place.** Mineral aggregate is deposited on the project site directly or through spreaders where it can be spread from or compacted at the location where it was deposited.¹⁶
- L. **Total Prevailing Wage Rate.** The sum of the prevailing hourly “basic” and “fringe” rate that is established in a Wage Decision.
- M. **Trucking Broker (Broker).** An individual or business entity, the activities of which include, but are not limited to: contracting to provide trucking services in the construction industry to users of such services, contracting to obtain such services from providers of trucking services, dispatching the providers of the services to do Work as required by the users of the services, receiving payment from the users in consideration of the trucking services provided, and making payment to the providers for the services.¹⁷
- N. **Trucking Firm/Multiple Truck Owner (MTO).** Any legal business entity that owns more than one vehicle and hires the vehicles out for services to Trucking Brokers or Contractors on public works projects.¹⁸
- O. **Truck Rental Rate Schedule.** A document prepared by the MnDLI through a Contractor survey process that identifies the required hourly Total Prevailing Wage Rate and operating cost for various types of trucks that perform hauling activities (Work) under a Contract that is funded in whole or in part with state funds.¹⁹
- P. **Wage Decision.** A document prepared by the MnDLI through a Contractor survey process that identifies the required hourly basic rate of pay and hourly Fringe Benefits for various labor classifications that perform Work under a Contract that is funded in whole or in part with state funds.²⁰
- Q. **Work (Work).** All construction activities associated with a public works project, including any required hauling activities on-the-site-of or to-or-from a public works project and conducted pursuant to a Contract, regardless of whether the construction activity or Work is performed by the Prime Contractor, subcontractor, Trucking Broker, Trucking Firm (MTO), ITO, independent contractor, or employee or agent of any of the foregoing entities.²¹
- R. **Worker (Laborer or Mechanic).** A Worker in a construction industry labor class identified in or pursuant to Minnesota Rules 5200.1100, Master Job Classifications.²²

III. APPLICATION & UNDERSTANDING

- A. **Provisions & Prevailing Wage Rates Apply.** These provisions, along with the prevailing Wage Decision(s) that are incorporated into the Contract, apply to all Contractors contracting to do all or part of the Work.²³

¹³ Minn. Stat. 178.011, Subdivision 9

¹⁴ Minn. R. 5200.1106, Subpart 2(C)

¹⁵ The American Heritage College Dictionary, Third Edition, 2000

¹⁶ Minn. R. 5200.1106, Subpart 5(C)

¹⁷ Minn. R. 5200.1106, Subpart 7(C)

¹⁸ Minn. R. 5200.1106, Subpart 7(B)

¹⁹ Minn. R. 5200.1105

²⁰ Minn. R. 5200.1020 to 5200.1060

²¹ Minn. R. 5200.1106, Subpart 2(A)

²² Minn. R. 5200.1106, Subpart 5(A)

²³ Minn. Stat. 177.44, Subdivision 1

- B. **Truck Rental Rates Apply.** The Truck Rental Rate Schedule incorporated into the Contract applies to all hired trucking entities that perform covered hauling activities related to the project.²⁴
- C. **Prevailing Wage Terms Must Be Included in All Contracts.** The Prime Contractor is required to ensure that all subcontractors performing Work receive the Contract Wage Decision(s), Truck Rental Rate Schedule, and a copy of these provisions with their written Subcontracts, agreements and/or purchase orders.²⁵
- D. **Responsible for Understanding All Requirements.** Each Contractor is responsible for understanding all laws, rules, regulations, plans, and specifications that are incorporated physically, or by reference, into the Contract.²⁶
- E. **E-Verify.** For services valued in excess of \$50,000, the Contractor certifies that as of the date of services performed on behalf of State, the Contractor will have implemented or be in the process of implementing the federal E-Verify program for all newly hired employees in the United States who will perform work under the contract. The Prime Contractor is responsible to collect all subcontractor certifications and may do so utilizing the E-Verify Subcontractor Certification Form available at <http://www.mmd.admin.state.mn.us/doc/EverifySubCertForm.doc>. All subcontractor certifications must be kept on file with the Prime Contractor and made available to the State upon request.

IV. **VENDOR REGISTRATION**

Vendor Registration Required. A Contractor that performs Work, supplies material, or product must be registered with MnDOT. The Contractor must complete and submit a vendor form²⁷ to the MnDOT LCU²⁸, along with all applicable documentation that is required. This registration process is separate and distinct from other state agency requirements.

V. **LABOR CLASSIFICATIONS**

- A. **Labor Classification Assignment.** A Worker must be paid at least the Total Prevailing Wage Rate in the same or most similar trade or occupation.²⁹ To determine the appropriate labor classification for a Worker, a Contractor must refer to the Wage Decision(s) incorporated into the Contract, the labor classification descriptions for laborers and special crafts established in Minnesota Rules or the United States Department of Labor's Dictionary of Occupational Titles.³⁰
- B. **Labor Classification Clarification & Disputes.** A Contractor needing assistance in determining a labor classification must submit a Classification Clarification Request³¹ to the MnDOT LCU for a written decision. If the Contractor chooses to contest the classification assignment, it must provide written notice to the MnDOT LCU. The MnDOT LCU will forward the matter to the MnDLI for a final ruling.
- C. **Performing Work in Multiple Labor Classifications.** For Workers performing Work in multiple labor classifications, the Contractor must compensate at a minimum the Total Prevailing Wage Rate, and report the hours worked, in each applicable labor classification.³²

VI. **WAGE DECISION(S) & WAGE RATE(S)**

- A. **Applicability of a Highway and Heavy Wage Decision.** A highway and heavy Wage Decision applies to a Worker that is engaged in a construction activity or performing Work to construct or maintain a highway or other public works project, such as a road, street, airport runway, bridge,

²⁴ Minn. Stat. 177.44, Subdivision 3

²⁵ MnDOT Standard Specifications for Construction, Section 1801

²⁶ MnDOT Standard Specifications for Construction, Section 1701

²⁷ www.dot.state.mn.us/const/labor/documents/forms/contractorform2016.pdf for www.dot.state.mn.us/const/labor/documents/forms/truckvendorform2016.pdf

²⁸ lcusupport.dot@state.mn.us

²⁹ Minn. Stat. 177.44, Subdivision 1

³⁰ Minn. R. 5200.1101 and 1102 and USDOL Dictionary of Occupational Titles

³¹ <http://www.dot.state.mn.us/const/labor/documents/forms/classification-clarification-request.pdf>

³² Minn. Stat. 177.44, Subdivision 1

power plant, dam or utility³³ that is external to a sheltered enclosure (structure). This includes, but is not limited to, the following Work: site clearing; grading; excavating backfilling; paving; curbs; gutters; sidewalks; culverts; bridges; lighting systems; traffic management systems; installing of utilities out from an exterior meter; fuel islands; communication towers; or other activities similar to highway and/or heavy Work.

- B. **Applicability of a Commercial Wage Decision.** A commercial Wage Decision applies to a Worker that is engaged in a construction activity or performing Work to construct a sheltered enclosure (structure) with walk-in access for the purpose of housing persons, machinery, equipment or supplies.³⁴ This includes, but is not limited to, the following Work: constructing foundations, aprons, stoops; framing walls; installing windows, doors, tiling, plumbing, electrical, HVAC systems; roofing; installing utilities into the building from an exterior meter.
- C. **Pay According to Wage Decision(s).**
1. **Contract with One Wage Decision.** If the Contract contains one Wage Decision, the Contractor must examine the Wage Decision and compensate the Worker at a minimum the Total Prevailing Wage Rate for the appropriate labor classification(s).
 2. **Contract with Multiple Highway/Heavy Wage Decisions.** If the Contract contains multiple Highway/Heavy Wage Decisions, the Contractor must examine each Wage Decision and compensate the Worker, at a minimum, the Total Prevailing Wage Rate that is the greatest³⁵ for the appropriate labor classification(s).
 3. **Contract with Highway/Heavy and Commercial Wage Decision(s).** If the Contract contains a Highway/Heavy and Commercial Wage Decision(s), the Contractor must first determine which Wage Decision is applicable to the Worker. The Contractor must then compensate the Worker, at a minimum, the Total Prevailing Wage Rate for the appropriate labor classification(s).
- D. **Must Pay Total Prevailing Wage Rate.** A Contractor must compensate each Worker, at a minimum, the Total Prevailing Wage Rate(s) for all hours worked on the project for the appropriate labor classification(s).³⁶
- E. **Missing Wage Rate.** If a Wage Decision fails to include a wage rate for a labor classification(s) that will be utilized on a project, the Contractor must obtain a wage rate prior to furnishing an estimate, quote or bid.³⁷
1. **Wage Rate Request.** A Contractor must complete a Request for Rate Assignment form³⁸ and submit it to the MnDOT LCU³⁹ for processing.
 2. **No Contract Price Adjustment for Missing Wage Rate.** If MnDLI determines that a higher wage rate applies, the Department will not reimburse the Contractor.
- F. **Salaried Worker.** A salaried Worker is not exempt from these Provisions. A Contractor must convert the Worker's salary to an average hourly rate of pay by dividing the Worker's salary by the total number of hours Worked (government and non-government) during the pay period.⁴⁰ A salaried Worker must be included on a CPR.
- G. **Reduction in Standard (Private) Contractual Regular Rate of Pay Prohibited.** A Contractor must not reduce a Worker's standard, contractual regular rate of pay when the prevailing wage rate(s) certified by the MnDLI is less.⁴¹

³³ Minn. R. 5200.1010, Subdivision 3

³⁴ United States Department of Labor All Agency Memorandum #130

³⁵ Minn. Stat. 177.44, Subdivision 4

³⁶ Minn. Stat. 177.44, Subdivision 1

³⁷ Minn. R. 5200.1030, Subpart 2a(C)

³⁸ <http://www.dot.state.mn.us/const/labor/documents/forms/request-for-rate-assignment.doc>

³⁹ lcusupport.dot@state.mn.us

⁴⁰ Refer to Appendix A

⁴¹ Minn. Stat. 181.03, Subdivision 1(2)

- H. **Prohibited Payment Practices.** A Contractor is prohibited from taking (accepting) a rebate for the purpose of reducing or otherwise decreasing the value of the compensation paid.
- I. **Prohibited Deductions.** No deductions, direct or indirect, may be made for the items listed below which when subtracted from wages would reduce the wages below Minnesota's minimum wage rate as established in section 177.24⁴²
1. **Uniforms.** Purchased or rented uniforms or specifically designed clothing that is required by the Employer, by the nature of employment, or by statute, or as a condition of employment, which is not generally appropriate for use except in that employment.
 2. **Equipment.** Purchased or rented equipment used in employment, except tools of a trade, a motor vehicle, or any other equipment which may be used outside the employment. The cost of the Worker's use of equipment used outside of employment, such as tools, a motor vehicle, cell phone, may be deducted only if an agreement between the Employer and employee existed prior to the deduction.
 3. **Supplies.** Consumable supplies required in the course of employment.
 4. **Travel Expenses.** Travel expenses in the course of employment except those incurred in traveling to and from the employee's residence and place of employment.

VII. HOURS OF WORK

- A. **Work Performed Under the Contract.** A Worker performing Work is subject to prevailing wage for all hours associated with the Contract⁴³, unless the Worker is exempt under state law.⁴⁴
- B. **Wait Time Subject to Prevailing Wage.** A Worker who is required to remain on the project and is waiting to Work because of the fault of the Contractor is considered "engaged to wait" and subject to prevailing wage for the time spent, unless the Worker is completely relieved of duty and free to leave the project for a defined period of time.

VIII. FRINGE BENEFITS

- A. **Funded Fringe Benefit Plan Criteria.** In order for a funded Fringe Benefit (e.g., health/medical insurance, disability insurance, life insurance, pension, etc.) to be considered and creditable towards the Total Prevailing Wage Rate it must be:⁴⁵
1. a contribution irrevocably made by a Contractor on behalf of an Worker to a financially responsible trustee, third person, fund, plan, or program;
 2. carried out under a financially responsible plan or program;
 3. legally enforceable;
 4. communicated in writing to the Worker; and
 5. made available to the Worker once he/she has met all eligibility requirements.
- B. **Unfunded Fringe Benefit Plan Criteria.** In order for a unfunded Fringe Benefit (e.g., vacation, holiday, sick leave, etc.) to be considered and creditable towards the Total Prevailing Wage Rate it must be:⁴⁶
1. reasonably anticipated to provide a benefit;
 2. a commitment that can be legally enforced;

⁴² Minn. Stat. 177.24, Subdivision 4(1-4)

⁴³ Minn. Stat. 177.44, Subdivision 1

⁴⁴ Minn. Stat. 177.44, Subdivision 2 or Minn. R. 5200.1106, Subpart 4

⁴⁵ Minn. Stat. 177.42, Subdivision 6

⁴⁶ Minn. Stat. 177.42, Subdivision 6

3. carried out under a financially responsible plan or program;
 4. communicated in writing to the Worker; and
 5. made available to the Worker once he/she has met all eligibility requirements.
- C. **Fringe Benefit Contributions for Hours Worked.** A Contractor that provides Fringe Benefits to a Worker must make contributions, not less than quarterly⁴⁷, for all hours worked,⁴⁸ including overtime hours, unless it's a defined benefit or contribution plan that provides for immediate participation and immediate or essentially immediate vesting (**see subpart D2 of this section**).
- D. **Hourly Fringe Benefit Credit.** An hourly Fringe Benefit credit toward the Total Prevailing Wage Rate must be determined separately for each Worker based on one or more of the following methods:
1. **Monthly, Quarterly or Annual Computation Methods.** A Contractor must compute its monthly, quarterly or annual cost of a particular Fringe Benefit and divide that amount by the estimated total number of hours worked (government and non-government) during the time frame used.⁴⁹ Typical plans that require monthly, quarterly or annual computations include but are not limited to: health/medical insurance, disability insurance, life insurance, vacation, holiday, sick leave and defined benefit or contribution pension plans that do not provide for immediate participation and immediate or essentially immediate vesting.
 2. **Fringe Benefit Credit not Requiring Monthly, Quarterly or Annual Computation Methods.** A defined benefit or contribution pension plan that allows for a higher hourly rate of contribution for government work (prevailing wage) than non-government (non-prevailing wage) will be fully credited only if the plan provides for immediate participation and immediate or essentially immediate vesting.
- E. **Wages In Lieu of Fringe Benefits.** A Contractor that does not provide full Fringe Benefits must compensate a Worker the difference between the Total Prevailing Wage Rate and the rate actually paid for the appropriate labor classification(s). The compensation paid is considered wages and subject to tax liabilities.
1. **Overtime.** The cash equivalent (wages paid) made in lieu of Fringe Benefits is excluded from the overtime calculation requirement, unless the cash equivalent (wages paid) is part of the Worker's standard straight time wage.
- F. **Administrative Costs Not Creditable.** Administrative expenses incurred by a Contractor in connection with the administration of a Bona Fide Fringe Benefit plan are not creditable towards the Total Prevailing Wage Rate.
- G. **Federal, State & Local Fringe Benefit Credit Prohibited.** No credit is allowed for benefits required by federal, state or local law, such as: worker's compensation, unemployment compensation, and social security contributions.⁵⁰

IX. OVERTIME

- A. **Overtime after 8 Hours per Day or 40 Hours per Week.** A Contractor must not permit or require a Worker to work longer than the prevailing hours of labor unless the Worker is paid for all hours in excess of the prevailing hours at a rate of at least 1.5 times the hourly basic rate of pay.⁵¹ The prevailing hours of labor is defined as not more than 8 hours per day and more than 40 hours per week.⁵²

⁴⁷ 29 CRF, Part 5.5(a)(1)(i)

⁴⁸ Government and non-government Work

⁴⁹ Refer to Appendix B

⁵⁰ Minn. Stat. 177.42, Subdivision 6

⁵¹ Minn. Stat. 177.44, Subdivision 1 and Refer to Appendix D

⁵² Minn. Stat. 177.42, Subdivision 4

- B. **Wages in Lieu of Fringe Benefits Overtime.** Wages paid in Lieu of Fringe Benefits must be paid for all hours worked under the contract.
- C. **Multiple Labor Classifications and Overtime.** A Worker employed in multiple labor classifications throughout a workweek must be compensated at the applicable labor classification overtime rate in effect during the hours worked in excess of 8 hours per day or 40 hours per week.
- D. **Federal Fair Labor Standards Act (FLSA) and Overtime.** A Contractor subject to the FLSA may be subject to additional overtime compensation requirements.

X. PAYROLLS AND STATEMENTS

- A. **Reporting.** Each Contractor that is performing Work must submit a CPR(s) to the Department.
 - 1. **Payroll Report (Paper).** Each Contractor performing Work must submit a paper (written) payroll report to the Department. The payroll report is available on the MnDOT LCU website.⁵³
 - 2. **Statement of Compliance (Paper).** Each Contractor's paper (written) payroll report must include a paper (written) "Statement of Compliance Form". The "Statement of Compliance Form" must: (1) state whether or not Fringe Benefits are provided to a Worker; (2) provide a description of each benefit, the hourly contribution made on behalf of each Worker, along with fund/plan information; and (3) a signature attesting that the payroll and Fringe Benefit information provided is truthful and accurate.⁵⁴
 - 3. **Electronic Reporting.** If the Contract is subject to electronic reporting, each Contractor performing Work must submit a CPR(s) using the AASHTOWare, Civil Rights Labor (CRL) system. Refer to the **Special Provisions Division S – "Electronic Submission of Payrolls and Statements"** which is incorporated into and found elsewhere in the Contract for detailed requirements.
- B. **Biweekly Payroll Reporting and Payment of Wages.** A CPR(s) must be submitted no later than 14 calendar days after the end of each Contractor's pay period⁵⁵ to the Department. A Contractor must pay its employees at least once every 14 calendar days.⁵⁶
- C. **Payroll Report Data.** Each payroll report must include all Workers that performed Work and provide at a minimum the following information:⁵⁷
 - 1. Contractor's name, address, and telephone number.
 - 2. State project number.
 - 3. Contract number (if applicable).
 - 4. Project number.
 - 5. Payroll report number.
 - 6. Project location.
 - 7. Workweek end date.
 - 8. Each Worker's name, home address, and social security number.⁵⁸
 - 9. Labor classification(s) title(s) and optional three-digit code for each Worker.

⁵³ www.dot.state.mn.us/const/labor/certifiedpayroll.html

⁵⁴ Minn. R. 5200.1106, Subpart 10

⁵⁵ Minn. Stat. 177.43, Subdivision 3

⁵⁶ Minn. Stat. 177.30 (a)(4)

⁵⁷ Minn. Stat. 177.30 (a)(1-4) and Minn. R. 5200.1106, Subpart 10

⁵⁸ Minn. R. 5200.1106, Subpart 10A & Minn. Stat. 13.355, Subdivision 1

10. Hours worked daily and weekly in each labor classification, including overtime hours, for each Worker.
11. Wage rate paid to each Worker for straight time and overtime.
12. Authorized legal deductions for each Worker.
13. Project gross amount, weekly gross amount, and net wages paid to each Worker.

- D. **Prime Contractor to Ensure Compliance.** The Prime Contractor must review the CPR(s) submitted by each lower tier Contractor and sign the “Statement of Compliance Form”.⁵⁹ The Prime Contractor must ensure that each lower tier Contractor’s CPR(s) include all Workers that performed Work and accurately reflect labor classifications, hours worked, regular and overtime rates of pay, gross earnings for the project and Fringe Benefits.⁶⁰
- E. **Retention of CPR(s).** The Prime Contractor must keep its written CPR(s), including those of all lower tier Contractors, for three (3) years after the final payment is issued.⁶¹
- F. **Retention of Employment-Related Records.** Each Contractor must keep employee records, including, but not limited to: Fringe Benefit statements, time cards, payroll ledgers, check registers and canceled checks⁶² for at least three (3) years after the final payment is issued.⁶³ Other laws may have longer retention requirements.
- G. **Detailed Earning Statement.** At the end of each pay period, each Contractor must provide every Worker, in writing or by electronic means, an accurate, detailed earnings statement.⁶⁴
- H. **Reports and Records Request.** Upon a request from the Department, the Prime Contractor must promptly furnish copies of CPR(s) for its Workers and those of all lower tier Contractors, along with employment-related records, documents, and agreements that the Department considers necessary to determine compliance.⁶⁵

XI. APPRENTICES, TRAINEES AND HELPERS

- A. **Apprentice.** An Apprentice will be permitted to Work at less than the prevailing basic hourly rate only if the Apprentice is:
1. Registered with the U.S. Department of Labor (DOL), Bureau of Apprenticeship and Training or MnDLI Division of Voluntary Apprenticeship.⁶⁶
 2. Performing Work of the trade, as described in the apprenticeship agreement.
 3. Compensated according to the rate specified in the program for the level of progress.⁶⁷
 4. Supervised by a Journeyworker from the same company, in accordance with the program ratio requirements.⁶⁸
- B. **Ratio Requirement.** If an approved apprenticeship program fails to define a ratio allowance, the first Apprentice must be supervised by a Journeyworker within the same trade or occupation. Any subsequent Apprentice must be supervised by an additional three Journeyworkers.⁶⁹

⁵⁹ MnDOT Standard Specifications for Construction, Section 1701

⁶⁰ MnDOT Standard Specifications for Construction, Section 1801

⁶¹ Minn. Stat. 177.30 (a)(5)

⁶² Minn. R. 5200.1106, Subpart 10

⁶³ Minn. Stat. 177.30 (a)(5)

⁶⁴ Minn. Stat. 181.032

⁶⁵ Minn. Stat. 177.44, Subdivision 7; Minn. Stat. 177.33(a)(5)

⁶⁶ Minn. R. 5200.1070, Subpart 1

⁶⁷ Minn. R. 5200.1070, Subpart 1 and Refer to Appendix C

⁶⁸ Minn. Stat. 178.036, Subdivision 5

⁶⁹ Minn. Stat. 178.036, Subdivision 5

- C. **Failure to Comply with Apprenticeship Requirements.** If a Contractor fails to demonstrate compliance with the terms established in this section, the Contractor must compensate the Apprentice not less than the applicable Total Prevailing Wage Rate for the actual classification of labor performed.⁷⁰
- D. **Trainee and Helper.** A trainee or helper is not exempt from prevailing wage under state law. The Contractor must assign the trainee or helper a labor classification that is the "same or most similar"⁷¹ and compensate the trainee or helper for the actual Work performed regardless of the trainee's or helper's skill level.

XII. INDEPENDENT CONTRACTORS, OWNERS, SUPERVISORS, AND FOREMAN

- A. **Independent Contractor.** An independent contractor (IC) that is not an Independent Truck Owner/Operator (ITO), who is performing Work must be properly classified and compensated.⁷² The IC must submit a CPR(s) to the Department. If the IC does not receive an hourly wage, but instead a weekly, biweekly, monthly or quarterly distribution for performance, the IC must calculate its hourly rate of pay by dividing the weekly, biweekly, monthly, or quarterly company distribution by all hours worked during that time frame and report the information on a CPR. If necessary, the Department may request documentation from the IC to determine how the hourly wage rate was calculated.⁷³
- B. **Owners, Supervisors and Foreman.** An owner, supervisor, or foreman performing Work is subject to prevailing wage and must be properly classified, compensated and reported.⁷⁴

XIII. TRUCKING

- A. **Covered Hauling Activities.** A Contractor must ensure that all Workers, including hired Trucking Brokers, MTOs and ITOs are paid the applicable Total Prevailing Wage Rate or truck rental rate for the following Work:
1. The hauling of any or all stockpiled or excavated materials on the project work site to other locations on the same project even if the truck leaves the work site at some point.⁷⁵
 2. The delivery of materials from a non-commercial establishment to the project and the return haul to the starting location either empty or loaded.⁷⁶
 3. The delivery of materials from another construction project site to the public works project and the return haul, either empty or loaded. Construction projects are not considered commercial establishments.⁷⁷
 4. The hauling required to remove any materials from the project to a location off the project site and the return haul, either empty or loaded from other than a commercial establishment.⁷⁸
 5. The delivery of materials or products by trucks hired by a Contractor, subcontractor, or agent thereof, from a commercial establishment.⁷⁹
 6. The delivery of sand, gravel, or rock, by or for a commercial establishment, which is deposited "substantially in place," either directly or through spreaders from the transporting vehicles is work under the contract. In addition, the return haul to the off-site facility empty or loaded is also considered work under the contract.⁸⁰

⁷⁰ Minn. R. 5200.1070, Subpart 3

⁷¹ Minn. Stat. 177.44, Subdivision 1

⁷² Minn. Stat. 177.44, Subdivision 1

⁷³ Minn. Stat. 177.30(a)(5); Minn. Stat. 181.723

⁷⁴ Minn. Stat. 177.44, Subdivision 1

⁷⁵ Minn. R. 5200.1106, Subpart 3B(1)

⁷⁶ Minn. R. 5200.1106, Subpart 3B(2)

⁷⁷ Minn. R. 5200.1106, Subpart 3B(3)

⁷⁸ Minn. R. 5200.1106, Subpart 3B(4)

⁷⁹ Minn. R. 5200.1106, Subpart 3B(5)

⁸⁰ Minn. R. 5200.1106, Subpart 3B(6)

- B. **Hauling Activities Not Subject to Prevailing Wage or Truck Rental Rates.** A Contractor may exclude a Worker, including hired Trucking Brokers, MTOs and ITOs from prevailing wage or truck rental rates for the Work described in (1-2) of this section. However, this Work may be considered hours worked and subject to standard compensation pursuant to the Minnesota Fair Labor Standards Act.
1. The delivery of processed or manufactured goods to a public works project by the employees of a commercial establishment including truck owner-operators hired by and paid by the commercial establishment, unless it is the delivery of mineral aggregate that is incorporated into the work under the contract by depositing the material substantially in place.⁸¹
 2. The delivery of oil offsite, as an example, to a Prime Contractor's permanent (commercial) asphalt mixing facility that is not to, from, or on the project Work site.⁸²
- C. **Repair, Maintenance & Waiting to Load Time.** An ITO and MTO must be paid the truck rental rate for time spent repairing or maintaining the truck owner-operator's equipment, and for waiting to load or unload if the repair, maintenance, or wait time is the fault of the Trucking Broker, Contractor, its agent or employees.⁸³
- D. **Month End Trucking Report.** A Contractor that acquires the services of an ITO or MTO must submit a "MnDOT – MTO and/or ITO Month-End Trucking Report", and a "MnDOT – Month-End Trucking Statement of Compliance Form" to the Department for each month hauling activities are performed under the Contract.⁸⁴ The forms are available on the MnDOT LCU website.⁸⁵
- E. **Broker Fee.** A truck broker contracting to provide trucking services directly to a prime contractor or subcontractor is allowed to assess a broker fee.

XIV. OFF-SITE FACILITIES

- A. **Off-Site Facility Activities Subject to Prevailing Wage.** A Contractor must ensure that all Workers performing Work at a covered off-site facility are paid the applicable Total Prevailing Wage Rate for the following Work:
1. The processing or manufacturing of material at a Prime Contractor's off-site facility that is not a separately held commercial establishment.⁸⁶
 2. The processing or manufacturing of material at an off-site facility that is not considered a commercial establishment.⁸⁷
- B. **Off-Site Facility Activities Not Subject to Prevailing Wage.** A Contractor may exclude a Worker from prevailing wage for the following work:
1. The processing or manufacturing of material or products by or for a commercial establishment.⁸⁸
 2. The work performed by Workers employed by the owner or lessee of a gravel or borrow pit that is a commercial establishment, even if the screening, washing or crushing machines are portable.⁸⁹

XV. SUBCONTRACTING PART OF THE CONTRACT

⁸¹ Minn. R. 5200.1106, Subpart 4(C)

⁸² J.D. Donovan, Inc. vs. Minnesota Department of Transportation, 878 N.W.2d 1 (2016)

⁸³ Minn. R. 5200.1106, Subpart 8(A)(1)

⁸⁴ Minn. R. 5200.1106, Subpart 10

⁸⁵ <http://www.dot.state.mn.us/const/labor/forms.html>

⁸⁶ ALJ Findings of Fact, Conclusions of Law, and Recommendation, Conclusions (7), Case #12-3000-11993-2

⁸⁷ Minn. R. 5200.1106, Subpart 3(A)

⁸⁸ Minn. R. 5200.1106, Subpart 4(A)

⁸⁹ Minn. R. 5200.1106, Subpart 4(B)

The Prime Contractor must include the Contract Special Provisions, Wage Decision(s) and Truck Rental Rate Schedule in all Subcontracts, agreements and purchase orders with lower tier Contractors.⁹⁰ This requirement also applies to all lower tier subcontractors.

XVI. SITE OF WORK REQUIREMENTS

- A. **Poster Board.** The Prime Contractor must construct and display a poster board containing all required posters. The poster board must be accurate, legible, and accessible to all project Workers from the first day of Work until the project is one hundred percent (100%) complete.⁹¹ A poster board at an off-site location, or inside a construction trailer, does not meet this requirement.
- B. **How to Obtain a Poster Board.** The Prime Contractor may obtain the required posters and the necessary contact information that is required to be inserted on each poster by visiting the MnDOT LCU website.⁹²
- C. **Employee Interviews.** The Contractor must permit representatives from the Department or other governmental entities⁹³ to interview Workers at any time during working hours on the project.⁹⁴

XVII. CHILD LABOR

- A. **No Worker under the Age of 18.** No Worker under the age of 18 is allowed to perform Work on a Project Site, except pursuant to Section XVII B below.⁹⁵
- B. **Parental Supervision.** A Worker under the age of 18 may perform Work on a Project Site if all of the following criteria are met:
 1. The Contractor (Employer) is not subject to FLSA.
 2. The Worker is employed in a corporation owned solely by one or both parents.
 3. The Worker is supervised by the parent(s).
 4. The Worker is not working in a hazardous occupation.⁹⁶
- C. **Removal of Minor from Project.** The Engineer or inspector may remove a Worker that appears to be under the age of 18 from the Project Site until the Contractor or Worker can demonstrate proof of age and compliance with all applicable federal and state regulations.⁹⁷

XVIII. NON-COMPLIANCE AND ENFORCEMENT

- A. **Case-by-Case Enforcement.** The Department has the authority to enforce the prevailing wage law on a case-by-case.⁹⁸
- B. **Prime Contractor Responsible for Unpaid Wages.** The Prime Contractor will be held liable for any unpaid wages to its Workers or those of any lower tier Contractor.⁹⁹
- C. **Enforcement Options.** If evidence shows that a Contractor has violated prevailing wage requirements, or these Special Provisions, the Department may, after written notice, implement one or more of the following:

⁹⁰ MnDOT Standard Specifications for Construction, Section 1801

⁹¹ Minn. Stat. 177.44, Subdivision 5

⁹² www.dot.state.mn.us/const/labor/posterboards

⁹³ MnDLI, U.S. DOL., U.S. Department of Transportation, Federal Highways Administration

⁹⁴ MnDOT Standard Specifications for Construction, Section 1511

⁹⁵ Minn. R. 5200.0910, Subpart F; 29 CFR Part 570.2(a)(ii)

⁹⁶ Minn. R. 5200.0930, Subpart 4

⁹⁷ Minn. Stat. 181A.06, Subdivision 4; MnDOT Standard Specifications for Construction, Section 1701

⁹⁸ See International Union of Operating Engineers, Local 49 v. MnDOT, No. C6-97-1582, 1998 WL 74281, at *2 (Minn. App. Feb. 24, 1998)

⁹⁹ MnDOT Standard Specifications for Construction, Section 1801

1. **Withholding Payment.** The Department may withhold from the Prime Contractor payments relating to prevailing wage underpayments.¹⁰⁰
2. **Non-Responsible Contractor.** The Department may reject a bid from a Prime Contractor that has received two (2) or more Determination Letters within a three (3) year period from the Department finding an underpayment by the Contractor to its own employees.¹⁰¹
3. **Default.** The Department may take the prosecution of the Work out of the hands of the Prime Contractor, place the Contractor in default, and terminate the Contract for failure to comply.¹⁰²
4. **Suspension or Debarment.** The Department may refer violations and matters of non-compliance by a Contractor to the Minnesota Department of Administration for suspension or debarment proceedings.¹⁰³
5. **County Attorney.** The Department may refer suspected criminal violations by Contractor to the appropriate local county attorney for prosecution.¹⁰⁴
6. **Financial Penalties.** Any Contractor who violates the state prevailing wage law is guilty of a misdemeanor and may be fined not more than \$300 or imprisoned not more than 90 days or both. Each day that the violation continues is a separate offense.¹⁰⁵ A Contractor may be fined up to \$1,000 for each failure to maintain records.¹⁰⁶
7. **False Claims Act Violation.** All required payroll and certification reports are legal documents; knowing falsification of the documents by a Contractor may result in civil action and/or criminal prosecution¹⁰⁷ and may be grounds for debarment proceedings.¹⁰⁸
8. **Compliance Order.** The Department may request that MnDLI issue a compliance order to a Contractor for violations of the state prevailing wage law. If the Contractor is found to have committed a violation, liquidated damages and other costs may be assessed against the Employer.¹⁰⁹
9. **Private Right of Action.** The Department may direct an employee to pursue a civil action in district court against its Employer for failure to comply with the proper payment of wages.¹¹⁰ If the Employer is found to have committed a violation, liquidated damages and other costs may be assessed against the Employer.¹¹¹
10. **Fringe Benefits; Misdemeanor.** A Contractor that is obligated to deposit Fringe Benefit contributions on behalf of a Worker into a financially responsible trustee, third person, fund, plan, or program and fails to make timely contributions is guilty of a gross misdemeanor or other violations under federal law.¹¹²

¹⁰⁰ MnDOT Standard Specifications for Construction, Section 1906

¹⁰¹ Minn. Stat. 16C.285

¹⁰² MnDOT Standard Specifications for Construction, Section 1808

¹⁰³ Minn. R. 1230.1150, Subpart 2(A)(4)

¹⁰⁴ Minn. Stat. 177.44, Subdivision 7

¹⁰⁵ Minn. Stat. 177.44, Subdivision 6

¹⁰⁶ Minn. Stat. 177.30(b)

¹⁰⁷ Minn. Stat. 15C.02; , Minn. Stat. 161.315; Minn. Stat. 177.32; Minn. Stat. 177.43, Subdivision 5, Minn. Stat. 609.63

¹⁰⁸ Minn. Stat. 161.315 and Minn. Stat. 609.63

¹⁰⁹ Minn. Stat. 177.43, Subdivision 6a

¹¹⁰ Minn. Stat. 177.27, Subdivision 8

¹¹¹ Minn. Stat. 177.27, Subdivision 10

¹¹² Minn. Stat. 181.74, Subdivision 1

**THE FOLLOWING APPENDICES ARE FOR
EXPLANATORY PURPOSES ONLY.
FOR SPECIFIC QUESTIONS, PLEASE CONTACT LCU.¹¹³**

APPENDIX A**SALARIED WORKER WAGE COMPUTATION**

Salaried Workers. In order to convert the Worker's salary into an hourly rate of pay, divide the employee's weekly, bi-weekly or monthly earnings by the total number of hours Worked (government and non-government), including overtime hours for the time period used.¹¹⁴

$$\text{\$800.00 (weekly salary) / 40 (total weekly hours) = \$20.00}$$

$$\text{\$1,600.00 (bi-weekly salary) / 80 (total bi-weekly hours) = \$20.00}$$

$$\text{\$3,200.00 (monthly salary) / 160 (total monthly hours) = \$20.00}$$

APPENDIX B**FRINGE BENEFIT CREDIT**

Fringe Benefit Credit Calculation. The Employer contributes monthly (\$600.00) for medical insurance on behalf of a Worker. In order to calculate the projected hourly credit that the Employer can take, the Employer should: (1) add the monthly contributions for each Worker, (2) multiply by twelve (12) months, and (3) divide the total cost of the benefit by the total hours worked (government and non-government)¹¹⁵ (see annual example below). Quarterly and monthly examples are also provided.

Annual: $(\$600.00) \times (12 \text{ months}) = \$7,200.00$
 $(\$7,200.00) / (2080 \text{ hours}) = \underline{\text{\$3.46 per hour credit}}$

Quarterly: $(\$600.00) \times (3 \text{ months}) = \$1,800.00$
 $(\$1,800.00) / (520 \text{ hours}) = \underline{\text{\$3.46 per hour credit}}$

Monthly: $(\$600.00) \times (1 \text{ month}) = \600.00
 $(\$600.00) / (173 \text{ hours}) = \underline{\text{\$3.47 per hour credit}}$

End of Year Self-Audit. At the end of the calendar year, the Contractor must conduct an audit to determine if the hourly fringe benefit credit taken for each Worker was accurate. The Contractor must calculate the total annual fringe benefits paid on behalf of each Worker and divide that amount by the total number of hours worked (government and non-government) by that Worker. If the hourly fringe benefit credit was less than what was reported on a CPR, the contractor must compensate the Worker the hourly difference, multiplied by the total hours worked under the Contract.

APPENDIX C**APPRENTICE RATE OF PAY**

State Requirements. The Apprentice must be compensated according his/her level of progress, which is expressed as a percentage of the Journeyworker wage that is established in the program.

$$\text{Journeyworker Wage Established in Program} = \text{\$25.00}$$

$$\text{Apprentice Level of Progress} = \underline{\text{60\%}}$$

$$\text{\$25.00} * (.60) = \text{\$15.00}$$

¹¹³ lcu-support.dot@state.mn.us or (651) 366-4238

¹¹⁴ United States Department of Labor Field Operation Handbook, Section 15f08

¹¹⁵ United States Department of Labor Field Operation Handbook, Section 15f12

APPENDIX D

PREVAILING WAGE OVERTIME CALCULATION

Overtime Hourly Rate of Pay. Here is the formula to calculate the required minimum overtime.¹¹⁶

$$OT = (PW * .5) + (HW) + (RF) + (F)$$

Definition of OT Acronyms

OT: overtime.

PW: the basic hourly prevailing wage rate established in a federal and/or state prevailing Wage Decision.

HW: hourly wage rate paid to a Worker.

RF: remaining fringe, which means the difference between the Contract hourly Fringe Benefit rate and the actual hourly Fringe Benefit rate paid by the Contractor to a third party on behalf of a Worker.

F: Fringe Benefit contributions that are bona-fide and contributed by an Employer to a third party on behalf of a Worker.

The Total Prevailing Wage Rate for a Worker is \$30.00, which is comprised of an hourly basic rate of \$20.00 and an hourly fringe rate of \$10.00. The table below includes various hourly basic and Fringe Benefit payments that a Contractor could potentially make to a Worker.

OT CALCULATION FORMULA AND EXAMPLES				
$OT = (PW * .5) + (HW) + (RF) + (F)$				
Hourly Wage Paid	Fringe Benefits Paid	Payment To Employee $(PW * .5) + (HW) + (RF)$	Fringe Payment + (F)	Total Payment = OT
\$ 20.00	\$ 10.00	$(\$ 20.00 * .5) + (\$ 20.00) + (\$ 0.00) = \$ 30.00$	+ \$ 10.00	= \$ 40.00
\$ 18.00	\$ 12.00	$(\$ 20.00 * .5) + (\$ 18.00) + (\$ 0.00) = \$ 28.00$	+ \$ 12.00	= \$ 40.00
\$ 22.00	\$ 8.00	$(\$ 20.00 * .5) + (\$ 22.00) + (\$ 0.00) = \$ 32.00$	+ \$ 8.00	= \$ 40.00
\$ 30.00	\$ 0.00	$(\$ 20.00 * .5) + (\$ 30.00) + (\$ 0.00) = \$ 40.00$	+ \$ 0.00	= \$ 40.00
\$ 24.00	\$ 4.00	$(\$ 20.00 * .5) + (\$ 24.00) + (\$ 2.00) = \$ 36.00$	+ \$ 4.00	= \$ 40.00

Regarding the last example the Contractor would be required to pay an additional \$2.00 to the Worker, which is wages in lieu of fringe for a straight time hourly rate of \$26.00 not \$24.00.

A Contractor subject to the Fair Labor Standards Act (FLSA) may be subject to additional overtime compensation requirements.

¹¹⁶ United States Department of Labor Field Operation Handbook, Section 15k

**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: Commercial

County Number: 62

County Name: RAMSEY

Effective: 2018-12-17 Revised: 2019-01-28

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

* Indicates that adjacent county rates were used for the labor class listed.

County: RAMSEY (62)

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
LABORERS (101 - 112) (SPECIAL CRAFTS 701 - 730)				
101 LABORER, COMMON (GENERAL LABOR WORK)	2018-12-17	34.11	19.64	53.75
102 LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN)	2018-12-17	34.11	19.64	53.75
103 LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR)	2018-12-17	23.02	15.99	39.01
	2019-05-01	24.00	16.96	40.96
104* FLAG PERSON	2018-12-17	34.11	19.64	53.75
105* WATCH PERSON	2018-12-17	30.48	19.29	49.77
106* BLASTER	2018-12-17	34.15	19.64	53.79
107 PIPELAYER (WATER, SEWER AND GAS)	2018-12-17	34.15	19.64	53.79
	2019-05-01	35.30	20.44	55.74
108* TUNNEL MINER	2018-12-17	32.35	19.64	51.99
	2019-05-01	33.50	20.44	53.94

	<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
109	UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL)	2018-12-17	32.35	19.64	51.99
		2019-05-01	33.50	20.44	53.94
110	SURVEY FIELD TECHNICIAN (OPERATE TOTAL STATION, GPS RECEIVER, LEVEL, ROD OR RANGE POLES, STEEL TAPE MEASUREMENT; MARK AND DRIVE STAKES; HAND OR POWER DIGGING FOR AND IDENTIFICATION OF MARKERS OR MONUMENTS; PERFORM AND CHECK CALCULATIONS; REVIEW AND UNDERSTAND CONSTRUCTION PLANS AND LAND SURVEY MATERIALS). THIS CLASSIFICATION DOES NOT APPLY TO THE WORK PERFORMED ON A PREVAILING WAGE PROJECT BY A LAND SURVEYOR WHO IS LICENSED PURSUANT TO MINNESOTA STATUTES, SECTIONS 326.02 TO 326.15.	2018-12-17	33.00	11.96	44.96
111*	TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE)	2018-12-17	34.11	19.64	53.75
SPECIAL EQUIPMENT (201 - 204)					
201*	ARTICULATED HAULER	2018-12-17	38.13	20.30	58.43
202*	BOOM TRUCK	2018-12-17	38.13	20.30	58.43
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	2018-12-17	23.02	15.99	39.01
		2019-05-01	24.00	16.96	40.96
204*	OFF-ROAD TRUCK	2018-12-17	37.83	18.65	56.48
205*	PAVEMENT MARKING OR MARKING REMOVAL EQUIPMENT (ONE OR TWO PERSON OPERATORS); SELF-PROPELLED TRUCK OR TRAILER MOUNTED UNITS.	2018-12-17	37.05	19.39	56.44
HIGHWAY/HEAVY POWER EQUIPMENT OPERATOR					
GROUP 2		2018-12-17	35.54	19.70	55.24
306	GRADER OR MOTOR PATROL				
308	TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED (HIGHWAY AND HEAVY ONLY)				
GROUP 3 *		2018-12-17	36.34	20.30	56.64
		2019-05-01	38.09	20.50	58.59
309	ASPHALT BITUMINOUS STABILIZER PLANT				
310	CABLEWAY				
312	DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY) (HIGHWAY AND HEAVY ONLY)				
314	DREDGE OR ENGINEERS, DREDGE (POWER) AND ENGINEER				
316	LOCOMOTIVE CRANE OPERATOR				
320	TANDEM SCRAPER				
322	TUGBOAT 100 H.P AND OVER (HIGHWAY AND HEAVY ONLY)				
GROUP 4		2018-12-17	36.04	20.30	56.34
		2019-05-01	37.79	20.50	58.29
323	AIR TRACK ROCK DRILL				

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
324				
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GROUP 5	2018-12-17	31.65	19.70	51.35
370				
371				
372				
375				
376				
377				
379				
381				
382				
383				
384				
385				
GROUP 6	2018-12-17	31.79	20.30	52.09
	2019-05-01	33.54	20.50	54.04
387				
389				
391				

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
393 LEVER PERSON				
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				
COMMERCIAL POWER EQUIPMENT OPERATOR				
GROUP 1 *	2018-12-17	41.14	20.30	61.44
501 HELICOPTER PILOT (COMMERCIAL CONSTRUCTION ONLY)				
502 TOWER CRANE 250 FEET AND OVER (COMMERCIAL CONSTRUCTION ONLY)				
503 TRUCK CRAWLER CRANE WITH 200 FEET OF BOOM AND OVER, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY)				
GROUP 2	2018-12-17	40.80	20.30	61.10
504 CONCRETE PUMP WITH 50 METERS/164 FEET OF BOOM AND OVER (COMMERCIAL CONSTRUCTION ONLY)				
505 PILE DRIVING WHEN THREE DRUMS IN USE (COMMERCIAL CONSTRUCTION ONLY)				
506 TOWER CRANE 200 FEET AND OVER (COMMERCIAL CONSTRUCTION ONLY)				
507 TRUCK OR CRAWLER CRANE WITH 150 FEET OF BOOM UP TO AND NOT INCLUDING 200 FEET, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY)				
GROUP 3	2018-12-17	39.39	20.30	59.69
508 ALL-TERRAIN VEHICLE CRANES (COMMERCIAL CONSTRUCTION ONLY)				
509 CONCRETE PUMP 32-49 METERS/102-164 FEET (COMMERCIAL CONSTRUCTION ONLY)				
510 DERRICK (GUY & STIFFLEG) (COMMERCIAL CONSTRUCTION ONLY)				
511 STATIONARY TOWER CRANE UP TO 200 FEET				
512 SELF-ERECTING TOWER CRANE 100 FEET AND OVER MEASURED FROM BOOM FOOT PIN (COMMERCIAL CONSTRUCTION ONLY)				
513 TRAVELING TOWER CRANE (COMMERCIAL CONSTRUCTION ONLY)				
514 TRUCK OR CRAWLER CRANE UP TO AND NOT INCLUDING 150 FEET OF BOOM, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY)				
GROUP 4	2018-12-17	39.05	20.30	59.35
515 CRAWLER BACKHOE INCLUDING ATTACHMENTS (COMMERCIAL CONSTRUCTION ONLY)				
516 FIREPERSON, CHIEF BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY)				
517 HOIST ENGINEER (THREE DRUMS OR MORE) (COMMERCIAL CONSTRUCTION ONLY)				
518 LOCOMOTIVE (COMMERCIAL CONSTRUCTION ONLY)				
519 OVERHEAD CRANE (INSIDE BUILDING PERIMETER) (COMMERCIAL CONSTRUCTION ONLY)				
520 TRACTOR . BOOM TYPE (COMMERCIAL CONSTRUCTION ONLY)				
GROUP 5	2018-12-17	38.13	20.30	58.43
521 AIR COMPRESSOR 450 CFM OR OVER (TWO OR MORE MACHINES) (COMMERCIAL CONSTRUCTION ONLY)				
522 CONCRETE MIXER (COMMERCIAL CONSTRUCTION ONLY)				
523 CONCRETE PUMP UP TO 31 METERS/101 FEET OF BOOM				
524 DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL WHEN USED FOR CAISSON FOR ELEVATOR OR BUILDING CONSTRUCTION (COMMERCIAL CONSTRUCTION ONLY)				
525 FORKLIFT (COMMERCIAL CONSTRUCTION ONLY)				
526 FRONT END, SKID STEER 1 C YD AND OVER				
527 HOIST ENGINEER (ONE OR TWO DRUMS) (COMMERCIAL CONSTRUCTION ONLY)				
528 MECHANIC-WELDER (ON POWER EQUIPMENT) (COMMERCIAL CONSTRUCTION ONLY)				
529 POWER PLANT (100 KW AND OVER OR MULTIPLES EQUAL TO 100KW AND OVER) (COMMERCIAL CONSTRUCTION ONLY)				
530 PUMP OPERATOR AND/OR CONVEYOR (TWO OR MORE MACHINES) (COMMERCIAL CONSTRUCTION ONLY)				
531 SELF-ERECTING TOWER CRANE UNDER 100 FEET MEASURED FROM BOOM FOOT PIN (COMMERCIAL CONSTRUCTION ONLY)				
532 STRADDLE CARRIER (COMMERCIAL CONSTRUCTION ONLY)				
533 TRACTOR OVER D2 (COMMERCIAL CONSTRUCTION ONLY)				
534 WELL POINT PUMP (COMMERCIAL CONSTRUCTION ONLY)				

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
GROUP 6	2018-12-17	36.62	20.30	56.92
535 CONCRETE BATCH PLANT (COMMERCIAL CONSTRUCTION ONLY)				
536 FIREPERSON, FIRST CLASS BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY)				
537 FRONT END, SKID STEER UP TO 1 C YD				
538 GUNITE MACHINE (COMMERCIAL CONSTRUCTION ONLY)				
539 TRACTOR OPERATOR D2 OR SIMILAR SIZE (COMMERCIAL CONSTRUCTION ONLY)				
540 TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER				
GROUP 7	2018-12-17	35.50	20.30	55.80
541 AIR COMPRESSOR 600 CFM OR OVER (COMMERCIAL CONSTRUCTION ONLY)				
542 BRAKEPERSON (COMMERCIAL CONSTRUCTION ONLY)				
543 CONCRETE PUMP/PUMPCRETE OR COMPLACO TYPE (COMMERCIAL CONSTRUCTION ONLY)				
544 FIREPERSON, TEMPORARY HEAT SECOND CLASS BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY)				
545 OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS AND MILLING MACHINES, OR OTHER SIMILAR POWER EQUIPMENT) (COMMERCIAL CONSTRUCTION ONLY)				
546 PICK UP SWEEPER (ONE CUBIC YARD HOPPER CAPACITY) (COMMERCIAL CONSTRUCTION ONLY)				
547 PUMP AND/OR CONVEYOR (COMMERCIAL CONSTRUCTION ONLY)				
GROUP 8	2018-12-17	33.49	20.30	53.79
548 ELEVATOR OPERATOR (COMMERCIAL CONSTRUCTION ONLY)				
549 GREASER (COMMERCIAL CONSTRUCTION ONLY)				
550 MECHANICAL SPACE HEATER (TEMPORARY HEAT NO BOILER LICENSE REQUIRED) (COMMERCIAL CONSTRUCTION ONLY)				
TRUCK DRIVERS				
GROUP 1	2018-12-17	25.00	5.14	30.14
601 MECHANIC . WELDER				
602 TRACTOR TRAILER DRIVER				
603 TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)				
GROUP 2	2018-12-17	25.50	3.14	28.64
604 FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK				
GROUP 3 *	2018-12-17	23.75	6.23	29.98
605 BITUMINOUS DISTRIBUTOR DRIVER				
606 BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION)				
607 THREE AXLE UNITS				
GROUP 4 *	2018-12-17	28.00	9.56	37.56
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	2018-12-17	44.60	24.40	69.00

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
	2019-06-01	47.10	24.40	71.50
702 BOILERMAKERS	2018-12-17	37.22	27.14	64.36
	2019-01-01	38.33	27.43	65.76
703 BRICKLAYERS	2018-12-17	38.76	20.87	59.63
704 CARPENTERS	2018-12-17	37.18	21.45	58.63
705 CARPET LAYERS (LINOLEUM)	2018-12-17	37.84	19.19	57.03
706 CEMENT MASONS	2018-12-17	38.41	19.67	58.08
707 ELECTRICIANS	2018-12-17	42.28	29.07	71.35
	2019-05-01	45.23	29.07	74.30
708 ELEVATOR CONSTRUCTORS	2018-12-17	48.36	32.65	81.01
	2019-01-01	49.91	39.24	89.15
709 GLAZIERS	2018-12-17	41.19	18.54	59.73
710 LATHERS	2018-12-17	38.47	20.18	58.65
712 IRONWORKERS	2018-12-17	37.10	27.85	64.95
714 MILLWRIGHT	2018-12-17	35.13	24.98	60.11
715 PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT MARKINGS)	2018-12-17	36.75	21.24	57.99
716 PILEDRIVER (INCLUDING VIBRATORY DRIVER OR EXTRACTOR FOR PILING AND SHEETING OPERATIONS)	2018-12-17	38.01	21.08	59.09
	2019-05-01	39.96	21.08	61.04
717 PIPEFITTERS . STEAMFITTERS	2018-12-17	47.04	26.05	73.09
718 PLASTERERS	2018-12-17	38.96	19.45	58.41
719 PLUMBERS	2018-12-17	47.27	23.43	70.70
	2019-05-01	50.02	23.43	73.45
720 ROOFER	2018-12-17	36.26	17.46	53.72
721 SHEET METAL WORKERS	2018-12-17	43.31	27.72	71.03
	2019-05-01	45.91	27.72	73.63
722 SPRINKLER FITTERS	2018-12-17	45.28	26.55	71.83
	2019-01-01	45.08	26.75	71.83
	2019-06-01	47.93	26.75	74.68
723* TERRAZZO WORKERS	2018-12-17	38.91	19.40	58.31

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
724 TILE SETTERS	2018-12-17	33.55	24.44	57.99
725 TILE FINISHERS	2018-12-17	28.23	19.12	47.35
726 DRYWALL TAPER	2018-12-17	32.07	23.02	55.09
727 WIRING SYSTEM TECHNICIAN	2018-12-17	38.97	17.14	56.11
	2019-07-01	40.17	17.14	57.31
728 WIRING SYSTEMS INSTALLER	2018-12-17	27.30	14.31	41.61
	2019-07-01	28.14	14.31	42.45
729 ASBESTOS ABATEMENT WORKER	2018-12-17	31.68	18.71	50.39
	2019-01-01	32.68	19.66	52.34
730 SIGN ERECTOR	2018-12-17	28.80	14.92	43.72
	2019-06-01	30.45	14.92	45.37

Equal Employment Opportunity (EEO) Special Provisions

EQUAL EMPLOYMENT OPPORTUNITY (EEO) SPECIAL PROVISIONS

This section of Special Provisions contains the Equal Employment Opportunity (EEO) rules and regulations for highway construction projects in Minnesota which are federally and/or State funded.

The source of funding determines which EEO regulations and goals (Federal and/or State goals) apply to a specific project. When a project contains funding from both Federal and State sources, both sets of regulations apply, and the Minnesota Department of Transportation (MnDOT) monitors and reviews projects at both levels.

If the project contains any Federal funding, and has a total dollar value exceeding \$10,000, Federal EEO regulations and goals apply (pages 2, 6, 7-8, 9-14, 15, 16-17, 22-26, 27-38). The MnDOT Office of Civil Rights monitors and reviews these projects on behalf of the Federal Highway Administration (FHWA), under Federal statutes (23 USC 140) and rules (23 CFR 230).

If the project contains any State funding, and has a total dollar value exceeding \$100,000, State EEO regulations and goals apply (pages 2, 3, 4, 5, 6, 9-14, 16-22). MnDOT's Office of Civil Rights monitors and reviews these projects in conjunction with the Minnesota Department of Human Rights under Minnesota Statutes §363A.36 and its accompanying rules.

MnDOT has established a single review and monitoring process which meets both Federal and State requirements.

Please note that Pages 23-38 of these Special Provisions may be omitted from projects with no Federal funding.

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**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(23 USC 140, 23 CFR 230 and Minnesota Statute §363A.36)**

1. The offerer's or bidder's attention is called to the "Minnesota Affirmative Action Requirements" (EEO Page 4), the "Specific Federal Equal Employment opportunity Responsibilities" (EEO Pages 7-8), the "Standard Federal and State Equal Employment Opportunity Construction Contract Specifications" (EEO Pages 9-14), the "Equal Opportunity Clause" (EEO Page 15) and "Required Contract Provisions - Federal-Aid Construction Contracts" (EEO Pages 27-38).
2. The goals and timetables for minority and women participation, expressed in percentage terms of hours of labor for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as shown on EEO Pages 16-17.

These goals are applicable to all the Contractor's construction work (whether or not it is State or State assisted, Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the regulations in 41 CFR Part 60-4, and/or Minnesota Statutes §363A.36 and its accompanying rules shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) for Federal or federally assisted projects, and Minnesota Statutes §363A.36, and its accompanying rules for State or State assisted projects, and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and women employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority and women employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4 for Federal or federally-assisted projects and/or Minnesota Statutes §363A.36 and its accompanying rules for state or state-assisted projects. Compliance with the goals will be measured against the total work hours performed.

3. If the contract is federally funded, the Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within ten working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. If the contract is state funded, the Contractor shall provide written notification to the Compliance Division, Minnesota Department of Human Rights, Freeman Building, 625 Robert Street North, Saint Paul, Minnesota 55155 within ten working days of award of any construction subcontract in excess of \$100,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the Subcontractor; employer identification number of the Subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the county or counties of the State of Minnesota where the work is to be performed.

**NOTICE TO ALL PRIME AND SUBCONTRACTORS
PRE-AWARD REPORTING REQUIREMENTS**

In order to ensure compliance with Federal and State laws and regulations (23 USC 140, and 23 CFR 230, and Minnesota Statutes §363A.36) and to ensure Mn/DOT's ability to monitor and enforce compliance efforts, the following requirements apply if the apparent low bid exceeds \$ 5,000,000.00:

- 1) The Apparent Low Bidder ("ALB") must provide to Mn/DOT the "EEO-8 Form" (also entitled "EEO Compliance Review Report"), which must provide detail on the contractor's total company workforce in the State of Minnesota during the twelve month period preceding July 30th of the previous year (Office and/or clerical personnel need not to be included).
- 2) The ALB must provide to Mn/DOT a work plan for meeting the minority and women employment goals established by the Minnesota Department of Human Rights, for the project in question. The work plan must include, at a minimum (1) how the ALB will incorporate its current minority and women employees in the ALB's efforts to meet the established goals; and (2) a contingency plan if the ALB has determined that its current workforce is not sufficient in order to achieve the established employment goals. If the ALB relies in whole or in part upon unions as a source of employees, then the ALB must (1) include a list of established organizations that are likely to yield qualified minority and women candidates if those union(s) are unable to provide a reasonable flow of minority and women candidates in their work plan; and (2) document the method by which these organizations will refer candidates to the ALB for employment opportunities. All bidders are hereby notified that the U.S. Department of Labor has determined that a contractor will not be excused from complying with the Federal and State laws and regulations cited above based solely on the fact that a contractor has a collective bargaining agreement with a union providing for the union to be the exclusive source of referral and that the union failed to refer minority employees. A contractor may obtain a list of organizations likely to yield qualified minority and women candidates from the Mn/DOT Office of Civil Rights.
- 3) The ALB must provide to Mn/DOT the ALB's total workforce and labor projections for the project (represented in hours), the ALB's projected total number of minority hours for the project, and the ALB's projected total number of women hours for the project. The details must include the trade(s) that will be utilized in order to complete the project.

The ALB must submit documents as required to comply with this section no later than five business days after the date that bids for the contract are opened. The five day period starts the business day following the date that bids were opened. The required documents must be received prior to Contract Award, and must be sent to the Mn/DOT Office of Civil Rights – 395 John Ireland Blvd., Mail Stop 170 St. Paul, MN 55155-1899. Submittal of the documents described in (1), (2) and (3) is required for contract award to the ALB. The submitted documents will be used as a tool to assist contractors in meeting employment goals; the content itself will not be evaluated for the purpose of determining contract award.

MINNESOTA AFFIRMATIVE ACTION REQUIREMENTS

1. It is hereby agreed between the parties to this contract that Minnesota Statutes, Section §363A.36, and its accompanying rules are incorporated into any contract between these parties based upon this specification or any modification of it. A copy of Minnesota Statutes, Section §363A.36, and its accompanying rules is available upon request from the contracting agency. The Contractor hereby agrees to comply with the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.
2. It is hereby agreed between the parties to this contract that this agency requires that the Contractor meet affirmative action criteria as provided for by Minnesota Statutes §363A.36 and its accompanying rules. It is the intent of the Minnesota Department of Transportation to fully carry out its responsibility for requiring affirmative action, and to implement sanctions for failure to meet these requirements. Failure by a contractor to implement an affirmative action plan, meet project employment goals for minority and women employment or make a good faith effort to do so may result in revocation of his/her Certificate of Compliance or suspension or revocation of the contract (Minnesota Statutes §363A.36).
3. Under the affirmative action obligation imposed by the Human Rights Act, Minnesota Statutes, Section §363A.36, contractors shall take affirmative action to employ and advance in employment minority, female, and qualified disabled individuals at all levels of employment. Affirmative action must apply to all employment practices, including but not limited to hiring, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor shall recruit, hire, train and promote persons in all job titles, without regard to race, color, creed, religion, sex, national origin, marital status, status with regard to public assistance, physical or mental disability, sexual orientation or age except where such status is a bona fide occupational qualification. These affirmative action requirements of the Minnesota Human Rights Act are consistent with but broader than the Federal requirements as covered in this contract.
4. Affirmative Action for disabled workers. The Contractor shall not discriminate against any employee or applicant for employment because of a physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled individuals without discrimination based upon their physical or mental disability in all employment practices such as employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training (including apprenticeship). In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with Minnesota Statutes, section §363A.36 and the rules and relevant orders of the Minnesota Department of Human Rights pursuant to the Minnesota Human Rights Act.
5. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the commissioner of the Minnesota Department of Human Rights. Such notices shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment minority, women and qualified disabled employees and applicants for employment, and the rights of applicants and employees. **A poster entitled "Contractor Non-discrimination is the Law" may be obtained from: Compliance Unit, Minnesota Department of Human Rights, Freeman Building, 625 Robert Street North, Saint Paul, Minnesota 55155. (651) 539-1100, TTY 296-1283, Toll Free 1-800-657-3704.**
6. The Contractor shall notify each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Minnesota Statutes, section §363A.36 of the Minnesota Human Rights Act, and is committed to take affirmative action to employ and advance in employment minority, women and qualified physically and mentally disabled individuals.

APPROPRIATE WORK PLACE BEHAVIOR ON Mn/DOT CONSTRUCTION PROJECTS UTILIZING STATE FUNDS

It is the Minnesota Department of Transportation's (MnDOT's) policy to provide a workplace free from violence, threats of violence, harassment and discrimination. MnDOT has established a policy of zero tolerance for violence in the workplace. Contractors who perform work on MnDOT construction projects, or local government entities or public agencies utilizing state funds on highway construction projects, shall maintain a workplace free from violence, harassment and discrimination (See definitions, below).

Definitions:

1. Violence is the threatened or actual use of force which results in or has a high likelihood of causing fear, injury, suffering or death. Employees are prohibited from taking reprisal against anyone who reports a violent act or threat.

2. Harassment is the conduct of one employee (toward another employee) which has the purpose or effect of 1) unreasonably interfering with the employee's work performance, and/or 2) creating an intimidating, hostile or offensive work environment. Harassment is not legitimate job-related efforts of supervisor to direct/evaluate an employee or to have an employee improve work performance.

A. Unlawful discriminatory harassment is harassment which is based on these characteristics: race, color, creed, religion, national origin, sex, disability, age, marital status, status with regard to public assistance or sexual orientation. Managers, supervisors and employees shall not take disciplinary or retaliatory action against employees who make complaints of sexual harassment.

Sexual harassment is unwelcome sexual advances, requests for sexual favors, or sexually motivated physical contact, or other verbal or physical conduct or communication of a sexual nature, when submission to that conduct or communication is 1) made a term or condition, either explicitly or implicitly, of obtaining employment; or 2) is used as a factor in decisions affecting an individual's employment; or 3) when that conduct or communication has the purpose or effect of substantially interfering with an individual's employment or creating an intimidating, hostile or offensive work environment, and the employer knows or should have known of the existence of the harassment and fails to take timely and appropriate action. Examples include but are not limited to insulting or degrading sexual remarks or conduct; threats, demands or suggestions that status is contingent upon toleration or acquiescence to sexual advances; displaying in the workplace sexually suggestive objects, publications or pictures, or retaliation against employees for complaining about the behavior cited above or similar behaviors.

B. General harassment is harassment which is not based on the above characteristics. Examples may include, but are not limited to: physically intimidating behavior and/or threats of violence; use of profanity (swearing), vulgarity; ridiculing, taunting, belittling or humiliating another person; inappropriate assignments of work or benefits; derogatory name calling.

3. Discrimination includes actions which cause a person, solely because of race, color, creed, religion, national origin, sex, disability, age, marital status, status with regard to public assistance or sexual orientation to be subject to unequal treatment.

Prime Contractors who work on MnDOT projects shall ensure that their managers, supervisors, foremen/women and employees are familiar with MnDOT's policy on appropriate work place behavior; and shall ensure that their subcontractors are familiar with this policy. Managers, supervisors and foremen/women will respond to, document, and take appropriate action in response to all reports of violence, threats of violence, harassment or discrimination. Failure to comply with this policy may result in cancellation, termination or suspension of contracts or subcontracts currently held and debarment from further such contracts or subcontracts as provided by statute. If you need additional information or training regarding this policy, please contact the Office of Civil Rights at (651) 366-3073.

NOTICE TO ALL PRIME AND SUBCONTRACTORS REPORTING REQUIREMENTS

1. In order to monitor compliance with Federal Statutes 23 USC 140 and 23 CFR 230, and Minnesota Statutes §363A.36, all prime contractors and subcontractors are required to complete a Mn/DOT Monthly Employment Compliance Report each month for each project (Form EEO-13, sample copy at EEO Pages 20-21.) Prime contractors are also required to complete a Contractor Employment Data Report (Form EEO-12, sample copy at EEO Pages 18-19) once prior to work commencing on the project, unless one has been completed already within the calendar year.

The prime contractor of each project collects Monthly Employment Compliance Reports from each subcontractor who performed work during the month, and completes a Monthly Employment Compliance Report on its own work force. **For the month of July only, an EEO-13 is required for each payroll period within the month of July.** The prime contractor submits the EEO-13 forms to the Mn/DOT Project Engineer by the 15th day of the subsequent month.

Failure to submit the required reports in the allowable time frame will be cause for the imposition of contract sanctions.

It is the intent of Mn/DOT to implement monitoring measures on each project to ensure that each prime contractor and subcontractor is promoting the full realization of equal employment opportunities. Any project may be scheduled for an in depth on-site contract compliance review. During the scheduled on-site review, the Contractor will be required to provide to Mn/DOT documentation of its "good faith efforts" as shown in EEO Pages 10-13, at 7 a-p of this contract.

2. If a Federally funded project requires On-the-Job-Training (OJT) participation, information is provided in the contract and can be located by referring to the Table of Contents for Division S. (OJT is also listed as a bid line item under Trainees.) When a contract requires OJT participation, the Prime Contractor shall submit a training plan as indicated in the Proposal. The training plan shall include the job classification titles of trainees, planned training activities and the approximate start date of trainees.
3. When a Contractor selects a trainee applicant for OJT, the Contractor completes an On the Job Training Program-Trainee Assignment form (sample copy at EEO Page 23) and submits it to the Contract Compliance Specialist (CCS) assigned to the project for approval. The CCS notifies the Contractor and Project Engineer when the applicant is approved.
4. Hours of work performed by OJT employees shall be documented on a monthly basis on the Certification of On-The-Job Training Hours form, (Mn/DOT Form No. 21860, sample copy at EEO Page 24). The Contractor shall submit the original and one copy to the Project Engineer, and one copy to the CCS assigned to the project.

Do not remove forms from this contract. Please duplicate forms from the copies in this contract, or the Mn/DOT Office of Civil Rights will provide these forms upon request. Please call the Office of Civil Rights, (651) 366-3073.

SPECIFIC FEDERAL EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 CFR 230, Subpart A, Appendix A, FAPG June 6, 1996)

1. General.

a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required contract Provisions (Form PR-1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of title 23, U.S.C., as established by Section 22 of the Federal-Aid Highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.

b. The contractor will work with the State highway agencies and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.

c. The contractor and all his/her subcontractors holding subcontracts not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of equal employment Opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The contractor will include these requirements in every subcontract of \$10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. Equal Employment Opportunity Policy.

The contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote their full realization of equal employment through a positive continuing program:

It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre apprenticeship, and/or on-the-job training.

3. Equal Employment Opportunity Officer. The contractor will designate and make known to State highway agency contracting officers

an equal employment opportunity officer (hereinafter referred to as the EEO Officer) who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

4. Dissemination of Policy.

a. All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action will be made fully cognizant of, and will implement, the contractor's equal employment opportunity policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

(1). Periodic meetings of supervisory and personnel office staff will be conducted before the start of work and then not less often than once every six months, at which time the contractor's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

(2). All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official, covering all major aspects of the contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the contractor.

(3). All personnel who are engaged in direct recruitment for the project will be instructed by the EEO officer or appropriate company official in the contractor's procedures for locating and hiring minority group employees.

b. In order to make the contractor's equal employment policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the contractor will take the following actions:

(1). Notices and posters setting forth the contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

(2). The contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

5. Recruitment.

a. When advertising for employees, the contractor will include in all advertisements for employees the notation "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

b. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the contractor will, through his/her EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where the implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

6. Personnel Actions. Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, or national origin. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each

SPECIFIC FEDERAL EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (cont.)

classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his/her obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all his avenues of appeal.

7. Training and Promotion.

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e. apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event the Training Special Provision is provided under this contract, this subparagraph will be superseded as indicated in Attachment 2.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The Contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

8. Unions. If a contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as

agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group members and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, or national origin.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the State highway department and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, or national origin; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the State highway agency.

9. Subcontracting.

a. The contractor will use his best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of minority-owned construction firms from State highway agency personnel.

b. The contractor will use his best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

10. Records and Reports:

a. The contractor shall keep such records as necessary to determine compliance with the contractor's equal employment opportunity obligations. The records kept by the contractor will be designed to indicate:

(1) The number of minority and non minority group members and women employed in each work classification on the project.

(2) The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractor's who rely in whole or in part on unions as a source of their work force),

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees, and

(4) The progress and efforts being made in securing the services of minority group subcontractors with meaningful minority and female representation among their employees.

b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State highway agency and the Federal Highway Administration.

c. The contractors will submit an annual report to the State highway agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR-1391. If on-the-job training is being required by a "Training Special Provision", the contractor will be required to furnish Form FHWA 1409.

**STANDARD FEDERAL AND STATE EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(41 CFR 60-4.3 and Minnesota Statute §363A.36)**

Unless noted, the following apply to both Federal/federally assisted projects and State/state assisted projects. Item 3 applies to Federal/federally assisted projects only

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer Identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 (\$100,000 for State projects) the provisions of these specifications and the Notice which contains the applicable goals for minority and women participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4, 5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work on the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7(a) to (p) of these specifications (itemized as 4 [a] to [o], Minnesota Rules

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

5000.3535). The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minorities and utilization the Contractor should (shall, for State or state assisted projects) reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor shall make substantially uniform progress toward its goals in each craft during the period specified. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Federal goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any office of Federal Contract Compliance programs or from Federal procurement contracting officers. State goals are published periodically in the State Register in notice form, and may be obtained from the Minnesota Department of Human Rights or the Minnesota Department of Transportation Office of Civil Rights. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union, with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications and Executive Order 11246 and its associated rules and regulations for Federal or federally assisted projects, and Minnesota Statutes, Section §363A.36 of the Minnesota Human Rights Act, or the rules adopted under the Act for State or state assisted projects.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained according to training programs approved by the Minnesota Department of Human Rights, the Minnesota Department of Labor and Industry, or the United States Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications must be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following (referred to in Minnesota Rules 5000.3535 as items 4(a) to (o):
 - (a) Ensure and maintain, or for State or state assisted projects make a good faith effort to maintain, a working environment free of harassment, intimidation, and coercion at all sites and in all facilities at which the Contractor's employees are assigned to work. For

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

Federal or federally assisted projects, the Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or women individuals working at such sites or in such facilities.

- (b) Establish and maintain a current list of minority and women recruitment sources, provide written notification to minority and women recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- (c) Maintain a current file of the names, addresses, and telephone numbers of each minority and woman off-the-street applicant and minority or woman referral from a union, a recruitment source, or community organization and of what action was taken with respect to each individual. If the individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the Contractor may have taken.
- (d) Provide immediate written notification to the commissioner of the Minnesota Department of Human Rights for State or state assisted projects, or the director of the Office of Federal Contract Compliance for Federal or federally assisted projects, when the union, or unions with which the Contractor has a collective bargaining agreement, has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- (e) Develop on-the-job training opportunities and/or participate in training programs for the areas which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the State of Minnesota for State or state assisted projects or the Department of Labor, for Federal or federally assisted projects. The Contractor shall provide notice of these programs to the sources compiled under (b).
- (f) Disseminate the Contractor's equal employment opportunity policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its equal employment opportunity obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and women employees at least once a year; and by posting the company equal employment opportunity policy on bulletin boards accessible to all employees at each location where construction work is performed.

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

- (g) Review, at least annually, the company's equal employment opportunity policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions; including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the first day of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- (h) Disseminate the Contractor's equal employment opportunity policy externally by including it in any advertising in the news media, specifically including minority and women news media, and providing written notification to and discussing the Contractor's equal employment opportunity policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.
- (i) Direct its recruitment efforts, both oral and written, to minority, women, and community organizations; to schools with minority and women students; and to minority and women recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- (j) Encourage present minority and women employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and women youth, both on the site and in other areas of a Contractor's work force.
- (k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3. (This requirement applies only to Federal and federally assisted projects.)
- (l) Conduct, at least annually, an inventory and evaluation at least of all minority and women personnel for promotional opportunities; and encourage these employees to seek or to prepare for, through appropriate training, such opportunities. (This is Item 4(k) in Minnesota Rules.)
- (m) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the equal employment opportunity policy and the Contractor's obligations under these specifications are being carried out. (This is item 4(l) in Minnesota Rules.)

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

- (n) Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes. (This is item 4(m) in Minnesota Rules.)
 - (o) Document and maintain a record of all solicitations or offers for subcontracts from minority and women construction contractors and suppliers, including circulation of solicitations to minority and women contractor associations and other business associations. (This is item 4(n) in Minnesota Rules.)
 - (p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment opportunity policies and affirmative action obligations. (This is item 4(o) in Minnesota Rules.)
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7(a) to (p) for Federal or federally assisted projects, and 4(a)-(o) for State or state assisted projects). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7(a) to (p) or 4(a) to (o) of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and women work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor however, is required to provide equal employment opportunity and to take affirmative action for all minority groups both male and female, and all women both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order for Federal or federally assisted projects, or Minnesota Rules for State or state assisted projects, if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order or Minnesota Rules part 5000.3520 if a specific minority group is under-utilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, creed, religion, sex, or national origin. Minnesota Statutes §363A.36, part 5000.3535 (Subp. 7) also prohibits discrimination with regard to marital status, status with regard to public assistance, disability, age, or sexual orientation.

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

11. The Contractor shall not enter into any subcontract with any person or firm debarred from government contracts under the federal Executive Order 11246 or a local human rights ordinance, or whose certificate of compliance has been suspended or revoked pursuant to Minnesota Statutes, Section §363A.36.
12. The Contractor shall carry out such sanctions for violation of these specifications and of the equal opportunity clause, including suspension, termination, and cancellation of existing contracts as may be imposed or ordered pursuant to Minnesota Statutes, Section §363A.36, and its implementing rules for State or state assisted projects, or Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs for Federal or federally assisted projects. Any contractor who fails to carry out such sanctions shall be in violation of these specifications and Minnesota Statutes, Section §363A.36, or Executive Order 11246 as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications (paragraph 4 in Minnesota Rules 5000.3535), so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of these Specifications or Minnesota Statutes, Section §363A.36 and its implementing rules, or Executive Order 11246 and its regulations, the commissioner or the director shall proceed in accordance with Minnesota Rules part 5000.3570 for State or state assisted projects, or 41 CFR 60-4.8 for Federal or federally assisted projects.
14. The Contractor shall designate a responsible official to monitor all employment-related activity to ensure that the company equal employment opportunity policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Minnesota Department of Human Rights or the Government, and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (for example, mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing provided in this part shall be construed as a limitation upon the application of other state or federal laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents.

EQUAL OPPORTUNITY CLAUSE
(41 CFR Part 60-1.4 b, 7-1-96 Edition)

The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoffs or termination; rates of pay or other forms of compensation; and, selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Highway Agency (SHA) setting forth the provisions of this nondiscrimination clause.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Contractor will comply with all provisions of Executive Order 11246, Equal Employment Opportunity, dated September 24, 1965, and of the rules, regulations (41 CFR Part 60), and relevant orders of the Secretary of Labor.
5. The Contractor will furnish all information and reports required by Executive Order 11246 and by rules, regulations, and orders of the Secretary of Labor, pursuant thereto, and will permit access to its books, records, and accounts by the Federal Highway Administration (FHWA) and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract, or with any of such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contracts or federally-assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
7. The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraph (1) through (7) in every subcontract or purchase order so that such provisions will be binding upon each subcontractor or vendor, unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246. The Contractor will take such action with respect to any subcontract or purchase order as the Secretary of Labor, SHA, or the Federal Highway Administration (FHWA) may direct as a means of enforcing such provisions, including sanctions for noncompliance. In the event a contractor becomes a party to litigation by a subcontractor or vendor as a result of such direction, the contractor may request the SHA to enter into such litigation to protect the interest of the State. In addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

Minority and Women Employment Goals

County	Federal Goals		State Goals	
	Minority Goal	Female Goal	Minority Goal	Female Goal
Aitkin	2.2%	6.9%	12%	9%
Anoka	2.9%	6.9%	22%	15%
Becker	0.7%	6.9%	12%	9%
Beltrami	2.0%	6.9%	12%	9%
Benton	0.5%	6.9%	15%	12%
Big Stone	2.2%	6.9%	15%	9%
Blue Earth	2.2%	6.9%	15%	9%
Brown	2.2%	6.9%	15%	9%
Carlton	1.2%	6.9%	12%	9%
Carver	2.9%	6.9%	22%	15%
Cass	2.2%	6.9%	12%	9%
Chippewa	2.2%	6.9%	15%	9%
Chisago	2.9%	6.9%	15%	12%
Clay	0.7%	6.9%	12%	9%
Clearwater	2.0%	6.9%	12%	9%
Cook	1.2%	6.9%	12%	9%
Cottonwood	0.8%	6.9%	15%	9%
Crow Wing	2.2%	6.9%	12%	9%
Dakota	2.9%	6.9%	22%	15%
Dodge	0.9%	6.9%	15%	9%
Douglas	2.2%	6.9%	12%	9%
Faribault	2.2%	6.9%	15%	9%
Fillmore	0.9%	6.9%	15%	9%
Freeborn	0.9%	6.9%	15%	9%
Goodhue	2.2%	6.9%	15%	9%
Grant	2.2%	6.9%	12%	9%
Hennepin	2.9%	6.9%	32%	20%
Houston	0.6%	6.9%	15%	9%
Hubbard	2.0%	6.9%	12%	9%
Isanti	2.2%	6.9%	15%	12%
Itasca	1.2%	6.9%	12%	9%
Jackson	0.8%	6.9%	15%	9%
Kanabec	2.2%	6.9%	15%	12%
Kandiyohi	2.2%	6.9%	15%	12%
Kittson	2.0%	6.9%	12%	9%
Koochiching	1.2%	6.9%	12%	9%
Lac Qui Parle	2.2%	6.9%	15%	9%
Lake	1.2%	6.9%	12%	9%
Lake of the Woods	2.0%	6.9%	12%	9%
Le Sueur	2.2%	6.9%	15%	9%
Lincoln	0.8%	6.9%	15%	9%
Lyon	0.8%	6.9%	15%	9%
Mahnomen	2.0%	6.9%	12%	9%

Minnesota Department of Transportation EEO Special Provisions
Office of Civil Rights

Updated 07/17

Marshall	2.0%	6.9%	12%	9%
Martin	2.2%	6.9%	15%	9%
McLeod	2.2%	6.9%	15%	12%
Meeker	2.2%	6.9%	15%	12%
Mille Lacs	2.2%	6.9%	15%	12%
Morrison	2.2%	6.9%	12%	9%
Mower	0.9%	6.9%	15%	9%
Murray	0.8%	6.9%	15%	9%
Nicollet	2.2%	6.9%	15%	9%
Nobles	0.8%	6.9%	15%	9%
Norman	2.0%	6.9%	12%	9%
Olmsted	1.4%	6.9%	15%	9%
Otter Tail	2.2%	6.9%	12%	9%
Pennington	2.0%	6.9%	12%	9%
Pine	2.2%	6.9%	15%	12%
Pipestone	0.8%	6.9%	15%	9%
Polk	1.2%	6.9%	12%	9%
Pope	2.2%	6.9%	12%	9%
Ramsey	2.9%	6.9%	32%	20%
Red Lake	2.0%	6.9%	12%	9%
Redwood	0.8%	6.9%	15%	9%
Renville	2.2%	6.9%	15%	12%
Rice	2.2%	6.9%	15%	9%
Rock	0.8%	6.9%	15%	9%
Roseau	2.0%	6.9%	12%	9%
Scott	2.9%	6.9%	22%	15%
Sherburne	0.5%	6.9%	15%	12%
Sibley	2.2%	6.9%	15%	9%
St. Louis	1.0%	6.9%	12%	9%
Stearns	0.5%	6.9%	15%	12%
Steele	0.9%	6.9%	15%	9%
Stevens	2.2%	6.9%	12%	9%
Swift	2.2%	6.9%	15%	9%
Todd	2.2%	6.9%	12%	9%
Traverse	2.2%	6.9%	12%	9%
Wabasha	0.9%	6.9%	15%	9%
Wadena	2.2%	6.9%	12%	9%
Waseca	2.2%	6.9%	15%	9%
Washington	2.9%	6.9%	22%	15%
Watsonwan	2.2%	6.9%	15%	9%
Wilkin	0.7%	6.9%	12%	9%
Winona	0.6%	6.9%	15%	9%
Wright	2.9%	6.9%	15%	12%
Yellow Medicine	2.2%	6.9%	15%	9%

Minnesota Department of Transportation

Office of Civil Rights
Contractor Employment Data

1. Contractor Name and Address:

Phone: _____

2. Employment Data		b) Social Security #	c) New Hire (Y or N)	d) Ethnicity	e) Gender (M or F)	f) Trade/Foreman, Supervisors, Managers	g) Level (A, J, or T)
a) Name: Last Name, First Name, MI							
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
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12.							
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16.							
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19.							
20.							
21.							
22.							
23.							
24.							
25.							
26.							
27.							

INSTRUCTIONS FOR EEO-12 CONTRACTOR EMPLOYMENT DATA

This form should be submitted at the Pre-Con to the Project Engineer prior to the start of your first MnDOT construction project for the calendar year (Prime and Subs)

1. Contractor Name and Address self-explanatory.
2. Employment Data information will coincide with your employment records.
 - 2a. Name should be listed First Name, Middle Initial, and Last Name. This will enable MnDOT EEO staff to readily identify individuals on all projects.
 - 2b. Social Security Number self-explanatory.
 - 2c. New Hire is to be indicated with a “Y” for Yes or an “N” for No. “New Hire” is an employee who has not worked for you in any capacity or on any other project within the current calendar year.
 - 2d. Ethnicity can be indicated by Black (B), Hispanic (H), American Indian/Alaskan Native (AI), Asian/Pacific Islander (AP), or White (W).
 - 2e. Gender is to be indicated with an “M” for Males or an “F” for Females.
 - 2f. Trade/Foreman, Supervisors, Managers self-explanatory. List trade that applies unless the employee fits one of the other three categories.
 - 2g. Level “A” is for an Apprentice, “J” is for a Journey Worker, and “T” is for a MnDOT approved Trainee.

If you have questions about filling out this form, contact the Office of Civil Rights at (651) 366-3073.
(Please make copies as you need them.)

This information can be submitted electronically via the web, through MnDOT’s Work force Information Tracking Initiative (WITI) Program. To open a free account to gain access to WITI or to find out more about this possibility please contact MnDOT’s Office of Civil Rights at (651) 366-3015.

Minnesota Department of Transportation EEO Special Provisions
Office of Civil Rights

Revised 07/12

Minnesota Department of Transportation Office of Civil Rights Monthly Employment Compliance Report EEO-13		1. SP <input type="checkbox"/> SAP <input type="checkbox"/> (Check one) SP# _____ County or City _____ 2. Reporting Period _____ to _____		3. Contractor Name: _____ Federal Tax ID: _____ Street Address: _____ City, State Zip _____		4. Prime <input type="checkbox"/> Subcontractor <input type="checkbox"/> (check one) 5. Dollar Amount of Contract: _____ 6. Percent of Completion: _____									
7. Employment Data a) Name: Last, First Middle Initial		b) Social Security #		c) New Hire (Y or N)		d) Ethnicity		e) Gender (M or F)		Trade/Foreman, Supervisors, Managers		g) Level (A, J or T)		h) Hours Worked This Period	
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															
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12.															
13.															
14.															
15.															
16.															
17.															
18.															
19.															
20.															
8. Contract Goals MINNESOTA GOALS %OBTAINED _____ % Minority _____ % _____ % Women _____ %		9. Prepared by: (Signature) _____ Print Name: _____ Title: _____ Date: _____ Phone: _____ Fax: _____													
10. Reviewed by: (Signature) _____ Print Name: _____ Title: _____ Date: _____ Phone: _____ Fax: _____															

INSTRUCTIONS FOR EEO-13
MONTHLY EMPLOYMENT COMPLIANCE REPORT

- 1.-5. Self-explanatory – State Project #, county project is located in, are you a prime or sub, and contract value.
- 6. Percent of Completion is the estimated percentage of work completed including this reporting period.
- 7. Employment Data information will coincide with your employment records. All professional, supervisory and managerial hours actually worked on the project site must be included, whether or not they appear on the certified payroll.
 - 7a. Name should be listed Last Name, First Name, and Middle Initial. This will enable MnDOT EEO staff to readily identify individuals on all projects.
 - 7b. Social Security Number self-explanatory.
 - 7c. New Hire is to be indicated with a “Y” for Yes or an “N” for No. “New Hire” is an employee who has not worked for you in any capacity or on any other project within the current calendar year.
 - 7d. Ethnicity can be indicated by Black (B), Hispanic (H), American Indian/Alaskan Native (AI), Asian/Pacific Islander (AP), or White (W).
 - 7e. Gender is to be indicated with an “M” for Males or an “F” for Females.
 - 7f. Trade/Foreman, Supervisors, Managers list the trade that applies unless the employee fits one of the other three categories.
 - 7g. Level “A” is for an Apprentice, “J” is for a Journey Worker, and “T” is for a MnDOT approved Trainee.
 - 7h. Hours Worked for This Period will be all hours worked by the individual, for each trade, during the specified reporting period.

8. Contract Goals are the percent of total project hours to be worked by minority and women employees. The goals are determined by the geographic location and source of funding for the project. Projects in excess of \$100,000 with any State funding must meet the State Employment Goals. Projects in excess of \$10,000 with any Federal funding must meet the Federal Employment Goals. (See chart on EEO Pages 16-17.) Minority and women employee hours shall be distributed evenly throughout the length of the project and in every trade and craft that performs work on the project.

% Obtained is the percent of the total project hours worked by minority and women employees, up to and including this reporting period.

9. Prepared by Contractor Designee is the signature of the prime or subcontractor’s EEO officer/designee.

10. Reviewed by Project Engineer is the signature of the MnDOT staff monitoring the project.

The Prime Contractor will submit EEO-13 forms for its workforce and all subcontractors to the MnDOT Project Engineer by the 15th day of the month following the month when work was performed. If you have questions about filling out this form, contact the Office of Civil Rights at (651) 366-3073. (Please make copies as you need them.)

This information can be submitted electronically via the web, through MnDOT’s Workforce Information Tracking Initiative (WITI) Program. To open a free account to gain access to WITI or to find out more about this possibility please contact MnDOT’s Office of Civil Rights at (651) 366-3321.

EEO COMPLIANCE REVIEW REPORT

Total Company Workforce
(For 12 Month Period Preceding July 30th of the previous year)

Name and Address of Contractor

Name and Title of Corporate Officer

Name of EEO Officer

Job Categories	Total Employees		Total Minorities		Blacks		Asian/ Pacific Is.		American Indian		Hispanic		On-the-Job Trainees	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Officials (Managers)														
Supervisors														
Foremen/Women														
Clerical														
Equipment Operators														
Mechanics														
Truck Drivers														
Iron Workers														
Carpenters														
Cement Masons														
Electricians														
Pipefitters & Plumbers														
Painters														
Laborers														
Misc. Trades														
Total														
On-the-Job Trainees														



MINNESOTA DEPARTMENT OF TRANSPORTATION
ON-THE-JOB TRAINING PROGRAM
TRAINEE ASSIGNMENT

SP #: _____ Location: _____ District: _____

Project Engineer: _____ Phone: () _____

Prime Contractor: _____ Phone: () _____

Address: _____

City: _____ State: _____ Zip: _____

EEO Officer: _____ Project Manager: _____

Tel: _____

Training Contractor: _____ Phone: () _____

Address: _____

City: _____ State: _____ Zip: _____

EEO Officer: _____ Project Manager: _____

Tel: _____

TRAINEE

Job Title or Trade Classification: _____ Number of Training Hours on this Project: _____

Name: _____ S.S.#: _____

Address: _____ Phone: () _____

City: _____ State: _____ Zip: _____

EEO Officer: _____ Project Manager: _____

Tel: _____

Approximate Start Date: _____

Approximate Completion Date: _____

Is the trainee a member of a certified apprenticeship program?

If YES, verify with Apprenticeship Form or Indenture Number: _____

1. Ethnic Background: Hispanic _____; Black _____; Asian/Pacific Islander _____; White _____; Am. Ind/Alaskan _____ (Verify with Tribal I.D. # or Affiliation _____).
2. Male; _____ Female; _____.

MINNESOTA DEPARTMENT OF TRANSPORTATION
OFFICE OF CIVIL RIGHTS

**CERTIFICATION OF ON-THE-JOB TRAINING HOURS
FEDERAL-AID-PROJECTS**

Contractor: *submit original and one copy monthly to the project engineer*

CONTRACTOR	REPORTING PERIOD:
ADDRESS	S.P. NO. (LOW):
	F.P. NO.:

TRAINEE	HOURS WORKED PREVIOUSLY	HOURS WORKED THIS PERIOD	TOTAL HOURS TO DATE

AMOUNT OF CLAIM _____ HOURS @ _____ PER HOUR = \$ _____

Progress of Trainee(s) Excellent Very Good Good Below Good

COMMENTS (Please detail any supplementary training offered):

<p>CONTRACTOR: The undersigned contractor hereby certifies that the listed employees are bonafide trainees as required by the On-the-Job Training Special Provision and that they have worked the hours as reported above.</p> <p>_____</p> <p style="text-align: center;"><i>Contractor Signature/Title</i> <i>Date</i></p>
<p>PROJECT ENGINEER: I hereby certify that the On-the-Job training hours reported above have been reviewed and found correct.</p> <p>_____</p> <p style="text-align: center;"><i>Engineer Signature/Title</i> <i>Date</i></p>



Minnesota Department of Transportation EEO Special Provisions
Office of Civil Rights
On-the-Job Training (OJT) Program Approval Form

07/12

The Special Provisions of the contract clearly indicate that training and upgrading of minorities and women toward Journey worker status is the primary objective of the training provisions.

We,		, submit the following training program for (Trade) for approval.
	(Name of Contractor)	

I. Project Information

Contractor Name	S.P. #	County	Prime	Sub
Address	City	State	Zip	
Contact Person/ EEO Officer		Phone #	e-mail address	
Project Goals				
Trainees	Hours			

II. Project Training Plan Information

Trade	# of Trainees Projected	Hourly Assignment per Trainee	Estimated Start Date	Estimated End Date	Recruiting Resource

Planned Training Activities

III. Contractor Acknowledgment Statement.

I understand and will comply fully with the plans and specifications under which this training is being performed, and will report subsequent revisions to the training program as changes occur.

Contractor's Representative Signature	Title	Date

IV. Instruction for the Contractor.

The contractor's proposed training programs must be documented on this form and submitted as indicated in the Proposal. Your Company's compliance with this specification will factor into any and all employment related "Good Faith Effort" determinations.



On-the-Job Training Program Trainee Termination Form

Contractor Name		County	Prime	Sub
Address		City	State	Zip
EEO Officer		Phone #	e-mail address	
Trainee Name		Phone #	Social Security No.	
Address		City	State	Zip
Race/Ethnicity				
<input type="checkbox"/> Hispanic		<input type="checkbox"/> White		<input type="checkbox"/> Asian
<input type="checkbox"/> Black		<input type="checkbox"/> American Indian		<input type="checkbox"/> Other
Gender		Classification/Trade		S.P. #
<input type="checkbox"/> Female	<input type="checkbox"/> Male			
Start Date	Termination Date	Hours Assigned	Hrs Completed	

Reason for Termination/Separation/Layoff:

<input type="checkbox"/> Construction phase completed
<input type="checkbox"/> Death
<input type="checkbox"/> Fired (please explain below)
<input type="checkbox"/> Illness/health problems
<input type="checkbox"/> Lack of transportation and /or travel distance
<input type="checkbox"/> Military duty
<input type="checkbox"/> Relocated
<input type="checkbox"/> Personal
<input type="checkbox"/> Quit to work for another company
<input type="checkbox"/> Other (please explain below)

Please provide comments:

Contractor's Representative Signature	Title	Date
---------------------------------------	-------	------

**MAIL or Fax THE ORIGINAL and MAINTAIN COPY:
395 John Ireland Boulevard
St. Paul, MN 55155-1899
Office of Civil Rights M.S. 170
On-The -Job Training Coordinator
Fax # 651/366-3129**

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS
Form-1273**

(52 FR 36920, October 2, 1987, revised October 21, 1993, FHWA Electronic Version May 1, 2012)

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

REQUIRED CONTRACT PROVISIONS (cont.)

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

REQUIRED CONTRACT PROVISIONS (cont.)

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

REQUIRED CONTRACT PROVISIONS (cont.)

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any

location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of

REQUIRED CONTRACT PROVISIONS (cont.)

this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit

which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain

REQUIRED CONTRACT PROVISIONS (cont.)

written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the

"Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

REQUIRED CONTRACT PROVISIONS (cont.)

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

REQUIRED CONTRACT PROVISIONS (cont.)

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any

subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its

REQUIRED CONTRACT PROVISIONS (cont.)

own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

REQUIRED CONTRACT PROVISIONS (cont.)

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who

has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

REQUIRED CONTRACT PROVISIONS (cont.)

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier

Covered Transactions" refers to any covered transaction under a

First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently

REQUIRED CONTRACT PROVISIONS (cont.)

debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

Notice of Award

NOTICE OF AWARD

**BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION
VADNAIS HEIGHTS, MINNESOTA**

Dated: _____

OWNER: Vadnais Lake Area Water Management
Organization _____

TO CONTRACTOR: _____

CONTRACT FOR: Birch Lake IESF White Bear Lake, Minnesota

Owner has requested that we notify you that your Bid dated _____ has been accepted as the successful Bidder and _____, has been awarded the contract to perform the Work. The Contract Price is stated in the Agreement.

_____ must comply with the following conditions precedent within fifteen (15) days of the date of this Notice of Award, that is by _____.

1. Return to Owner three fully executed counterparts of the Agreement (attached).
2. Performance and Payment Bond
3. Certificate of Insurance and endorsement(s)

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

Vadnais Lake Area Water
OWNER: Management Organization _____

By: _____
(AUTHORIZED SIGNATURE)

ACKNOWLEDGEMENT OF NOTICE

CONTRACTOR

By: _____
(AUTHORIZED SIGNATURE)

(TITLE)

(DATE)

END OF DOCUMENT 00 51 00



Form of Agreement

CONSTRUCTION SERVICES AGREEMENT

THIS CONSTRUCTION SERVICES AGREEMENT (“**Agreement**”) is made by and between the Vadnais Lake Area Water Management Organization (“**VLAWMO**”), a Minnesota joint powers organization, and the following contractor (“**Contractor**”):

Contractor Name/ Organization:	Federal EIN:
Mailing Address:	Telephone Number:
Contact Person:	Email:

The following person is designated the Engineer of this Agreement for the VLAWMO (“**Engineer**”). The Project has been designed by Engineer (defined in the Supplementary Conditions) and Engineer is to act as Owner's representative, assume all duties and responsibilities and have the limited rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents. The duties and responsibilities and rights and authority of Engineer cannot be extended without written consent of Owner and Engineer.

Name:	Email:
Mailing Address:	Telephone Number:

The following person is designated the Owner’s Project Manager of this Agreement for the VLAWMO (“**Owner**”):

Name:	Email:
Mailing Address:	Telephone Number:

The VLAWMO, the Engineer and the Contractor may hereinafter be referred to individually as a “party” or collectively as the “parties.”

RECITALS

A. The VLAWMO is in need of certain constructions services, as further described herein, (collectively, the “**Work**”);

- B. Because the total estimate cost of the Work is less than \$175,000, sealed bids are not required by law and this Agreement was not let using sealed bids;

- C. The VLAWMO has selected the Contractor to work with the Engineer to perform the Work and the Contractor desires to perform that Work in accordance with the terms and conditions of this Agreement.

AGREEMENT

In consideration of the mutual promises contained herein, and intending to be legally bound, the VLAWMO and Contractor hereby mutually agree as follows:

SECTION I WORK

1.1 Work. Contractor shall complete all Work as specified or indicated in the Contract Documents for Birch Lake IESF White Bear Lake, Minnesota. The Contractor agrees to provide the VLAWMO the Work specified in the Contractor's proposal attached as Attachment A. The Work is generally described in Division 1 (General Requirements) of the Technical Specifications. The Work to be provided under the Contract Documents may be the whole or only a part of the total construction for the Project attached as Attachment B. To the extent there are any material inconsistencies in the requirements of the text of this document or of any of the exhibits, they shall be resolved in the following order of priority: Attachment B, the text of this document, and then Attachment A. The Work to be provided includes all of those described in Attachment A and Attachment B. The Contractor shall be responsible for complying with the specifications and description of the Work and any special provisions attached as Attachment B. If the Contractor believes there are any inconsistencies with the information attached as Attachment A and the specifications or information attached as Attachment B, the Contractor shall seek clarification and a determination from the VLAWMO before proceeding with the any aspect of the Work affected by the inconsistency. The Contractor shall perform all Work required by this Agreement in a good workmanlike manner, consistent with industry standards for Work of a similar type.

1.2 Personnel, Equipment, and Signage. The Contractor shall be responsible for providing appropriate equipment and properly trained, experienced and licensed equipment operators as may be necessary to complete the Work. The Contractor shall be responsible for any damage to or loss of its equipment caused by its performance of this Agreement. The Contractor shall also be responsible for placing and maintaining such traffic control devices as may be required to warn the travelling public of the work being performed. The selection and placement of traffic control devices if required to provide the Work shall be consistent with the standards established in the Minnesota Manual on Uniform Traffic Control Devices.

1.4 Materials. The Contractor shall supply, at its own cost, all materials required to complete the Services.

1.5 Contract Times..

1.51 *Time is of the Essence.* All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

1.52 *Dates of Substantial Completion and Final Payment.* The number of calendar days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Times) are set forth in the Instructions to Bidders With NO EXCEPTIONS. The Contractor shall finish all work to complete the Services no later than _____

1.53 *Liquidated Damages.* Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times referred to or specified in paragraph 1.5.2. above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. Owner reserves the right to assess Contractor and Contractor agrees to pay liquidated damages as provided in the Instructions to Bidders.

1.6 Notice, Inspection, and Acceptance. The VLAWMO, through the Engineer and its appointed representative, shall be allowed access to all parts of the project site at all times and shall be furnished such information and assistance from the Contractor as may be required to make a complete and detailed inspection of the Work. The Contractor shall provide the Engineer and VLAWMO notice of it having completed the Work. The Engineer shall provide for the inspection of the project site and, upon determining the Work has been completed in accordance with the terms of this Agreement, the Engineer shall notify the VLAWMO representative and the Contractor that the work is accepted. The VLAWMO, or its representative, shall provide the Contractor a written notice of acceptance and the date on which it accepted the completed Services. If the Engineer or the VLAWMO representative reasonably determines that any portion of the work was not completed in accordance with this Agreement, it shall notify the Contractor of the additional or corrective work needing to be done in order to satisfactorily complete the Work. The Contractor shall be responsible for promptly completing the additional or corrective work at its own cost. Once the additional or corrective work is complete, the Contractor will request another inspection and, if properly completed, issuance of a written notice of acceptance.

1.7 Document Ownership. Any reports, studies, photographs, negatives, or other documents or deliverables prepared by the Contractor in the performance of its obligations under this Agreement shall be the exclusive property of the VLAWMO, and all such documents shall be remitted to the VLAWMO by the Contractor upon completion, termination, or cancellation of this Agreement.

1.8 Independent Contractor. The Contractor acknowledges and agrees that it is an independent contractor of the VLAWMO and that nothing contained herein shall be construed to

create the relationship of employer-employee or joint venture between the VLAWMO and the Contractor. The Contractor acknowledges that any general instructions it may receive from the VLAWMO will have no effect on its status as an independent contractor. The standards of performance, discipline of employees, method of providing the work, and other matters incident to the performance of the obligations under this Agreement, including personnel to be employed, shall be determined by the Contractor. Contractor shall provide competent, suitably qualified personnel to perform the work as required by this Agreement. Contractor shall at all times maintain good discipline and order of its employees, contractors, and agents performing work under this Agreement. The Contractor acknowledges and agrees that it is not entitled to receive any of the benefits received by the VLAWMO employees and is not eligible for workers' or unemployment compensation benefits under the VLAWMO. The Contractor also acknowledges and agrees that no withholding or deduction for State or Federal income taxes, FICA, FUTA or otherwise will be made from the payments due Contractor and that it is the Contractor's sole obligation to comply with the applicable provisions of all federal and state laws.

1.9 Suspension of Work. Upon written notification from the VLAWMO, the Contractor shall suspend Work under this Agreement as directed in the notice. Failure to comply with this section shall bar the Contractor from making any claim for compensation for Service done after it has received written notification to suspend such Services. To the extent practicable, the term of the Agreement may be extended by the VLAWMO in an effort to replace any time when Work was suspended.

SECTION II **COST AND PAYMENT**

2.1 Total Cost. The VLAWMO agrees to pay the Contractor for completion of the Work, all as Unit Price Work, in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 2.1.A and 2.01.C below. The initial or estimated Contract Price as determined by the sum of the established unit price for each item of Work times the estimated quantity of that item as set forth in the Bid Form. This amount of \$_____ (Total Payment) is all-inclusive and covers all work and materials to complete the Work, including, but not limited to, all transportation, set-up, material delivery, salaries, wages, and other personnel costs of Contractor, sales and other taxes, equipment and tool costs, fuel costs and any and all other costs and expenses of the Work. Unless expressly stated otherwise in the attached Attachment B, no change to the Total Payment amount shall occur except upon written amendment to this Agreement signed by both parties and specifying the amount of the additional payment.

2.2 Payments.

2.21 *Submittal and Processing of Payments*. The Contractor shall provide the VLAWMO the Engineer in accordance with Article 14 of the General Conditions as may be modified by Supplemental Conditions, detailed invoices for the Services completed no more often than once a month. Upon approval by the Engineer, the VLAWMO shall pay the Contractor the amount of the invoice within 30 calendar days. In the event any disagreement occurs about any amounts invoiced,

the VLAWMO may withhold payment regarding such disputed Services if the VLAWMO provides the Contractor a written notice of the basis for the dispute and the amount being withheld. The parties agree to work in good faith to resolve the dispute.

2.22. *Retainage.* Retainage on account of progress payments will be as provided for in the Instructions to Bidders.

2.23. *Final Payment.* Final payment on this Agreement shall be prepared and paid in accordance with paragraph 14.07 of the General Conditions and its receipt from the Contractor of a signed IC-134 form from the Minnesota Department of Revenue within 30 days of the VLAWMO's acceptance of the Work.

2.3 Prevailing Wage. To the extent the "Prevailing Wage Act" is mandated to this Agreement under Minn. Stat. § 177.41, et. seq., the Contractor shall compensate employees at the prevailing wage rate for similarly situated employees. The Contractor shall also compensate Jobs Training Program participants at the federal, state, or local minimum wage or the prevailing wage rate of similarly situated employees, whichever is highest.

2.4 Interest. All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at a maximum rate equal to the sum of the prevailing "Prime Rate" in the geographical area of the Project plus 2 percent (2%).

SECTION III CONTRACTOR'S REPRESENTATIONS

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

3.11 Contractor has examined and carefully studied the Contract Documents including all Addenda and the other related data identified in the Bidding Documents including "technical data."

3.12 Contractor has visited the sites 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.

3.13. 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.

3.14. Contractor makes all representations, previously made as Bidder, upon signing and submitting the Bid Form as though fully repeated herein.

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

3.16. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the site, reports, and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

3.17 Contractor has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Contractor, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

SECTION IV **TERM AND WARRANTY**

4.1 **Term.** This Agreement shall commence as of the date first written above and shall terminate at the later of the conclusion of the warranty period or the completion of all warranty work.

4.2 **Warranty.** The Contractor agrees to warrant all work and materials provided as part of the Services against defects in labor and materials for a period of one year from the date of the written notice of acceptance of the Services by the VLAWMO. During such period, the Contractor agrees to repair or replace any aspect of the work or materials which show signs of failure, normal wear and tear excepted. The VLAWMO, in the exercise of its reasonable judgment, shall make a decision regarding whether any portion of the Services show signs of failure. If the Contractor fails to repair or replace any defective aspect of the Services during the warranty period, the VLAWMO may file a claim against any security received to have necessary repairs or replacements completed or, the VLAWMO may perform the work and the Contractor shall be responsible for reimbursing the VLAWMO for all of its costs to complete the work, including all costs incurred to seek performance of the work and all collection costs. Such reimbursement shall be made within 30 days of the date upon which the VLAWMO notifies the Contractor of the cost due under this paragraph.

SECTION V **DEFAULT**

5.1 **Inability to Perform.** The Contractor shall make every reasonable effort to maintain staff, facilities, and equipment to deliver the Work required by this Agreement. The Contractor shall immediately notify the VLAWMO in writing whenever it is unable to, or reasonably believes it is going to be unable to complete any aspect of the Work in accordance with this Agreement. Upon such notification, the VLAWMO shall determine whether such inability requires a modification or cancellation of this Agreement.

5.2 **Failure to Perform.** The VLAWMO may, by written notice to the Contractor, immediately terminate this Agreement if it determines any of the following have occurred: failure to adequately perform or deliver the required materials or work; failure to follow the

specifications or standards established by this Agreement; failure to perform or complete the work in a timely fashion as established by the VLAWMO; failure to provide the required bonds or insurances; or failure to correct deficiencies within ten (10) days' notice thereof. If the VLAWMO terminates this Agreement for the Contractor's failure to perform, it shall provide the Contractor written notice that includes the reasons for the Termination. Upon such termination, the VLAWMO shall only be required to pay for the portion of the materials and work that were in accordance with this Agreement, but may offset that amount by the costs the VLAWMO will incur to correct any defective materials or work.

5.3 Default by Contractor. Unless excused by the VLAWMO's default, the occurrence of an uncontrollable circumstance, or the VLAWMO issuing a written waiver of default, each of the following shall constitute default on the part of the Contractor:

- (a) The written admission by the Contractor that it is bankrupt; or filing by the Contractor of a voluntary petition under the Federal Bankruptcy Act; or the filing of an involuntary petition under the Federal Bankruptcy Act against the Contractor unless dismissed within ninety (90) days. The Notice of Default and cure provision of this Agreement do not apply to this paragraph;
- (b) The making of any arrangement with or for the benefit of the Contractor's creditors involving an assignment to a trustee, receiver or similar fiduciary. The Notice of Default and cure provisions of this Agreement do not apply to this paragraph;
- (c) Making material misrepresentations in the information it presents to the VLAWMO and which the VLAWMO relied upon in making or modifying this Agreement;
- (d) Failure to comply with any laws, ordinances, rules, regulations or orders of any public authority having jurisdiction related to the Services;
- (e) Failure to make satisfactory progress towards completion of this Agreement; or
- (f) Failure to perform or comply with any material provision of this Agreement.

5.4 Default by the VLAWMO. Unless excused by the Contractor's default, the occurrence of uncontrollable circumstances, or the Contractor waiver of default, each of the following shall constitute a default on the part of the VLAWMO:

- (a) The persistent or repeated failure or refusal by the VLAWMO to pay or prevent payment of any uncontested amount to the Contractor timely and properly submitted as required by this Agreement;
- (b) Making material misrepresentations either in the attached exhibits and documents or in any other provisions or conditions relied upon by the Contractor in making this Agreement; or

- (c) Persistent or repeated failure to perform any other material provision of this Agreement.

5.5 Written Notice of Default. Unless otherwise provided, no event shall constitute a default giving rise to the right to terminate unless and until written Notice of Default is given to the defaulting party, specifying the particular event, series of events, or failure constituting the default and the cure period.

5.6 Cure Period. If the party in default fails to cure the specified circumstances as described by the Notice of Default within ten (10) days or such other time as may be specified under the terms of this Agreement, then the non-defaulting party may terminate this Agreement by written notice as stated in this Agreement.

5.7 Withholding of Payment. Notwithstanding any other provision of this Agreement, the VLAWMO may, after giving Notice of Default, withhold, without penalty or interest, any payment which becomes due after Notice of Default is given, until the default is excused, waived in writing, cured, or the Agreement is terminated.

5.8 Enforcement Actions. In the event the Contractor fails to perform the services in compliance with all applicable local, state, and federal laws, permits, rules, and regulations, the Contractor shall reimburse the VLAWMO for any civil or criminal penalties or costs of defense it incurs due to such violations.

5.9 Preservation of Other Remedies. The rights and remedies of the VLAWMO provided in this Section are not exclusive and are in addition to any other rights and remedies provided by law or under this Agreement.

SECTION VI **LIABILITY AND INDEMNIFICATION**

6.1 Indemnification. Any and all claims that arise or may arise against the Contractor, its officers, agents, employees or contractors as a consequence of any act or omission on the part of the Contractor or its officers, agents, employees or contractors while engaged in the performance of the Agreement shall in no way be the obligation or responsibility of the VLAWMO. The Contractor shall indemnify, hold harmless, and defend the VLAWMO, its officials, agents, and employees against any and all liabilities, losses, costs, damages, expenses, claims or actions, including attorneys' fees, which the VLAWMO, its officials, agents, contractors or employees may hereafter sustain, incur, or be required to pay, arising out of or by reason of any act or omission of the Contractor, its officers, agents, contractors or employees, in the execution, performance, or failure to adequately perform the Contractor's obligations pursuant to this Agreement. This obligation shall survive the termination of this Agreement.

6.2 Nonwaiver of Rights. Nothing in this Agreement shall constitute a waiver by the

VLAWMO of any statutory limits or immunities from liability whether provided in Minnesota Statutes, Chapter 466 or elsewhere. Each right, power or remedy conferred upon the VLAWMO by this Agreement is cumulative and in addition to every other right, power or remedy, express or implied, now or hereafter arising, or available to the VLAWMO at law or in equity, or under any other agreement. Each and every right, power and remedy herein set forth or otherwise so existing may be exercised from time to time as often and in such order as may be deemed expedient by the VLAWMO and shall not be a waiver of the right to exercise at any time thereafter any other right, power or remedy.

SECTION VII **BONDS**

A performance bond and payment bond are required. Each bond must be in an amount at least equal to the Total Payment amount indicated above and shall be on forms acceptable to the VLAWMO. Such bonds are subject to the provisions of Minnesota Statutes, sections 574.26 to 574.32. The bonds must be presented to and accepted by the VLAWMO's representative prior to the Contractor starting the Services. The VLAWMO may draw upon the performance bond if the Contractor fails to complete the work in accordance with the terms of this Agreement, including any warranty work.

If a performance bond and payment bond are not required, which will be assumed to be the case if there is no indication above (unless the request for quotes expressly requires such bonds), the Contractor is not required to submit such bonds. The VLAWMO not requiring bonds does not relieve the Contractor from its obligation to complete the Services in accordance with this Agreement, paying all subcontractors and materials suppliers, and for repairing or replacing any of the work as may be needed during the warranty period.

SECTION VIII **INSURANCE**

The Contractor shall not commence work under this Agreement until it has obtained all insurances required by this Agreement and all required insurances have been approved by the VLAWMO. The Contractor shall provide and maintain at all times during the term of this Agreement such insurance coverages as indicated herein. Such policy or policies shall apply to the extent of, but not as a limitation upon or in satisfaction of, the indemnity provisions of this Agreement. Financially responsible insurers licensed to do business in the State of Minnesota shall issue all policies required by this Agreement.

8.1 Automobile Liability. The Contractor shall maintain business automobile liability insurance covering liability for bodily injury and property damage arising out of the ownership, use, maintenance, or operation of all owned, non-owned, and hired automobiles and other motor vehicles utilized by the Contractor in connection with its performance under this Agreement. Such policy shall provide total liability limits for combined bodily injury and property damage in the amount of at least \$1,000,000 per accident, which total limits may be satisfied by the limits afforded under such policy, or by such policy in combination with the limits afforded by an umbrella or excess

liability policy(ies); and provided that the coverage afforded under any such umbrella or excess liability policy(ies) shall be at least as broad with respect to such business automobile liability insurance as that afforded by the underlying policy. Unless included within the scope of the Contractor's commercial general liability policy, such business automobile liability policy shall also include coverage for motor vehicle liability assumed under contract. The policy shall name the VLAWMO as an additional insured.

8.2 Workers' Compensation. The Contractor shall maintain workers' compensation insurance in compliance with all applicable statutes including an all-states or universal endorsement where applicable. Such policy shall include employer's liability coverage in an amount of no less than \$500,000.

8.3 Commercial General Liability Insurance. The Contractor shall maintain commercial general liability insurance coverage providing coverage on an "occurrence" rather than on a "claims made" basis, which policy shall include, but not be limited to, coverage for bodily injury, property damage, personal injury, and contractual liability (applying to this Agreement). The Contractor agrees to maintain at all times during the period of this Agreement a total combined general liability policy limit of at least \$1,500,000 per occurrence and aggregate, applying to liability for bodily injury, personal injury and property damage, which total limit may be satisfied by the limit afforded under its commercial general liability policy, or equivalent policy, or by such policy in combination with the limits afforded by an umbrella or excess liability policy (or policies); provided that the coverage afforded under any such policy in combination with the limits afforded by an umbrella or excess liability policy is at least as broad as that afforded by the underlying commercial general liability policy. The policy shall name the VLAWMO as an additional insured.

SECTION IX **GENERAL PROVISIONS**

9.1 Entire Agreement. It is understood that this Agreement contains the entire agreement between the VLAWMO and the Contractor and that no statement, promise or inducement made by any party hereto, or officer, agent or employee of either party hereto, which is not contained in this written Agreement shall be valid and binding. This Agreement may not be amended, modified, or altered except in writing signed by the parties. Any such amendments, including any change orders, must specifically identify the effect it has in reducing or increasing the total payment. Furthermore, failure of the VLAWMO to strictly enforce the provisions of this Agreement shall not be considered a waiver of either its right to require Contractor to strictly comply, or the Contractor's obligation to strictly comply, with all of the terms, conditions, and requirements of this Agreement.

9.2 Assignment. The Contractor shall not enter into any subcontract for performance of any services contemplated under this Agreement nor assign any interest in this Agreement without the prior approval of the VLAWMO and subject to such conditions and provisions as the VLAWMO may deem necessary or desirable in its sole discretion. The Contractor shall be responsible for the performance of all subcontractors.

9.3 Non-discrimination. The provisions of Minnesota Statutes, section 181.59 and of any applicable local ordinance relating to civil rights and discrimination shall be considered a part of this Agreement as though fully set forth herein.

9.4 Audit. In accordance with Minnesota Statutes Section 16C.05, subdivision 5, the Contractor's books, records, documents and accounting procedures and practices relevant to this Agreement are subject to examination by the VLAWMO and the Minnesota State Auditor or legislative auditor for a minimum of six years from the expiration date of this Agreement.

9.5 Data Privacy. Files and records created in connection with this Agreement shall be subject to the provisions of the Minnesota Data Practices Act, and specifically Minnesota Statutes, section 13.05, subd. 11. Contractor shall direct any requests for data it receives related to the Agreement to the VLAWMO and shall assist as may be needed in the VLAWMO responding to the request.

9.6 Legal Compliance. The Contractor shall abide by all federal, state or local laws, statutes, ordinances, rules and regulations in its performance of this Agreement including, but not limited to, obtaining all permits and permissions required to provide the Services.

9.7 Minnesota Law Governs. This Agreement shall be governed by and construed in accordance with the substantive and procedural laws of the State of Minnesota, without giving effect to the principles of conflict of laws. All proceedings related to this Agreement shall be venued in the State of Minnesota and Ramsey County.

9.8 Severability. The provisions of this Agreement shall be deemed severable. If any part of this Agreement is rendered void, invalid or otherwise unenforceable, such rendering shall not affect the validity and enforceability of the remainder of this Agreement unless the part or parts that are void, invalid, or otherwise unenforceable shall substantially impair the value of the entire Agreement with respect to either party.

9.9 VLAWMO Obligation. All covenants, promises, agreements, and obligations of the VLAWMO contained herein shall be deemed to be the covenants, stipulations, promises, agreements, and obligations of the VLAWMO, and not of any governing body member, officer, agent, servant, or employee of the VLAWMO in the individual capacity thereof.

9.10 Conflict of Interest. Contractor agrees that it will not, during the term of this Agreement, enter into a contract or otherwise accept employment for the performance of any work or service with any individual, business, partnership, corporation, government, governmental unit, or any other organization that would create a conflict of interest in the performance of its obligations under this Agreement.

9.11 Subcontractor Payments. Pursuant to Minnesota Statutes, section 471.425, subdivision 4a, the Contractor must pay any subcontractors within 10 days of the Contractor's

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

9.12 Force Majeure. Neither party shall be held responsible for delay or failure to perform when such delay or failure is due to any of the following uncontrollable circumstances, unless the act or occurrence could have been foreseen and reasonable action could have been taken to prevent the delay or failure: fire, flood, epidemic, strikes, wars, acts of God, acts of public authorities, or delays or defaults caused by public carriers; provided the non-performing party gives notice as soon as possible to the other party of the inability to perform and an explanation of the reasons. The VLAWMO and the Contractor agree to attempt to resolve quickly all matters related to uncontrollable circumstances and use all reasonable efforts to mitigate its effects. If a matter arising under this paragraph is unable to be resolved within 30 days, the party aggrieved by the other party's non-performance may terminate this Agreement upon 10 days' written notice.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date and year first written above.

CONTRACTOR

Company Name: _____

By: _____

Its: _____

Signature: _____

Date: _____

Attest:

Address for giving notices:

License No.

Agent for service of process:

VLAWMO

By: James Lindner

Its: Chair

Signature: _____

Date: _____

Attest: _____

Address for giving notices:

800 East County Road E. _____

Vadnais Heights, MN 55127

ATTACHMENT A
Contractor's Proposal

(attached hereto)

ATTACHMENT B
Contract Document, Specifications and/or Description of Services & Special Provisions

(attached hereto)

Notice to Proceed

NOTICE TO PROCEED

**BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION
800 EAST COUNTY ROAD E.
VADNAIS HEIGHTS, MINNESOTA**

Dated: _____

OWNER: Vadnais Lake Area Water Management
Organization

TO CONTRACTOR: _____

CONTRACT FOR: Birch Lake IESF White Bear Lake, Minnesota

OWNER has requested that you be notified that the Contract Times under the above Contract will commence to run on _____. By that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 8 of the Instructions to Bidders and Article 3 of the Agreement the dates of Substantial Completion and Final Completion and ready for final payment on _____ and _____, respectively.

Before starting the Work at the site, including delivery or storage of equipment or materials, deliver to Owner, unless previously provided:

- 1. Schedule of Operations
- 2. Schedule of Values

OWNER: Vadnais Lake Area Water
Management Organization

By: _____
(AUTHORIZED SIGNATURE)

ACKNOWLEDGEMENT OF NOTICE

CONTRACTOR

By: _____
(AUTHORIZED SIGNATURE)

(TITLE)

(DATE)

END OF DOCUMENT 005500



General Conditions

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

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A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

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

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1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

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

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

Supplementary Conditions

SUPPLEMENTARY CONDITIONS

BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition) hereinafter referred to as the "General Conditions," 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 will have the meaning indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings indicated below or elsewhere in the Contract Documents, which are applicable to both the singular and plural thereof.

SC-1.01.A.12 Delete the definition of *Contract Documents* in Paragraph 1.01.A.12 of the General Conditions in its entirety and insert the following in its place:

Contract Documents - The items which comprise the Contract Documents are set forth in the Instructions to Bidders. Only printed or hard copies of the items listed are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by Owner or Engineer to Contractor are not Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

SC-1.01.A.19 Delete the definition of *Engineer* in Paragraph 1.01A.19 of the General Conditions in its entirety and insert the following in its place:

Engineer - Barr Engineering Co., 4300 MarketPointe Drive—Suite 200, Bloomington, Minnesota, 55435 (Phone: 952-832-2600; Fax: 952-832-2601). Engineer may designate an employee to serve as Project Engineer. This designation can be changed upon written notification to Contractor. All correspondence to or through Engineer shall be directed to the attention of the designated Project Engineer.

SC-1.01.A.29 Delete the definition of *Owner* in Paragraph 1.01.A.29 of the General Conditions in its entirety and insert the following in its place:

Owner – Vadnais Lake Area Water Management Organization with whom Contractor has entered into the Agreement and for whom the Work is to be provided.

SC-1.01.A.52 Add the following defined terms to Paragraph 1.01.A of the General Conditions:

52. *Bid Proposal; Bid Form; Bid Proposal Form* - The prescribed form on which bidder submits bidder's offer or proposal setting forth the bidder's prices for the Work to be performed.

53. *Field Memorandum* - A written statement issued by Engineer which clarifies or interprets the Contract Documents in accordance with Paragraph 9.08 of the General Conditions.

54. *General Conditions* - Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition). Any reference to the General Conditions shall also be a reference to the Supplementary Conditions.

55. *Contract Modification* - a) a Change Order or b) a Field Order. A modification may only be issued after execution of the Agreement.

56. *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.

57. *As Specified, as specified* - In accordance with the requirements of the Contract Documents.

58. *Technical Specifications* – The Specifications.

and as so amended, Paragraph 1.01 remains in effect.

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

Evidence of Insurance: Before any Work at the Site is started, Contractor shall deliver to Owner, with a copies to Engineer, certificates of insurance including copies of endorsements required by Contract Documents (and other evidence of insurance requested by Owner) which Contractor is required to purchase and maintain in accordance with the Agreement and Article 5 of the General Conditions.

SC-2.02.A Delete Paragraph 2.02.A of the General Conditions in its entirety and insert the following in its place:

Owner shall furnish Contractor up to five copies of the Contract Documents. A reasonable number of additional copies will be furnished upon request at the Owner's cost of reproduction.

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

The Contract Time will commence to run on the day indicated in the Notice to Proceed. Contractor's failure to proceed immediately with the performance of the Work shall not be justification for Contractor to make a claim for an adjustment of the Contract Time or a change in the Contract Price and shall be deemed to be a delay within Contractor's control under Paragraph 12.03.E of the General Conditions.

SC-2.08 Add the following Paragraph after Paragraph 2.07.A.3:

2.08 Progress Meetings

A. Contractor shall attend progress meetings as required by the Technical Specifications.

SC-3.01.A Delete Paragraph 3.01.A of the General Conditions in its entirety and insert the following in its place:

The Contract Documents are intended to be complementary; what is called for by one is as binding as if called for by all. However, in the case of a discrepancy in the documents, the order of precedence for the documents shall be as follows (provisions of the documents listed first below shall control over the provisions of a document listed later):

- a. Written Amendment
- b. Change Orders
- c. Work Change Directives
- d. Agreement
- e. Purchase Order or similar document (if applicable)
- f. Field Orders and Field Memorandums
- g. Notice to Proceed
- h. Addenda
- i. Bid Form
- j. Instructions to Bidders
- k. Drawings
- l. Specifications
- m. Supplementary Conditions
- n. Standard General Conditions (EJCDC C-700, 2007 Edition)
- o. Advertisement for Bids
- p. Bonds

SC-3.01.B Add the following language immediately after the second sentence of Paragraph 3.01.B of the General Conditions:

Any item or items shown on the Drawings or described in the Specifications, but not specifically included in any of the unit prices, shall be considered incidental to the other work.

and as so amended, Paragraph 3.01.B remains in effect.

SC-3.02.A.1 Add the following language following the last sentence of Paragraph 3.02.A.1 of the General Conditions:

If there is any conflict between the provisions of the Contract Documents and any such referenced provisions, such discrepancy shall be resolved by in accordance with Paragraph 3.03.B of the General Conditions.

and as so amended, Paragraph 3.02.A.1 remains in effect.

SC-3.04.B.1 Delete the phrase "A Field Order;" from Paragraph 3.04.B.1 and insert the following in its place:

A Field Order or Field Memorandum (pursuant to Paragraphs 9.04);

and as so amended, Paragraph 3.04.B.1 remains in effect.

SC-3.05.A.1 Delete the phrase "bearing the seal of Engineer" from Paragraph 3.05.A.1 of the General Conditions and insert the following phrase in its place:

bearing the certification or seal of Engineer

and as so amended, Paragraph 3.05.A.1 remains in effect.

SC-3.06.B Delete the last sentence in Paragraph 3.06.B and insert the following in its place:

Any errors detected within the 60 day acceptance period will be corrected by the transferring party except for those errors resulting from the use of software application package, operating systems, or computer hardware differing from those used by the data's creator.

and as so amended, Paragraph 3.06.B remains in effect.

SC-4.01.A Add the following after the first sentence of Paragraph 4.01.A

The construction limits as provided by Owner are shown on the Drawings except as may be otherwise described in the Specifications.

and as so amended, Paragraph 4.01.A remains in effect.

SC-4.01.C Delete Paragraph 4.01.C of the General Conditions in its entirety and insert the following in its place:

Contractor shall provide for all additional lands and access thereto that Contractor may require for performance of the Work, temporary construction facilities, or storage of materials and equipment.

SC-4.02.A.1 Delete Paragraph 4.02.A.1 of the General Conditions in its entirety and insert the following in its place:

those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents and additional provisions related thereto are identified in the Instructions to Bidders; and

SC-4.02.A.2 Delete Paragraph 4.02.A.2 of the General Conditions in its entirety and insert the following in its place:

those drawings of physical conditions in or relating to existing surface and subsurface structures at or contiguous to the Site (except Underground Facilities and Utilities) that Engineer has used in preparing the Contract Documents and additional provisions relating thereto are identified in the Instructions for Bidders.

SC-4.04.A Delete Paragraphs 4.04.A through 4.04.B.2 of the General Conditions in their entirety and insert the following in their place:

Refer to the Instructions for Bidders for the provisions relating to Underground Facilities and Utilities.

SC-5.01.A Add the following sentence to the end of Paragraph 5.01.A of the General Conditions:

Contractor shall furnish such additional Bonds as may be required by any permitting authority as a condition of any such permit.

and as so amended, Paragraph 5.01.A remains in effect.

SC-5.03.B Delete Paragraph 5.03.B in its entirety.

SC-5.04.A Add six new Paragraphs to the end of Paragraph 5.04 of the General Conditions which read as follows:

The insurance policy or policies required by this Paragraph 5.04 of the General Conditions shall include the interests of the Owner and the Engineer (Barr Engineering Co.), Ramsey County and the City of White Bear Lake all of whom shall be listed as insured or additional insured parties.

The insurance required by this Paragraph 5.04 shall include policy or policies which afford coverage to damage to property of others arising out of the perils of explosion,

collapse and damage to underground facilities. The policy or policies shall afford the same limits of liability as set forth in the Agreement for liability assumed under the Contract.

All responsibility for payment of any sums resulting from any deductible provision, corridor, or self-insured retention condition of the policy or policies shall remain with the Contractor.

These insurance requirements are not to be construed as recommended or maximum amounts. Contractor is solely responsible for determining the appropriate limits of insurance coverage for injuries or damages resulting from the performance of the work under the Contract Documents.

Notwithstanding the availability of, or limits on, or deductible provisions in, any insurance provided by Contractor under this Section 5.04, Contractor shall defend, indemnify and hold harmless the Owner and Engineer from any and all claims or causes of action alleged to arise from or on account of acts or omissions of Contractor, its officers, employees, agents or subcontractors, in performing the work called for in the Contract Documents.

Contractor shall furnish with the certificate(s) of insurance copies of all endorsements providing additional insured status of Owner and Engineer.

and as so amended, Paragraph 5.04 remains in effect.

SC-5.04.B.3 Modify Paragraph 5.04.B.3 of the General Conditions to read

“...under Paragraphs 6.07.C, 6.11, and 6.20:”

and as so amended, Paragraph 5.04.B.3 remains in effect.

SC-5.04.B.4 Delete the words “materially changed” in the first sentence of Paragraph 5.04.B.4 of the General Conditions and replace with “or coverages or limits reduced.”

SC-5.04.B.6 Add the following subparagraph to the end of Paragraph 5.04.B.6 of the General Conditions, which read as follows:

c. The coverage shall include all property under the care, custody, or control of the Contractor.

SC-5.06.A Delete Paragraphs 5.06.A through 5.06.A.7 of the General Conditions in their entirety and insert the following in their place:

A. Contractor 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 Agreement or these Supplementary Conditions or required by Laws and Regulations). This insurance shall:



1. include the interests of Owner, Contractor, Subcontractors, Engineer, and any pertinent property owners (as requested) and the officers, directors, 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 an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, false work and materials and equipment in transit and shall insure against at least the following perils: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils 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. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with thirty days written notice to each other additional insured to whom a certificate of insurance has been issued; and

5. the Builder's Risk Insurance required herein shall apply to projects involving construction of structures and building only. The requirements of this section shall be waived on projects involving only underground utilities, grading, street improvements and similar construction work, but any damage or loss to property shall be the sole responsibility of the Contractor until final acceptance of the work.

6. The policies of insurance required to be purchased and maintained by Contractor in accordance with this Paragraph 5.6 shall 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, Engineer, and Contractor and to each other additional insured to whom a certificate of insurance has been issued.

SC-5.06.B Delete Paragraph 5.06.B of the General Conditions in its entirety and insert the following in its place:

Contractor shall purchase and maintain boiler and machinery insurance affording the same limits of liability as set forth for liability assumed under the Agreement including contractual liability which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and the officers, directors, 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 an insured or additional insured.

SC-5.06.D Delete Paragraph 5.06.D of the General Conditions in its entirety.

SC-5.06.E Delete Paragraph 5.06.E of the General Conditions in its entirety.

SC-6.02.B Delete Paragraph 6.02.B of the General Conditions in its entirety.

SC-6.08.A Delete the first sentence of Paragraph 6.08.A of the General Conditions and insert the following sentence in its place:

Unless otherwise specifically provided in the Specifications, Contractor shall obtain and pay for all permits and licenses required to perform the Work.

and as so amended, Paragraph 6.08.A remains in effect.

SC-6.13.F Add the following Paragraphs 6.13.G through 6.13.L after the end of Paragraph 6.13.F of the General Conditions:

G. The Contractor shall be solely and completely responsible for conditions on the job site, including safety of all persons and property during the performance of the Work. This requirement shall apply continuously and not be limited to normal work hours.

H. Observation of the Contractor's performance by Engineer is not intended to include review of the adequacy of the Contractor's safety measures on or near the Site.

I. The Contractor shall be responsible for furnishing the Contractor's and any Subcontractor's employees with all safety equipment, including but not limited to, hard hats, eye protection, respiratory protection equipment and all other protection devices needed to comply with Laws and Regulations or with accepted safety practices. The Contractor shall be responsible for any safety violation and/or fine that may occur because of any neglect by the Contractor, the Contractor's employees or any third party.

J. The Contractor has responsibility for the design and safety of excavations. Engineer and Owner will not provide any excavation designs, nor should excavation designs be presumed to be contained in the Contract Documents. Engineer and Owner will not assist Contractor in classifying soils or interpreting the available subsurface applicable regulations.

K. No representation is made that information is suitable for excavation design or consistent with the soil classifications in OSHA Regulations for Excavations and Trenches (20 CFR Part 1926, Subpart B).

L. Additional provisions regarding the Contractor's responsibilities for health, safety and protection may be included in Division 1 (General Requirements) of the Technical Specifications.

and as so amended, Paragraph 6.13 remains in effect.

SC-9.03.A Add the following Paragraphs after Paragraph 9.03.A of the General Conditions:

B. The Resident Project Representative shall act as directed by and under the supervision of Engineer. The Resident Project Representative shall confer with the Engineer regarding the Resident Project Representative's actions. The Resident Project Representative's



dealings in matters pertaining to the on-site work will, in general, be only with Engineer and Contractor. The Resident Project Representative's dealings with Subcontractors will only be through or with the full knowledge of Contractor or the Contractor's superintendent.

C. Limitations of Authority for the Resident Project Representative are as follows:

1. Cannot authorize deviation from the Contract Documents or approve any substitute material or equipment;
2. Cannot issue written clarification or interpretation of the requirements of the Contract Documents;
3. Cannot undertake or assume to fulfill any of the responsibilities of Engineer under the Contract Documents unless such is specifically called for in the Contract Documents;
4. Cannot undertake any of the responsibilities of Contractor;
5. Cannot expedite work for Contractor;
6. Cannot advise on or issue directions relative to any aspects of the means, methods, techniques, sequences or procedures of construction unless specifically called for in the Contract Documents;
7. Cannot advise on or issue directions as to health and safety precautions and programs in connection with the Work; and
8. Is not a representative of the Owner.

SC-9.05.A Delete Paragraph 9.05.A of the General Conditions in its entirety and insert the following in its place:

A. Owner will disapprove or reject Work, based on Engineer's written recommendations indicating the Work the Engineer believes to be defective and outlining the reasons Engineer believes cause the Work to be defective. Engineer will have the authority to require special inspection or testing of the Work Engineer believes to be defective, in accordance with the provisions of Paragraph 13.04 of the General Conditions, whether or not the Work in question is completed.

SC-10.05.B. Delete the last sentence of Paragraph 10.05.B. of the General Conditions and insert the following Paragraphs after Paragraph 10.05.B. of the General Conditions:

1. Engineer shall evaluate claim and prepare a formal written opinion regarding the claim.
 - a. This opinion shall be rendered within 30 days after claimant's last submittal except that Engineer may notify Owner and Contractor that reasonable additional time, up to 30 days, will be required to evaluate the claim.



- b. This opinion shall be provided to Owner and Contractor.
 - c. If Engineer does not render the formal written opinion within the time stated in Paragraph a. above, a decision denying the Claim in its entirety shall be deemed to have been issued the day after the time stated expires.
2. Claimant shall allow opposing party a period of 30 days, after date of Engineer's written opinion is issued to accept or reject Engineer's opinions, or to request additional data from or further clarification of the issue by claimant, unless Engineer reasonably extends such period up to 30 additional days to conform to regularly scheduled meetings of public Owner's Board, Council, or Committee.
- a. If opposing party accepts or rejects Engineer's opinion, Engineer will issue formal decision regarding Claim in writing within 15 days after opposing parties' determination.
 - b. If opposing party requests additional data from or further clarification of the issue by claimant, opposing party shall establish reasonable tentative date, within not less than 15 days nor more than 67 days, at which time Engineer's opinions and the additional data or further clarification requested will be reconsidered. Engineer will issue formal decision regarding Claim in writing within 15 days after the date of opposing parties reconsideration or if not reconsidered by the opposing party on the 68th after prior consideration by the opposing party.
 - c. If Engineer does not render the formal written opinion within the time stated in Paragraphs a. or b. above, a decision denying the Claim in its entirety shall be deemed to have been issued the day after the time stated expires.

SC-10.05.C. Delete Paragraph 10.05.C. of the General Conditions in its entirety.

SC-10.05.D. Delete Paragraph 10.05D. of the General Conditions in its entirety.

SC-10.05.E Delete Paragraph 10.05.E of the General Conditions in its entirety and insert the following in its place:

E. Engineer's written action under Paragraph 10.05.B 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 final action or final denial in accordance with Paragraphs 10.05.B.1 and 10.05.B.2.

and as so amended, Paragraph 10.05.E remains in effect.

SC-11.01.A Delete Paragraphs 11.01.A through 11.01.A.5.i of the General Conditions in their entirety and insert the following in their place:

A. The term Cost of the Work means the sum of all actual costs necessarily incurred and paid by the Contractor in the proper performance of the Work plus 15 percent (15%) for overhead and profit.

1. The term "actual cost" shall cover the payroll expenses for the workers employed and supervision required to perform the work including salary, worker's compensation, social security, pension and retirement allowances and other regular payroll charges. Also included in the actual cost will be the cost of additional insurance needs for this Work, the cost of all materials and supplies required of either temporary or permanent character including fuel and lubricants.

2. In addition to the Cost of the Work as outlined above, the Contractor will be paid for all power-driven equipment at a rate equal to 85 percent of the rate listed in the most recent edition of the "Rental Rate Bluebook" published by Neilson/Dataquest, Inc., to which there will be no percentage added for overhead or profit. The rates used for each piece of equipment used in the performance of the work will be based on the applicable monthly, weekly, daily or hourly rate which reflects the status of the particular piece of equipment on the project. All rates shall be subject to approval by the Engineer.

3. The cost of all such work done each day shall be submitted to the Engineer in satisfactory form on succeeding day and shall be approved by the Engineer or adjusted at once.

SC-11.01.B. Delete Paragraph 11.01.B. of the General Conditions in its entirety.

SC-11.01.C Delete Paragraph 11.01.C of the General Conditions in its entirety.

SC-12.01C Delete Paragraph 12.01C of the General Conditions in its entirety.

SC-13.02 Add the following Paragraph 13.02.B to the end of Paragraph 13.02 of the General Conditions:

B. Said access shall conform to all requirements of the regulatory agency or agencies who claim jurisdiction over the safety of the project site. Contractor shall provide, at its non-reimbursed cost, all scaffolding, fall protection, ventilation, and similar items needed for required third-party observation and testing, not including personal protective gear of others. Failure by the Contractor to provide safe access for the above parties will be a violation in a substantial way of the provisions of the Contract Documents as provided for in Paragraph 15.02.A.4 of the General Conditions.



- SC-13.06.A Delete “by Engineer” in first sentence of Paragraph 13.06.A of the General Conditions and insert the following in its place:
- by Owner or Engineer
- and as so amended, Paragraph 13.06.A remains in effect.
- SC-13.09.A Delete Paragraph 13.09.A of the General Conditions in its entirety and insert the following sentence in its place:
- If Contractor fails within a reasonable time after written notice from Owner to correct defective Work or to remove and replace rejected Work as required by Owner 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 provisions of the Contract Documents, Owner may, after seven 7 days written notice to Contractor, correct and remedy any such deficiency.
- SC-14.01.A Delete Paragraph 14.01.A of the General Conditions in its entirety and insert the following in its place:
- 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 Owner. Progress payments on accounts of Unit Price Work will be based on the number of units completed.
- SC-14.02.A.1 Delete the first sentence in Paragraph 14.02.A.1 of the General Conditions in its entirety and insert the following sentence in its place:
- At least fifteen (15) days before the first Wednesday of each month (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment, on forms furnished by Engineer or otherwise acceptable to Engineer, 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.
- SC-14.02.A.3 Delete Paragraph 14.02.A.3 of the General Conditions in its entirety and insert the following in its place:
- The amount of retainage with respect to progress payments will be as stipulated in the Instructions to Bidders.
- SC-14.02.C Delete Paragraph 14.02.C of the General Conditions in its entirety.



SC-14.09.A.2 Delete Paragraph 14.09.A.2 of the General Conditions in its entirety and insert the following in its place:

A waiver of all claims, stated and unstated, known and unknown, by Contractor against Owner and Engineer other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner and Engineer in writing as still unsettled.

Technical Specifications

Division 1
General Requirements

Division 1 - General Requirements

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SECTION 01 00 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1: GENERAL

1.01 UTILITIES

A. Water

1. Potable water is not supplied by Owner at the Site. Contractor shall make all arrangements necessary to provide, during construction, water for potable consumption and construction purposes. The costs of furnishing potable and other water and water usage shall be included in the Contract Price and no additional compensation will be provided.

B. Sanitary Facilities

1. Contractor shall provide sanitary facilities for use by Contractor's employees, subcontractors, suppliers, Engineer, Owner and all other persons to be working on the site. Sanitary facilities shall be provided with lockable doors when in use, shall be routinely emptied and sanitized frequently, and shall at all times are maintained in a clean and useable condition. Sanitary facilities shall be maintained until Substantial Completion unless earlier removal is approved by Engineer or Owner. Cost of sanitary facilities shall be included in Contract Price and no additional compensation will be provided.

C. Electricity

1. Contractor shall furnish all electric power the Contractor needs to perform the Work. Contractor shall include costs for electric power in Contract Price and no additional compensation will be provided.

D. Telephone

1. Contractor shall arrange for and furnish telephone service for Contractor's employees, subcontractors, and suppliers throughout project. The cost of Contractor's telephone service and usage shall be paid for by the Contractor and shall be included in the Contract Price and no additional compensation will be provided.

1.02 ROADS/DUST CONTROL

- A. Contractor shall maintain roads to provide access to the Work and all of the Owner's adjacent facilities for the entire duration of the construction. Roads shall be passable for their intended use at all times in all weather conditions and shall be maintained in a graded and rut-free condition.



- B. Contractor shall provide all equipment and materials necessary for the control of dust arising during the performance of the Work. Dust shall be controlled so as to not be a nuisance to adjacent property owners or occupants. When required by Laws and Regulations and additionally when requested by Engineer or Owner, or at other times as necessary, Contractor shall take measures to reduce the transport of dust and sediment off-site. These measures may include, but are not limited to:
 - 1. Sweeping and washing streets.
 - 2. Watering source areas of dust.
 - 3. Temporary surfacing such as paving, mulching, or sodding source areas.
 - 4. Use of contractor-installed gravel driveways at accesses to public roadways.
 - 5. Installing silt fence, snow fence, berms, gravel dikes (see also Paragraph 1.01 for erosion and sediment control).
- C. Contractor shall provide water tank trucks equipped with water cannon capable of delivering water through either front- or rear-mounted nozzles. Tank trucks shall be of sufficient size and mobility and carry a sufficient quantity of water to control dust generated by Contractor's activities.
- D. Contractor shall remove any and all tracking on nearby roads by scraping and sweeping daily at a minimum or as otherwise directed by the Engineer.
- E. The cost of Roads/Dust Control shall be included in the Contract Price and no additional compensation will be provided.

1.03 SIGNS, FENCES, BARRICADES, AND WATCHERS

- A. No signs, billboards, or other advertisements shall be erected on the premises by Contractor without Owner's permission. Provision must be made for placement of signage by Owner at Site.
- B. Contractor shall furnish and maintain all warning lights, barricades, informational signs, and watchers as needed for the execution of the Work as required by the Contract Documents, and/or Local, State and Federal Laws and Regulations, for the protection of persons and property, and control of traffic in accordance with applicable manuals for Uniform Traffic Control Devices.
- C. Barricades, warning lights, and traffic control signage within public streets and roadways shall, at a minimum, meet the technical requirements of the Institute of Transportation Engineers and the State Manual of Uniform Traffic Control Devices or similar publication.



- D. The Contractor shall be solely responsible for the safety and security of those portions of the site where work is or has been performed under these Contract Documents on a 24-hour-a-day, seven-day-a-week basis.
- E. The Contractor's security shall not interfere in a way or manner with the continued operation and security of the existing facility. The entire site and all Work shall be available at all times (24 hours per day) for access by Owner and Engineer. Owner and Engineer shall each be furnished with three keys (and additional copies as requested) to all locks required to access the Work and site.
- F. The costs of signs, devices, fences, barricades, safety and security, and watchers required to comply with the above stated minimum requirements including site security shall be included in the Contract Price and no additional compensation will be provided.
- G. Contractor will be responsible for coordinating all work performed within the City right of way with the City Engineer.

1.04 FIELD OFFICE [NOT USED]

1.05 TEMPORARY ENCLOSURES AND HEAT [NOT USED]

1.06 EROSION AND SEDIMENT CONTROL

- A. Contractor shall furnish, install and maintain temporary erosion controls as necessary to prevent the erosion of soils and transport of silt, mud and other debris off of the site or to other areas of the site where damage might result or that might otherwise be required by Laws and Regulations, certifications, and permits, including but not limited to applicable regulatory requirements of Vadnais Lake Area Water Management Organization. The site is under one acre and does not require an MPCA NPDES Storm Water Construction Permit. No work on the site shall begin until all temporary BMP's are in place. The Contractor shall also comply with the erosion control requirements of applicable watershed organization and other local erosion control requirements.
- B. Temporary erosion controls may include, but are not limited to, silt fences, floatable silt curtain, straw bales, mulching, geo-textiles, terracing, riprap, temporary drainage piping, sedimentation basins, vegetative cover, gravel dikes and any other construction required to prevent erosion and sediment transport.
- C. Unless otherwise specified, silt fences shall be installed and maintained around the full perimeter of all soil stockpiles, at the entrance to all storm drainage pipes, and at the point where all drainage ways flow out of the site.
- D. Contractor shall schedule its operations so as to minimize the potential for erosion by minimizing the disturbed areas on-site at any given time and completing operations and restoring the site in the shortest time possible.



- E. If soil and debris from the site accumulates in low areas, storm sewers, roadways, gutters, ditches, or other areas where in Owner's or Engineer's determination it is undesirable, Contractor shall remove the accumulation and restore the area to its original condition without additional compensation.
- F. The provision of this paragraph 1.01 shall not take precedence over the provisions of any other section of these Technical Specifications and shall act only to supplement any other such provisions.

1.07 CLEANING

- A. Contractor shall clean the working area each day and shall remove all trash and waste materials, and shall maintain the site in a neat and orderly condition throughout the construction period.
- B. Contractor shall daily, or more frequently as it becomes apparent, pick up all garbage, litter, debris, and other materials attributable to the Work or the activities of Contractor's employees, Subcontractors, and suppliers that accumulates on property in the vicinity of the site.
- C. The costs of cleaning shall be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01 00 00



SECTION 01 11 00
SUMMARY OF WORK

PART 1: GENERAL

1.01 CONTRACT DOCUMENTS

- A. The Contract Documents are as defined in the Instructions to Bidders and the Agreement. 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 (2007 Edition), however differences in format and subject matter location do exist. It is the Contractor's sole responsibility to thoroughly read and understand these Specifications and request written clarification of those portions, which are unclear.
- C. Division of the Work as made in these Contract Documents is for the purpose of specifying and describing work, which is to be completed. There has been no attempt to make a classification according to trade or agreements, which may exist, between Contractor, Subcontractors, or trade unions or other organizations. Such division and classification of the Work shall be the Contractor's sole responsibility.

1.02 EXISTING SITE CONDITIONS AND USES

- A. The site is located within City of White Bear Lake on City right-of-way, on Ramsey County property and on two privately owned parcels with assumed drainage easements.
 - 1. Ramsey County Property: PID 153022420093
 - 2. Desoto Associates LLC. Property: PID 153022420114
 - 3. Joan M Crowley Trustee, 4760 Brooke Ct. Property: PID 153022420113
- B. Access and construction limits are shown on the Drawings.

1.03 WORK COVERED BY CONTRACT DOCUMENTS

- A. The overall scope of the Work which is more fully described in these Contract Documents includes, but is not necessarily limited to, furnishing all labor, tools, equipment, and materials necessary to:
 - 1. Mobilize and demobilize labor, equipment, materials, and temporary facilities at the site.
 - 2. Perform any required site preparation including protection of surface and subsurface existing facilities and structures not planned for removal, including, but not limited to pavements, pipes, wires, conduits, fences, and sidewalks, etc. Protection of existing vegetation identified within the work limits identified by the Owner to remain and all vegetation near but outside the work area. Clearing and grubbing, and removals as required, including removals of all materials from the site.
 - 3. Controlling surface water and groundwater as necessary to construct the Work.
 - 4. Furnish, install and maintain erosion control features and removal upon substantial completion.



5. Excavation and disposal of excess excavated material at an off-site location and grading for installation of iron enhanced sand filter.
 6. Construction of gravel surface driveway.
 7. Construction of flow control berm partially within wetland with impacts of 400 square feet or less.
 8. Construction of iron enhanced sand filter on geotextile fabric, including providing water distribution features, drainage systems and level control structure.
 9. Construction of reinforced concrete walls with decorative stone finish (form liner) and water control stop logs.
 10. Connecting to existing storm sewer piping with core drill and water tight connection.
 11. Installing storm sewer piping, back flow preventer, structures, and appurtenances.
 12. Removal and disposal of off-site of existing Rip Rap.
 13. Repair/replace and install rip rap at outlet structures and drainage ditch.
 14. Control of traffic around construction site.
 15. Site restoration seeding with native seed mixes on all exposed soil areas.
 16. Seeding and installing erosion control blanket over all exposed soil sloped areas.
 17. Clean-up of all sites and removal of all temporary erosion control BMPs at the completion of the Work to the satisfaction of the Owner.
 18. Replacement in-kind or better of all surface and subsurface existing facilities and structures damaged or not planned for removal, including, but not limited to pavements, fences, and sidewalks, etc., and existing vegetation damaged during the Work.
 19. All demobilization of equipment personnel and remaining materials, removal of all temporary erosion control features and disposal, and all site cleanup after construction is complete.
- B. It is the intent of the Contract Documents to cover all aspects of the Project. Should there be some item or items not shown on the Contract 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.
- C. 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. Unless otherwise specified, Contractor shall obtain all measurements necessary for the Work and shall be responsible for establishing all dimensions, levels, and layout of the Work.
- D. Contractor shall be solely responsible for the coordination of its activities with regard to the Project and the activities of Subcontractors and Owner.



1.04. WORK BY OWNER

- A. Site bench marks and site coordinate information necessary for construction of the Work will be provided on the plan sheets. Contractor's responsibility to protect the bench marks in accordance with paragraph 1.06E of this Section. Contractor shall provide construction staking for the project.
- B. Owner will obtain necessary permits from the Vadnais Lake Area Water Management Organization for the work. Owner may also assist Contractor in obtaining other permits and approvals. However, Contractor shall be responsible for obtaining all permits and licenses that may be required to complete the Work, that are not issued by the Vadnais Lake Area Water Management Organization.

1.05 OWNER FURNISHED PRODUCTS

- A. None.

1.06 CONTRACTOR'S USE OF PREMISES

- A. Definition of Site: The Site is defined as the area within the Project Limits shown on the Drawings. Within, the Project Limits the Contractor shall limit operations, including materials and equipment storage, to the area within the construction work limits. Inside the construction work limit all pavements, sidewalks and facilities shall be protected. Any disturbance inside the construction work limits to existing facilities, pavements, and/or vegetation, and outside the construction work limits shall be fully restored in-kind or better at the Contractor's expense. Contractor shall obtain written approvals of property owners at all locations where Contractor uses lands not included in the construction limits.
- B. Hours of Operation: Contractor's operations shall be limited to the hours approved by the City of White Bear Lake in accordance with local laws and regulations.
- C. Protection and Repair of Existing Facilities and Utilities: Contractor shall perform operations carefully and in such a manner as to protect existing structures, Underground 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 structures, above-ground and underground Facilities, vegetation, pavements, fencing, and utilities resulting from Contractor's operations, and shall repair or replace damaged items to Owner's satisfaction in-kind or better.
- D. 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.
- E. Survey Markers: Contractor shall conduct operations so as to preserve benchmarks and survey reference points provided 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.



1.07 SEQUENCE OF WORK

- A. Work shall commence on or about September 11, 2019 or within 5 (five) calendar days after the date stated in the Notice to Proceed or whichever is later. Work shall be complete and ready for final payment not later than November 8, 2019.
- B. Contractor shall determine the sequence of Work required to efficiently progress with the Work. The sequence of the Work shall be clearly evident from the Contractor's progress schedule, submitted in accordance with ARTICLE 2 of the General Conditions and thereafter revised.

1.08 WORK BY OTHERS

- A. Contractor's obligations with regard to coordination with other Work are more fully set forth in ARTICLE 7 of the General Conditions.

1.09 PERMITS

- A. Owner has obtained permission to undertake the Work through a cooperative agreement between Owner and the City, County, and private property owner's.
- B. Contractor will obtain all necessary permits including permit to work on City of White Bear Lake right-of-way.
- C. All work must be conducted pursuant to and in compliance with all required permits and approvals.

1.10 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

END OF SECTION 01 11 00

SECTION 01 22 00

UNIT PRICE MEASUREMENT AND PAYMENT

PART 1: GENERAL

1.01 GENERAL

- A. This Section of the Specifications describes the measurement and payment for the Work to be done under the items listed on the Bid Form.
- B. Each unit or lump sum price stated on the Bid Form shall constitute full compensation as herein specified for each item of work completed in accordance with the requirements of the Contract Documents including Drawings and Specifications, including all clean up and restoration.
- C. All costs in connection with the Work, including furnishing all materials, machinery, supplies and appurtenances; providing all construction equipment and tools; and performing all necessary labor, coordination, supervision, and management to fully complete the Work shall be included in the unit prices or unit lump sum prices quoted on the Bid Form. All Work not specifically set forth as a separate bid item herein shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the amounts and prices submitted on the Bid Form. The price on the Bid Form shall include all work necessary to make all of the Work come together including all general, structural, mechanical, electrical and instrumentation connections (if any) between the various parts of the Work.

1.02 ESTIMATED QUANTITIES

- A. All estimated quantities for Unit Price items in the Bid Form are approximate and are to be used only as a basis for determining the initial Contract Price. The actual amount of work to be done or materials to be furnished under the Unit Price items may differ significantly from the estimated quantities, and in some cases, reduced to a zero quantity if Owner deems it is in the best interest of the project. The basis of payment for work or materials furnished or placed will be the actual quantities of work performed or material furnished and placed. The Contractor agrees to make no claim for damages, anticipated profits, or otherwise due to any difference between the quantities of Work actually performed or materials furnished and placed and the estimated quantities included in the Bid Form.
- B. A "(P)" designation on the bid form indicates that the item will be paid based on plan quantities. These items will not be measured in the field and the Contractor will be paid based on the quantity shown on the bid form unless one or more of the following occurs:
 - A contract revision alters or eliminates the quantity for a designated pay item.
 - The quantity for a designated item varies by more than 5 percent from the pay quantity.
 - A quantity variation causes the value of the work under a designated bid item to vary by more than \$5,000 from the bid amount.



- C. If the actual quantities vary from the plan quantities denoted by “(P)” by more than the amount listed in 1.02 B 2 and 3, the Contractor shall submit documentation of sufficient detail to the Engineer to demonstrate that the actual quantities vary from plan.
- D. The Engineer will adjust a “(P)” designated quantity if the Engineer revises the dimensions of the work or decides the “(P)” designated quantity is incorrect. The Engineer will only adjust quantities for the revised or corrected portions of the “(P)” designated Contract Item.

1.03 INTENT OF BID FORM ORGANIZATION

- A. Payment for all Work shall be in accordance with the terms and conditions set forth elsewhere in the Contract Documents and the Contractor's Bid prices set forth in Contractor's conformed Bid Form. The Bid items set forth in the Bid Form subdivide the Project for purposes of measurement and payment only, and are intended to represent the entire and complete Project as set forth in the Contract Documents. The Bid items set forth in the Bid Form shall constitute full compensation to Contractor for providing all supervision, labor, materials, equipment, tools and supplies, and overhead and profit to complete the Work in complete accordance with the Contract Documents.
- B. The following paragraphs provide additional descriptions of the Work included in each of the Bid items subject to the provisions of paragraphs 1.01, 1.02, and 1.03 of this Section.
 - 1. Some of the Bid items are based on unit lump sum prices. Partial progress payment for those unit lump sum items shall be made in accordance with monthly estimates of percent completed for each item included in the breakdown in Contractor's approved Schedule of Values.
 - 2. Other Bid items are based on Unit Prices. For those items, progress payments shall be based on the actual quantities of each item of Work fully installed and completed in accordance with the Contract Documents.
- C. The procedures for submitting and processing progress payments are set forth elsewhere in the Contract Documents.

1.04 BID ITEMS

- A. Mobilization/Demobilization
 - 1. Method of Measurement: Mobilization/Demobilization will be measured on the basis of a single lump sum (L.S.) unit.
 - 2. Basis of Payment: Contractor will be paid a lump sum (L.S.) price for mobilization/demobilization. The lump sum price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit, and performing all operations as are necessary for mobilization to and demobilization from each site, all complete as specified. This item shall include the Contractor's premium for any special insurance obtained for this project; furnishing, installing and maintaining Contractor's facilities; providing work area security; development and maintenance of appropriate



health and safety plan; providing all electrical, water, and telephone services required or needed by the Contractor to perform the work; equipment mobilization and demobilization; traffic control and signage; protection of existing facilities, fences, signage, pavements, curb, pipe, underground and overhead wires, sidewalks and identified vegetation in the work areas, site clearing and grubbing not covered elsewhere in this Specification; protecting trees and landscaping not specifically designated for removal; snow and ice removal for winter work, control and management of surface water, storm water, groundwater, and all dewatering at the site throughout the duration of the Work and necessary to complete all aspects of the Work; site preparation not specifically paid for elsewhere in this Specification; furnishing and installing dust control, tracking control; daily site cleanup and street sweeping during the Work or more frequently as requested by Owner, and upon completion of the work; preparing and transmitting the required submittals; obtaining all permits required of the Contractor to complete all aspects of the Work; identifying utilities as necessary for the work; temporarily relocating and replacing any signage, landscaping or fencing; cleanup of any and all items at the completion of the Work, and all incidentals and other items not specifically paid for but included in the total scope of the Work.

B. Control of Water

1. Method of Measurement: Control of Water will be measured on the basis of a single lump sum (L.S.) unit for controlling water on all sites to complete the work.
2. Basis of Payment: Contractor will be paid a lump sum (L.S.) price for control of water on the site, all complete as specified. This unit price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit, and performing all operations as are necessary to control surface and ground water including temporary barriers, temporary sediment basins, filtering systems, pumps and pumping, or temporary piping necessary to allow for proper construction of the work on the site, all complete as specified.

C. Traffic Control

1. Method of Measurement: Traffic Control will be measured on the basis of a single lump sum price (L.S.).
2. Basis of Payment: Contractor will be paid a unit lump sum (L.S.) price for traffic control, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to control traffic adjacent to the construction Sites, including signage for traffic and pedestrian routes during all construction periods, earth moving and hauling operations, as directed by the Engineer in the field, all complete as specified.

D. Construction Entrance (Wood Chip)

1. Method of Measurement: Construction Entrance will be measured per each (Each) Construction Entrance furnished, installed, and as recorded in the field, as specified.



2. Basis of Payment: Contractor will set a bid amount based on a unit price for each (Each) Construction Entrance furnished and installed, as specified. This unit price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit and performing all operations as are necessary to install, maintain, and remove/dispose of the Construction Entrance including the installation and removal/disposal of filter fabric protection, all complete as specified.
- E. Clear and Grub: Removal of Trees, Brush, and Debris
1. Method of Measurement: Clear and Grub Removal of Trees, Brush, Deadfalls, and Debris will be measured on the basis of a single lump sum (L.S.) unit for the site area as identified on the Drawings to be cleared.
 2. Basis of Payment: Contractor will be paid a lump sum (L.S.) price for removal of trees, brush, deadfalls, and debris cleared from site. This unit price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead, profit and performing all operations as are necessary to clear the area of trees, brush, deadfalls, and debris from the site and off-site disposal of the removed materials, all complete as specified.
- F. Silt Fence
1. Method of Measurement: Silt Fence will be measured on the basis of unit length in linear feet (L.F.) as measured in the field by actual horizontal survey or other measurement by Engineer and rounded to the nearest linear foot. Measurement shall be for a single row, end to end, with no allowance for overlapping and when double row of silt fence is required to be installed each single row shall be measured to achieve the total length.
 2. Basis of Payment: Contractor will be paid a unit price per linear foot (L.F.) for each single row of silt fence installed, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain or repair if required for the duration of the Work and removal/disposal at completion of Work, all complete as specified.
- G. Sediment Log
1. Method of Measurement: Sediment Log will be measured on the basis of unit length in linear feet (L.F.) as measured in the field by actual horizontal survey or other measurement by Engineer and rounded to the nearest linear foot. Measurement shall be for a single row, end to end, with no allowance for overlapping.
 2. Basis of Payment: Contractor will be paid a unit price per linear foot (L.F.) for single rows of Sediment log, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain or repair if required for the duration of the Work and removal and disposal at completion of Work, all complete as specified.



H. Inlet Protection

1. Method of Measurement: Inlet Protection will be measured per each (Each) Inlet Protection furnished, installed, and recorded in the field as specified.
2. Basis of Payment: Contractor will set a bid amount based on a unit price for each (Each) Inlet Protection furnished and installed, as specified. This unit price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit and performing all operations as are necessary to install, maintain, and remove/dispose of the Inlet Protection and collected material following the completion of the Work, all complete as specified.

I. Erosion Control Blanket

1. Method of Measurement: Erosion Control Blanket will be measured based on the actual area in square yards (S.Y.) restored within the construction limits rounded up to the nearest whole square yard. The area will be determined by survey or other measurement of the actual horizontal surface area restored. All measurements will be completed by the Engineer.
2. Basis of Payment: Contractor will be paid a unit price per square yard (S.Y.) for Erosion Control Blanket, furnish, installed, and warranted, all complete as specified. This unit price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit, and performing all operations as are necessary to install the erosion control blanket after seeding area including placing and keying where necessary and preparing surface by hand raking topsoil to final finish grade, seed bed preparation, seeding, and furnishing and installing erosion control blanket for the type identified, all complete as specified.

J. Access Mud Mats

1. Method of Measurement: Access Mud Mats will be measured on the basis of a single lump sum price (L.S.).
2. Basis of Payment: Contractor will be paid a unit lump sum (L.S.) price for the installation of Mud Mats on access to site across wetland, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to install mud mats to protect wetland areas, including layering if necessary and removal at the completion of the Work, and as directed by the Engineer in the field, all complete as specified.

K. Salvage and Replace Existing Top Soil (P)

1. Method of Measurement: Salvage and Replace Existing Top Soil shall be measured on the basis of plan quantities of unit volume in cubic yards (CY) as shown on the Drawings.



2. Basis of Payment: Contractor shall be paid a unit price per plan quantity in cubic yards (CY) for salvaging and replacing existing top soil. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to excavate, stockpile, load, haul, spread to proper thickness, including preparation for seeding, all complete as specified.

L. Common Excavation (P)

1. Method of Measurement: Common Excavation shall be measured on the basis of plan quantities of unit volume in cubic yards (CY) as shown on the Drawings.
2. Basis of Payment: Contractor shall be paid a unit price per plan quantity in cubic yards (CY) for Common Excavation. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to excavate, stockpile, load, haul, use as fill if approved by Engineer or dispose of excavated materials at an off-site location in compliance with local and state laws at a site selected by the contractor, all complete as specified.

M. Construct Control Berm Embankment (P)

1. Method of Measurement: Construct Control Berm Embankment shall be measured on the basis of plan quantities of unit volume in cubic yards (CY) as shown on the Drawings.
2. Basis of Payment: Contractor shall be paid a unit price per plan quantity in cubic yards (CY) to construct control berm embankment. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to construct berm, including excavation, additional aggregate fill, compaction, stockpile, load, haul, remove unsuitable soils and debris, use other excavated materials as fill if approved by Engineer or dispose of excavated materials at an off-site location in compliance with local and state laws at a site selected by the contractor, all complete as specified.

N. Reinforced Concrete Wall

1. Method of Measurement: Reinforced Concrete Wall will be measured on the basis of a single lump sum price (L.S.).
2. Basis of Payment: Contractor will be paid a unit lump sum (L.S.) price for the installation of Reinforced Concrete Wall of the size and dimensions shown on the Drawings, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to construct the reinforced concrete wall, including footings, reinforcement iron, form work, decorative surface facing, installing galvanized steel rails stop logs, and applying treatment, and as directed by the Engineer in the field, all complete as specified.



O. Stop Logs and Rails

1. Method of Measurement: Stop Logs and Rails will be measured on the basis of a single lump sum (L.S.) unit for the site as identified on the Drawings to furnish and install treated wood stop logs into galvanized steel rail system in reinforced concrete wall.
2. Basis of Payment: Contractor will be paid a lump sum (L.S.) price for designing, furnishing, and installing stop log system. This unit price shall be payment in full for the costs of all supervision, design, labor, materials, equipment, overhead, profit and performing all operations as are necessary to install the stop log system, including fabrication of galvanized steel rails, forming rails into reinforced concrete wall, cutting to fit into rails; sealing with gasket material or packing to prevent leaking, all complete as specified.

P. Disposal of Excess Excavated Material

1. Method of Measurement: Disposal of Excess Excavated Materials shall be measured on the basis of cubic yards (C.Y.) as indicated on the Bid Form. Cubic yards shall be determined by truck load volumes hauled off site.
2. Basis of Payment: Contractor will set a bid amount based on cubic yards (C.Y.) for Disposal of Excess Excavated Materials. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to load, haul and disposal of excess excavated material at an approved off site location, all complete as specified.

Q. Geotextile Fabric

1. Method of Measurement: Geotextile will be measured on the basis of unit area in square yards (S.Y.) based on the size and type of material indicated on the Bid Form and as shown on the Drawings and as measured in the field and rounded to the nearest whole square yard. Area shall be determined by actual horizontal survey or other measurement along the perimeter of the iron enhanced sand filter.
2. Basis of Payment: Contractor will set a bid amount based on a unit price per square yard (S.Y.) for Geotextile installed, based on the size and type of material indicated on the Bid Form and as shown on the Drawings, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish and install Geotextile including but not limited to, placing and securing fabric throughout the area of the iron enhanced sand filter, all complete as specified.

R. Iron Aggregate (Filings)

1. Method of Measurement: Iron Filings will be measured based on weight of the Iron Filings material in tons (Ton). Weight of Iron Filings material will be determined based on weigh tickets, provided to Engineer by Contractor from a certified scale. Tickets will be added together and rounded to nearest whole ton. Only weigh tickets for loads of Iron Filings material used for actual construction as shown on the Drawings will be included in



the measurement. Loads will not be included in the measurement unless a weigh ticket accompanies the load and a copy is provided to Engineer by the end of the next working day.

2. Basis of Payment: Contractor will set a bid amount based on a unit price per ton (Ton) for furnishing and installing Iron Filings material, all complete as specified. This unit price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit, and performing all operations as are necessary to furnish, mix, and installing Iron Filings material, all complete as specified.

S. Clean Washed Filter Sand

1. Method of Measurement: Clean Washed Sand will be measured based on weight of the Clean Washed Sand materials in tons (Ton). Weight of Clean Washed Sand material will be determined based on weigh tickets, provided to Engineer by Contractor from a certified scale. Tickets will be added together and rounded to nearest whole ton. Only weigh tickets for loads of Clean Washed Sand material used for actual construction as shown on the Drawings will be included in the measurement. Loads will not be included in the measurement unless a weigh ticket accompanies the load and a copy is provided to Engineer by the end of the next working day.
2. Basis of Payment: Contractor will set a bid amount based on a unit price per ton (Ton) for furnishing and installing Clean Washed Sand material, all complete as specified. This unit price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit, and performing all operations as are necessary to furnish, mix, and installing Clean Washed Sand materials, all complete as specified.

T. Connect to Existing 30" RCP

1. Method of Measurement: Connect to Existing 30" RCP will be measured per each (Each) connection made and as recorded in the field, as specified.
2. Basis of Payment: Contractor will set a bid amount based on a unit price for each (Each) Connect to Existing 30" RCP made, as specified. This unit price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit and performing all operations as are necessary to install, including core drilling the RCP pipe, the installation of water tight boot connection, all complete as specified.

U. 10" Dual Wall CPEP-WT and Fittings

1. Method of Measurement: 10" Dual Wall CPEP-WT Pipe and Fittings will be measured on the basis of unit length in linear feet (L.F.) of the size indicated on the Drawing and as measured in the field by actual horizontal survey or other measurement by Engineer and rounded to the nearest linear foot. Measurement shall be a straight line measurement along the centerline of the pipe from end to end.
2. Basis of Payment: Contractor will be paid a unit price per linear foot (L.F.) for furnishing and installing 10" Dual Wall CPEP-WT and fittings of the size indicated on the Drawings,



all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish and install the 10" Dual Wall CPEP-WT and Fittings, including excavation, bedding, backfilling, manufacturer's watertight gaskets, 45 degree bend, and compaction, all complete as specified.

V. 8" Slotted PVC Underdrain Pipe

1. Method of Measurement: 8" Slotted PVC Underdrain Pipe will be measured on the basis of unit length in linear feet (L.F.) of the size indicated on the Drawing and as measured in the field by actual horizontal survey or other measurement by Engineer and rounded to the nearest linear foot. Measurement shall be a straight line measurement along the centerline of the pipe from end to end.
2. Basis of Payment: Contractor will be paid a unit price per linear foot (L.F.) for furnishing and installing 8" Slotted PVC Underdrain Pipe of the size indicated on the Drawings, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish and install the 8" Slotted PVC Underdrain Pipe and Fittings, including excavation, bedding, backfilling, manufacturer's watertight gaskets, and compaction, all complete as specified

W. 10" Backflow Preventer (WaStop™)

1. Method of Measurement: 10" Backflow Preventer shall be measured per each (Each) installed and as recorded in the field and as shown on the Drawings.
2. Basis of Payment: Contractor will set a bid amount based on a unit price per each (Each) 10" Backflow Preventer installed, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish and install 10" WaStop™ Backflow Preventer including but not limited to installation, as shown on the Drawings, all complete as specified.

X. 30" Dia. Nyloplast™ Control Structure with Locking Dome Gate

1. Method of Measurement: 30" Dia. Nyloplast™ Control Structure with Locking Dome Gate shall be measured per each (Each) installed and as recorded in the field and as shown on the Drawings.
2. Basis of Payment: Contractor will set a bid amount based on a unit price per each (Each) 30" Dia. Nyloplast™ Control Structure with Locking Dome Gate installed, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish and install 30" Dia. Nyloplast™ Control Structure with Locking Dome Gate including but not limited to installation and adjusting of casting assemblies, as shown on the Drawings, all complete as specified.



Y. 12" Dia. Nyloplast™ Cleanout Structure with Locking Dome Gate

1. Method of Measurement: 12" Dia. Nyloplast™ Cleanout Structure with Locking Dome Gate shall be measured per each (Each) installed as recorded in the field and as shown on the Drawings.
2. Basis of Payment: Contractor will set a bid amount based on a unit price per each (Each) 12" Dia. Nyloplast™ Cleanout Structure with Locking Dome Gate installed, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish and install 12" Dia. Nyloplast™ Cleanout Structure with Locking Dome Gate including but not limited to installation and adjusting of casting assemblies, as shown on the Drawings, all complete as specified.

Z. Remove and Dispose of Existing Rip Rap (P)

1. Method of Measurement: Remove and Dispose of Existing Rip Rap shall be measured on the basis of plan quantities of unit volume in cubic yards (CY) as shown on the Drawings.
2. Basis of Payment: Contractor shall be paid a unit price per plan quantity in cubic yards (CY) for removal and disposal of existing Rip Rap as shown on the Drawing. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to excavate, load, haul, and dispose of rip rap materials at an off-site location in compliance with local and state laws at a site selected by the contractor, all complete as specified.

AA. Rip Rap

1. Method of Measurement: Riprap with Geotextile Filter Fabric will be measured based on weight of the type and Class of Riprap materials in tons (Ton). Weight of riprap material will be determined based on weigh tickets, provided to Engineer by Contractor from a certified scale. Tickets will be added together and rounded to nearest whole ton. Only weigh tickets for loads of riprap material used for actual construction as shown on the Drawings will be included in the measurement. Partial use of loads will be estimated by the Engineer with any waste being excluded from the quantity used for payment. Loads will not be included in the measurement unless a weigh ticket accompanies the load and a copy is provided to Engineer by the end of the next working day.
2. Basis of Payment: Contractor will be paid a unit price per ton (Ton) for furnishing and installing Type and Class of Riprap and the Type of Geotextile Filter Fabric as indicated on the Bid Form, all complete as specified. This unit price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit and performing all operations as are necessary to furnish and install riprap; including excavation, grading, and furnishing and installing filter rock and geotextile to MN/DOT standards (as specified on Bid Form), all complete as specified.



AB. Gravel Surface Driveway

1. Method of Measurement: Gravel Surface Driveway will be measured on the basis of unit area in square yards (S.Y.) based on the Bid Form and as shown on the Drawings and as measured in the field and rounded to the nearest whole square yard. Area shall be determined by actual horizontal survey or other measurements.
2. Basis of Payment: Contractor will set a bid amount based on a unit price per square yard (S.Y.) for the gravel surface driveway installed, as shown on the Drawings, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to construct the gravel surface driveway including sub-cut and removal of materials, grading and preparing surface for geotextile, installation of geotextile as shown on Drawings, and placing class 5 gravel and compacting, all complete as specified.

AC. Seed Area

1. Method of Measurement: Seeding Area will be measured on the basis of area seeded in acres (Acre) as measured in the field by actual horizontal survey or other measurement by Engineer of the area and rounded to the nearest 0.01 acres.
2. Basis of Payment: Contractor will be paid a unit price per acre (Acre) for seeding area with all appropriate mixes, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish and install seeding (seed) as shown in the Drawings and in accordance with the Specifications, all complete as specified.

AD. Wet Prairie, BWSR Seed Mix 34-262

1. Method of Measurement: Seed Mix will be measured on the basis of weight in pounds (Lbs.) of the type of seed mix use and as recorded on the seed mix tags supplied to the Engineer.
2. Basis of Payment: Contractor will be paid a unit weight per pound (Lbs.) price for Seed Mix, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish the specified seed mix for planting, including proper storage and handling, all complete as specified.

AE. Mesic Prairie Southeast, BWSR Seed Mix 35-641

1. Method of Measurement: Seed Mix will be measured on the basis of weight in pounds (Lbs.) of the type of seed mix use and as recorded on the seed mix tags supplied to the Engineer.



2. Basis of Payment: Contractor will be paid a unit weight per pound (Lbs.) price for Seed Mix, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish the specified seed mix for planting, including proper storage and handling, all complete as specified.

AF. Site Restoration and Clean-up

1. Method of Measurement: Site Restoration and Clean-up will be measured on the basis of a single lump sum (L.S.) unit for the site.
2. Basis of Payment: Contractor will be paid a lump sum (L.S.) price for Site Restoration and Clean-up. This unit price shall be payment in full for the costs of all supervision, design, labor, materials, equipment, overhead, profit and performing all operations as are necessary to restore and clean-up construction site, including removal of all trash and construction debris at an approved off site location, all complete as specified.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01 22 00



SECTION 01 29 00

PAYMENT PROCEDURES

PART 1: GENERAL

1.01 DESCRIPTION

- A. The requirements set forth herein are intended to supplement the procedure described or referred to in the General Conditions as modified by the Supplementary Conditions.

1.02 APPROVAL OF PROGRESS PAYMENTS

- A. The Board of Directors for the Vadnais Lake Area Water Management Organization (Owner) meets on the fourth Wednesday of every other month. Owner generally needs to receive Applications for Payment, as recommended by Engineer, 15 calendar days prior to each meeting. The Owner will generally consider those Applications for Payment promptly at the following meeting if complete and presented in accordance with the General Conditions as modified by the Supplementary Conditions and these requirements.

1.03 SUBMITTALS

- A. Application for Payment
 - 1. Submit in accordance with the schedule requirements of the General Conditions as modified by the Supplementary Conditions.
 - 2. Submit a tabulation of the items, unit prices, quantities completed, completed values in a form acceptable to Engineer.
 - 3. Submit Application for Payment on a form provided by Engineer.
 - 4. Submit such supplemental documentation in the form of invoices, statements, affidavits, lien releases, surety releases, etc. as may be required by Engineer or Owner, and such other documentation, certificates, and schedules as are otherwise required by the Contract Documents.

1.04 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.



PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED}

END OF SECTION 01 29 00



SECTION 01 31 19

PROJECT MEETINGS

PART 1: GENERAL

1.01 PRECONSTRUCTION CONFERENCE

- A. After Owner issues to Contractor the Notice of Award, Engineer will schedule a preconstruction conference to be held at either Engineer's offices or at Owner's offices, which shall be attended by Owner, Contractor, Engineer, and others as appropriate. The meeting will be scheduled promptly after the Notice of Award and as far in advance of the commencement date as is practical. The purpose of the meeting will be to comply with the provisions of paragraph 2.06 of the General Conditions.
- B. Agenda items may include:
1. Distribution of Contract Documents
 2. Designation of responsible personnel for all parties, lines of communication, and lines of authority, including Project Contacts (see Paragraph 1.04 of this Section).
 3. Scope of work and the anticipated schedule of operations
 4. Critical work sequencing
 5. Submittal and field test reporting procedures
 6. Record documents and reporting
 7. Site safety and security procedures
 8. List of major subcontractors
 9. Procedures for processing change orders
 10. Use of premises including equipment and material storage
 11. Major equipment deliveries
 12. Housekeeping procedures

1.02 PROGRESS MEETINGS

- A. Weekly progress meetings may be scheduled by the Engineer at a regular time mutually agreeable to the Owner, Contractor, and Engineer. A preferred time for these meetings is prior to Contractor's submittal of Application for Payment. The Contractor shall attend these



meetings and shall coordinate and require the attendance of subcontractors whose work may be in progress at the time or whose presence may be required for any purpose. Scheduling of required attendees shall meet with the approval of the Engineer.

- B. Following each meeting, the Engineer will prepare and distribute to Owner and Contractor copies of the minutes of the meeting. These will include a brief summary of the progress of the Work since the previous meeting.

1.03 UNSCHEDULED MEETINGS

- A. The Contractor shall attend other unscheduled meetings which may be reasonably requested by Engineer or Owner to discuss unanticipated changes in the Work, or conditions at the site, or other issues and which must be resolved before progression of work.

1.04 PROJECT CONTACTS

- A. Contractor shall submit to Engineer a list of personnel available for ongoing technical support and who are familiar with the Project and are responsible for its completion.
- B. The list should include at least three persons, including the Contractor's superintendent, and should include names, functional titles, mailing addresses, delivery addresses, phone numbers, and email addresses.
- C. At least two phone numbers shall be furnished which will provide 24-hour answering by a competent technical representative of Contractor in the event of an emergency or other unanticipated condition requiring immediate attention. At least one person shall be available at all times for immediate response to the site within 2 hours of being called. The responding person shall be the Contractor's representative at the Site and shall have authority to act on behalf of Contractor.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01 31 19



SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1: GENERAL

1.01 GENERAL SUBMITTAL PROCEDURES

A. Contractor shall:

1. Transmit each submittal labeled with the Project name, name of the submittal, and Section and page number of these Contract Documents in which the submittal was required. Indicate the type or purpose of the submittal as more fully described elsewhere in this section with regard to the Schedule of Submittals. Transmit the correct number of copies as described below for each type of submittal. Each submittal shall be accompanied by a transmittal letter stating the same information.
2. Transmit all submittals to Engineer at the address set forth in the Supplementary Conditions and to the attention of the Project Engineer designated by Engineer.
3. Apply Contractor's stamp, signed or initialed certifying that review and verification of products required, field dimensions, adjacent construction work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents. Unstamped or unsigned submittals will be returned without action.
4. Schedule submittals to expedite Project and in accordance with the Schedule of Submittals to be prepared by Contractor. Coordinate submission of related items.
5. Identify all variations or deviations from the Contract Documents and identify alternative products or system limitations which may be detrimental to successful performance of the completed Work.
6. Provide space for Engineer review stamps and comments on all submittals.
7. Revise and resubmit submittals as required in a timely manner. Identify all changes made since previous submittal.
8. Promptly distribute copies of reviewed submittals to Subcontractors, suppliers, and other concerned parties. Instruct parties to promptly report any inability to comply with provisions.
9. Do not proceed with any Work requiring a submittal, including resubmittal, to Engineer until the submittal has been returned to Contractor without a requirement for resubmittal.



- B. All submittals that are made that are not specifically required by the Contract Documents will be returned without action.
- C. All submittals shall come from the Contractor and submittals directly from Subcontractors or vendors will be returned without action.

1.02 PROGRESS SCHEDULE

- A. Contractor shall submit an estimated progress schedule and a finalized progress schedule in accordance with the requirements of paragraphs 2.05.A and 2.07 of the General Conditions.
- B. The Contractor shall revise the finalized progress schedule from time to time, as may be reasonably requested by Engineer or Owner, to reflect the current status and progress of the Work and the operations necessary to complete the Work as required.
- C. The progress schedule shall clearly illustrate the sequence of the Work (by locations and other factors as may be appropriate) to be followed by Contractor to efficiently progress with the Work.

1.03 SCHEDULE OF VALUES

- A. Contractor shall, if requested, submit a preliminary schedule of values and a finalized schedule of values in accordance with the requirements of paragraphs 2.05.A and 2.07 of the General Conditions and in the form herein specified.
- B. The schedule of values shall be a detailed cost breakdown for all lump sum items of Work which shall include quantities and unit prices of items aggregating each lump sum price included in the Contract and shall subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Unit price items shall be subject to progress payments based on the units of Work completed as provided for in the General Conditions and do not need to be included in the Schedule of Values.
- C. The schedule of values, for lump sum items, shall be organized in a tabular format with the following columns (clearly labeled) as a minimum:

- | | |
|----------------------|--|
| 1. ITEM NUMBER: | Number items according to the item numbers provided on the Bid Form. |
| 2. ITEM DESCRIPTION: | Written description of what item consists of. |
| 3. UNIT(S): | The detailed breakdown of the lump sum item into units of measure that apply to the various elements of work which, in total, comprise the lump sum item. Several units may apply to each lump sum item. |
| 4. NUMBER OF UNITS: | The quantity of each unit identified in 3 above. |



- 5. COST PER UNIT: The cost of materials, equipment, labor, overhead and profit for each unit identified in 3, above.
 - 6. TOTAL UNIT COST: The cost per unit multiplied by the quantity of each unit.
 - 7. LUMP SUM COST: The aggregate sum of all unit costs for each lump sum item. This aggregate sum shall equal the bid price for the lump sum item.
- D. The schedule of values shall contain sufficient detail to serve as the basis for progress payments for materials or equipment which will be shop fabricated and for lump sum items. The schedule should include such items as design, fabrication, lining, exterior painting, transportation to site, installation and any other pertinent items the Contractor wishes to break out for purposes of progress payments.
- E. The Schedule of values shall be subject to review and approval by Owner. If in opinion of Owner the schedule of values does not contain sufficient detail or appears to be unbalanced, the Owner may require Contractor to revise and resubmit the schedule of values and/or provide documentation to justify Contractor's distribution. Contractor shall correct such deficiencies and resubmit the schedule of values.

1.04 SCHEDULE OF SUBMITTALS

- A. Contractor shall submit a preliminary schedule of submittals including Shop Drawings in accordance with the requirements of paragraph 2.05.A of the General Conditions, for Shop Drawing submissions, and in the form herein specified. Contractor shall submit a finalized schedule of submittals including Shop Drawings in accordance with the requirements of paragraph 2.07 of the General Conditions except that this finalized schedule of submittals to Engineer and Owner prior to beginning any Work.
- B. The schedule of submittals shall be in tabular form listing all submittals which are required by the Contract Documents and the date on which Contractor will make submittal. As a minimum, the schedule of submittals shall consist of the following columns:
- 1. SUBMITTAL NUMBER: Number consecutively.
 - 2. SECTION NO.: Section number or description of location in Contract Documents where submittal is requested.
 - 3. PAGE NO.: Page number of section in Contract Documents where submittal is requested.
 - 4. ITEM: Description of item or items to which submittal pertains.



- 5. SUBMITTAL TYPE: A letter code indicating what type of submittal was requested. The type key shall be as follows:
 - a. Information or Documentation
 - b. Review
 - c. Approval
 - d. Alternate Product Supporting Data
 - e. Administrative such as schedules, etc.
- 6. DEFICIENCIES: Manner in which submittal or proposed alternate product does not meet the requirements of the Contract Documents.
- 7. ANTICIPATED SUBMITTAL DATE: Date on which Contractor anticipates submittal to be delivered to Engineer.
- 8. RESPONSE REQUIRED: Indicate yes if Contractor anticipates response from Engineer and no if no response is anticipated.

C. The Schedule of Submittals will be reviewed by Engineer and Engineer will respond in writing listing deficiencies. The Contractor shall not list submittals not called for in the Contract Documents. The schedule shall include all items for which Contractor proposes to use substitute or “or equal” products. Contractor shall correct deficiencies and resubmit schedule of submittals prior to beginning any Work.

1.05 REVIEW OF SUBMITTALS

- A. The Engineer’s review of engineering data will cover only general conformity of the data to the Specifications and Contract Documents, external connections, and interfaces with equipment and materials furnished under separate specifications. The Engineer’s review does not indicate a thorough review of all dimensions, quantities, and details of the equipment, material, device, or item indicated or the accuracy of the information or documentation submitted; nor shall review or approval by the Engineer be construed as relieving the Contractor from any and all responsibility for errors or deviations from the requirements of the Contract Documents.
- B. All engineering data submitted, after final processing by the Engineer shall become a part of the Contract Documents and the work indicated or described thereby shall be performed in conformity therewith unless otherwise required by the Owner.

1.06 SUBMITTAL FOR INFORMATION OR DOCUMENTATION

- A. Submit one copy to Engineer.



- B. Submittal shall be made at least 5 days before the subject of the submittal is to be incorporated into the Work.
- C. Submittal is for the purpose of formal verification that the subject of the submittal conforms to the requirements of the Specifications, for formal documentation of the Work, or both.
- D. No action is required by Owner or Engineer. Engineer will generally notify Contractor if deficiencies are identified; however Contractor is solely responsible for ensuring that the subject of the submittal conforms to the requirements of the Specifications.

1.07 SUBMITTAL FOR REVIEW

- A. Submit one copy to the Engineer.
- B. Submittal shall be made at least 10 days before the subject of the submittal is to be incorporated into the Work. Engineer will respond within 5 days from receipt of submittal.
- C. Submittal is for the purpose of providing opportunity to Engineer for review and comment on the subject of the submittal.
- D. Engineer will respond to the submittal either with a list of comments or indicating no comments.
- E. If Engineer's comments indicate a deficiency with respect to the requirement of the Specifications, Contractor shall amend the submittal and resubmit. Engineer will again respond to the resubmittal.
- F. If Engineer's comments are in regards to an issue which based upon the Contract Documents is at Contractor's discretion, Contractor shall furnish additional information provide justification, and otherwise cooperate in addressing and resolving Engineer's comments.
- G. Contractor shall remain solely responsible for ensuring that the subject of the submittal conforms to the requirements of the Specifications.

1.08 SUBMITTAL FOR APPROVAL

- A. Submit one copy to the Engineer.
- B. Submittal shall be made at least 15 days before the subject of the submittal is to be incorporated into the Work. Engineer will respond within 7 days from receipt of submittal.
- C. Submittals shall be stamped with Contractor's approval. Contractor's stamp shall be a representation that Contractor has assumed full responsibility for determining the submittal requirements and verifying that the subject of the submittal conforms to the requirements of the Specifications. Submittals not bearing Contractor's stamp will be returned without review or action.



- D. Engineer will review; make notations as appropriate, stamp, and return submittals to Contractor. Engineer's stamp and Contractor's required action are described below:
 - 1. NO EXCEPTIONS TAKEN. Contractor may proceed without further action.
 - 2. RECOMMENDED REVISIONS NOTED. Contractor shall review Engineer's notations and revise subject of submittal as required to conform to the requirements of the Drawings and Specifications before proceeding with the Work. Resubmittal is not required.
 - 3. RESUBMIT. Contractor shall review Engineer's notations, revise subject of submittal as required to conform to the requirements of the Drawings and Specifications, and resubmit to Engineer for additional action.
 - 4. REVIEW COMPLETE, FURNISH THREE FILE COPIES. Contractor shall furnish the requested number of copies and may proceed without further action.
 - E. No work shall be performed in connection with the fabrication or manufacture of equipment and materials until the data have been reviewed by the Engineer except at the Contractor's own risk and responsibility. Work may proceed when submittals have been returned marked RECOMMENDED REVISIONS NOTED, provided the work is performed in accordance with the Engineer's notations, or NO EXCEPTIONS TAKEN.
 - F. If changes are made at the project site to correct manufacturing errors, revised drawings incorporating the changes shall be prepared and submitted to the Engineer.
 - G. Drawings shall be in sufficient detail to indicate the kind, size, and arrangement of component materials and devices; the external connections, anchorages, and supports required; the dimensions needed for installation and correlation with the foundations; and other information specifically requested herein.
 - H. Each drawing submitted shall be black line on white background or blue line on white background. Print size shall not exceed 24 inches by 36 inches.
 - I. Each drawing submitted shall be clearly marked with the name of the project, the specification title, the specification number, the Engineer's assigned number when so advised, and the Contractor's name. If catalog pages are submitted, the applicable items shall be indicated.
- 1.09 ALTERNATE PRODUCT SUPPORTING DATA
- A. If Contractor proposes to use alternate or substitute products, Contractor shall submit written application as required by paragraph 6.05.A.2 of the General Conditions.
 - B. Submit two (2) copies of literature, drawings, and any other data necessary to substantiate that proposed substitute is equivalent or equal to the item named, and otherwise meets the conditions established in paragraphs 6.05.A through 6.05.F of the General Conditions.



- C. Do not proceed with product installation or use until written approval by Engineer is received in accordance with paragraphs 6.05.A through 6.05.F of the General Conditions.

1.10 RECORD DOCUMENTS

- A. Submit one original copy of all record documents to Engineer prior to substantial Completion.
- B. Record documents consist of all Drawings, Specifications, Addenda, Change Orders, and Shop Drawings legibly annotated to reflect all changes made during construction.

1.11 WARRANTY OR GUARANTEE CERTIFICATES

- A. Submit three (3) executed copies prior to Substantial Completion.
- B. All warranty or guarantee certificates shall be signed by Contractor and all other parties as requested in specific sections.

1.12 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01 33 00



SECTION 01 35 23

SAFETY

PART 1: GENERAL

1.01 GENERAL

- A. In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for job site conditions and safety procedures and programs, including safety and health of all persons and property, on those portions of the site affected by or used by Contractor, Contractor's employees, subcontractors, agents, and others during performance of the Work. This requirement will apply continuously and not be limited to normal working hours. Observation of the Work and Contractor's performance by Owner and Engineer is not intended to include review of the adequacy of the Contractor's safety and health procedures and programs on or near the construction site. The Contractor is solely responsible for the protection of property and the safety and health of its employees, Subcontractors, Suppliers, agents, and others on or near the site.

1.02 SAFETY

- A. In addition to the requirements of paragraph 6.13.B of the General Conditions as amended by the Supplementary Conditions, the Contractor shall:
1. Contractor shall be responsible for furnishing Contractor's employees, as well as any subcontractor's and supplier's employees, with all safety equipment and other protection devices needed to comply with Laws and Regulations or accepted safety practices. Contractor shall also be responsible for furnishing all visitors to the site with all safety equipment including but not limited to hard hats and eye protection.
 2. Contractor shall make all persons on the site familiar with the safety precautions appropriate to the construction zones and refuse entry by any person not authorized by Contractor or Owner.
 3. Contractor shall be responsible for any safety violation and/or fine that may occur because of any neglect by Contractor, Contractor's employees, Contractor's subcontractors, or any third party under Contractor's supervision or direction.
 4. Contractor shall provide safe access to all portions of the Work for use by Engineer or Owner and Owner's authorized representatives in the performance of their observation duties. Said access shall conform to Laws and Regulations and to all requirements of any regulatory agency or agencies who claim jurisdiction over the safety of the project area. If Engineer or Owner are unable to observe Contractor's work, due to conditions which in opinion of Owner or Engineer are unsafe, Engineer's recommendation for payment, or Owner's payment, for such work may be withheld until work has been determined to be in compliance with the Contract Documents.



1.03 HAZARD COMMUNICATION PROGRAMS

- A. Contractor shall comply with paragraph 6.15 of the General Conditions.

1.04 EMERGENCIES

- A. Contractor shall comply with paragraph 6.16 of the General Conditions.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01 35 23



SECTION 01 55 00
ACCESS ROADS AND PARKING

PART 1: GENERAL

1.01 DESCRIPTION

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered under this Section includes providing all materials, equipment, and labor for determining locations and providing access to the work areas, removing and restoring access locations at the completion of work, and adhering to parking restrictions throughout the Work sites including, but not limited to:
 - 1. Providing gravel surface access road to construction site.
 - 2. Installing Mud Mats on access across wetland for protecting wetland area.

1.02 REFERENCES

- A. Minnesota Department of Transportation Standard Specifications for Construction, 2018 Edition, hereafter referred to as MnDOT Standard Specifications.

1.03 SUBMITTALS

- A. Contractor shall follow access route to the construction areas as shown on the Drawings. An access plan is required to be submitted to the Owner and Engineer for review and approval. Submittal shall include description of type of mud mats to be used, size, and layout plan for installation of mud mats. In submitting permits to the regulatory review agencies it has been assumed that an access haul road will be constructed to the construction area and restored to a condition equal to existing condition upon completion of the project.

1.04 BASIS FOR COMPENSATION

Compensation for all Work covered under this Section of these Specifications shall be in accordance with the provisions set forth in Section 01 20 10, Unit Price Measurement and Payment.

PART 2: PRODUCTS

2.01 CLASS 5 AGGREGATE

- A. Mn/DOT 3138.2B
 - 1. Aggregate base shall be a virgin aggregate comprised of naturally occurring mineral materials and contains no topsoil, organics, so, roots, plants, or objectionable material and shall conform to Mn/DOT Standard Specifications 3138.2B Class 5 virgin material, and must be crushed quarry rock and conform to the quality requirements of Table 3138-1.



2.02 GEOTEXTILE FABRIC

- A. Geotextile Mn/DOT Type V.
 - 1. Shall be a woven or knit fabric of polymeric filaments of polypropylene, polyethylene, polyester, or polyamide and shall meet the requirements of Mn/DOT Standard Specification 3733.1 for geotextile fabrics.

2.03 MUD MATS

- A. Mud mats shall be Dura-Base Advanced Composite Mat System or approved equal.

PART 3: EXECUTION

3.01 GRAVEL SURFACE DRIVEWAY

- A. Gravel surface driveway shall be constructed in the location and within the construction limits as shown on the Drawings.
- B. Area for driveway shall be cleared and sub-graded and prepared for installation of geotextile fabric.
- C. Class 5 aggregate shall be placed to the dimensions as shown on the drawings and compacted to obtain 95 percent of Standard Proctor density.

3.02 ACCESS ROADS AND PARKING

- A. Primary access to the properties on which Contractor is to perform work is provided by public roadways. Contractor shall comply with Laws and Regulations applicable to use of such public roadways including parking of cars, trucks, and equipment. Any permits and fees required by Laws and Regulations for Contractor's use of public roadways or easements shall be obtained by and paid for by Contractor. Any and all damage to public roadways as a result of Contractor activities and operations shall be repaired, at Contractor's expense, to the satisfaction of the governmental agency having jurisdiction over the damaged roadway.
- B. Primary site access from public roadways shall be limited to the construction limits and easement areas shown on the Drawings, Contractor's approved access plan, and or as indicated in the Specifications.
- C. Contractor shall not use or obstruct any private driveway or portion thereof not within the designated construction limits without prior authorization from the property owner. Any and all damage to a private driveway or that portion not within the construction limits as a result of Contractor activities and operations shall be repaired, at Contractor's expense, to the satisfaction of the property owner. Contractor shall perform daily cleaning of any private driveway or other private property used by Contractor to the satisfaction of the property owner and Engineer.
- D. The Contractor shall provide mud mat system for crossing wetland area, wetland area must be protected from rutting and damage by vehicles and equipment access. Double layer of mud mats may be required in very soft wet areas and should be laid in a shingling fashion. Mud mats shall be installed within the construction limits.



- E. The Contractor shall provide all equipment and materials necessary for the control of dust arising during the performance of the Work. Dust shall be controlled so as to not be a nuisance to homeowners, adjacent property owners, and the public. When requested by Engineer or Owner, or at other times as necessary, Contractor shall take measures to reduce dust. These measures may include, but are not limited to:
1. Sweeping and washing roads.
 2. Watering source areas of dust.
 3. Temporary surfacing such as paving or sodding source areas.

END OF SECTION 01 55 00



SECTION 01 55 26

TRAFFIC CONTROL

PART 1: GENERAL

1.01 DESCRIPTION

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered under this Section includes providing all materials, equipment, and labor to control traffic, both vehicular and pedestrian traffic, on or near the site including, but not limited to:
 - 1. Obtaining necessary permits for road closings, works in the right-of-way, and detours.
 - 2. Place any necessary signage or flagmen as required by permits.
 - 3. Controlling vehicular and pedestrian traffic around or through construction zone, entrance and access by installing signage, traffic barrels and orange safety fencing or other barriers required by permits.

1.02 REFERENCES

- A. Minnesota Department of Transportation Standard Specifications for Construction, 2018 Edition, hereafter referred to as MnDOT Standard Specifications.
- B. American Society for Testing and Materials, Current Edition, hereafter referred to as ASTM.
- C. Minnesota Department of Transportation, Minnesota Manual on Uniform Traffic Control Devices, Appendix B, Traffic Control for Short-Term Street or Highway Work Zones, Latest Edition.

1.03 SUBMITTALS

- A. Submit for documentation mapping showing location of all signage, flagmen and detours.

1.04 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.



PART 2: PRODUCTS

2.01 Vehicular and Pedestrian Traffic Control

- A. Traffic control signage
- B. Traffic barricades, barrels and orange safety fencing

PART 3: EXECUTION

3.01 PERMITS

- A. CONTRACTOR shall obtain any permits from Federal, State or Local agencies necessary for traffic control or road closings necessary for completion of the work.

3.02 SIGNAGE

- A. CONTRACTOR shall be responsible for construction signs. This shall include all signs, cones, barricades and flagging as required by Federal, State or Local agencies.

3.03 PUBLIC NOTICE

- A. CONTRACTOR shall be responsible for any public notice regarding work in the right-of-way, road closings, or detours, as required by Federal, State, or Local agencies.

END OF SECTION 01 55 26



SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1: GENERAL

1.01 RECORD DOCUMENTS

- A. The Contractor shall maintain at the site (or in Contractor's possession) one set of record documents including all Drawings, Specifications, and Change Orders in good condition and legibly annotated to show changes made during construction. Store record documents separate from documents used for construction, clearly mark, and make accessible to Engineer and Owner at all times.
- B. Record information on record documents concurrent with construction progress. Engineer or Owner may require Contractor to improve its performance with regard to recording information during the construction process.
- C. Record for each product Section of the Specifications a description of the actual products installed including the following:
 - 1. Manufacturer's name and product model number.
 - 2. Product substitutions or alternates used.
 - 3. Changes made by Change Order.
 - 4. Quality control procedures and test results.
- D. Record drawings shall have recorded, at a minimum, the following items legibly marked to record actual construction:
 - 1. Approved version of all Shop Drawings.
 - 2. Measured depths or elevations of foundations in relation to a clearly defined, reproducible datum.
 - 3. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements or survey markers.
 - 4. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible permanent features of the Work.
 - 5. Changes made by Change Order and all minor field changes of dimension and detail.
 - 6. Details not shown on original Contract Drawings.



- E. Submit record documents and all operations and maintenance manuals and other submittals required by other Sections of these Specifications.

1.02 CLEANUP

- A. The Contractor shall keep each site free from accumulations of waste materials, rubbish and other debris resulting from the Work, and at the completion of the Work, shall remove all waste materials, rubbish and debris from the premises as well as all tools, construction equipment and machinery, temporary facilities, and surplus materials. Contractor shall leave the site clean and ready for occupancy by the Owner.
- B. The Contractor shall provide cleaning of all surfaces, systems and fixtures, including removal of labels, tags, grease, oil, dirt, dust, stains, etc.

1.03 GUARANTIES AND WARRANTIES

- A. The Contractor shall guarantee all work and material against all defects as specified in paragraph 13.07 of the General Conditions or as otherwise required for specific items in these Specifications. The Contractor shall repair or replace any such defective Work and materials to conform to the provisions of the Contract and without expense to the Owner, within ten (10) days after notification in writing by the Owner or Engineer of such defective Work or material. If the Contractor does not make said repairs or replacements, or has not made arrangements for the correction thereof within the period specified above, the Owner may do so and will charge the cost of same to the Contractor. The Contractor shall perform repair work so as to cause the Owner a minimum of inconvenience and interruption of services.
- B. The warranty period for all equipment and systems, regardless of when placed into continuous service, shall commence on the date of Substantial Completion.

1.04 FINAL SUBMITTALS

- A. When the Work has been completed, Engineer will prepare a final statement showing the accepted quantities of every item of work performed by the Contractor. All estimates upon which previous payments have been based are subject to correction in the final statement. The final voucher, showing the accepted quantity and value of each item of work performed and all amounts to be retained or deducted under the provisions of the Agreement, will be submitted to the Contractor for approval before being passed for payment.

If the final voucher shows that the total of all partial payments made exceeds the total amount due the Contractor, the Contractor shall promptly refund the overpayment. If an overpayment is not refunded, Owner will have the right to deduct the amount thereof from any moneys due or becoming due to the same Contractor under any other contract, either present or future.

Final payment will not be made until a certificate of final acceptance (contained on the final Contract voucher) has been executed by both parties to the Contract.



1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01 77 00



Division 2
Site Construction

Division 2 – Site Construction

02 24 09 Control of Water

02 24 09-1

SECTION 02 24 09

CONTROL OF WATER

PART 1: GENERAL

1.01 DESCRIPTION

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Conditions set forth in these Specifications, and the provisions of the other Contract Documents.
- B. The Work covered by this Section consists of furnishing all labor, equipment, materials, and performing all operations necessary to control water in the work areas shown on the Drawings and specified herein. This work shall include the provision, operation and maintenance of any temporary barriers, temporary sediment basins, filtering systems, pumping, or temporary piping necessary to allow for proper construction of the Work.
- C. Contractor shall carry out the Control of Water in compliance with all Federal, State, and Local applicable discharge and pollution requirements.
- D. Contractor shall restore any affected areas to a condition equal to or better than the condition prior to commencement of construction.

1.02 REFERENCES

- A. "Best Practices for Meeting DNR General Public Waters Work Permit." Minnesota Department of Natural Resources. October 2014.

1.03 ENVIRONMENTAL REQUIREMENTS

- A. Contractor shall carry out the control of water in compliance with all Federal, State and local applicable discharge and pollution requirements.
- B. Contractor shall not violate standards set forth in Water Quality Certification pursuant to Part 401 of the Clean Water Act of 1977 (PL92 217) when water is discharged.
- C. Minnesota DNR Water Appropriation Permit if required.
- D. Contractor shall obtain any permits required to carry out the activities outlined in this Section of the Specifications.

1.04 SUBMITTALS

- A. At least 5 days before mobilization, Contractor shall submit its proposed water management plan to the Engineer for Information and Documentation. This water management plan shall address, control of surface water, control of any and all water in excavations, any surface and/or

groundwater seeps that affect the work, and provisions to maintain stormwater flows past the construction sites, and construction procedures.

- B. Review and approval of water management plan does not relieve the Contractor from complete responsibility for water management at the site.

1.05 BASIS FOR COMPENSATION

- A. Compensation for all Work covered under this Section of these Specifications shall be as set forth in Section 01 22 00, Unit Price Measurement and Payment.

PART 2: PRODUCTS

2.01 DEWATERING SEDIMENT FILTER BAGS

- A. Dewatering bags for dewatering operations that do not discharge to sediment dams or sediment basins. Dewatering Bags shall be fabricated from non-woven geotextile materials that filter sediment-laden water from dewatering operations. Sediment laden water is pumped into the non-woven geotextile fabric bag that allows filtered water to pass through.
- B. Dewatering bags shall be composed of a UV resistant, non-woven geotextile sewn into a completely enclosed bag. Dewatering bags shall be sewn with high strength double stitched seams. Dewatering bags shall have a sewn-in sleeve to receive the pump discharge hose.

PART 3: EXECUTION

3.01 CONTROL OF WATER

- A. The flow in public storm sewers shall be maintained and allowed to by-pass active construction areas. The Contractor will be required to manage the work area during construction to account for fluctuations in water flow and levels as necessary to protect the Work and Contractor's equipment, material, and personnel, and according to all applicable laws and regulations.
- B. Contractor shall be responsible for detailed development of sequencing and staging of construction, demolition, and control of water in the work area.
- C. Contractor must be aware that significant changes in flow and water level can occur in the project area at any given time. The Contractor is responsible for any impacts that could result from changing water flow/level conditions.
- D. Contractor shall include adequate costs in the Contract Price to assure that the water in the work areas of all sites can be controlled and the work completed.
- E. Contractor shall maintain all systems for controlling water for the period required to complete the Work.
- F. Contractor shall remove all systems for controlling water and restore these areas to pre-construction or approved permit conditions.

3.02 WORKING WITHIN A PUBLIC WETLAND

- A. When working directly in public wetland all efforts shall be made to direct flows from the disturbed work areas to prevent the transportation of sediment from the work into wetland. Temporary diversion system must be constructed in accordance with the current “Best Practices for Meeting DNR General Public Waters Work Permit” published by the Minnesota Department of Natural Resources.
- B. Diversion structures, by-pass pumping, and/or cofferdams used to divert flows must be constructed in such a manner that they minimize sediment transport downstream.
- C. The Contractor is responsible for removing material that may slump or wash into undisturbed areas during construction and/or protecting materials during storm events.

3.03 DEWATERING SEDIMENT FILTER BAGS

- A. Dewater sediment filter bags shall be used on the end of all discharge hoses of pumps used to dewater existing ponds.
- B. Install the Dewatering Bag on a mild slope to ensure incoming water flows downhill through the dewatering bag. Secure the hose to bag connection using a heavy duty pipe clamp, rope, or other suitable means to prevent leakage. When using a rope to attach the pump hose to the dewatering bag make a minimum of 6 wraps around the hose over a 6-inch width of the bag and fasten with a secure rope knot. The bottom area of dewatering bags will not allow flow to pass through when the bag is placed on a low permeable or impermeable surface. Place the dewatering bag on an aggregate, hay bales, or other highly permeable surface to maximize water flow through the entire surface area of the bag. Monitor the dewatering bag at all times while the pump is running. While monitoring, ensure the hose to bag connection is secure with only minimal leaking. Check for flow permeating from the bottom surface of the dewatering bag. If flow appears restricted, move bag to a surface with higher permeability.
- C. Dispose of dewatering bags off site at appropriate disposal site in accordance with applicable federal, state, county, and local regulations.

END OF SECTION 02 24 09

Division 3
Concrete

Division 3 – Concrete

03 10 00 Concrete Forms and Accessories
03 20 00 Concrete Reinforcement
03 30 00 Cast In Place Concrete

03 10 00-1
03 20 00-1
03 30 00-1

SECTION 03 10 00

CONCRETE FORMS AND ACCESSORIES

PART 1: GENERAL

1.01 SECTION INCLUDES

- A. Form work.
- B. Shoring.
- C. Form accessories.
- D. Form coatings.
- E. Decorative Finish Form Liner

1.02 RELATED SECTIONS

- A. Section 03 20 00—Concrete Reinforcement.
- B. Section 03 30 00—Cast-in-place Concrete.

1.03 REFERENCES

- A. Current editions of the following standards and publications.
 - 1. ACI 117, Specifications for Tolerances for Concrete Construction and Materials and Commentary
 - 2. ACI 347, Guide to Formwork for Concrete
 - 3. ACI SP-4, Formwork for Concrete

1.04 SUBMITTALS

- A. Submittal of rock texture patterns for form liners to Engineer for approved by Owner.
- B. Contractor shall choose a form liner supplier and submit photos or samples of different available rock patterns for approval.

1.05 QUALITY ASSURANCE

- A. Design and engineering of formwork:



1. Responsibility of Contractor.
2. Designed for loadings, lateral pressures and allowable stresses in accordance with ACI 347 and ACI SP-4.
3. Designed, erected, supported, and maintained to safely support all vertical and lateral loads that might be applied, including construction loads and loads resulting from the placement and vibration of concrete.
4. Formwork supported on ground: Provide satisfactory foundations to carry the loads imposed during and after construction without appreciable settlement.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Protected from deterioration, weather and shrinkage prior to concreting by proper storage, oiling, wetting, or other appropriate methods.
- B. Keep free of rust, rot, or other detrimental forms of deterioration.

1.07 SEQUENCING

- A. Forms designed so they may be removed in proper sequence and without damage to the concrete.
- B. Sequence form erection and removal to match any concrete pours, curing, and any other adjacent or related work which may affect the placement, removal or availability of any concrete formwork.

PART 2: PRODUCTS

2.01 MATERIALS

- A. Forms: Wood, metal, or other approved material providing a smooth continuous surface in contact with concrete.
- B. Chamfer Strips:
 1. Uniform in cross-section dimensions without rounded corners.
 2. Smooth on all sides.
 3. $\frac{3}{4}$ -inch sides, unless noted otherwise on Drawings.
- C. Form Accessories:
 1. Commercially manufactured ties and hangers embedded in the concrete.



2. Type which leaves no metal closer than 1 inch from the surface of the finished concrete.
- D. Form Coatings:
1. Non-staining chemical release agent which prevents bonding to concrete.
 2. Compatible with the type of form materials used.
 3. Acceptable agents include: North Central Form Release, Eucoslip Form Release, Nox-Crete form coating and Crembeton 103.
- E. Form Liner
1. Rock textured Pattern.
 2. Plastic or rubber.
 3. Secure owner approval prior to procurement.

2.02 FABRICATION

- A. Type: pre-manufactured or constructed on-site.

PART 3: EXECUTION

3.01 PREPARATION

- A. Thoroughly clean of all dirt, mortar, sawdust, and other foreign matter prior to use. Bottoms of forms inaccessible from within to be provided with access panels to permit removal of extraneous materials before placing concrete.
- B. Forms for exposed concrete:
1. Treated with non-staining release agent per manufacturer's recommendation.
 2. Avoid placement of release agent on reinforcing steel, embedded anchorages, anchor bolts, bearing plates, or other items which require bonding to concrete.
- C. Openings in formwork:
1. Provide to accommodate any conduits, fixtures, or other appurtenances extending through the formwork.
 2. Accurately locate, securely support, level, plumb, and straight items directly embedded into concrete.
 3. Provide inspection hole as requested by Engineer to verify consolidation of concrete.



3.02 INSTALLATION

- A. Conform to the shape, lines, and dimensions of the components shown on the Drawings, true to line, plumb and level as required in ACI 117.
- B. Construct forms for exposed concrete to minimize deflection in order to eliminate bulges, offsets, or other unsightly features in the finished surfaces.
- C. Provide camber to compensate for anticipated deflections in the formwork due to the weight and pressure of the plastic concrete and construction loads.
- D. Provide forms tight to prevent leakage of grout or cement paste.

3.03 FORMWORK REMOVAL

- A. Minimum time before removal after placing concrete, unless permitted otherwise:
 - 1. Footings and slab edges: 24 hours
 - 2. Walls and piers: 48 hours (24 hours for metal-lined form)
 - 3. Time specified above represents cumulative time during which temperature of concrete is maintained above 50 degrees F.
- B. In any event, do not remove forms or shoring until concrete has acquired sufficient strength to safely support its own weight and construction loads.
- C. Avoid hammering or prying against concrete surfaces to prevent damage to concrete.
- D. Do not place live loads on concrete structures prior to completion of the specified 28-day curing time without approval.

END OF SECTION 03 10 00



SECTION 03 20 00
CONCRETE REINFORCEMENT

PART 1: GENERAL

1.01 SECTION INCLUDES

- A. Reinforcing steel.
- B. Prestressing tendons.
- C. Welded wire fabric.
- D. Tie wire.
- E. Reinforcing support.

1.02 RELATED SECTIONS

- A. Section 03 10 00—Concrete Formwork.
- B. Section 03 30 00—Cast-in-Place Concrete.

1.03 REFERENCES

- A. Current editions of the following standards and publications.
 - 1. ACI 117, Specifications for Tolerances for Concrete Construction and Materials and Commentary
 - 2. ACI 315, Manual of Standard Practice for Detailing Reinforced Concrete Structures
 - 3. ACI 318, Building Code Requirements for Structural Concrete and Commentary
 - 4. ASTM A185/A185M, Standard Specification for Steel Welded Steel Wire Reinforcement, Plain, for Concrete Reinforcement
 - 5. ASTM A416/A416M, Standard Specification for Steel Strand, Uncoated Seven-Wire for Prestressed Concrete
 - 6. ASTM A615/A616M, Standard Specification for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement
 - 7. ASTM A706/A706M, Standard Specification for Low Alloy Steel Deformed and Plain Bars for Concrete Reinforcement



8. ASTM A970/970M, Standard Specification for Headed Steel Bars for Concrete Reinforcement
9. ASTM A996/A996M, Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement
10. CRSI, Manual of Standard Practice

1.04 SUBMITTALS

- A. Shop Drawings
 1. Submit prior to start of work.
 2. Show fabrication dimensions, bar sizes, location for placing reinforcing, and lap locations.
- B. Manufacturer's mill certificates:
 1. Properties of the steel (i.e., mill tests).

1.05 QUALITY ASSURANCE

- A. Identify bar bundles with waterproof mark numbers on tags.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store above the surface of the ground on platforms, skids or other supports.
- B. Protect from injury and surface deterioration caused by exposure to conditions producing rust.

1.07 SEQUENCING AND SCHEDULING

- A. Schedule placement and securing of reinforcing steel and formwork so that reinforcing work may be reviewed by Engineer before it becomes inaccessible.

PART 2: PRODUCTS

2.01 MATERIALS

- A. Reinforcing bars: ASTM A615, A706, or A996 (Type R), A970, Grade 60.
- B. Welded wire fabric: ASTM A185.
- C. Prestressing tendons: ASTM A416.



- D. Bar supports: CRSI Manual of Standard Practice
 - 1. Cold-drawn steel wire.
 - 2. Type C plastic protected or type E stainless steel protected.
 - 3. Precast concrete block.
- E. Tie wire: black annealed wire, 16 gauge or heavier.

2.02 FABRICATION

- A. Bent cold to the dimensions required before placing.
- B. Diameter of hooks and bends: ACI 315.

PART 3: EXECUTION

3.01 PREPARATION

- A. Prior to placement of new concrete, clean reinforcement of loose rust and mill scale, earth, ice, cement, mortar, and other materials which reduce or prevent complete bond with concrete.

3.02 INSTALLATION

- A. Do not install bars with kinks or bends not shown on Drawings.
- B. Provide adequate chairs, ties, etc. to prevent bars or welded wire fabric from sagging or deflecting and to hold the reinforcement rigidly against displacement of the concrete.
- C. Precast concrete blocks may be used for concrete placed against ground.
- D. Tie reinforcing with wire at all cross points.
- E. Placement tolerance: ACI 117.
- F. Minimum concrete cover (unless otherwise specified):
 - 1. Concrete cast against and permanently exposed to earth: 3 inches.
 - 2. Concrete exposed to weather: 2 inches.
 - 3. Concrete not exposed to weather or in contact with ground: 1½ inches.
- G. Tack welding of reinforcement is not permitted.



H. Tension lap splices: ACI 318, Class B.

3.03 INSPECTION AND ACCEPTANCE

- A. Do not place concrete until reinforcing steel has been directly observed and accepted by Engineer.
- B. Notify Engineer 24 hour's minimum prior to scheduled pour.

END OF SECTION 03 20 00



SECTION 03 30 00
CAST-IN-PLACE CONCRETE

PART 1: GENERAL

1.01 SECTION INCLUDES

- A. Concrete.

1.02 RELATED SECTIONS

- A. Section 03 10 00—Concrete Formwork.
- B. Section 03 20 00—Concrete Reinforcement.

1.03 REFERENCES

- A. Current editions of the following standards and publications.
 1. ASTM A36/A36M, Standard Specification for Carbon Structural Steel
 2. ASTM A108, Standard Specification for Steel Bar, Carbon and Alloy, Cold Finished
 3. ASTM C31/C31M, Standard Practice for Making and Curing Concrete Test Specimens in the Field
 4. ASTM C33/C33M, Standard Specifications for Concrete Aggregates
 5. ASTM C39/C39M, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
 6. ASTM C94/C94M, Standard Specification for Ready Mixed Concrete
 7. ASTM C143/C143M, Standard Test Method for Slump of Hydraulic-Cement Concrete
 8. ASTM C150/C150M, Standard Specification for Portland Cement
 9. ASTM C171, Standard Specification for Sheet Materials for Curing Concrete
 10. ASTM C231/C231M, Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
 11. ASTM C260/C260M, Standard Specification for Air Entraining Admixtures for Concrete
 12. ASTM C309, Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
 13. ASTM C494/C494M, Standard Specification for Chemical Admixtures for Concrete
 14. ASTM C618, Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
 15. ASTM E96/E96M, Standard Test Methods for Water Vapor Transmission of Materials
 16. ACI 117, Specifications for Tolerances for Concrete Construction and Materials and Commentary
 17. ACI 301, Specifications for Structural Concrete



18. ACI 302.1R, Guide for Concrete Floor and Slab Construction
19. ACI 305R, Guide to Hot Weather Concreting
20. ACI 306R, Guide to Cold Weather Concreting
21. ACI 308R, Guide for Curing Concrete
22. ACI 309R, Guide for Consolidation of Concrete
23. ACI 318, Building Code Requirements for Structural Concrete and Commentary
24. ACI 347R, Guide to Formwork for Concrete
25. CSRI Manual of Standard Practice
26. MN/DOT Standard Specifications for Construction

1.04 SUBMITTALS

- A. Manufacturer's descriptive literature and product specifications for each product.
- B. Shop Drawings:
 1. Steel reinforcing (see Section 03 20 00)
 2. Embedded steel, inserts, anchor bolt and accessories locations
- C. Batch Plant Qualifications
 1. Plant's name
 2. Address
 3. Phone number
 4. Distance and travel time to site
- D. Concrete Mix Design
 1. Submit for each mix at least 15 days prior to start of work
 - a. Basis for mix design (by concrete production facility or laboratory trial mixes)
 - b. Identification of aggregate source and compliance test to ASTM requirements
 - c. Compressive strength at 28 days
 - d. Scale weights of each aggregate
 - e. Absorbed water in each aggregate
 - f. Brand, type, and amount of cementitious material in mix
 - g. Proportions of each material required per cubic yard
 2. Do not change mix designs and supplier unless new batch plant qualifications and mix designs are submitted.

1.05 QUALITY ASSURANCE

- A. Contractor Qualifications: 5 years minimum experience on comparable concrete projects.



- B. Workmen Qualifications:
 - 1. Competent and experienced foreman in placing the types of concrete specified.
 - 2. Trained and experienced concrete finishers.
- C. Contractor:
 - 1. For each batch of concrete delivered to the jobsite provide one signed copy of the delivery ticket in accordance with ASTM C94 to Owner's Representative as proof of acceptance or rejection of concrete.
- D. Independent Testing Agency:
 - 1. Trial mix
 - a. Obtain samples
 - b. Perform laboratory testing
 - c. Provide reports on materials, concrete design mixed, and testing performed
 - 2. Field testing: see Part 3

PART 2: PRODUCTS

2.01 CEMENTIOUS MATERIAL

- A. Portland Cement: ASTM C150, Type I or Type IA.
 - 1. Free from water-soluble salts or alkalis, which will cause efflorescence on exposed surfaces.
- B. Pozzolanic Mineral Admixture
 - 1. Fly Ash: ASTM C618, Class C or F.
 - 2. Minimum amount (if used): 15%, by weight, of total cementious material.
- C. Use only one brand and type of cementious materials.

2.02 AGGREGATES

- A. Fine Aggregates: ASTM C33 for grading.
- B. Coarse Aggregates: ASTM C33 for grading.
 - 1. Maximum aggregate size
 - a. 3/4-inch: concrete sections 12 inches and less in thickness.
 - b. 1½ inches: footing, wall, and concrete sections greater than 12 inches in thickness.

2.03 WATER

- A. Clean, potable, and free from injurious amounts of oils, acids, alkalis, salts, organic materials, or other substances that may be deleterious to concrete or steel.



2.04 ADMIXTURES

- A. No admixtures, except air-entraining agent and water reducing admixture without approval of the Engineer. Do not use calcium chloride.
- B. Air-entraining agent: ASTM C260
 - 1. Acceptable products:
 - a. AEA-2 by Euclid Chemical Co.
 - b. Darex II by W.R. Grace
 - c. Approved equal
- C. Water-reducing admixture: ASTM C494, Type A
 - 1. Acceptable products:
 - a. Eucon WR 91 by Euclid Chemical Co.
 - b. WRDA-82 by W.R. Grace
 - c. Approved equal

2.05 MIXES

- A. Base proportioning of materials on previous field experience of concrete production facility or by laboratory trial mixes in accordance with ACI 301 or ACI 318.
- B. Minimum 28-day specified compressive strength as defined by ASTM C39: 4,000 psi.
- C. Note to user: See ACI 381 Table 5.3.2.2. Edit compressive strengths to meet project requirements. Delete items not used from table.
- D. Cementious Material Content
 - 1. Quantity required to meet the specified requirements for strength, water-cement ratio, durability, and finishing ability.
- E. Water-Cement Ratio: 0.45
- F. Air-Entrainment
 - 1. For concrete exposed to freezing and thawing:

Nominal Max. Size Coarse Aggregate	Total Air Content
¾ inch	6% ± 1
1 inch	6% ± 1
1½ inch	5½% ± 1

2.06 READY-MIX CONCRETE

- A. Provide concrete from an established, certified ready-mix plant.
- B. Certified ready-mix plant equipment and facilities per Mn/DOT 2461.4D.

2.07 CURING MATERIALS

- A. Waterproof paper (non-staining): ASTM C171, regular or white.



- B. Burlap: commercial quality and non-staining.
- C. Polyethylene Sheeting: ASTM C171 (4 mil minimum thickness).
- D. Membrane Curing Compound: ASTM C309.
 - 1. Acceptable products:
 - a. CS-309 Curing & Sealing Compound (VOC) as manufactured by W. R. Meadows, Inc.
 - b. Approved equal.

PART 3: EXECUTION

3.01 PREPARATION

- A. Remove water from excavations before concrete is deposited. Divert any flow of water through proper side drains and remove without flowing over freshly deposited concrete.
- B. Do not place concrete on frozen ground.
- C. Apply form coating on formwork (see Section 03 10 00). Apply prior to placing reinforcing steel, anchoring devices, and embedded items.
- D. Prior to concrete placement, install, prepare, and inspect concrete reinforcement per Section 03 20 00.
- E. Subgrade to be well drained, free of frost, and moisture at the time of concrete placement. If necessary, dampen with water in advance of concrete placement, but no free water standing on either the subgrade or any muddy or soft spots when the concrete is placed.
- F. Screeds: Properly support to maintain required thickness of slabs. Place bulkheads to construction joint limits.
- G. Remove laitance from previously placed or existing concrete; thoroughly clean surface before placing concrete.
- H. Install items to be embedded in concrete. Fasten embedded items securely into position before placing concrete.

3.02 TRANSPORTING CONCRETE: ASTM C94

- A. Discharge and place in its final position concrete delivered to the site in watertight revolving-drum trucks within 90 minutes, or before the drum has revolved 300 revolutions, whichever comes first, after the introduction of the mixing water to the cement and aggregates or the introduction of the cement to the aggregates.

3.03 PLACING CONCRETE

- A. Remove hardened concrete debris and foreign materials from the inner surfaces of conveying equipment.



- B. Weather Protection
 - 1. Cold Weather
 - a. Applies to concrete placed when the ambient temperature is below 40 degrees F.
 - b. Conform to recommendations and requirements of ACI 306R.
 - c. Concrete damaged by freezing to be removed and replaced at Contractor's expense.
 - 2. Hot Weather
 - a. Applies to concrete placed when the ambient temperature exceeds 90 degrees F.
 - b. Conform to recommendations and requirements of ACI 305R.
- C. Place concrete continuously in each section until complete. Concrete surfaces not permitted to stand more than 30 minutes before new concrete is placed against them.
- D. Avoid segregation during placement. Place in uniform lifts not to exceed 18 inches.
- E. Do not drop concrete more than 5 feet. When greater drops are required, employ drop chutes or other approved means.
- F. Consolidation:
 - 1. Consolidate concrete by vibration so that concrete is worked around the reinforcement, around embedded items, and into corners of forms.
 - 2. Use internal vibrators of the largest size and the most powerful that can be properly used in the Work, per ACI 301.
 - 3. Vibrators to be operated by competent workmen.
 - 4. Do not use vibrators to transport concrete within forms.

3.04 FINISHING

- A. Formed Surface
 - 1. Patch tie holes. Repair surface defects according to ACI 301.
 - 2. Rough form finish of concrete not exposed: Chip off or rub off fins exceeding ½ inch in height.
 - 3. Smooth form finish of exposed concrete: Remove fins exceeding 1/8 inch in height.
 - 4. Excess finishing of the concrete shall be avoided. Over-finished concrete, as judged by the Engineer, will result in removal and rework of entire pour, at Contractor's expense.
- B. Repair of Surface Defects: ACI 301
 - 1. Surface defects include tie holes, honeycombed areas, and spalled and pitted areas resulting from concrete sticking to the forms.
 - 2. Fill tie holes with patching mortar after being cleaned and thoroughly dampened.
 - 3. Repair of surface defects other than tie holes:
 - a. Provide ½ inches to ¾ inch deep saw cut around perimeter



- b. Remove unsound concrete
- c. Dampen patch area plus an additional 6 inches beyond perimeter
- d. Apply bonding agent by thoroughly brushing into surface
 - 1) Bonding Grout: One part cement, one part fine sand with water to consistency of thick cream.
- e. Apply batching mortar when bond coat loses water sheen.
- f. Patching mortar
 - 1) Same materials as concrete to be patched with no coarse aggregate.
 - 2) Do not use more than one part cement to 2½ parts sand by loose volume.
 - 3) For exposed surfaces, make trial batch to check color compatibility with repair surface. Substitute white cement if color is too dark.
 - 4) Use mortar at a stiff consistency. Add no more mixing water than required for handling and placing.
- g. Do not use proprietary compounds for adhesion or as patching ingredients without approval.

3.05 CURING AND PROTECTION: ACI 301 AND 308R

- A. Start curing as soon as free water has disappeared from unformed surfaces or immediately after forms are removed.
- B. Accomplish curing and protection by preventing loss of moisture, rapid temperature change, mechanical injury, or damage from rain, frost, or flowing water for at least 7 days.
- C. Formed surfaces may be cured by leaving forms in place.
- D. Unformed surfaces, slab surfaces, and surfaces from which forms have been removed: Cure by one of the following application methods:
 - 1. Absorptive mats or fabric kept continuously wet.
 - 2. Waterproof sheet materials.
 - 3. Curing compound.
 - a. Apply the compound according to manufacturer's directions
 - b. Apply immediately after finishing operations are completed or after forms are removed.
 - c. Apply sufficient quantity to ensure the formation of a continuous unbroken film over the entire area of the exposed surface. Re-spray surfaces damaged by subsequent construction operations during the curing period.
 - d. Keep surfaces coated with curing compound free of foot and vehicular traffic and other sources of abrasion during the curing period.
 - e. Do not use of any membrane material which will impart a slippery surface to the concrete or alter its natural color.



- f. If the concrete surfaces, which are to receive curing compound, are expected to be exposed to freezing temperatures within 5 days, do not use the membrane-curing compound.

3.06 FIELD TESTING

A. Test Frequency

Test	Frequency
Air Content (ASTM C231)	One test per truck
Slump (ASTM C143)	One test per truck
Temperature	Hourly when air temperature is less than 40°F and greater than 80°F
Concrete Test Cylinders (ASTM C31)	Set of four, for each class of concrete, every 150 cy each day or one set each day
Compressive Strength (ASTM C39)	1 test cylinder at 7 days 2 test cylinders at 28 days 1 test cylinder retained for future testing

B. Laboratory-cured Test Cylinders

1. Cover and keep at air temperature between 60 degrees and 80 degrees F for the first 24 hours. At end of 24 hours, carefully transport cylinders to testing laboratory.
2. Acceptance test results are the strengths of the two specimens tested at 28 days.

C. Field-cured Test Cylinder (if Contractor or Owner requests)

1. Use for determination of form removal
2. Check adequacy of curing
3. Provide additional confirmation of 28-day strength
4. Place the cylinder as near as possible to the final location of the concrete from which the sample was taken.
5. Provide the same curing and protection as the adjacent concrete.

D. In the event that tests indicate that concrete placed does not conform to specifications, take corrective measures to correct the deficiency at no additional cost to Owner.

3.07 CLEANUP

- A. After completion of concrete Work, leave the structure and surrounding area clean and neat for commencement of subsequent construction or equipment installation.

END OF SECTION 03 30 00



Division 5

Metal

Division 5 – Metal

05 50 00 Metal Fabrications

05 50 00-1

SECTION 05 50 00
METAL FABRICATIONS

PART 1: GENERAL

1.01 SECTION INCLUDES

- A. Stop Log Guide Rails
- B. Steel embeds

1.02 RELATED SECTIONS

- A. Section 03 10 00 – Concrete Forms and Accessories
- B. Section 33 44 00 – Storm Utility Drainage Piping (Wood Stop Logs)

1.03 REFERENCES

- A. Current editions of the following standards and publications.
 - 1. ASTM A36/A36M, Standard Specification for Carbon Structural Steel
 - 2. ASTM A53/A53M, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc Coated, Welded and Seamless
 - 3. ASTM A108, Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished
 - 4. ASTM A123/A123M, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
 - 5. ASTM A153/A153M, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware [ss]
 - 6. ASTM A307, Standard Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength
 - 7. ASTM A325, Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
 - 8. ASTM A500/A500M, Standard Specification for Cold Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
 - 9. ASTM A563, Standard Specification for Carbons and Alloy Steel Nuts



10. ASTM A780/A780M, Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
11. ASTM A992/A992M, Standard Specification for Structural Steel Shapes
12. ASTM F436, Standard Specification for Hardened Steel Washers
13. ANSI/AISC 360-05, Specification for Structural Steel Buildings
14. AISC 303-05, Code of Standard Practice for Steel Buildings and Bridges
15. AWS D1.1, Structural Welding Code – Steel
16. National Association of Architectural Metal Manufacturers (NAAMM), Heavy Duty Metal Bar Grating Manual

1.04 SUBMITTALS

A. Shop Drawings.

1. General: Provide fabrication and installation plans, elevations, sections, details of components, anchorage and accessory items.
2. Stop Log Guide Rails
3. Precast concrete steel embeds

1.05 QUALITY ASSURANCE

A. Qualifications of Suppliers and Personnel

1. Fabricator:
 - a. Minimum experience: 5 years continuous in the fabrication of metal components shown on Drawings.
 - b. Maintain a documented quality control program. The quality control program shall conform to the AISC 360, "Specification for Structural Steel Buildings" and AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."
 - c. Welder qualifications: passed qualification tests, in accordance with the requirements of AWS, "Structural Welding Code" (D1.1), within 6 months prior to start of fabrication.

1.06 DELIVERY, STORAGE, AND HANDLING

- ##### A. Protect metal components during fabrication, delivery, storage, and handling to minimize scratches, bends, warping, or other damage.



- B. Use nylon slings, chokers, or other protective lifting devices as required.
- C. Store above ground on level timbers or other material which will not stain, corrode, scratch, or damage the components.

1.07 BASIS FOR COMPENSATION

- A. Compensation for all Work covered under this Section of these Specifications shall be as set forth in Section 01 22 00, Unit Price Measurement and Payment.

PART 2: PRODUCTS

2.01 MATERIALS

- A. Structural Shapes and Sections
 - 1. Steel plates and bars: ASTM A36, Fy = 36 ksi
- B. Fasteners
 - 1. Bolts: ASTM A307, Grade B or ASTM A325, Type 1, Hot Dipped Galvanized
 - 2. Nuts: ASTM A563, heavy hex, Grade C, Hot Dipped Galvanized
 - 3. Washers: ASTM F436, Hot Dipped Galvanized
 - 4. Threaded Rods: ASTM A36, Hot Dipped Galvanized
 - 5. Headed Studs: ½" Low Carbon Steel (1010 – 1020) ASTM A29.
- C. Surface Coatings: Hot dipped galvanized: ASTM A123

2.02 FABRICATION

- A. General: fabricated in accordance with the Drawings.
- B. Stop Log Guide Rails
 - 1. Members: straight with no bends or kinks.
 - 2. Cut with shears, mechanically-guided torches capable of forming smooth cut, or hand-guided torches.
 - 3. Exposed or visible surfaces: grind smooth.
 - 4. Exposed edges and corners: machine fillet or chamfer.



- C. Welded construction: Comply with AWS Code for procedures, appearance, and quality of welds, and methods used in correcting welded work.
- D. Finish: Provide surface finish after fabrication

PART 3: EXECUTION

3.01 ERECTION

- A. General: Erect plumb, horizontal or at the designated slope, and square.
- B. Headed Studs: Headed studs shall be installed to stop log guide rails for embedment to concrete wall.
- C. Remove protective coverings at completion of work.

3.02 FIELD TOUCH UP

- A. Restore finishes damaged during installation and construction.
- B. Galvanized Surfaces:
 - 1. Repair galvanized surfaces damaged by transport, erection, welding, or other operations
 - 2. Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780
- C. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit, or provide new units.

3.03 FIELD CONTROL QUALITY

- A. Contractor is responsible for visual inspection of all welds and necessary correction of all deficiencies in materials and workmanship in accordance with AWS D1.1.
- B. Owner reserves the right to have any and all shop and field welded and high strength bolted connections tested to ensure compliance with the Drawings and Specifications.
- C. Tests will be paid for by Owner; however, in the event that Work is defective, Contractor to pay for the tests and any additional testing required confirming that the defective Work has been corrected by Contractor to comply with this Specification.

END OF SECTION 05 50 00



Division 31
Earthwork

Division 31 - Earthwork

31 10 00 Site Clearing, Preparation, and Demolition
31 23 00 Excavation and Fill
31 25 00 Erosion and Sedimentation Control

31 10 00-1
31 23 00-1
31 25 00-1

SECTION 31 10 00

SITE CLEARING, PREPARATION, AND DEMOLITION

PART 1: GENERAL

1.01 DESCRIPTION

- A. Perform all Work included in this Section in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered under this Section includes providing all materials, equipment, and labor to prepare the Site for construction, including, but not limited to:
 - 1. Clearing and grubbing of trees and brush from site to allow Contractor to complete the Work.
 - 2. Contractor shall meet with Engineer to determine what trees over the diameter of 10" will need to be removed to complete the work. All trees over 10" in diameter needed to be removed to complete the work shall be marked for removal and trees remaining shall be protected.
 - 3. Protecting all trees and vegetative materials not located within the construction limits, not specifically marked for removal, or as directed by the Engineer within construction limits.
 - 4. Appropriate off site composting, landfilling or dumping of vegetative materials, both live and deadfalls, and all other materials, from the site by Contractor, all in accordance with Laws and Regulations.
 - 5. Relocation or protection and coordination with utility companies relocating any existing utilities; i.e. electrical, gas, and communications lines within the excavation limits or that are in conflict with the Work.
 - 6. Removal and proper off-site disposal of, base material, unsuitable excavated soil, and all foreign material, trash and debris.

1.02 REFERENCES

- A. Minnesota Department of Transportation Standard Specifications for Construction, 2018 Edition, hereafter referred to as MnDOT Standard Specifications.



1.03 SEQUENCING AND SCHEDULING

- A. Construct temporary erosion control measures specified herein or as directed by the Engineer prior to commencing activities related to removals or excavation.
- B. Maintain and replace for the duration of the construction as necessary the temporary erosion control measures installed as herein provided or as directed by the Owner or Engineer.

1.04 SUBMITTALS

- A. No submittals are necessary for this Section.

1.05 BASIS FOR COMPENSATION

- A. Compensation for all Work covered under this Section of these Specifications shall be as set forth in Section 01 22 00, Unit Price Measurement and Payment.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION

3.01 TEMPORARY EROSION CONTROLS

- A. Install temporary erosion control measures as shown on the Drawings, as required by Section 31 25 00 of these Specifications, or as directed by the Engineer or Owner.
- B. Remove and dispose of all temporary erosion control measures at the completion of the work.

3.02 TRAFFIC CONTROL BARRICADES AND SIGNAGE

- A. Place traffic control barricades and signage as required by traffic control permits.

3.03 UTILITY LOCATIONS

- A. Utilize the "Gopher State One Call" excavation notice system (Phone 1-800-252-1166) as required by Minnesota Statutes Chapter 216D, at least 48 hours prior to performing any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, electric, 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. Contact the



owners of the in-place utilities and make all arrangements for relocation as required for the Work.

3.04 DISPOSITION AND REMOVAL OF MATERIALS

- A. Dispose of vegetative materials, and all other trash, pavement, base material, curbing, gravel, debris, rocks, and foreign materials, off site in accordance with all appropriate Laws and Regulations.
- B. Perform removals as excavation work or work on individual sites proceeds and not all at once.
- C. Perform all removals in a safe, orderly manner, in accordance with applicable Laws and Regulations; and protect all adjacent structures, utilities, and services during demolition and removal.
- D. Take precautions to prevent damage to existing Work which is to remain in place, be reused or remain the property of Owner, and to any new Work constructed or installed under this Contract. Repair or replace any damage as directed by Owner's representative at no additional cost to Owner. Ensure that structural elements are not overloaded as a result of demolition Work. Design, install and maintain shoring, bracing, and temporary supports, as required to maintain structural integrity.
- E. Control dust resulting from demolition to avoid creation of a nuisance in the surrounding area. The use of water is not be permitted when it would result in or create hazardous or objectionable conditions such as erosion, transport of sediments into river, pollution, flooding or ice.
- F. The use of explosives is not permitted.
- G. Promptly disposed of removed materials off-site in accordance with applicable Laws and Regulations.

END OF SECTION 31 10 00



SECTION 31 23 00

EXCAVATION AND FILL

PART 1: GENERAL

1.01 DESCRIPTION

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Requirements of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered by this Section includes furnishing all supervision, labor, materials, and equipment required to complete all general or miscellaneous earthwork at the site including, but not limited to:
 - 1. Performing all excavation of iron enhanced sand filter to subgrade, disposing of excavated materials, placing geotextile fabric, sand mixed with iron aggregate to final grades to conform to the finished site grading and elevations shown in the Drawings.
 - 2. Performing all excavation removing unsuitable soils, backfilling and compaction required to install berm adjacent to iron enhanced sand filter to final grades to conform to the finished site grading and elevations shown in the Drawings.
 - 3. Construct gravel surface driveway including subgrade excavation and removal of excavated materials, installing geotextile fabric, placing class 5 aggregate, grading and compaction.
 - 4. Performing all excavation, backfilling and compaction required to install utility pipes, manholes, cleanout, and fittings.
 - 5. Providing appropriate means of erosion control during excavation operations as shown on the Drawings.
 - 6. Coordinating work with utility companies where utility crossings occur through or below planned excavated areas, including gas, electric, communications, watermain, and sanitary sewer lines.
 - 7. Performing any miscellaneous excavations, fill and grading required to complete the Work in accordance with the Contract Documents.
 - 8. Performing excavation to place riprap at storm sewer outfalls, including geotextiles and granular filter materials.



1.02 REFERENCES

- A. Minnesota Department of Transportation Standard Specifications for Construction, 2018 Edition, hereafter referred to as Mn/DOT Standard Specifications.
- B. American Society for Testing and Materials, Current Edition, hereafter referred to as ASTM.

1.03 SEQUENCE OF SCHEDULE OF WORK

- A. Sequence and schedule of Work on the site must be approved by Owner and Engineer. Contractor must be aware that full access to all areas of the site will not be allowed.
- B. Contractor is to install all temporary erosion control measures prior to beginning any earthwork operations as shown on the Drawings. Erosion control BMPs shall only be installed at active project areas as work progresses and removed after the site is reaches final stabilization.
- C. Contractor shall not block or obstruct access roads with excavated materials or equipment, except as authorized by Engineer.
- D. At the end of each work day, Contractor shall recycle or dispose of unused material, debris, and containers.

1.04 SUBMITTALS AND TESTING

- A. Contractor shall submit a list of all off-site and on-site sources of materials specified in this Section to Owner and Engineer for documentation, in accordance with Section 01 33 00 of these Specifications.
- B. Contractor shall provide, for documentation, certificates for materials, including gradation test results, obtained from off-site sources indicating compliance of materials with Specifications, in accordance with Section 01 33 00 of these Specifications. Engineer may take random samples of the material during the progression of the Work to verify compliance with the specifications. Materials not meeting the specifications shall be removed and replaced at the Contractor's expense, including the cost for testing.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Contractor shall schedule delivery of materials so that they are incorporated into the Work and not stored on site.
- B. Material storage shall be limited to the construction limits and staging areas as shown on the Drawings.



- C. Delivery of materials shall not block access.
- D. Trucking operations shall be conducted such that they will limit the disruption to traffic and such that they will limit stacking of off-loading or loading trucks.
- E. Contractor shall restore and clean all construction sites and staging areas that are used for storing materials back to their original condition upon completion of each project area and upon completion of the Work.

1.06 MEASUREMENT AND PAYMENT

- A. Compensation for all Work covered under this Section of these Specifications shall be in accordance with the provisions set forth in Section 01 20 10, Unit Price Measurement and Payment.

PART 2: PRODUCTS

2.01 SOIL MATERIALS

- A. Suitable Soils
 - 1. Those soil materials which in the opinion of the Engineer contain an adequate fraction of mineral soil particles to serve the purposes of mineral soils in the foundation and backfill zones of the Work. Mineral soils considered acceptable for the Work would have a Unified Soil Classification of: GP, GM, GC, SP, SM, SC, or ML.
- B. Topsoil (Iron Enhanced Sand Filter Berm and Disturbed Perimeter)
 - 1. Imported topsoil borrow shall meet the requirements of Mn/DOT Standard Specification 3877.C for Premium topsoil Borrow except for as modified below and supplied by Plaisted Companies or approved equal:

Material Passing 2.00 mm (# 10) Sieve	Size	Percent (%)
Clay	<0.002 mm	5 – 10 %
Silt	0.002 - 0.085 mm	20 – 60 %
Sand	0.085 – 4.5	40 – 65 %
Organic Matter		5 – 10 %
Soil pH 6 -7		

2.02 IRON AGGREGATE

Iron Aggregate (spec ETI CC-1004) shall be provided by Connely-GPM, INC., 3154 South California Avenue, Chicago, IL 60608-5176, PHONE: (773) 247-7231, or Engineer-approved equivalent, and be completely mixed/blended into the washed sand. The mixture of iron aggregate and sand shall consist of a minimum of 5% and a maximum of 6% iron aggregate, by weight. The Contractor shall submit a grain size analysis of the specific product from a testing facility to certify that sieve size requirements (by weight) are met before shipment to the site. Engineer may require further testing if visual inspection suggests gradation varies from delivered product.

Sieve Size	Percent Passing
# 4	100%
# 8	95-100%
# 16	75-90%
# 30	25-45%
# 50	0-10%
# 100	0-10%
# 200	0-5%

2.03 SAND AND AGGREGATE

A. Clean Washed Filter Sand

1. Shall be a fine filter aggregate of natural sand washed and free of any organic impurities and meeting the requirements of Mn/DOT Standard Specification 3149.2J for fine filter aggregate.
2. Gradation Requirements

Sieve Size	Percent Finer
9.5 mm (3/8")	100
4.75 mm (# 4)	90-100
2.00 mm (# 10)	45-90
425µm (# 40)	5-35
75 µm (# 200)	0-3

3. The Contractor shall submit a grain size analysis of the specific product from a testing facility to certify that sieve size requirements (by weight) are met before shipment to the site.



2.04 CLASS 5 AGGREGATE

A. Mn/DOT 3138.2B

1. Aggregate base shall be a virgin aggregate comprised of naturally occurring mineral materials and contains no topsoil, organics, so, roots, plants, or objectionable material and shall conform to Mn/DOT Standard Specifications 3138.2B Class 5 virgin material, and must be crushed quarry rock and conform to the quality requirements of Table 3138-1.

2.05 GEOTEXTILE FABRIC

A. Geotextile Mn/DOT Type IV and Type V.

1. Shall be a woven or knit fabric of polymeric filaments of polypropylene, polyethylene, polyester, or polyamide and shall meet the requirements of Mn/DOT Standard Specification 3733.1 for geotextile fabrics.

2.06 RIPRAP

- A. Riprap shall be field stone conforming to the graduation requirement of MnDOT Standard Specification 3601, Table 3601-1 for the Class indicated on the drawings. Limestone or dolomite riprap materials will not be substituted for field stone.
- B. Materials used for riprap shall be durable field stone (round), of approved quality, sound, hard, and free of seams, cracks, and other structural defects. The stone shall be free of contamination by soil and other debris prior to incorporation in the Work.

2.07 GRANULAR FILTER MATERIAL

- A. Granular filter material shall conform to MnDOT Standard Specification 3601, Table 3601-2 for granular filter material.

PART 3: EXECUTION

3.01 LOCATION OF WORK

- A. The Work shall be located as shown on the Drawings.
- B. It may be necessary for Engineer to shift lines a reasonable amount to avoid an obstruction to the construction work or to reduce easement difficulties. Contractor will not be allowed any additional compensation due to minor shift of lines. Additional compensation will be allowed only for lengthening of lines, or for providing additional quantities.



3.02 EXAMINATION

- A. Contractor shall examine the areas and conditions for performing earthwork. If unsatisfactory conditions occur during the Work, Contractor shall not proceed with the work until unsatisfactory conditions have been corrected.
- B. It shall be the Contractor's responsibility to determine to its own satisfaction the location and nature of all surface and subsurface obstacles and the soil and water conditions that will be encountered during construction.
- C. Locations of utilities and underground facilities shown on the Drawings are approximate and neither Engineer nor Owner makes any representations as to the accuracy or completeness thereof. Depths of utilities shown on the Drawings are based on typical depths used by utility companies in Minnesota, and are not tied to As-Built information. It shall be Contractor's sole responsibility to determine the exact locations of all utilities and underground facilities prior to performing the Work.

3.03 PREPARATION

- A. The Contractor shall make arrangements to locate all existing utilities and underground facilities in the areas of work. For utilities and underground facilities to remain in place, Contractor shall provide adequate means to assure protection of utilities and underground facilities during earthwork operations. If utilities need to be moved to allow the completion of the Work, Contractor shall coordinate as needed with utility companies.
- B. Contractor shall protect structures, roads, fences, utilities and other facilities from damage caused by settlement, lateral movement, stockpiling, undermining, washout and other hazards created by earthwork operations.
- C. Contractor shall remove all specified concrete pavement prior to excavation and dispose of these materials offsite at a landfill or reuse facility. Contractor shall remove all specified trees, shrubs and plants prior to excavation and dispose of these materials offsite at a compost facility.

3.04 GENERAL

- A. Excess excavated material and unsuitable material that cannot be used as fill on the site shall become the property of the Contractor and disposed of offsite.

3.05 SITE GRADING EXCAVATION

Contractor shall:

- A. Excavate to the lines, elevation, grades, and dimensions shown on the Drawings, or as necessary to complete the work shown on the Drawings. Excavation beyond the lines and grades shown in the Drawings or described herein without the specific direction of Engineer will be considered unauthorized excavation and shall be remedied at Contractor's expense by backfilling and compacting as specified for the appropriate situation described herein or shown on the Drawings.
- B. Start excavation at the far side of the iron enhanced sand filter and work out backwards. Excavation equipment shall not be allowed to travel in the feature after it has been excavated. As a general requirement, no construction equipment, including skid steer loaders, shall be allowed in the excavations. If this is not possible for some areas, only low ground pressure equipment shall be allowed to complete the work.
- C. Use only rubber-tired construction equipment when working from the existing pavement.
- D. Stability of Excavations:
 - 1. Slope sides of excavations to comply with applicable Laws and Regulations and to provide access for compaction equipment.
 - 2. Provide shoring and bracing where required to comply with Laws and Regulations, or to protect adjacent surface or subsurface features, or to limit activity within construction limits. Contractor shall design shoring and bracing and provide all materials, including piling, uprights, stringers, and cross-bracing in good condition at no additional cost to Owner.
 - 3. Remove all temporary shoring and bracing not specifically indicated in the Drawings or these Specifications to remain.
- E. Excavation for Control Berm Embankment
 - 1. Area of base of berm shall be excavated to remove all vegetation, debris, and unsuitable soils to create a sound foundation.
 - 2. Berm shall be keyed into the existing stable soil.
- F. Water Controls:
 - 1. Provide all temporary water controls, including diversions as Contractor deems necessary, to prevent surface water from flowing into excavations.
 - 2. Contractor shall dewater iron enhanced sand filter and any of the work areas that become inundated with water from rainfall or ground water and this work shall be incidental.



G. Material Storage:

1. Stockpile materials away from edge of excavations and trenches. Shape and grade to provide drainage and minimize erosion. Provide temporary erosion control and diversions around base as necessary. No material at any time shall be stockpiled in an area where runoff is tributary to the iron enhanced sand filter. Materials should be stockpiled within construction limits or in other designated staging areas.
2. Dispose of demolition debris, excess and unsuitable material off-site promptly following excavation.
3. Sand/iron aggregate stockpile shall not exceed 5 feet in height in order to keep stockpile aerated.

G. Protect excavation bottoms against freezing when atmospheric temperature is below 35°F.

3.06 SITE GRADING BACKFILL (FILL)

A. Contractor shall:

1. Provide compaction appropriate for the location as specified elsewhere in this Section.
2. Backfill shall be deposited, spread, and compacted to the total specified thickness shown on the Drawings.
3. Backfill shall proceed as promptly as possible, but not before completion of the following:
 - a. Removal of temporary bracing, and backfilling of voids with satisfactory materials.
 - b. Removal of trash and debris.
 - c. Permanent or temporary bracing is in place to support piping or other components.
4. Place backfill and fill materials in layers not more than 8 inches in loose depth. Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content. Compact each layer to required percentage of maximum density for each area classification. Do not place backfill or fill material on surfaces that are soft, muddy, frozen, or contain frost or ice.
5. Place backfill and fill materials evenly adjacent to structures, to required elevations. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around structure to approximately same elevation in each lift. Notify Engineer of any damage and repair as approved before proceeding.
6. Do not place frozen soil or any material containing organic matter, trash, debris, large rocks, or other deleterious substances in the backfill area.



3.07 SITE GRADING COMPACTION AROUND STRUCTURES

A. General:

Contractor shall:

1. Furnish equipment suitable for soil conditions and compactive effort required to meet compaction criteria specified herein.
2. Control moisture content for placement at optimum (plus 3 percent, minus 2 percent).
 - a. Where backfill, subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of backfill, subgrade or layer of soil to prevent free water appearing on surface during or subsequent to compaction operations. Disc or otherwise thoroughly mix to distribute added water.
 - b. Remove and replace soil material that is too wet to permit compaction as specified.

B. Around Structures:

Contractor shall:

1. Compact fill around structures (including culverts, walls, piles and etc.) as specified in the Drawings to an in place density as measured by ASTM D1556 of 95 percent of Standard Proctor density.
2. Prior to placement of fill, compact native subsoil to obtain 95 percent of Standard Proctor density at depth of 12 inches.

3.08 PLACEMENT OF GEOTEXTILE, IRON AND SAND AGGREGATE IN IRON ENHANCED SAND FILTER

- A. Remove all accumulated sediment and silt in the bottom of the basin prior to placement of iron enhanced sand aggregate. This work is considered incidental to other work items.
- B. MnDOT Type V geotextile (described in Part 2.05 of these Specifications) shall be installed up the sides of the trench as shown in the Drawings.
- C. Iron and sand aggregate shall be composed of washed sand material (described under Part 2.03 of this Section of the Specifications) and 5-6% iron aggregate (by weight) (described under Part 2.02 of this Section of the Specifications).
- D. The iron enhanced sand aggregate shall be placed to minimize compaction of these materials and the underlying soil. No construction vehicles, including skid steer loaders, shall be



allowed within the footprint of the excavation after iron enhanced sand aggregate have been placed.

- E. Iron enhanced sand filter aggregate shall be placed under the under and around draitile piping system as shown on the Drawings.
- F. Iron enhanced sand filter aggregate shall be placed evenly over the draitile piping system to the elevations shown on the Drawings. Contractor shall take care to prevent damage to draitile piping system while backfilling. Contractor shall notify Engineer of any damage and repair as approved before proceeding.
- G. Placement of iron enhanced sand filter aggregate shall be accomplished by dumping from the edges and spreading with a backhoe bucket, or some other acceptable means determined by the Contractor.
- H. Small irregularities shall be worked out with hand tools. The Engineer shall approve the placement method.
- I. The Contractor shall contact the Engineer upon final placement of the iron enhanced sand filter aggregate so that surveys of the finished surfaces can be completed. The Engineer shall notify the Contractor of areas that do not meet the tolerances specified. The Contractor shall correct the work prior to moving on to the next step.
- J. Iron enhanced sand filter aggregate shall be placed to the minimum thickness shown on the Drawings in designated areas. The contractor shall account for settling when placing the iron enhanced sand filter aggregate. Elevations shown on the Drawings reflect settled elevations.
- K. In all cases, travel over the iron enhanced sand filter aggregate shall be prohibited.

3.09 MIXING OF 95% WASHED SAND/5% IRON AGGREGATE (iron enhanced sand media)

- A. No cross-contamination of foreign materials or soils into the sand/iron aggregate mixture may occur prior to placement.
- B. The sand and iron aggregate may be mixed by the Contractor provided Engineer is allowed to observe all mixing operations and Engineer is allowed to obtain samples of the material and verify quality control.
- C. No mixing within the excavation area shall occur.
- D. Prior to placement in the excavated trench, sand/iron aggregate mixture shall be uniformly and completely mixed to contain a minimum of 5% and maximum of 6% iron aggregate by weight.



- E. Sand/iron aggregate stockpile shall not exceed 5 feet in depth in order to keep stockpile aerated.
- F. Sand/iron aggregate mixture shall not be placed until Engineer approves mixture. This approval may take up to 7 days after mixing if laboratory tests are necessary. Contractor shall allow for this time gap in its Scheduling of Work.

3.10 RIPRAP

- A. Riprap and filter materials shall be installed in accordance with MnDOT Standard Specification 2511 and to the limits and thickness shown on the Drawings and as directed by Engineer.
- B. Riprap shall not be dropped from a height greater than three feet onto the Granular Filter Material. Riprap shall generally be placed by starting at the lowest elevation and working upwards

3.11 TOLERANCES

- A. Vertical and horizontal tolerances for grading (relative to grades shown on the Drawings) shall be as follows:

Grading tolerances for subgrade of iron enhanced sand filter:

Vertical: +/- 0.1 ft

Horizontal: +/- 1.0 ft

Grading tolerances for finished grade of iron enhanced sand filter and berm:

Vertical: +/- 0.1 ft

Horizontal: +/- 0.5 ft

Any changes to grade in any area must be approved by the Engineer.

3.12 FIELD QUALITY CONTROL

- A. The Contractor shall utilize equipment, materials, and procedures which are anticipated to meet the quality requirements specified.
- B. The Contractor shall permit Owner and Engineer to observe subgrades and fill layers before further construction work is performed thereon. Tests and/or surveys of subgrades and fill layers may be taken by the Owner or Engineer.
- C. Random field tests at the source location may also be conducted by the Engineer. If any of the gradation tests fail, delivery will be halted until such time that testing passes the specification listed in Part 2 of this Section.



3.13 MAINTENANCE

- A. The Contractor shall repair and reestablish grades in settled, eroded, and rutted areas to specified tolerances.
- B. The Contractor shall maintain temporary erosion control until seeding and planting is accepted by Owner.
- C. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, the Contractor shall scarify surface, reshape, and compact to required density prior to further construction.

3.14 DUST CONTROL

- A. Contractor shall keep the surface of any and all construction work areas and haul roads moist by spraying with uncontaminated water so as to prevent, not just reduce, airborne dust. This responsibility shall require Contractor to suspend construction or haul traffic until such time as Contractor can and does prevent airborne dust. Contractor shall not overspray so as to create problems, such as tracking of material onto paved surfaces, or muddy haul roads, due to the application of excess moisture. See section 31 25 00 for additional erosion control measures.

END OF SECTION 31 23 00



SECTION 31 25 00
EROSION AND SEDIMENTATION CONTROL

PART 1: GENERAL

1.01 DESCRIPTION

- A. Perform all Work included in this Section in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered under this Section includes providing all materials, equipment, and labor to protect site disturbed areas from erosion including, but not limited to:
 - 1. Providing temporary erosion and sediment controls meeting the requirements of Vadnais Lake Water Management Organization.
 - 2. Notify Tyler Thompson, Vadnais Lake Water Management Organization, at 651-204-6071 prior to commencing construction excavation activities to allow for an initial inspection of the erosion/sediment control practices.
 - 3. Preventing transport of soil materials from the sites of the Work in compliance with this Section of the Specifications.
 - 4. Construction of rock or woodchip erosion control construction entrance.
 - 5. Preventing any sediment laden water with sediment containment from discharging downstream or into wetland.
 - 6. Furnish and install silt fence, sediment logs, sediment control, inlet protection, and culvert outlet protection, temporary and permanent ground cover as specified on the drawings.
 - 7. Furnishing and installing temporary erosion control blanket over all disturbed areas.

1.02 REFERENCES

- A. Minnesota Department of Transportation Standard Specifications for Construction, 2018 Edition, hereafter referred to as MN/DOT Standard Specifications.
- B. American Society for Testing and Materials, Current Edition, hereafter referred to as ASTM.
- C. Minnesota Pollution Control Agency, Storm Water Manual.
- D. Authorization to Discharge Stormwater Associated with Construction Activity Under the National Pollutant Discharge Elimination System/State Disposal System Permit Program.
- E. Best Management Practices (BMPs) for erosion control.



1.03 SEQUENCING AND SCHEDULING

- A. Construct erosion control measures specified in this Section or as directed by the Engineer prior to commencing construction excavation activities.
- B. Contractor shall stage work to minimize area that is disturbed at any one time and stabilize the disturbed areas in a timely matter for the project.
- C. Maintain and replace the erosion controls for the duration of the construction as necessary in accordance with this Section of the Specifications.
- D. Contractor shall coordinate grading work and erosion control measures with placement of erosion control blanket as detailed in Section 31 23 00 Excavation and Fill of these Specifications.
- E. Remove temporary erosion controls after the completion of the project and the permanent ground cover has been established.

1.04 QUALITY ASSURANCE

- A. The Owner may stop work on the project if the Contractor is operating in violation of the plans and specifications. Contractor shall, within 24 hours, commence to diligently restore the project to conform to the conditions of the plans and specifications. If, in Owner's opinion, Contractor has not, within 24 hours after to work stoppage, commenced to diligently restore the project to conform to the conditions of the plans and specifications, then Owner may, without further notice to Contractor, take actions to immediately restore the project to the conditions of the plans and specifications. The cost of actions by the Owner required restoring the project to the conditions of plans and specifications will be paid by the Contractor.
- B. If the Engineer deems the erosion control measures used are inadequate and do not meet the intent of the design, the Contractor shall promptly make modification to ensure downstream areas are adequately protected, as directed by Engineer. In the event a failure of an erosion control feature occurs, Contractor shall promptly remove all sediment, debris, and materials transported due to the failure and restore the area and reinforce the erosion control measures. This corrective action is considered incidental to the work and no additional compensation is to be provided.

1.05 PROJECT CONDITIONS

- A. The project Contract Documents and permits shall be available at the construction site in either the field office, or the Contractor's vehicle, for inspection by federal, state, county, and local officials as required by the permit for the duration of the Project.
- B. The Contractor shall maintain a record of all inspections of the site as required by the permit, and shall include:
 - 1. Date and time of inspections
 - 2. Findings of inspections
 - 3. Corrective actions taken (including date and time)



1.06 BASIS FOR COMPENSATION

- A. Compensation for all Work covered under this Section of these Specifications shall be as set forth in Section 01 22 00, Unit Price Measurement and Payment.

PART 2: PRODUCTS

2.01 MATERIALS

- A. Silt Fence: Silt fence shall conform to MN/DOT Standard Specification 3886 for heavy duty monofilament silt fence, except that support posts shall be no further than (4 feet) apart. Welded Wire Fabric (WWF) shall not be used.
- B. Wood Chip Construction Entrances: Shall conform to the requirements indicated on the Drawings. The course aggregate shall not consist of crushed concrete or bituminous materials. Gradation of the course aggregate shall conform to the aggregate fraction of CA-1 and CA-2 on Table 3137-1 of MN/DOT Specification 3137. Temporary construction entrances shall be placed on a MN/DOT Type 5 filter fabric for ease of clean-up and removal of entrance. The Contractor may substitute wood chip construction entrances for the rock construction entrances with prior approval of the Engineer. The Contractor shall sweep roads free of all sediment which is transported onto them as a result of construction. Sweeping shall be done at daily if sediment is on the streets or more frequently if requested by the City, County Highway Department, Owner, or Engineer. The cost for sweeping shall be at the Contractor's expense.
- C. Sediment Log: Sedimentation control log shall meet the requirements of MN/DOT Standard Specification 3897.2 for Type B, D, or E sediment control logs made up of wood fiber, wood chips, or compost and have a minimum diameter of 9 inches except were smaller size is specified.
- D. Temporary Erosion Control Blanket: MN/DOT Standard Specification 3885 for rolled erosion control products, Cat. 3A, Type 2S straw blanket with all natural netting and stitching.
- E. Street Sweeping: Street sweeping shall be performed with an approved mechanical vacuum assisted sweeper as directed by the Engineer or Owner.
- F. Turf Establishment/Mulch: shall conform to MN/DOT Standard Specification 2575 for ground cover and turf establishment, straw mulch MN/DOT Standard Specification 3882.C for ground cover and turf establishment using Type 1 mulch.
- G. Inlet Protection: shall be approved devices and methods to prevent the transportation of sediments into the stormwater system. Devices used shall conform to those shown on the Drawings or be approved by the Engineer or Owner.



PART 3: EXECUTION

3.01 TEMPORARY EROSION CONTROL

- A. Temporary erosion and sediment control activities will be required through the duration of the project. Contractor shall use BMP's for erosion control. Unless precluded by snow cover, all exposed soil areas must be stabilized as soon as possible to limit soil erosion.
- B. This project will require working within 200 feet, directly adjacent to, and in a water of the State. Contractor shall stage work to minimize disturbed areas and must comply with MPCA - NPDES guidelines that require that all disturbed areas adjacent to and within 200 feet of a water of the State must be stabilized within 24 hours. Contractor must be aware of changing weather conditions and prepare site for rain fall events and fluctuating levels.
- C. The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 200 lineal feet must be completed within 24 hours after connecting to surface water.
- D. Perform temporary erosion control to conform to the requirements of Owner, and any Construction Stormwater Runoff permit that may apply to the Site, including:
 - 1. Furnish, install, and maintain temporary erosion controls necessary to prevent the erosion and transport of soils, silt, mud, and debris off site or to other areas of the site where damage could result.
 - 2. Temporary erosion controls include silt fences, flotation silt curtain, inlet protection, and other means necessary to control erosion. Silt fence shall be installed according to MN/DOT Specification 3886 and according to manufacturer's recommendations.
 - 3. Construct temporary erosion controls where there is evidence that sediment is being transported from the work area, where drainage flows from the work area, and elsewhere as required to control erosion.
 - 4. Schedule operations to minimize the amount of area disturbed and thus susceptible to erosion at any given time.
 - 5. Maintain the appearance and functionality of the temporary erosion control measures throughout the duration of the Work.
 - 6. Remove and dispose of all temporary erosion controls when vegetation has been fully established or when earthworks such as diversion dikes have eliminated the possibility of sediment transport from the work area.

3.02 SILT FENCE

- A. Install and maintain silt fence according to MN/DOT Specification 2573.3 and according to manufacturer's recommendations.



- B. Install silt fence at locations shown on the Drawings, and in areas needed to prevent sediment transfer and/or as modified in the field by the Engineer.
- C. Remove silt fencing not less than 30 growing days or more than 60 growing days after seed and mulch is installed, however, never before it is determined that germination of seed has resulted in acceptable coverage rate and does not need to be reseeded.

3.03 STREET SWEEPING

- A. Perform sweeping with an approved mechanical vacuum assisted sweeper.
- B. Perform street sweeping on a daily basis when construction activities are being performed on the Site and twice a day during hauling operations or periods of heavy construction traffic that may track sediment off of Site. Also perform street sweeping when, in the opinion of the City, Owner, or Engineer, street sweeping is required as a result, directly or indirectly, of Contractor's operations.
- C. Materials from street sweeping shall not be stored on site; properly dispose of all street sweeping materials off site.
- D. The cost for sweeping shall be at the Contractor's expense.

3.04 TEMPORARY SEED

- A. Native seed mix.
- B. Perform temporary seeding according to MN/DOT Standard Specification 2575.3.B.1.

3.05 EROSION CONTROL CONSTRUCTION ENTRANCE

- A. Erosion Control Construction Entrances to be constructed at locations as shown on the Drawings or as determined in the field at access points by the Contractor and may be modified in the field by Engineer.
- B. Construction entrances shall be constructed to the dimensions and material thicknesses shown on the Drawings to reduce the amount of sediment tracked off site by vehicles.
- C. Temporary Erosion Control Construction Entrances shall be placed on MN/DOT Type 5 filter fabric for ease of clean-up and removal for final restoration.
- D. Contractor may substitute wood chips for erosion control construction entrances with prior approval of the Engineer.
- E. Clean and maintain construction entrances and crossings, including on roadways, at the end of each work day.
- F. Sweep bituminous surface of construction entrances within a 24-hour period of any construction activities that produce sediment that may be tracked off site or a minimum of twice a day during peak construction activities.



- G. Remove Woodchip Construction Entrances at the completion of the project and restore the area to preconstruction conditions. The restoration shall include grading and establishing ground cover in these areas.

3.06 SEDIMENT LOGS

- A. Sediment log shall be installed, anchored, and maintained in accordance with MN/DOT Standard Specification 2573 and manufacturer's recommendations.

3.07 TEMPORARY EROSION CONTROL BLANKET

- A. Install Erosion Control Blanket on all disturbed areas after seeding.
- B. Install Erosion Control Blanket in accordance with MN/DOT Standard Specification 2575.3.G and manufacturer's recommendations.

END OF SECTION 31 25 00



Division 32
Exterior Improvements

Division 32 – Exterior Improvements

32 93 10 Site Restoration and Rehabilitation

32 93 10-1

SECTION 32 93 10
SITE RESTORATION AND REHABILITATION

PART 1: GENERAL

1.01 DESCRIPTION

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered under this Section includes providing all materials, equipment, and labor to establish perennial, herbaceous ground cover, and includes final grading, soil preparation, and seeding, mulching, sodding, and all other work as may be necessary, all in accordance with the Contract Documents.

1.02 REFERENCES

- A. Minnesota Department of Transportation Standard Specifications for Construction, 2018 Edition, hereafter referred to as MN/DOT Standard Specifications.
- B. American Society for Testing and Materials, Current Edition, hereafter referred to as ASTM.
- C. AOSA - Association of Official Seed Analysis: Rules for Testing Seeds, Journal of Seed Technology, 1991 Edition.
- D. ICN - International Code of Nomenclature for algae, fungi, and plants.
- E. ICNCP - International Code of Nomenclature of Cultivated Plants.
- F. FSA - Federal Seed Act.

1.03 DEFINITIONS

- A. PLS: Pure Live Seed

1.04 SUBMITTALS

- A. At least 14 days prior to seeding, submit to Engineer for review:
 - 1. Product Data and Specification:
 - a. Seed Label.
 - b. Seed affidavit: Written affidavit certifying composition of seed mixtures with respect to species, variety and source.
- B. Contractor shall submit product information for straw mulch blanket to Engineer for review.



1.05 BASIS FOR COMPENSATION

- A. Compensation for all Work covered under this Section of these Specifications shall be as set forth in Section 01 22 00, Unit Price Measurement and Payment.

1.06 EROSION CONTROL

- A. Contractor is required to continue erosion control methods and maintain previously installed materials, and to install where necessary additional protection to control erosion and sedimentation during their work on the site. Contractor will verify that conditions on the site are suitable to receive work prior to commencing. Contractor will be responsible to repair all subsequent soil erosion after site condition verification extending for a period of three months after receipt of preliminary acceptance. Contractor will repair all erosion rills greater than one half inch. Contractor will repair all eroded areas within 48 hours of receipt of notification from Owner or Engineer. Additional erosion control repairs and/or measures shall be considered incidental to the plant installation.

1.07 WARRANTY

- A. Contractor shall warrant all seeding completed for two full growing seasons (April 1 – Oct. 31) after the time of “Preliminary Acceptance” by the Engineer. During the warranty period after “Preliminary Acceptance”, seed shall be in a healthy and vigorous growing condition. Seeded areas shall be free of dead, thin, or dying patches no larger than one square foot, and vegetative growth must show foliage of normal density, size and color. This warranty period shall not include the dormant period of November 1 through May 31st.
- B. Corrective Work During Warranty Period:
 - 1. Reseed, replant, and otherwise correct work which does not meet the Condition and Coverage standards at the end of the Warranty period, without cost to the Owner.
 - 2. Perform corrective work in conformance with the requirements of this Specification.
- C. Delays: Delays in completion of planting operations, which extend the planting into more than one planting season, shall extend the Warranty period correspondingly.
- D. Exceptions: Contractor shall not be held responsible for failures due to vandalism.

1.08 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Labeling:
 - 1. Furnish standard products in unopened manufacturer’s standard packaging.
 - 2. Seed analysis shall be attached to outside as well as inside container, showing species, germination, purity, name of certified testing agency, and date of test.
 - 3. No seed will be accepted unless test date is within 12 months of planting date.
- B. Delivery and Storage:



1. Ship and store seed and mulch with protection from weather or other conditions that would damage the product or impair its effectiveness.

PART 2: PRODUCTS

2.01 SEED MIXES

A. Wet Prairie, BWSR Seed Mix 34-262.

34-262 Wet Prairie

Common Name	Scientific Name	Rate (lb/ac)	Rate (kg/ha)	% of Mix (by weight)	Seeds/ sq ft
Virginia wild rye	<i>Elymus virginicus</i>	1.75	1.96	12.07%	2.70
fringed brome	<i>Bromus ciliatus</i>	1.50	1.68	10.38%	6.08
big bluestem	<i>Andropogon gerardii</i>	1.00	1.12	6.89%	3.67
switchgrass	<i>Panicum virgatum</i>	0.75	0.84	5.16%	3.85
Indian grass	<i>Sorghastrum nutans</i>	0.50	0.56	3.44%	2.20
prairie cordgrass	<i>Spartina pectinata</i>	0.50	0.56	3.41%	1.20
fowl bluegrass	<i>Poa palustris</i>	0.20	0.22	1.39%	9.60
tall manna grass	<i>Glyceria grandis</i>	0.15	0.17	1.02%	3.80
fowl manna grass	<i>Glyceria striata</i>	0.11	0.12	0.73%	3.50
bluejoint	<i>Calamagrostis canadensis</i>	0.04	0.04	0.27%	4.00
Grasses Subtotal		6.50	7.29	44.76%	40.60
fox sedge	<i>Carex vulpinoidea</i>	0.10	0.11	0.66%	3.50
dark green bulrush	<i>Scirpus atrovirens</i>	0.10	0.11	0.72%	17.74
Broad-leaved Woolly Sedge	<i>Carex pellita</i>	0.05	0.06	0.32%	0.47
woolgrass	<i>Scirpus cyperinus</i>	0.03	0.03	0.18%	16.00
tussock sedge	<i>Carex stricta</i>	0.02	0.02	0.17%	0.48
Sedges & Rushes Subtotal		0.30	0.34	2.05%	38.19
Canada tick trefoil	<i>Desmodium canadense</i>	0.50	0.56	3.41%	1.00
golden alexanders	<i>Zizia aurea</i>	0.25	0.28	1.76%	1.03
blue vervain	<i>Verbena hastata</i>	0.15	0.17	1.06%	5.25
marsh milkweed	<i>Asclepias incarnata</i>	0.08	0.09	0.55%	0.14
Virginia mountain mint	<i>Pycnanthemum virginianum</i>	0.08	0.09	0.55%	6.50
red-stemmed aster	<i>Symphotrichum puniceum</i>	0.08	0.09	0.56%	2.40



flat-topped aster	<i>Doellingeria umbellata</i>	0.05	0.06	0.34%	1.20
autumn sneezeweed	<i>Helenium autumnale</i>	0.05	0.06	0.35%	2.39
sawtooth sunflower	<i>Helianthus grosseserratus</i>	0.05	0.06	0.38%	0.30
spotted Joe pye weed	<i>Eutrochium maculatum</i>	0.04	0.04	0.30%	1.50
Canada anemone	<i>Anemone canadensis</i>	0.03	0.03	0.21%	0.09
common boneset	<i>Eupatorium perfoliatum</i>	0.03	0.03	0.23%	2.00
bunched ironweed	<i>Vernonia fasciculata</i>	0.03	0.03	0.23%	0.30
grass-leaved goldenrod	<i>Euthamia graminifolia</i>	0.02	0.02	0.11%	2.00
great blazing star	<i>Liatris pycnostachya</i>	0.02	0.02	0.17%	0.10
Culver's root	<i>Veronicastrum virginicum</i>	0.02	0.02	0.14%	6.00
great lobelia	<i>Lobelia siphilitica</i>	0.01	0.01	0.05%	1.40
blue monkey flower	<i>Mimulus ringens</i>	0.01	0.01	0.05%	6.40
Forbs Subtotal		1.50	1.68	10.45%	40.00
Oats	<i>Avena sativa</i>	6.20	6.95	42.74%	2.76
Cover Crop Subtotal		6.20	6.95	42.74%	2.76
Total		14.50	16.25	100.00%	121.55
Purpose:			Wet prairie reconstruction for wetland mitigation or ecological restoration.		
Planting Area:			Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.		

B. Mesic Prairie Southeast, BWSR Seed Mix 35-641.

35-641 Mesic Prairie Southeast

Common Name	Scientific Name	Rate (lb/ac)	Rate (kg/ha)	% of Mix (by weight)	Seeds/ sq ft
Indian grass	<i>Sorghastrum nutans</i>	2.00	2.24	16.68%	8.82
side-oats grama	<i>Bouteloua curtipendula</i>	1.37	1.54	11.38%	3.01
little bluestem	<i>Schizachyrium scoparium</i>	1.27	1.42	10.59%	7.00
nodding wild rye	<i>Elymus canadensis</i>	1.05	1.18	8.77%	2.01
big bluestem	<i>Andropogon gerardii</i>	0.90	1.01	7.49%	3.30
slender	<i>Elymus</i>	0.90	1.01	7.50%	2.28



wheatgrass	<i>trachycaulus</i>				
switchgrass	<i>Panicum virgatum</i>	0.21	0.24	1.78%	1.10
Grasses Subtotal		7.70	8.63	64.19%	27.52
partridge pea	<i>Chamaecrista fasciculata</i>	0.60	0.67	5.00%	0.60
Canada milk vetch	<i>Astragalus canadensis</i>	0.16	0.18	1.33%	1.00
Canada tick trefoil	<i>Desmodium canadense</i>	0.15	0.17	1.24%	0.30
hoary vervain	<i>Verbena stricta</i>	0.10	0.11	0.85%	1.05
purple prairie clover	<i>Dalea purpurea</i>	0.09	0.10	0.76%	0.50
golden alexanders	<i>Zizia aurea</i>	0.07	0.08	0.60%	0.29
butterfly milkweed	<i>Asclepias tuberosa</i>	0.06	0.07	0.53%	0.10
Early Sunflower	<i>Heliopsis helianthoides</i>	0.05	0.06	0.43%	0.12
black-eyed susan	<i>Rudbeckia hirta</i>	0.05	0.06	0.38%	1.54
smooth aster	<i>Symphotrichum laeve</i>	0.05	0.06	0.41%	1.00
bracted spiderwort	<i>Tradescantia bracteata</i>	0.04	0.04	0.34%	0.15
blue vervain	<i>Verbena hastata</i>	0.04	0.04	0.37%	1.50
rough blazing star	<i>Liatris aspera</i>	0.03	0.03	0.21%	0.15
great blazing star	<i>Liatris pycnostachya</i>	0.03	0.03	0.29%	0.14
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.02	0.02	0.17%	0.31
gray-headed coneflower	<i>Ratibida pinnata</i>	0.02	0.02	0.15%	0.20
whorled milkweed	<i>Asclepias verticillata</i>	0.01	0.01	0.10%	0.05
white prairie clover	<i>Dalea candida</i>	0.01	0.01	0.07%	0.06
wild bergamot	<i>Monarda fistulosa</i>	0.01	0.01	0.06%	0.18
heath aster	<i>Symphotrichum ericoides</i>	0.01	0.01	0.05%	0.40
Forbs Subtotal		1.60	1.79	13.34%	9.64
Oats	<i>Avena sativa</i>	2.70	3.03	22.47%	1.20
Cover Crop Subtotal		2.70	3.03	22.47%	1.20
Total		12.00	13.45	100.00%	38.36
Purpose:		Regional mesic prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.			
Planting Area:		Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.			



- C. General: The Engineer reserves the right to inspect seeds, either at the nursely or at the site before planting, for compliance with requirements for name, variety, size, quantity, quality and mix proportions.

2.02 SEED SUBSTITUTIONS

- A. Species to be planted shall be those specified on the plans. Any substitution or change shall be approved prior to use in writing by the Engineer.
- B. If proof is submitted that any seed or plant specified is not obtainable, due to conditions beyond the control of the Contractor and for reasons other than cost changes since submittal of Proposal prices, a proposal will be considered for use of the nearest equivalent variety with corresponding adjustment of Contract price.
- C. Substantiate such proof in writing no later than 30 days after award of Contract.
- D. The above provisions shall not relieve Contractor of the responsibility for obtaining specified seed in advance if special growing conditions or other arrangements must be made in order to supply specific materials.
- E. Seed Substitutions:
 - 1. Match existing genus, species, and location of source.
 - 2. Meet requirements of these specifications.
 - 3. Meet requirements of ANSI Z60.1, ICBN and ICNCP

2.03 STRAW MULCH BLANKET

- A. See Section 31 25 00 Erosion and Sedimentation Control for erosion control blanket specifications.
- B. MN/DOT Standard Specification 3885 for rolled erosion control products, Cat. 3A, Type 2S straw blanket with all natural netting and stitching.

2.04 MULCH (WEED SEED FREE)

- A. Weed Seed Free Mulch shall conform to MN/DOT Standard Specification Number 3882 – Type 1 mulch. **Type 3 mulch is unacceptable.**

PART 3: EXECUTION

3.01 GENERAL REQUIREMENTS

- A. Protection of Existing Conditions: Use every reasonable precaution to prevent damage to existing conditions such as structures, utilities, plant materials and walks on or adjacent to the



site of the work. Any damage caused by the Contractor shall be repaired at the Contractor's expense.

- B. Barriers: Provide barricades, fences or other barriers as necessary to protect existing conditions from damage during installation operations.
- C. Hazardous Operations: Do not store materials or equipment, do not operate or park equipment under the branches of existing trees and shrubs.
- D. Notification: Submit to Owner written notification of any damaged plants and/or structures.

3.02 SEEDING

A. Seeding Plan

1. At least three weeks prior to beginning work in each area; Contractor shall submit a seeding plan/schedule for approval by the Engineer. This seeding plan shall include proposed methods of seeding and proposed surface preparation and equipment.

B. Weed Eradication

1. Between 14 to 21 days prior to seeding date apply herbicide containing glyphosate to seeding areas.
2. Apply a second herbicide treatment at least three days prior to any soil work.
3. If seeding is delayed and perennial weeds grow back, repeat steps one and two above.

C. Examination and Preparation of Topsoil

1. Verification of Conditions: Examine site and verify to the Engineer that conditions are suitable to receive work and that no defects or errors are present which would cause defective installation of products or cause latent defects in workmanship and function.
2. Unsuitable Conditions: Before proceeding with seeding work, notify the Engineer in writing of all unsuitable conditions.
3. Till seedbed to a minimum depth of 3" immediately prior to seeding.

D. Seeding

1. Engineer shall be notified 24 hours prior to beginning the seeding operations.
2. Immediately prior to seeding operations, all seeding equipment shall be calibrated and adjusted to sow seeds at the proper seeding rate. The drill shall be calibrated at ½ the appropriate seeding rate and each area shall be drilled twice at opposite directions to help insure an even distribution. Seed shall be sown at approximately 1/8" to ¼" deep and no deeper than ½" deep.
3. Seeding will take place using a "No-Till" drill with 3 compartments, except on slopes deemed too steep for "No-Till" drill method, areas where trees need to be protected, or areas deemed too wet (all as determined by Engineer). Drill shall be checked at the end of each seeding pass to ensure even distribution of seed through each pass.



4. Cover crop shall be sown separately from forbs and grasses unless drill meters out forbs and grasses separately from cover crop.
5. If a broadcast method of seeding is used, the following requirements shall be followed:
 - a. The broadcast method will use broadcast seeding equipped with an agitator that effectively prevents seed from bridging or plugging. Seed shall be broadcast twice over each area to help insure even distribution. The seeded area shall be hand-raked or dragged with an implement to the extent necessary to cover a majority of the seed with 1/8" to ¼" of soil.
6. The Contractor shall be fully responsible for implementing and maintaining permanent and temporary erosion control measures within prescribed seeding areas until vegetated cover has been established to the Owner's satisfaction.
7. No fertilizer shall be applied to any seeded areas for any reason.
8. Straw Mulch Blanket shall be applied to all seeded areas.

3.03 SOIL STABILIZATION

- A. Straw mulch blanket shall be installed in accordance with the manufacturer's specifications and recommendations.

3.04 CLEAN-UP AND PROTECTION

- A. During landscape restoration work, Contractor shall store materials and equipment where directed, keeping pavements clean and work areas and adjoining areas in an orderly condition.
- B. Contractor shall protect landscape work and materials from damage due to landscape operations, operations by other trades and trespassers. Contractor shall maintain protection during installation and maintenance periods, and shall treat, repair or replace damaged landscape work as directed by Owner.

3.05 WATERING

- A. Water for seeding and all landscaping shall be obtained by the Contractor at Contractor's expense. Pumping water from the adjacent water bodies that are within the project limits and under Owner's jurisdiction for temporary irrigation purposes of natural plantings is acceptable as per DNR Division of Waters rules. Twenty-four hour notification to Owner prior to any pumping is required.

3.06 FINAL CLEAN-UP

- A. Upon completion of the work and before preliminary acceptance and final installation payment will be made, the Contractor shall clean and remove from the site of the work surplus and discarded materials, temporary structures, and debris of every kind.
- B. The Contractor shall leave the site of the work in a neat and orderly condition equal or better than that which originally existed.



3.07 WARRANTY

- A. Contractor shall warrant that grasses and forbs will meet the Condition and Coverage standards defined below for a one-year period after seeding and planting is complete.
- B. Condition Standards
 - 1. Contractor shall request inspection of seeding work by Engineer 40 days after completion to verify that seeding areas are free of dead or dying patches larger than 4 square feet, and show foliage of normal density, size and color.
- C. Coverage Standards
 - 1. Growth and coverage of seeding shall meet the following standards:
 - a. End of 1st full growing season or later, seedlings of at least three native grass species and five native forb species shall be widely dispersed through seeded area. No areas of bare soil larger than nine square feet shall exist.
- D. Corrective Work During Warranty Period:
 - 1. Reseed and otherwise correct work which does not meet the Condition and Coverage standards during and at the end of the Warranty period, without cost to the Owner.
 - 2. Perform corrective work in conformance with the requirements of this Specification.
- E. Final Review:
 - 1. At the end of the warranty period, Contractor shall request a review by the Engineer to determine whether the work conforms to the requirements of the Specifications.
 - 2. If Engineer determines that work does not conform to the requirements of the Specifications, the Contractor will receive written notification of required corrections.
 - 3. Perform corrective work within ten calendar days of Final Review.
 - 4. Upon completion of the corrective work, Contractor shall request another Final Review by Engineer, who will determine whether the work conforms to the requirements of the Specifications.
- F. Exceptions: Contractor shall not be held responsible for failures due to vandalism.

END OF SECTION 32 93 10



Division 33
Utilities

Division 33 – Utilities

33 40 00 Storm Utility Drainage Piping
33 49 00 Storm Drainage Structures

33 40 00-1
33 49 00-1

SECTION 33 40 00

STORM UTILITY DRAINAGE PIPING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered under this Section includes providing all materials, equipment, and labor to furnish and install storm sewer pipe, draintile, and fittings including, but not limited to:
 - 1. Furnish and install Slotted PVC Underdrain
 - 2. Furnish and install Dual Wall Corrugated Polypropylene Pipe Water Tight Joints storm sewer pipe and fittings.
 - 3. Furnish and install WaStop inline backflow preventer.
 - 4. Connect to existing RCP storm sewer pipe, core drill and install Inserta-tee watertight boot.
 - 5. Furnish and install water control stop logs in galvanized guide rails.
 - 6. Contractor shall obtain all necessary permits required from the local governing agency to perform work or make repairs or modifications to the storm water pipes or manholes as shown on the Drawings.

1.02 REFERENCES

- A. Minnesota Department of Transportation Standard Plates Manual, current versions, hereafter referred to as Mn/DOT Standard Plates.
- B. Minnesota Department of Transportation Standard Specifications for Construction, 2018 Edition, hereafter referred to as Mn/DOT Standard Specifications.
- C. American Society for Testing and Materials, Current Edition, hereafter referred to as ASTM.
- D. ASTM D1248, "Standard Specification for Polyethylene Plastics Extrusion Materials For Wire and Cable"
- E. ASTM D2321, "Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications"



- F. ASTM D3261, "Butt Heat Fusion PE Fittings for PE Pipe & Tubing"

1.03 SUBMITTALS

- A. Contractor shall submit a certificate of compliance for the Slotted PVC Underdrain, HDPE, and PVC to the Engineer for documentation in accordance with Section 01 33 00 of these Specifications.

PART 2 - PRODUCTS

2.01 SLOTTED PVC UNDERDRAIN PIPE

- A. Shall be 8 inch diameter Schedule 40 PVC pipe meeting ASTM D1785
- B. 6 rows of slots, evenly spaced around pipe
- C. Slot size=0.025 inches
- D. Slot spacing=0.25 inches
- E. Minimum open area per linear foot of pipe=15.4 square inches

2.02 POLYVINYL CHLORIDE PIPE (PVC)

- A. PVC shall be manufactured from materials meeting the requirements of ASTM D 3033 or D 3034, Type PSP, SDR 35.
- B. PVC fittings shall be manufactured from resin having the same classification and properties as the pipe resin, and shall be supplied by the pipe manufacturer. Molded fittings shall be used instead of fabricated fittings, if available. PVC fittings shall be long radius bends.
- C. Fitting shall have solvent-cement joints complying with ASTM D 2855 using solvent cement complying with ASTM D 2564; or elastomeric joints complying with ASTM D 3212 using elastomeric seals complying with ASTM F 477.

2.03 DUAL WALL CORRUGATED POLYPROPYLENE PIPE

- A. Dual wall corrugated polypropylene pipe (DW-CPP), fittings and appurtenances: ADS-HP Storm pipe shall have a smooth interior and annular exterior corrugations. Pipe shall meet ASTM F2881 or AASHTO M330 and have a manning's "n" value for use in design shall be 0.012.
- B. All joints shall be joined using a bell & spigot joint meeting the requirements of ASTM F2881 or AASHTO M330. Then joint shall be watertight according to the requirements of ASTM D3212. Gaskets shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gasket to ensure the gasket is free from debris. A joint lubricant available from the manufacturer shall be used



on the gasket and bell during assembly. Pipe shall have an exterior bell wrap installed by the manufacturer.

- C. Fittings shall conform to ASTM F2881 or AASHTO M330. Bell and spigot connections shall utilize a welled or integral bell and valley or inline gaskets meeting the watertight joint performance requirements of ASTM D3212.
- D. Polypropylene compound for pipe and fittings production shall be impact modified copolymer meeting the material requirements of ASTM F2881, Section 5 and AASHTO M330, Section 6.1.

2.04 BACKFLOW PREVENTER

- A. Backflow preventer shall be WaStop Stainless Steel inline check valve or approved equal.

2.05 STOP LOGS

- A. Stop logs shall be pressure preservative treated wood chemical preserved to prevent rot, exterior grade.
- B. Stop log shall be cut to fit snug within the galvanized steel guide rails attached to the concrete wall.
- C. Gasket or packing shall be applied with stop logs to prevent leaking.

2.06 WATERTIGHT BOOTS

- A. Watertight boots shall be used for all pipe connections to the manhole or pipe. Watertight boots shall be Inserta-Tee, or Engineer approved equal.

2.07 PIPE BEDDING

- A. Pipe bedding material shall be as noted on the Drawing Detail Section for Non-Rigid Storm Sewer Pipes.

PART 3 - EXECUTION

3.01 LOCATION OF WORK

- A. The Work shall be located as shown on the Drawings.
- B. It may be necessary for Engineer to shift lines a reasonable amount to avoid an obstruction to the construction work or to reduce right of way difficulties. No additional compensation due to minor shift of lines shall be given. Additional compensation will be allowed only for lengthening of lines, or for providing additional fittings.

3.02 PIPE LAYING

- A. The type, kind and class of pipe to be used shall be as shown on the Drawings or as specified herein. All pipe shall be laid and maintained to the required line and grade. Installation of the pipe shall be in accordance with ASTM recommended practice D2321 and as recommended by the manufacturer.
- B. Pipe bed preparation shall be as shown on the Drawings for the type, size, depth, and soil conditions shown.
- C. All gravity pipe shall be laid using approved grade boards, furnished and set by Contractor at no additional cost to Owner, or laser beam control. Contractor shall provide and use a suitable grade rod to insure the proper grade of the pipe.
- D. At the time of pipe placement, the bedding conditions shall be such as to provide uniform and continuous support of the pipe between ends. Ends shall be excavated as necessary to make the joint connections, but they shall be no larger than would be adequate to fit joint bell. No pipe material shall be laid in water nor when the trench or bedding conditions are otherwise unsuitable or improper.
- E. Before being lowered into laying position, Contractor shall make a thorough visual inspection of each pipe section and appurtenant units to detect damage or unsound conditions that may need corrective action or be cause for rejection. Contractor shall inform Engineer of any defects discovered.
- F. Immediately before placement, the joint surfaces of each pipe section and fitting shall be inspected for the presence of foreign matter, coating blisters, rough edges or projections, and any imperfections so detected shall be corrected by cleaning, trimming, or repair as needed.
- G. Any defective or damaged pipe, or gravity pipe which has had its grade or joint disturbed after laying, shall be replaced.
- H. As each length of placed in laying position, it shall be secured in place with approved backfill material, which shall be thoroughly compacted around the pipe.

3.03 FILL PLACEMENT AROUND PIPES

- A. General
 - 1. The Contractor shall notify Engineer before placing fill around pipes.
 - 2. The Contractor shall use the type of material identified on the Drawings as bedding and backfill for the various types of pipes.
 - 3. Do not use frozen fill material or place on frozen subgrade.
 - 4. All zones of trench backfill material shall be placed in strict accordance with the pipe manufacturer's specifications. Trench backfill material will be required to meet manufacturer's specifications. All trench backfill material is to be

considered incidental to the pipe installation.

5. Place fill material in maximum 8 inch loose lifts under pipe haunches and compact to at least 95% of maximum Standard Proctor Density, ASTM D 698, with hand operated vibrating compactor until firmly compacted to pipe spring line and in strict accordance with the pipe manufacturer's specifications.
6. No pipe shall be laid in water nor when the trench bedding conditions are unsuitable, unstable, and or unconsolidated.

B. Pipe Base Preparation

1. In general pipe base preparation will be placed and compacted with the type and thickness of material shown on the Drawings.
2. If field conditions identify unsuitable material encountered at the pipe subbase elevation, the Contractor shall notify the Engineer prior to installing pipe.

C. Backfilling in Pipe Zone

1. Place granular building material as shown in the Drawings. Deposit in the trench simultaneously on both sides of the pipe for the full width of the trench to a minimum height of twelve (12) inches above the top of the pipe. The material shall be shovel placed and hand tamped to fill completely all spaces under and adjacent to the pipe, 8" maximum lifts. The material shall be compacted as specified.

D. Backfilling Above Pipe Zone

1. If, in the opinion of Engineer, the native trench material does not meet the requirements for Granular Materials specified herein, it shall be considered surplus material and disposed. Contractor, during the excavation operations, shall make a reasonable attempt to segregate all undesirable materials encountered from suitable materials. Any additional material needed for backfilling shall be furnished and installed by Contractor.
2. See section 31 23 00 for compaction requirements below proposed roadbeds and paving.
3. It shall be Contractor's responsibility to determine the proper compacting equipment and methods required to achieve the required density.
4. Tests to determine the compacted density of the backfill may be performed by Engineer.

3.04 PVC UNDERDRAIN PIPE INSTALLATION

- A. Install under drain piping system, fittings, and structures in the locations and elevations as

shown on the Drawings.

- B. Contractor shall take care to prevent damage to under drain piping system after installation by equipment. Notify Engineer of any damage and repair as approved before proceeding.
- C. Backfilling of perforated drain pipe shall be with fine filter aggregate in the trench simultaneously on both sides of the pipe for the full width of the trench to a minimum height of twelve (12) inches above the top of the pipe. The material shall be shovel placed and hand tamped to fill completely all spaces under and adjacent to the pipe, 8" maximum lifts.
- D. Backfilling of underdrain above the pipe embedment shall be with fine filter aggregate for full width of trench, as shown on Drawings.

3.05 HDPE PIPE INSTALLATION

- A. Construct CPEP-WT pipe of the size and dimension ratio, and in the locations and to the elevations and grades, shown on the Drawings.
- B. Joints.
 - 1. All joints shall be joined using a bell & spigot joint meeting the requirements of ASTM F2881 or AASHTO M330. Then joint shall be watertight according to the requirements of ASTM D3212. Gaskets shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gasket to ensure the gasket is free from debris. A joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly.
- C. Structure Connections
 - 1. See Section 33 49 00 Storm Drainage Structures for pipe connections to structures.
- D. Each polyethylene pipe joint shall be nondestructively tested (i.e., visually inspected, deflected, etc.) for competency and soundness as directed by Owner or Engineer.
- E. Extreme care shall be taken to prevent crushing or deflecting the pipe by construction equipment traffic. If damage to installed piping is suspected by Owner or Engineer to have occurred, Contractor shall perform deflection testing of the pipe. Installed pipe with deflection exceeding the tolerances specified by the manufacturer shall be replaced by the Contractor at Contractor's expense.
- F. Polyethylene pipe shall not be bent to a radius less than recommended by the pipe manufacturer.

3.06 BACKFLOW PREVENTER INSTALLATION

- A. Install backflow preventer as shown on Drawings. Connect to CPEP pipe per manufacturer's

instructions.

3.07 STOP LOG INSTALLATION

- A. Stop logs shall be installed in area provided in galvanized steel guide rails attached to the reinforced concrete wall.
- B. Stop logs shall be of the size and shape as shown on the Drawings and fit in the guide rails in the reinforced concrete wall.

3.08 FIELD QUALITY CONTROL

- A. The Contractor shall establish and maintain quality control for work under this Section to assure compliance with contract requirements and maintain records of his quality control for all construction operations. In addition, the Contractor shall coordinate, verify and check the precast concrete.
- B. Pipe, pipe appurtenances, and manhole installation will be subject to rejection for any of the following reasons.
 - 1. Failure to conform to the Specifications, with regard to:
 - a. Compaction under and around the pipe.
 - b. Line and grade (+ or – 0.5 foot horizontally, + or – 0.10 feet vertically)
 - 2. Damaged ends where such damage would prevent making a satisfactory joint.
 - 3. Damaged gasketed coupler system.
 - 4. Damaged under drain piping system.

END OF SECTION 33 40 00



SECTION 33 49 00

STORM DRAINAGE STRUCTURES

PART 1: GENERAL

1.01 DESCRIPTION

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered under this Section includes providing all materials, equipment, and labor to furnish and install storm sewer structures, and castings assemblies including, but not limited to:
 - 1. Furnish and install PVC Cleanout Structure.
 - 2. Furnish and install Nyloplast™ Water Level Control Structure.
 - 3. Install and adjust Locking Dome Grate casting assemblies.
 - 4. Connect to existing structures and pipe.
- C. Contractor shall obtain all necessary permits required from the local governing agency to perform work or make repairs or modifications to the storm water pipes or manholes as shown on the Drawings.

1.02 REFERENCES

- A. Minnesota Department of Transportation Standard Plates Manual, current versions, hereafter referred to as Mn/DOT Standard Plates.
- B. Minnesota Department of Transportation Standard Specifications for Construction, 2018 Edition, hereafter referred to as Mn/DOT Standard Specifications.
- C. American Society for Testing and Materials, Current Edition, hereafter referred to as ASTM.

1.03 SUBMITTALS

- A. Contractor shall submit shop drawings of the Nyloplast™ structures, water level control and cleanout structures with inlet/outlet pipes to the Engineer for review in accordance with Section 01 33 00 of these Specifications.

1.04 BASIS FOR COMPENSATION

- A. Compensation for all Work covered under this Section of these Specifications shall be as set forth in Section 012200, Unit Price Measurement and Payment.

PART 2: PRODUCTS

2.01 BACKFILL MATERIAL

- A. Pipe bedding material shall conform to the requirements of Mn/DOT Standard Specification 2451.3D for “selected material”

2.02 PVC CLEANOUT STRUCTURE

- A. Cleanout Structure shall be Nyloplast™, or approved equal, including clean out solid cover.

2.03 WATER LEVEL CONTROL STRUCTURE

- A. Water Level Control Structure shall be Nyloplast™, or approved equal, including Locking Dome Grate casting assembly.
 - 1. The unit shall be size indicated on the Drawings.
 - 2. The unit shall have stubs for connecting CPEP and PVC piping of the size and positions as shown on the Drawings.
 - 3. The casting shall be a “bee-hive” type to fit on the 30” and 12” PVC structure.

2.04 CASTING ASSEMBLIES

- A. Casting assemblies shall be from Nyloplast™ with a Locking Dome Grate for the 12” Nyloplast™ cleanout structure and a Locking Dome Grate for the 30” Nyloplast™ flow control structure.
- B. All Casting assemblies shall conform to AASHTO M 105 for the class specified and the casting shall be supplied by a certified foundry approved by the State of Minnesota.
- C. Casting assemblies shall conform to the requirements of MNDOT Standard Specification 3321.
- D. Castings shall be the size and style as shown on the Drawings to fit Nyloplast™ structures.

PART 3: EXECUTION

3.01 LOCATION OF WORK

- A. The Work shall be located as shown on the Drawings.

- B. It may be necessary for Engineer to shift lines a reasonable amount to avoid an obstruction to the construction work or to reduce right-of-way difficulties. Contractor will not be allowed any additional compensation due to minor shift of lines. Additional compensation will be allowed only for lengthening of lines, or for providing additional fittings.

3.02 FILL PLACEMENT AROUND CONCRETE STRUCTURES

A. General

1. The Contractor shall notify Engineer before placing fill around concrete structures.
2. The Contractor shall use the type of material identified on the Drawings as backfill for the various types of concrete structures.
3. Do not use frozen fill material or place on frozen subgrade.
4. All zones of trench backfill material shall be placed in strict accordance with the concrete structures manufacturer's specifications. Some trench backfill borrow material may be required to meet manufacturer's specifications. All trench backfill borrow material is to be considered incidental to the concrete structures installation.
5. Place fill material in maximum 4-inch loose lifts around base slab and compact to at least 95% of maximum Standard Proctor Density, ASTM D 698, with hand-operated vibrating compactor until firmly compacted and in strict accordance with the concrete structures manufacturer's specifications.
6. No concrete structure shall be laid in water nor when the trench bedding conditions are unsuitable, unstable, and or unconsolidated.

B. Concrete Structure Base Preparation

1. In general concrete structure base preparation will be placed and compacted with the type and thickness of material shown on the Drawings.
2. If field conditions identify unsuitable material encountered at the structure subbase elevation, the Contractor at the discretion of the Engineer will implement the subbase stabilization (Paragraph 3.04 of this Specification) procedure shown on the Drawings. Use of the stabilization technique will be evaluated at the time each storm water structure is to be installed and its use will be determined in the field by the Engineer.

C. Backfilling Around Concrete Structure

1. Succeeding layers of backfill from the base to the surface may contain coarse materials, but shall be free from large pieces of rock, frozen materials, concrete, blacktop, wood, roots, stumps, sod, rubbish and other similar articles whose presence in the backfill, in the opinion of Engineer, would cause excessive settlement of the trench or damage to the structure.

2. If, in the opinion of Engineer, the native trench material does not meet the requirements for Granular Materials specified herein, it shall be considered surplus material and disposed. Contractor, during the excavation operations, shall make a reasonable attempt to segregate all undesirable materials encountered from suitable materials. Any additional material needed for backfilling shall be furnished and installed by Contractor.
3. All trench areas beyond existing or proposed roadbeds and driveways shall be compacted to achieve a minimum of at least 95 percent maximum Standard Proctor density (ASTM D 698). Compaction shall occur in maximum loose lift thicknesses of 8 inches.
4. It shall be Contractor's responsibility to determine the proper compacting equipment and methods required to achieve the required density.
5. Tests to determine the compacted density of the backfill may be performed by Engineer.

3.03 NYLOPLAST™ CLEANOUT STRUCTURE

- A. Nyloplast™ structure shall be the size and type as shown on the Drawings and installed at the location shown on the Drawings.
- B. Contractor shall install Nyloplast™ structure with stub for connecting PVC drain tile.

3.04 NYLOPLAST™ WATER LEVEL CONTROL STRUCTURE

- A. Nyloplast™ structure shall be the size and type as shown on the Drawings and installed at the location shown on the Drawings.
- B. Contractor shall install Nyloplast™ structure and connect CPEP to one side and PVC to other side at the angle shown on the Drawings.

3.05 INSTALL AND ADJUST CASTING ASSEMBLIES

- A. Contractor shall determine the proper elevation to lower or raise casting assembly to meet the required elevation as shown on the Drawing.

3.06 CONNECT TO MANHOLE, STRUCTURE, OR PIPE

- A. Connection to pipe shall be core drilled.
- B. Inserta-Tee water tight boots shall be used to connection to 30" RCP.
- C. Connections made into structures that are not cored; pipes shall be mortared in place with a non-shrinking grout and have the proper water stop installed onto the pipe.

3.07 FIELD QUALITY CONTROL

- A. The Contractor shall establish and maintain quality control for work under this Section to assure compliance with contract requirements and maintain records of his quality control for

all construction operations. In addition, the Contractor shall coordinate, verify and check the precast concrete.

- B. Manhole and cleanout structure installation will be subject to rejection for any of the following reasons.
 - 1. Failure to conform to the Specifications, with regard to:
 - a. Compaction under and around the structure
 - b. Line and grade (+ or – 0.5 foot horizontally, + or – 0.05 feet vertically)
 - 2. Cracks which, in the opinion of Owner or Engineer, may impair strength, durability, or serviceability of pipe.
 - 5. Defects indicating improper proportioning, mixing, or molding.
 - 6. Damaged ends where such damage would prevent making a satisfactory joint.
 - 7. Damaged gasketed coupler system.

END OF SECTION 33 49 00

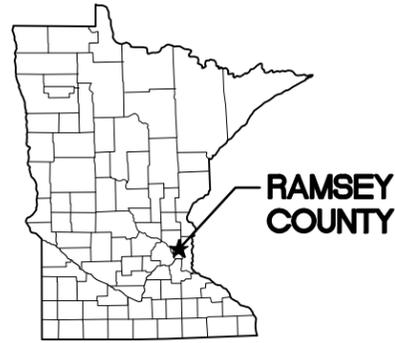


Drawings

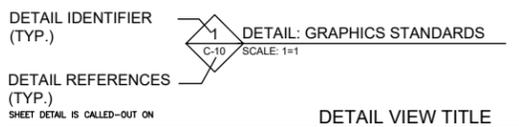
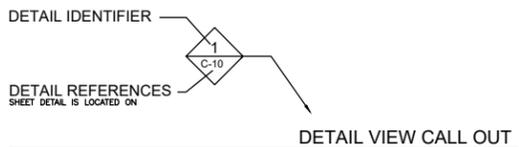
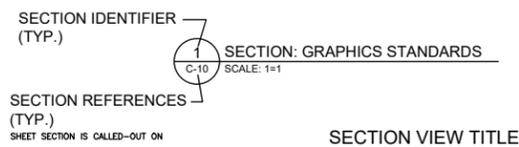
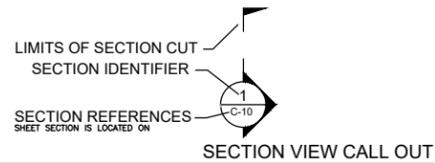
- G-01 Cover Sheet and Drawing Index
- C-01 Existing Conditions and Erosion Control
- C-02 Erosion Control Details
- C-03 Site Grading and Storm Sewer
- C-04 Site Grading and Wall Sections
- C-05 Storm Sewer Section and Details
- S-01 Reinforced Concrete Wall Sections

VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION

BIRCH LAKE IRON ENHANCED SAND FILTER WHITE BEAR LAKE, MINNESOTA



LOCATION MAP



VICINITY MAP

PROJECT COORDINATE SYSTEM

HORIZONTAL: MNDOT RAMSEY COUNTY, US FOOT, NAD83 DATUM
VERTICAL: NAVD88 DATUM

SHEET NO.	TITLE
<u>GENERAL DRAWINGS</u>	
G-01	COVER SHEET AND DRAWING INDEX
<u>CIVIL DRAWINGS</u>	
C-01	EXISTING CONDITIONS AND EROSION CONTROL
C-02	EROSION CONTROL DETAILS
C-03	SITE GRADING AND STORM SEWER
C-04	SITE GRADING AND WALL SECTIONS
C-05	STORM AND DRIVEWAY SECTIONS & DETAILS
<u>STRUCTURAL DRAWINGS</u>	
S-01	REINFORCED CONCRETE WALL SECTIONS

ABBREVIATIONS:

CJ	CONTROL JOINT
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
CPEP	CORRUGATED POLYETHYLENE PIPE
DIA	DIAMETER
DS	DOWNSTREAM
DTR	DECIDUOUS TREE
EL	ELEVATION
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
HDPE	HIGH DENSITY POLYETHYLENE
NWL	NORMAL WATER LEVEL
HWL	HIGH WATER LEVEL
ID	IDENTIFIER
INV	INVERT
RCP	REINFORCED CONCRETE PIPE
TO	TOP OF
TYP	TYPICAL
US	UPSTREAM

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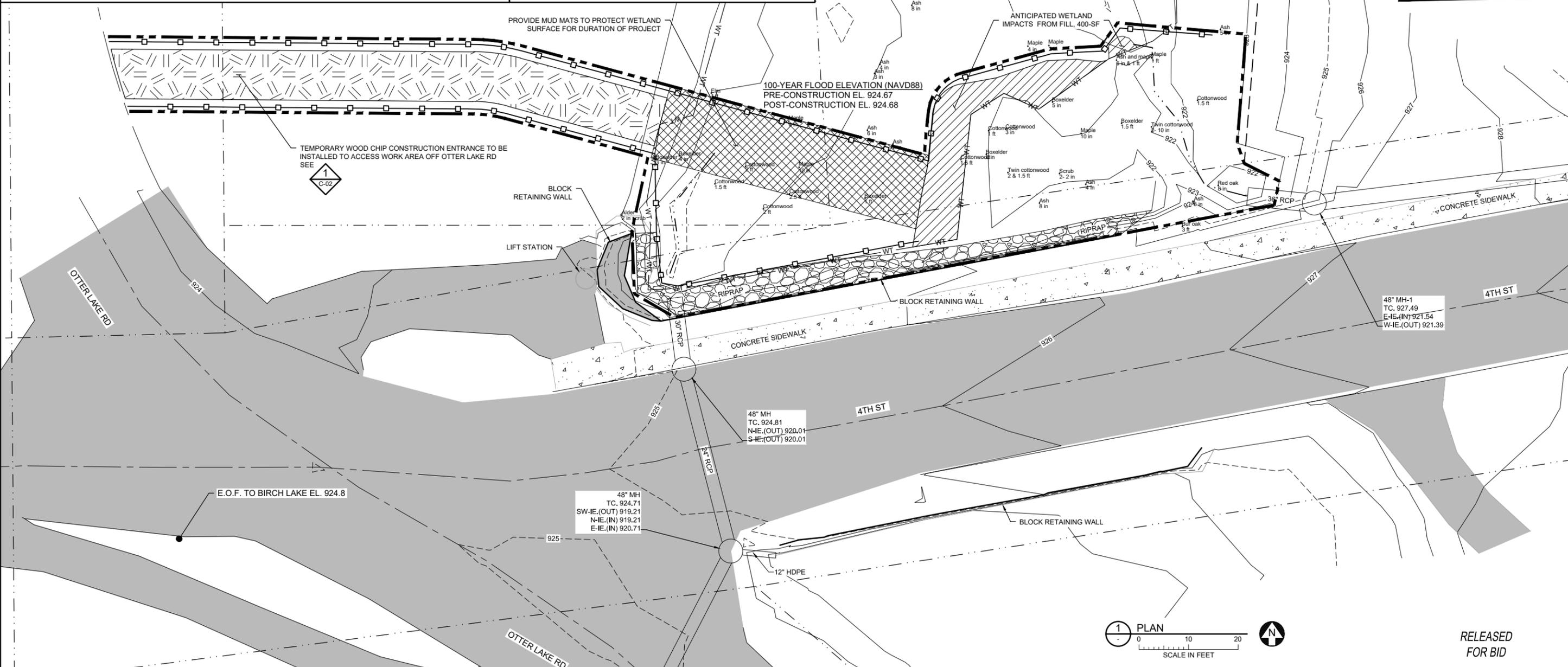
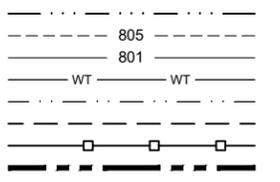
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		CLIENT BID CONSTRUCTION	4/19 6/20 8/9				Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435 Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com	Scale Date Drawn Checked Designed Approved	AS SHOWN 4/1/2018 GGN GJW GGN GJW	VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION	BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA	BARR PROJECT No. 23/62-1274.00					
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION	RELEASED TO/FOR	A	B	C	0	1	2	3	DATE RELEASED	COVER SHEET AND DRAWING INDEX	DWG. No. G-01	REV. No. 0
PRINTED NAME: GREGORY J. WILSON						DATE: 8/9/2018		LICENSE # 25782		DATE RELEASED							

NOTES:

1. THE CONTRACTOR IS EXPECTED TO MINIMIZE THE AMOUNT OF DISTURBED AREA TO THE EXTENT POSSIBLE.
2. NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.
3. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED.
4. FINAL SITE STABILIZATION MEASURES MUST PROVIDE FOR AT LEAST 6-INCHES OF TOPSOIL OR ORGANIC MATTER BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE RESTORATION.
5. SOIL SURFACES COMPACTED DURING CONSTRUCTION MUST BE DECOMPACTED THROUGH SOIL AMENDMENT AND/OR RIPPING TO A DEPTH OF 18-INCHES WHILE TAKING CARE TO AVOID UTILITIES, TREE ROOTS AND OTHER EXISTING VEGETATION PRIOR TO FINAL REVEGETATION OR OTHER STABILIZATION.
6. ALL DISTURBANCE AREAS SHALL BE RESTORED WITH NATIVE SEED AND EROSION CONTROL BLANKET TO PROVIDE ADEQUATE STABILIZATION. SURFACE TO BE RESTORED SHALL BE RAKED TO REMOVE ALL PARTICLES AND DEBRIS 1-INCH OR GREATER IN SIZE.
7. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPs MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE.
8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPs MUST BE REMOVED UPON FINAL STABILIZATION AND AS DIRECTED BY THE OWNER/ENGINEER.
9. DO NOT STOCKPILE SOIL OR MATERIALS WITHIN THE WETLAND PROTECTION AREA INSIDE CONSTRUCTION LIMITS.
10. CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.
11. ANY DAMAGE TO PROPERTY WITHIN THE STREET RIGHT OF WAY BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE CITY OF WHITE BEAR LAKE AND RAMSEY COUNTY AT THE CONTRACTOR'S EXPENSE.

LEGEND

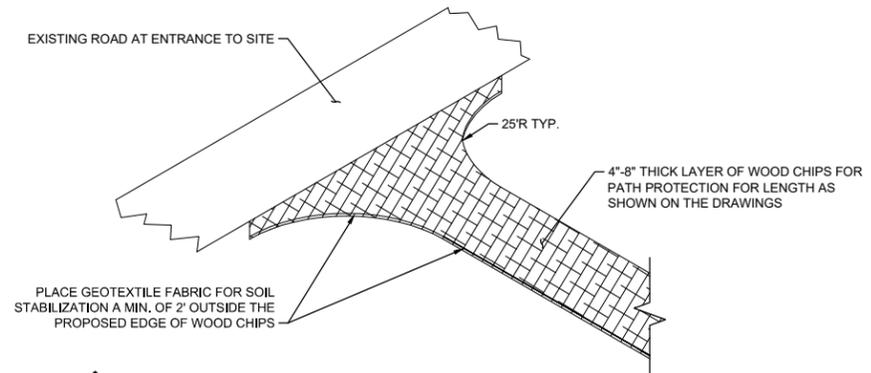
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- ⊞ EXISTING CABINET
- ⊕ EXISTING HYDRANT
- ⊕ EXISTING GATE VALVE
- ⊕ EXISTING SANITARY MANHOLE
- ⊕ EXISTING FIBER HANDHOLE
- EXISTING TREE SPECIES W/DIA.
- EXISTING FENCE LINE
- EXISTING CHANNEL THALWEG
- - - EXISTING 5' CONTOUR
- - - EXISTING 1' CONTOUR
- - - EXISTING WETLAND EDGE
- - - EXISTING PARCEL BOUNDARY
- - - EXISTING UTILITY EASEMENT
- - - EROSION CONTROL SILT FENCE
- - - CONSTRUCTION LIMITS



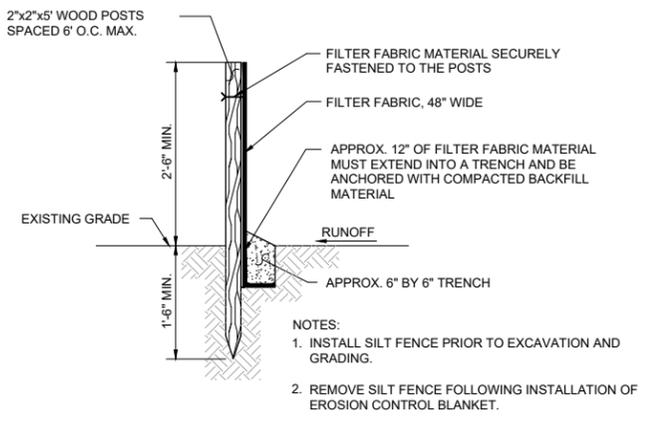
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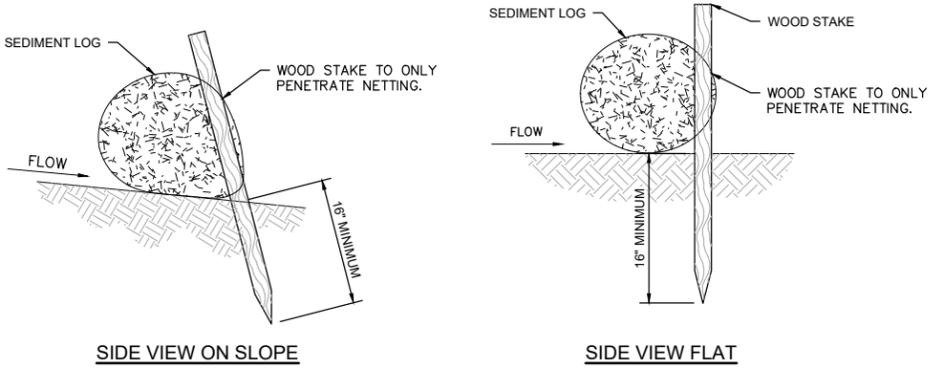
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NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION	RELEASED TO/FOR	DATE RELEASED	Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com	DWG. No. C-01			REV. No. 0



1 **DETAIL: WOOD CHIP CONSTRUCTION ENTRANCE**
NOT TO SCALE

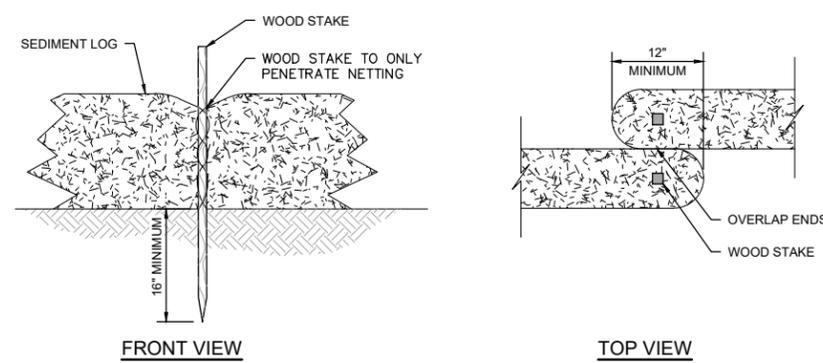


3 **DETAIL: SILT FENCE**
NOT TO SCALE



SIDE VIEW ON SLOPE

SIDE VIEW FLAT

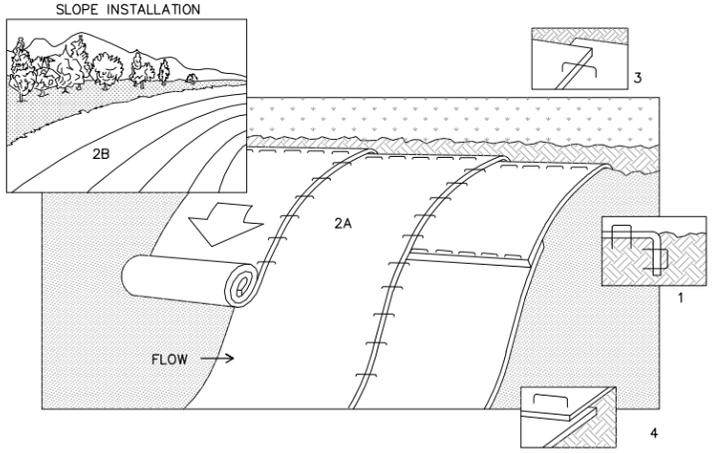


FRONT VIEW

TOP VIEW

- NOTES:**
1. INSTALL SEDIMENT LOG ALONG CONTOURS (CONSTANT ELEVATION).
 2. NO GAPS SHALL BE PRESENT UNDER SEDIMENT LOG. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
 3. REMOVE ACCUMULATED SEDIMENT WHEN REACHING 1/3 OF LOG HEIGHT.
 4. MAINTAIN SEDIMENT LOG THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACED AS REQUIRED.

2 **DETAIL: SEDIMENT LOG - STAKING**
NOT TO SCALE



- NOTE:** REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.
1. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 2. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
 3. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP, WITH THE UPHILL BLANKET ON TOP.
 4. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

4 **DETAIL: TEMPORARY EROSION CONTROL BLANKET**
NOT TO SCALE

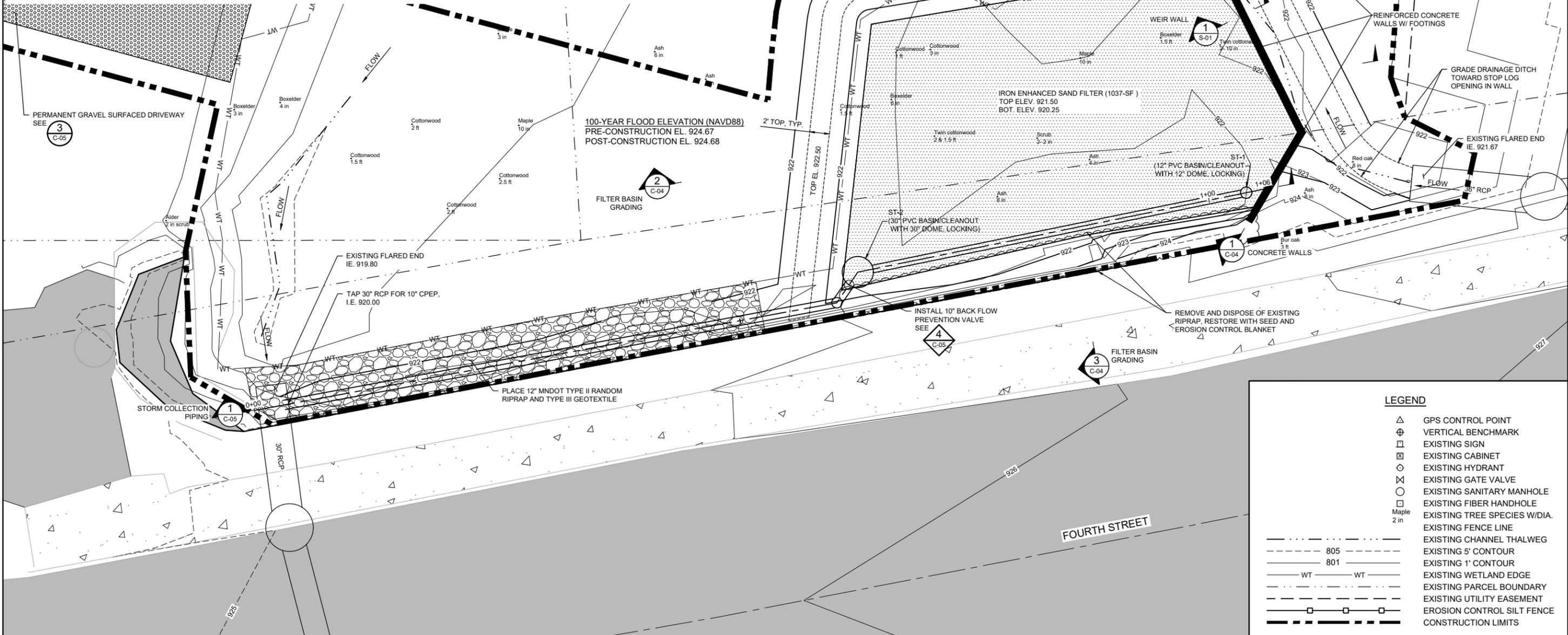
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NO.		BY	CHK.	APP.	DATE	REVISION DESCRIPTION	RELEASED TO/FOR	DATE RELEASED		CLIENT PROJECT No.													
				PRINTED NAME: GREGORY J. WILSON SIGNATURE: [Signature] DATE: 8/9/2018 LICENSE # 25782				Date 4/1/2018 Drawn GJN Checked GJW Designed GJN Approved GJW				EROSION CONTROL DETAILS		DWG. No. C-02									
														REV. No. 0									

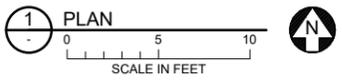
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LEGEND

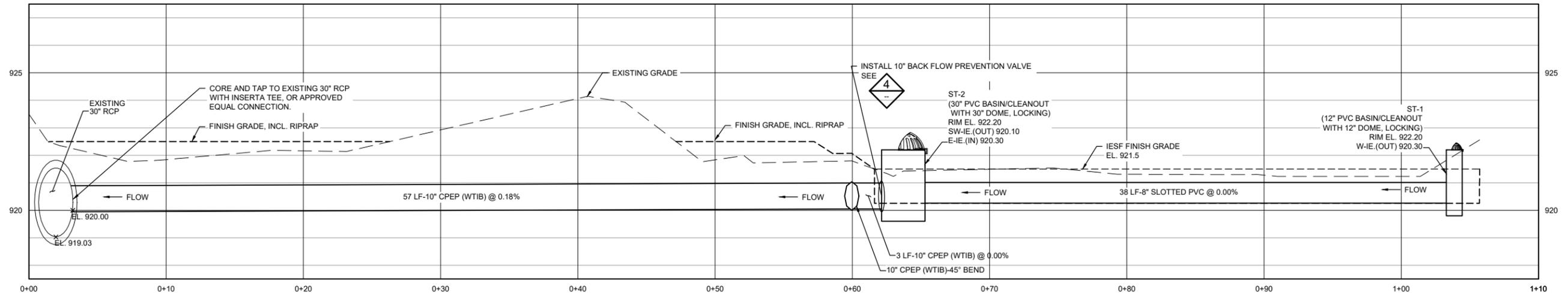
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- ⊞ EXISTING CABINET
- ⊞ EXISTING HYDRANT
- ⊞ EXISTING GATE VALVE
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- ⊞ EXISTING TREE SPECIES W/DIA.
- EXISTING FENCE LINE
- EXISTING CHANNEL THALWEG
- 805 EXISTING 5' CONTOUR
- 801 EXISTING 1' CONTOUR
- WT EXISTING WETLAND EDGE
- EXISTING PARCEL BOUNDARY
- EXISTING UTILITY EASEMENT
- EROSION CONTROL SILT FENCE
- CONSTRUCTION LIMITS



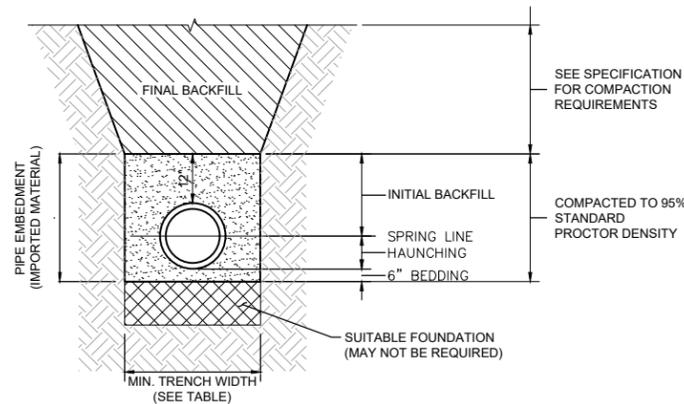
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VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION												BIRCH LAKE IESF WHITE BEAR LAKE, MINNESOTA SITE GRADING AND STORM SEWER							

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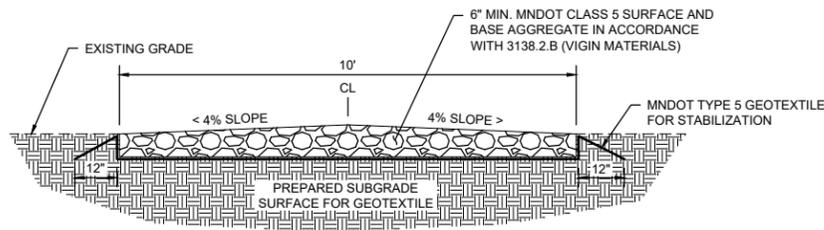
1 PROFILE: STORM COLLECTION PIPING
 HORIZONTAL SCALE IN FEET: 0 2 4 6 8
 VERTICAL SCALE IN FEET: 0 1 2 3 4



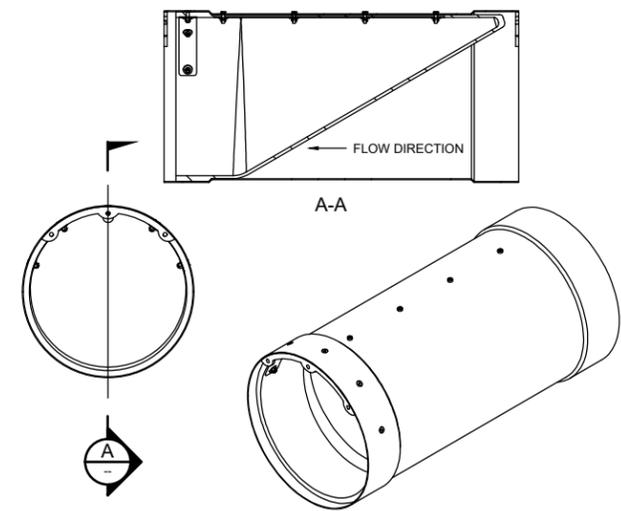
- IMPORTED PIPE EMBEDMENT MATERIAL PER MNDOT SPEC. 3149.2F GRANULAR BEDDING, 100% PASSING THE 1" SIEVE AND NOT MORE THAN 10.5% WILL PASS THE #200 SIEVE.
- IMPORTED PIPE EMBEDMENT MATERIAL SHALL BE COMPACTED IN UNIFORM LIFTS, 8" OR LESS IN DEPTH, LOOSE MEASURE, TO 95% STANDARD PROCTOR DENSITY FROM THE BEDDING TO A MINIMUM DEPTH OF AT LEAST 12" ABOVE THE CROWN OF THE PIPE.

PIPE DIA. INCHES	MIN. TRENCH WIDTH INCHES
4	21
6	23
8	26
10	28
12	30

2 DETAIL: NON-RIGID STORM SEWER TRENCH
 NOT TO SCALE



3 SECTION: GRAVEL SURFACED DRIVEWAY
 SCALE IN FEET: 0 1 2 3 4

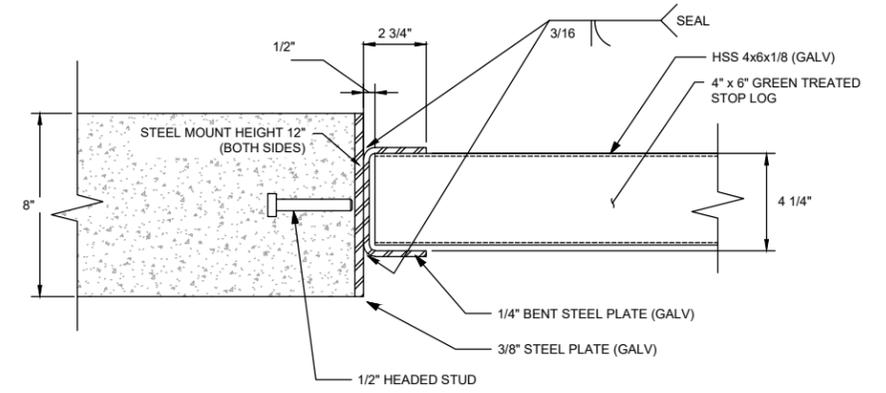
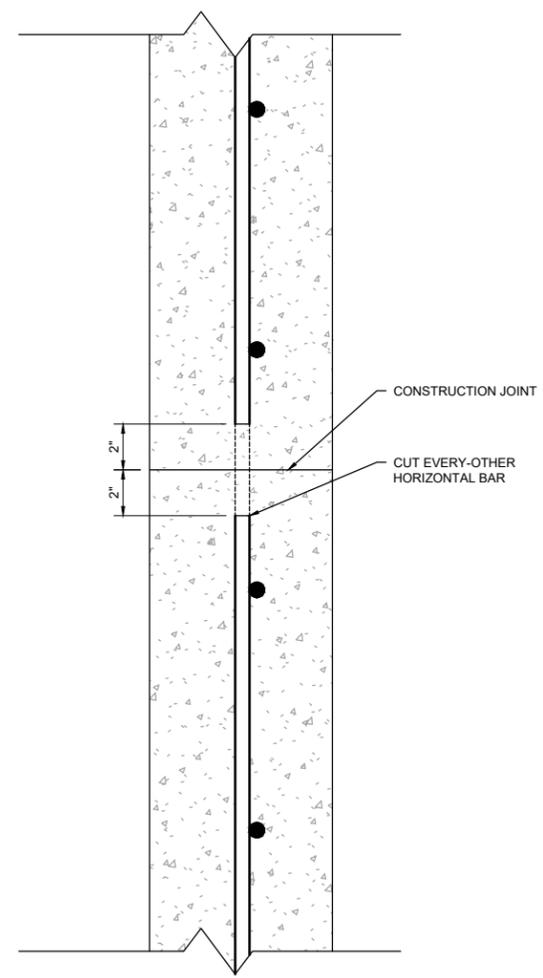
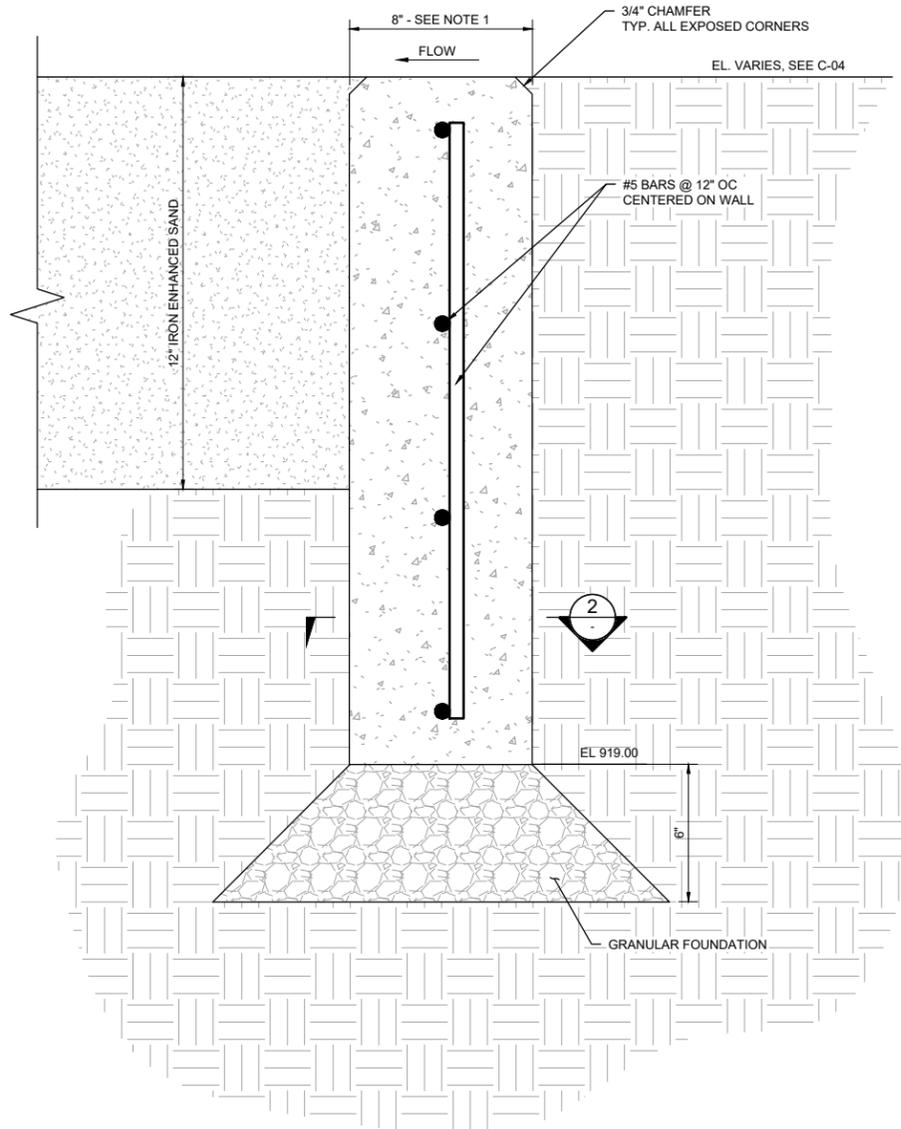


4 DETAIL: INLINE BACKFLOW PREVENTION VALVE
 NOT TO SCALE

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PRINTED NAME: GREGORY J. WILSON				SIGNATURE: [Signature]				RELEASED TO/FOR: A B C 0 1 2 3				DATE RELEASED				Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com				DWG. No. C-05				REV. No. 0											
NO.				BY				CHK.				APP.				DATE				REVISION DESCRIPTION															



NOTE:
1. MAINTAIN 8" MINIMUM WIDTH PRIOR TO FORM LINER INSTALLATION. SET FORMING ACCORDINGLY.

1 SECTION: WEIR WALL
3" = 1'-0"

2 SECTION: CONTROL JOINT
3" = 1'-0"

3 SECTION: GALVANIZED STEEL STOP LOG MOUNT
3" = 1'-0"

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		PRINTED NAME BRIAN SLIENBERG		RELEASED TO/FOR		A B C 0 1 2 3		Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com		Date 4/1/2018		Drawn GJN		CLIENT PROJECT No.	
		SIGNATURE <i>Brian Slienbergs</i>		DATE RELEASED				Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com		Checked GJW		Designed GJN		DWG. No. S-01	
NO.		BY		DATE		REVISION DESCRIPTION				Approved GJW		REINFORCED CONCRETE WALL SECTIONS		REV. No. 0	

VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION

BIRCH LAKE IESF
WHITE BEAR LAKE, MINNESOTA